

Empowering vulnerable women by participatory design workshops

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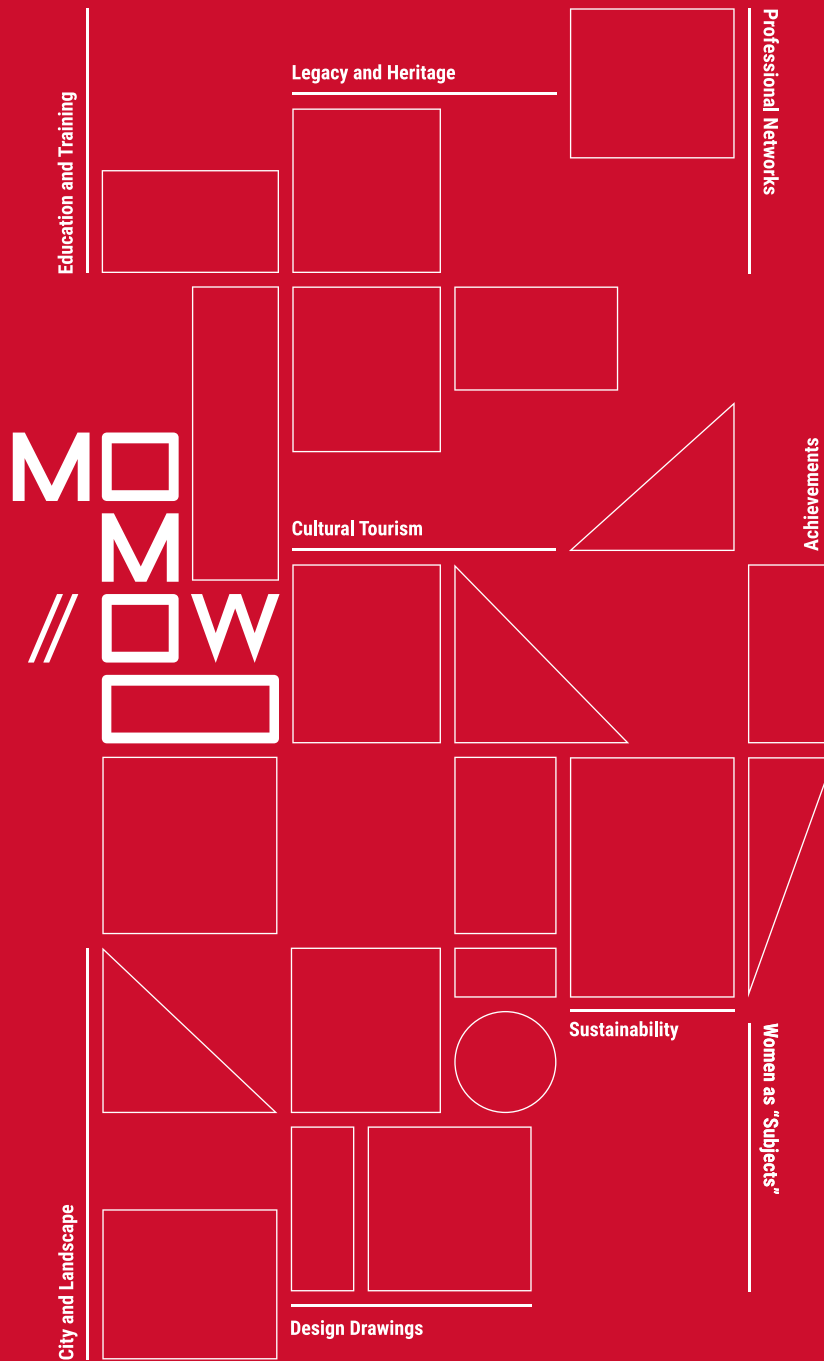
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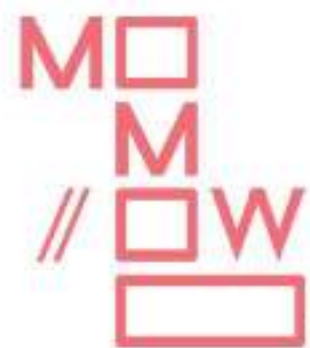
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Women's Creativity since the Modern Movement (1918–2018)

Toward a New Perception and Reception



WOMEN'S CREATIVITY SINCE
THE MODERN MOVEMENT



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Toward a New Perception and Reception

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Foreword

Helena Seražin

Caterina Franchini

Emilia Garda

Women's creativity since the Modern Movement – MoMoWo is a large-scale cooperation cultural project co-financed by the European Union's Creative Culture Programme under the Culture Sub-Programme (Education, Audio-visual and Culture Executive Agency – EACEA). It considers an issue of contemporary cultural, social and economic importance from a European and interdisciplinary perspective namely women's achievements in the design professions. These achievements are in fields including architecture, civil engineering, urban planning, landscape design, interior design, furniture and furnishing design some of which are still perceived as traditionally male professions.

The project works towards the harmonious development of European society by removing disparities and increasing gender equality both in the workplace and beyond. MoMoWo aims to reveal and promote the contribution of women design professionals to European cultural heritage which, until now, has been significantly 'hidden from history'. At the same time –considering History as a 'living matter'– it aims to promote and increase the value of the works and achievements of past and present generations of women professionals to give strength to future generations of creative women.

After four years of successful activity of the project MoMoWo, and in accordance with its mission, the present e-book *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception* continues to increase the visibility of creative women, to foster in Europe and beyond, interdisciplinary and multicultural approaches to the study of the built environment. It brings together scientific contributions on the cultural and socio-economic importance of women's

achievements in the field of architecture, interior and industrial design, landscape architecture and urban planning from various historical periods until the present-day.

The e-book is divided in seven chapters in order to achieve a thematic balance that is able to provide an extensive oversight of the academic research and professional experiences, touching a variety of disciplines and approaches concerning the perception and reception of women's creativity, including the history of professions, the history and theory of architecture and design, historiography, landscape and urban planning and the protection and conservation of architecture and interior design. It comprises 142 peer-reviewed articles by 193 authors from 35 different countries, ranging from Europe to Asia and America, which were written in occasion of *International MoMoWo Symposium* held at Politecnico di Torino, Campus Lingotto, between 13 and 16 June 2018. Abstracts of the articles are available at http://www.momowo.eu/wp-content/uploads/2015/01/book_programme_abstracts_updated.pdf.

We express our gratitude to all the authors, especially to Nina Bartošová, Ana María Fernández García, Marjan Groot, Elena Masala, Henrieta Moravčíková, Maria Helena Souto, Roberta Spallone and Marco Vitali who showed their expertise and support and also revised the texts within the chapters.

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Chapter A

Women's Education and Training: National and International Mappings

Helena Seražin

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Women's Education and Training: National and International Mappings

People have been building and changing their environment for millennia and yet the profession of an architect in the present meaning of the word is quite a recent phenomenon about five centuries old, while the concept of professional women architect is even 'younger', roughly only one hundred years old. Female stereotypes from the past, which delineate certain modes of behaviour as being appropriate for women, denying them higher education especially in the so called 'male' fields of studies (such as architecture and civil engineering), survived long into the twentieth century. However, only by finishing their studies and obtaining an official certificate, women can become certified architects, designers, civil engineers, urban planners or landscape designers. Therefore, access to the proper education is of vital importance for building women professionals' careers.

This chapter includes national and transnational studies, comparative analyses and papers exploring critical perspectives dealing with women's education and training from pioneers in the late nineteenth century to the present generations of women architects, industrial and interior designers, civil engineers and landscape architects. It seeks for the answers to the questions such as What access did female students have to schools of architecture, design and civil engineering in the past and how did this change throughout the years – if at all? What were the obstacles they faced/face? How were/are women professionals included in the educational processes and how were/are they represented in the academia? What was/is their involvement in establishing new fields of studies? Hopefully, at least some of these questions would be answered in the articles that follow this short introduction; the authors are coming from all over the world, however, they share a similar history and present experiences.

The Access of Women to Schools of Architecture, Design and Civil Engineering in the Past

Economic, Social and Cultural Barriers

The word 'architect' derives from the Greek word *archi-tekton*, which means 'craftsman' or 'master carpenter', although in the modern, Western world architect is generally held to be something more than an artisan or manual worker. The distinction came to be drawn during the Renaissance, when architect was seen as designer and the master craftsman as designer and builder.¹ Architect was expected to have a wide knowledge: apart from drawing and modelling, also in mathematics (arithmetic and geometry), physics (surveying, optics and astronomy), as well as in history, literature, philosophy and medicine,² therefore architect should be a true *uomo universale*, thus in the essence qualifying almost every educated intellectual of the time for an architect. As craft-based apprenticeship was no longer prerequisite for the architectural designer, it was the knowledge obtained at the universities and academies, which formed the professionals such as 'gentleman-architect' or 'artist-architect', as well as 'amateur-architect' (usually wealthy patrons of art exercising themselves in the field of architecture with the assistance of professionals).³ Among them, we can count also female representatives, such as Katerine Briçonnet (1494–1526), Plautilla Bucci (1616–1690) or Elisabeth Mytton Wilbraham (1632–1705).⁴ What is common to all of them is that they acquired their architectural knowledge by self-thought, studying architectural treatises, or else through private lectures delivered by tutors or members of their family.⁵ They choose to stay anonymous, hiding behind men, since it did not become to a woman to pursue any intellectual exercises or professional work as such, as is well illustrated by John F. Millar in the case of Elisabeth Mytton Wilbraham:

Women in her day were effectively barred from practicing architecture, so Wilbraham was careful not to leave behind much evidence of her involvement, other than the dozen fine buildings she designed for her family.[...] supervising construction was definitely not for a woman, so Wilbraham engaged a series of men to do that for her, many of whom were erroneously thought to have been architects in their own right because they supervised her buildings.⁶

The only field of architecture in the patriarchal society of the time that was not denied to women completely (although often only in the role of customers) was interior design, which together with the so-called decorative arts, including such work as jewellery, embroidery, weaving, knitting, pottery, and dressmaking, formed part of their upbringing, which was preparing them for the role of a wife and a mother.⁷

Among the main reasons for devaluation and sex-based limitation of women's creativity in the fields of design are to be found, according to Cheryl Buckley,⁸ is the fact that resulting design products produced by women in the domestic environment (their natural space within a patriarchy) were to fulfil essentially domestic tasks rather than being exchanged for profit. 'Sex-specific skills' that determine their design abilities, which are apparently dexterous, decorative, and meticulous –with other words described as 'naturally suited to women– are not profitable, and as such devaluated in the patriarchal Western society. '[...] it has been made in the wrong place – the home, and for the wrong market – the family. So, one result of the interaction of patriarchy and design is the establishment of a hierarchy of value and skill based on sex.⁹ Creativity has become a value appropriated as an 'ideological component of masculinity',¹⁰ while femininity has been considered quite the opposite.

Even during the industrial nineteenth century for many women designers, '[...] craft modes of production were the only means of production available, because they had access neither to the factories of the new industrial system nor to the training offered by the new design schools'.¹¹ Women could express their creativity only at home and in ways that were compatible with their traditional roles.

1 Patrick Nuttgens, "Architect," *The Dictionary of Art*, Vol. 2, edited by Jane Turner (New York: Macmillan Publishers Limited, 1996), 312.

2 This was the expected knowledge of an architect according to the English architect John Shute (d. 1563) (Nuttgens, "Architect," 314).

3 Richard A. Goldthwaite, *The Building of Renaissance Florence: An Economic and Social History* (Baltimore: Johns Hopkins University Press, 1980), 357–368.

4 Cf. Lucia Krasovec Lucas, "Modern Women in (Modern) Architecture: Some Cases (Genesis of a Modern Lifestyle)," *MoMoWo: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot, Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU; France Stele Institute of Art History; ZRC Publishing House, 2017), 215–216, <https://doi.org/10.3986/wocrea/1/momowo1.12> (accessed April 12, 2018).

5 Elisabeth Mytton Wilbraham studied with Pieter Post in the Netherlands, then through observing the Dutch and Italian architecture that she could visit on her honeymoon, and through studying architectural tractates such as 1663 Godfrey Richards edition of Palladio's *I Quattro Libri* (volume I) (John Fitzhugh Millar, "The First Woman Architect," *Architects Journal*, November 11, 2010, <https://www.architectsjournal.co.uk/the-first-woman-architect/8608009>. article (accessed April 12, 2018)).

6 Millar, "The First Woman Architect".

7 More about the patriarchal perception of role of women in design from different points of view see: Cheryl Buckley, "Made in Patriarchy: Toward a Feminist Analysis of Women and Design," *PAD: Pages on Arts and Design*, 8, no. 5 (2012), <http://www.padjournal.net/made-in-patriarchy/> (accessed April 12, 2018), first published in *Design Issues* 3, no. 2 (Autumn 1986), 3-14. For critical analyse of the sources see Grace Lees-Maffei, "Introduction," *Professionalization as a Focus in Interior Design History* https://www.researchgate.net/profile/Grace_Lees-Maffei/publication/249251596_Introduction_Professionalization_as_a_Focus_in_Interior_Design_History/links/53d01d6c0cf25dc05cfe353a/Introduction-Professionalization-as-a-Focus-in-Interior-Design-History.pdf

8 Buckley, "Made in Patriarchy".

9 Buckley, "Made in Patriarchy".

10 Griselda Pollock, "Vision, Voice and Power: Feminist Art History and Marxism," *Block 6* (1982), 4.

11 Buckley, "Made in Patriarchy".

How excruciating did the 'natural' role of sexes in the gender biased society have in the women's access to the higher education and how it persisted into the twentieth century one can see in the case of the most advanced German school of modernist architecture and design – Bauhaus. Since the beginning of the school men and women should be equal, and yet women were allowed to study only the graphic art, photography, sculpture, set and interior design and crafts, such as weaving and ceramics, but not the architecture.¹² Nonetheless, even with this kind of education and armed with their powerful creativity some of the former Bauhaus students, like Anni Albers (1899–1994) or Lilly Reich (1885–1947) have managed to surpass the boundaries set by their male colleagues and influenced heavily not only the field of interior design but also the modernist architecture in general.¹³

Institutional Barriers

Along with the limited women's position in the patriarchal society came also the prejudice of their intellectual and professional inability.¹⁴ From the beginning, the institutional higher education was reserved only for men, coming mostly from upper (nobility) and middle class of the society. That gradually began to change during the second half of the nineteenth century with raising awareness of women of their inequality and with their fight for equal rights on all fields of life.

After gaining approval and support from their families, the first major obstacle that female students had to pass on their way to higher education was of formal nature: there were no secondary schools for women with curricula, which would prepare them for university studies. Existing private schools for girls were more educative than educational institutions,¹⁵ while only the state gymnasiums with classical curricula prepared boys for passing the matriculation examinations, which were required for

entering all universities in Central Europe and elsewhere.¹⁶ In the Russian Empire, faced with the new demographic and economic situation, caused by industrialisation and abolition of serfdom, which forced women to earn their own living, tried to solve this problem in 1858 by creation of a number of female gymnasia with a classical curriculum all over the country.¹⁷ Nevertheless, these gymnasiums for girls were not intended to prepare them for university entrance education – their main purpose was educating teachers.¹⁸ Therefore, their education provided instructions in modern languages, Greek and Latin, but spent little time on mathematics or sciences, the lack of which they have to compensate with private lectures.¹⁹ Since there was no law, which would prohibit them from studies at universities, in 1859 first woman entered the University of St. Petersburg as a special student.²⁰

In Central European countries, Italy and France tried to solve the problem of female secondary education with establishing private gymnasiums or lyceums for women, however with similar limited curricula, since mathematics and sciences 'were considered too difficult for female brain and of no practical value for girls'.²¹ Although women managed to pass the *Abitur* (graduation exams), without official certificate, which could be gained only on state gymnasiums, universities in Germany and Austro-Hungarian Empire stayed more or less closed for women; they were allowed to follow the lectures only as special non-regular students or auditors without achieving diploma at the end. Only from the turn of the century, they were able to study as regular students,²² but not at all universities – Technical University (TU) in Vienna, where architecture and civil engineering could be studied, stayed closed for them until 1919.²³

12 Rachel Epp Buller, "Review of Bauhaus Women: Art, Handicraft, Design, by Ulrike Müller," *Woman's Art Journal* 31, no. 2 (fall-winter 2010), 55–57, <https://www.jstor.org/stable/41331089> (accessed April 19, 2018). Gertrud Arndt, who wanted to study architecture at Bauhaus was redirected to waving classes with a claim that there was no course of architecture for her (Alice Rawsthorn, "Female Pioneers of the Bauhaus," *The New York Times* (posted March 22, 2013), <https://www.nytimes.com/2013/03/25/arts/25iht-design25.html> (accessed April 11, 2018)).

13 Laura Martínez de Guereñu, "Anni Albers and Lilly Reich in Barcelona 1929: Weavings and Exhibition Spaces," *MOMOWO: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot, Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC Publishing House, 2017), 250–265, Series Women's Creativity, Vol. 1, <https://doi.org/10.3986/wocrea/1/momowo1.14> (accessed April 12, 2018).

14 For more about this argument especially regarding the field of architecture see Despina Stratigakos, "Architects in Skirts: The Public Image of Women Architects in Wilhelmine Germany," *Journal of Architectural Education* 55, no. 2 (November 2001), 94–95, <https://www.jstor.org/stable/1425610> (accessed April 12, 2018).

15 Dmitri Gouzévitch and Irina Gouzévitch, "The Difficult Challenges of no Man's Land or the Russian Road to the Professionalization of Women's Engineering (1850–1920)," *Quaderns d'història de l'enginyeria* 4 (2000), 135, https://www.researchgate.net/publication/237464537_THE_DIFFICULT_CHALLENGES_OF_NO_MAN%27S_LAND_OR_THE_RUSSIAN_ROAD_TO_THE_PROFESSIONALIZATION_OF_WOMEN%27S_ENGINEERING_1850-1920 (accessed April 10, 2018); Harriet Freidenreich, "Higher Education in Central Europe," Encyclopedia, Jewish Women's Archive, <https://jwa.org/encyclopedia/article/higher-education-in-central-europe> (accessed April 15, 2018).

16 Freidenreich, "Higher Education in Central Europe." For more about women's higher education in Central Europe see James C. Albisetti, *Schooling German Girls and Women: Secondary and Higher Education in the 19th Century* (Princeton: Princeton University Press, 1988); Waltraud Heindl and Marina Tichy (eds.), *Durch Erkenntnis zu Freiheit und Glück...: Frauen an der Universität Wien (ab 1897)* (Vienna: WUV Universitätsverlag, 1990); Daniela Neumann, *Studentinnen aus dem russischen Reich in der Schweiz, 1867–1914* (Zurich: Chronos, 1987), series Die Schweiz und der Osten Europas, Vol. 1.

17 Gouzévitch and Gouzévitch, "The Difficult Challenges of no Man's Land," 135–137.

18 Freidenreich, "Higher Education in Central Europe."

19 Ibid. In Germany, Austro-Hungarian Empire and Switzerland the oral and written matriculation examination (*Abitur*) covered variety of fields, including Latin, Greek, German language and literature, history, mathematics, physics and religion.

20 Gouzévitch and Gouzévitch, "The Difficult Challenges of no Man's Land," 141.

21 Freidenreich, "Higher Education in Central Europe."

22 Ibid. Universities in Austro-Hungarian Empire opened to women in 1897, in Baden in 1900 and in Prussia in 1908. In Bavaria, for example on 21 September 1903, the Prince Regent Luitpold signed a decree allowing Bavarian women to enter the university (Karl Heinz Hoffmann and Anika Hakl, "Frauen und Häuser," Hamburgisches Architekturarchiv der Hamburgischen Architektenkammer, <https://archive.is/Nko9#selection-117.0-117.67> (accessed April 16, 2018)).

23 Iris Meder, "Women designers and architects in early twentieth century Vienna," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 54.

A bright exception was Switzerland: University in Zurich opened for foreign women, which passed matriculation exams, in 1867.²⁴ However, this was in paradox with a fact that all Swiss universities stayed closed for Swiss women, since they did not have any access to secondary school education.²⁵ Women went to study there from all over the Europe, although majority came from the Russian Empire, since between 1863 and 1873 the Russian law prohibited them from studying at universities in their home country.²⁶ Among them were also the first female students at the Polytechnics: first female graduate at today's ETH was Marie Kowalik in 1877.²⁷

Negative public opinion about women in engineering professions slowly begun to change with achievements of first generations of women graduates, such as Russian Sofia Kovalevskaya (1850–1891), who achieved PhD in mathematics and mechanics at the University of Göttingen and later became professor at the University of Stocholm (1884), and the first Russian woman academician (1889),²⁸ or Polish Marie Skłodowska Curie (1867–1934), who graduated in physics at Sorbonne (1893) and later won two Nobel prizes, one in 1903 in physics and another in 1911 in chemistry.²⁹ Apart from chemistry, physics and electrotechnics architecture was among those fields of technology that from the male perspective was seen most suitable for women.³⁰

First country in which women were permitted to undertake architectural studies and receive academic qualifications was Finland. Women studied at Helsinki Polytechnic Institute as special students and the first that graduated by special permission was Signe Hornborg (1862–1916) in 1890.³¹ Hilda Hongell (1867–1952) became a special student at Helsinki Industrial School in 1891 at a time when only men could attend the institution. Following excellent results, she was

accepted as a regular student in 1892 and graduated as a 'master builder' in 1894.³² Jelisaveta Načić (1878–1955), who graduated in the first generation of students of the Technical faculty of University in Belgrade, Kingdom of Serbs in 1900, was thus among the first female regular students of architecture.³³

First female students at technical universities of that time were perceived by male students and professors with mixed emotions, as Boel Berner points out:

That women would like to enter engineering was seen as an anomaly, or even a threat. Some men deplored the loss of their secrets and togetherness if "Eve" were to enter engineering school. Her intrusion would disrupt the all-male camaraderie of student life, and the collective pastimes of drinking, singing, debating, and playing games. Others found it "intolerable" to give women the same kind of knowledge as men, and thus make them competitors for what were thought of as all-male jobs.³⁴

On the other hand female students were also treated as charming 'guests' or fascinating others in the engineering world, where they had to struggle not to stand out from the male majority and have to fought hard not to be treated differently.³⁵

This kind of confrontation was in some cases avoided through gender segregation also at the higher educational level. At the turn of the century, in Russian Empire private specialised women's architectural classes for technical drawing in Odessa were opened in 1899,³⁶ and in 1905, for those women who wanted to pursue studies in architecture or civil engineering 'Petersburg Polytechnical Courses for Women' high school was established. The new private institution consisted of four departments: architecture, building, electro-mechanics and chemistry.³⁷ Although the first three graduates were inaugurated in 1911,³⁸ it was in 1915 that the government officially approved the school, which became 'Petrograd Polytechnical Institute for Women' with the same rights as other state polytechnics.³⁹ The lack of the official recognition or diploma was among the main reasons why despite high numbers of the inscribed first generations of students only few of them have finished their studies. Many of them abandoned their studies because they got married or they were

24 Freidenreich, "Higher Education in Central Europe."

25 Katia Frey and Eliana Perotti, "Flora Ruchat-Roncati: First Woman Professor at ETH Zurich: Introducing Women's Standpoint in Architectural Pedagogy," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 61.

26 Gouzévitch and Gouzévitch, "The Difficult Challenges of no Man's Land," 145–146.

27 "History of Women at ETH," ETH, <https://www.ethz.ch/services/en/employment-and-work/working-environment/equal-opportunities/strategie-und-zahlen/frauen-an-der-eth/geschichte-der-frauen-an-der-eth.html> (accessed April 16, 2018). ETH was opened for men and women from its establishment in 1855. First woman to qualify as a civil engineer at ETH was Elsa Diamant from Hungary in 1919 and the first woman in architecture was Flora Steiger-Crawford from Scotland in 1923.

28 Gouzévitch and Gouzévitch, "The Difficult Challenges of no Man's Land," 151–152; Boel Berner, "Explaining Exclusion: Women and Swedish Engineering Education from the 1890s to the 1920s," *History and Technology* 14 (1997), 15.

29 "Marie Curie, née Skłodowska: Biographical," The Nobel Prize, <https://www.nobelprize.org/prizes/physics/1903/marie-curie/biographical/> (accessed April 16, 2018).

30 Berner, "Explaining Exclusion," 14–15.

31 Karl Heinz Hoffmann and Anika Hakl, "Frauen und Häuser," Hamburgisches Architekturarchiv der Hamburgischen Architektenkammer, <https://archive.is/Nko9#selection-117.0-117.67> (accessed April 16, 2018).

32 Sofia Holmlund, "Hilda Hongell har haft ett enormt inflytande," HBL (posted November 20, 2017), <https://www.hbl.fi/artikel/hon-har-haft-ett-enormt-inflytande-2/> (accessed April 17, 2018).

33 Bojana Ibrajter Gazibara, "Jelisaveta Načić – Talented Belgrade Builder," *Women in Architecture: Contemporary Architecture in Serbia since 1900* (Belgrade: Centre for Architecture, 2014), 46.

34 Berner, "Explaining Exclusion," 25.

35 Ibid.

36 Gouzévitch and Gouzévitch, "The Difficult Challenges of no Man's Land," 172.

37 Ibid, 156.

38 Ibid, 165.

39 Ibid, 166.

recruited as highly skilled workers in the provinces during their summer practical courses.⁴⁰

However, women's polytechnics in Russia were rather exception than a rule: in the rest of the European countries it was much safer for women to study architecture and design at 'artistic' high schools. In France at the end of the nineteenth century, women were able to enroll in the architecture workshops at the *École des Beaux-Arts*, which was the leading institution for architectural training in the country, or they joined the *École Spéciale d'Architecture* (ESA). The first graduate woman in architecture was Adrienne Lacourrière at ESA in 1896,⁴¹ one year before the first female students were accepted at *École des Beaux-Arts*, among them American Julia Morgan (1872–1957), who graduated in architecture in 1902.⁴²

For those women, who wanted to study applied arts and interior design in Austro-Hungarian Empire, the closest choice would be Viennese *Kunstschule für Frauen und Mädchen* (Art School for Women and Girls) or *vulgo Damenakademie*, which was the female equivalent to *Akademie für bildende Künste Wien* (Academy of Fine Arts in Vienna).⁴³ The only other possibility for women ever since the establishment of the school in 1867 was the *Kunstgewerbeschule* (Arts and Crafts School) at the *Museum für Kunst und Industrie* in Vienna, where they were able to study architecture as well.⁴⁴ Among the first Austrian women architects that graduated from *Kunstgewerbeschule* was Margarete Schütte-Lihotzky (1897–2000), while the first woman to qualify as a civil engineer at the Technical university of Vienna was Liane Zimmler (1892–1987).⁴⁵

Domestic Barriers

Families in general were supporting women's aspirations of studying architecture or civil engineering. That especially holds good for the Jewish women, which before and after the First World War enrolled in nearly all institutions of higher education in disproportionately large numbers. Jewish middle class families in Central Europe saw 'the higher education for both men and women as a

means of more effective integration into the *Bildungsbürgertum*, the educated bourgeoisie', as well as a way of faster integration into the German society.⁴⁶

Support came also within the families, where building or design was family tradition. Such case was Margaret Kropholler Staal (1891–1966), who began her training at her brother's architectural practise,⁴⁷ Maria Cornelia Kuyken (1898–1988), who was together with her brothers educated at School for Applied Arts in Haarlem,⁴⁸ Elizabeth Scott Whitworth's (1898–1972) grandfathers were both architects,⁴⁹ just to name a few.

Rare were the cases, such as of Anni Albers, where parents supported her in her studies of drawing and painting while staying in the domestic environment, but were against her studies at the Bauhaus.⁵⁰ Margarete Schütte-Lihotzky also at first did not receive much support from her family or her professors during her studies at the *Kunstgewerbeschule* in Vienna. In an interview from 1984 she remembered:

Everybody wanted to talk me out of being an architect, my teacher Strnad, my father and my grandfather. Not because they were so reactionary, but because they thought I was going to starve, no one would let a woman build a house.⁵¹

However, while the first major obstacle of gender bias persists in our societies even today, the second, which denied women the access to the regular higher education at technical universities in most of the European countries, fell down after the First World War. This shift was caused by the lack of men working power during the war; while men were fighting on the fronts, women at home took over their posts even of top professional positions.⁵² The professional skills of first graduated women architects, civil engineers and designers were finally recognized by authorities, while educating women at technical universities became socially more acceptable.

40 Ibid, 165–166.

41 Stéphanie Mesnage, "In Praise of Shadows," *MoMoWo – 100 Works in 100 Years; European Women in Architecture and Design – 1918–2018*, edited by Ana María Fernández García, Caterina Franchini, Emilia Garda and Helena Seražin (Ljubljana: ZRC SAZU, ZRC Publishing House, 2016), 266–267.

42 Meredith L. Clausen, "The Ecole des Beaux-Arts: Roward a Gendfered History," *Journal of the Society of Architectural Historians*, 69, no. 2 (June 2010), 155.

43 Kunstshule für Frauen und Mädchen was established in 1897 as a private school, which in 1908 became public; Academy of Fine Arts opened to women only in 1920. Andrej Smrekar, "Življenje in delo Helene Kottler Vurnik," *Helena Vurnik: Slikarka in oblikovalka, 1882–1962*, edited by Andrej Smrekar (Ljubljana: Narodna galerija, 2017), 24, Exhibition Catalogue.

44 Meder, "Women Designers and Architects," 51, 53.

45 Ibid, 54–55. Liane Zimmler transferred from *Kunstgewerbeschule* to Technical University in Munich, where she graduated in architecture.

46 Freidenreich, "Higher Education in Central Europe".

47 Josh Crowle and Marjan Groot, "Margaret Kropholler Staal," katalog, 25.

48 Marjan Groot, "Maria Cornelia (Marie) Kuyken, katalog, 29

49 David Álvarez Villarín, "Elitabeth Scott Whitworth," katalog, 41.

50 "Josef & Anni Albers: Biographies," The Josef & Anni Albers Foundation, <https://albersfoundation.org/artists/biographies/> (accessed April 15, 2018).

51 Karl Heinz Hoffmann and Anika Hakl, "Frauen und Häuser," Hamburgisches Architekturarchiv der Hamburgischen Architektenkammer, <https://archive.is/Nko9#selection-117.0-117.67> (accessed April 16, 2018). Her interview with Chup Friemert was published in *Margarete Schütte-Lihotzky: Erinnerungen aus dem Widerstand 1938-1945*, edited by Chup Friemert (Hamburg: Konkret Literatur Verlag, 1985).

52 Gouzévitch and Gouzévitch, "The Difficult Challenges of no Man's Land," 166.

Women in Academia

With numbers of graduated women architects and civil engineers slowly increasing between the wars, another front in pursuing gender equality was opened: entering the academia. Before the Second World War women were rarely included in academia in general, which was mostly due to the strong opposition of closed male academic circles.⁵³ Another factor was the fact that most of the female students graduated at technical high schools rather late, during late 1920s and in 1930s.⁵⁴ If women were included in the academia at all, they were usually assisting male professors as unpaid assistants-volunteers.⁵⁵ Their academic career, though, ended as soon as they got married or pregnant.⁵⁶

The first important milestone set by women in academia was reached soon after the Second World War in Eastern European countries, which were under the political domination of the Soviet Union. After the formation of the new state after the October revolution in 1917, women in USSR gained suffrage rights, full employment and access to education and science. They were seen as an important tool of socialist propaganda, which had invented the Soviet 'Superwoman', burdened with a double workload at the place of employment and at home. Thus, the newly gained freedom and authorities' support to pursue a professional career co-existed with the old patriarchal comprehension of gender roles.⁵⁷ This new socialist position of Soviet women contributed to their presence into academic and educational technical spheres. On one hand, it was stimulated by the regime to demonstrate the 'achievements of socialism',⁵⁸ and on the other, women architects and civil engineers preferred comfortable office environment, which enabled them to complete the everyday double workload.⁵⁹ Olga Mykhaylyshyn and Svitlana Linda ascertain that during

1960s–1980s the share of Ukrainian women lecturers at the Faculty of Architecture increased to 30–35% of the total number of lecturers. The growth was caused by several factors:

Firstly, the profession of a university teacher was prestigious. Secondly, female lecturers had a more flexible work schedule, compared with female architects who worked in design institutes. [...] Thirdly, female scientists received higher wages than practitioners did.⁶⁰

However, while the presence of women in academia did increase significantly most of them still held lower positions, such as lecturer, assistant or assistant professor, while men continued to occupy dominant posts of full professors, deans and rectors. The same position of women in academia could also be observed in Poland and in ex-Yugoslavia.⁶¹

The second milestone was reached in the Western European countries, where women's entry into academia was caused by feminist and democratic movements of the 1960s and 1970s.⁶² The increase of numbers of female students contributed to the reorganisation of study programmes and higher numbers of female members of academia.⁶³ In Italy, the Netherlands and France where female lecturers were scarce at technical universities, their share steadily increased during 1980s and 1990s. Nevertheless, their position on the career ladder was similar to that of their female colleagues in the Eastern European countries: full professors were rare to find, women mostly occupied positions of lecturers, academic researchers or associate professors.⁶⁴

Women were also involved in developing new approaches in architectural education: Ana Maria Fundaro (1936–1999), the first woman to be appointed as full professor of Industrial Design in Italy in 1962, developed 'Design for development' approach.⁶⁵ Rosa Barba (b. 1948) introduced new

⁶⁰ Ibid.

⁶¹ Agata Gawlak, Piotr Marciniak and Magda Matuszewska, "Women in Polish Architecture as an Example of Feminization of the Architectural Profession over the Twentieth Century," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 67–76; Zrinka Barišić Marenčić, Marina Bertina and Neda Mrinjek Kliska, "Contribution to Research of Architecture and Education in Croatia (1918–2018)," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 35–49; Helena Seražin, "First Generations of Women in Architecture and Design at University of Ljubljana," *Women Designers, Architects and Engineers between 1946 and 1968*, edited by Helena Seražin, Katarina Mohar, Caterina Franchini and Emilia Garda (forthcoming publication).

⁶² Mesnage, "In Praise of Shadows," 267.

⁶³ Serena Belotti, Monica Principe and Ana Riciputo, "Sapienti Romane: Pioneers and Heirs at the Faculty of Architecture in Rome," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 139.

⁶⁴ Ibid.

⁶⁵ Marinella Ferrara, "Anna Maria Fundaro's 'Design for Development,'" *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018).

⁵³ See Berner, "Explaining Exclusion"; Clausen, "The Ecole des Beaux-Arts: Roward a Gendfered History," 157.

⁵⁴ See Gouzévitch and Gouzévitch, "The Difficult Challenges of no Man's Land," 169–170.

⁵⁵ Such was the case of Gizela Šuklje (1909–1994), who graduated from architecture at the Faculty of Technology in Ljubljana, then Kingdom of Yugoslavia, in 1932 in a seminar by Professor Jože Plečnik as a second female student at the architectural department. After finishing the advanced studies at Sorbonne, she became an assistant volunteer of Professor Plečnik for architectural drawing (Helena Seražin, "Gizela Šuklje (1909–1994)," *MoMoWo: Women – Architecture & Design Itineraries across Europe* (Ljubljana; Turin: ZRC SAZU, ZRC Publishing House, 2016), 210.

⁵⁶ Željko Oset, "Slovenske znanstvenice in njihove možnosti za akademsko kariero v obdobju Kraljevine SHS / Jugoslavije," *Žensko delo: Delo žensk v zgodovinski perspektivi*, edited by Mojca Šorn, Nina Vodopivec and Žarko Lazarevič (Ljubljana: Založba INZ, 2015), 195–214.

⁵⁷ Olga Mykhaylyshyn and Svitlana Linda, "Feminization of Architectural Education and Science: Example of Ukraine," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 89.

⁵⁸ Ibid, 91.

⁵⁹ Ibid, 92.

methodologies in teaching Landscape Architecture at the Barcelona School of Architecture.⁶⁶ In 1994, Flora Ruchat-Roncati introduced in collaboration with Petra Stojanik new innovative elective course "Women in the history of architecture".⁶⁷ In Netherlands, at the Department of Architecture at the Delft Technical University, the first seminar on Women Studies was organized in 1978, which by the mid-1980s shifted toward more sociocultural approach, in which gender and architecture are questioned as cultural phenomena.⁶⁸ As Rana Dubeissy pointed out, feminist pedagogy applied to architectural education can bridge the gender gap enhance teamwork and cooperative learning in the design studio.⁶⁹

Present trends indicate that the final breaking point, where women as students and as professors have taken the lead in the field of architectural education, has already happened in some of the European countries. This break is most evident in the former Communist countries, where it directly correlates to several historical events: the fall of the Berlin wall in 1989, the Bologna Process in higher education in 2005 and the economic crisis of 2006. On top of this another factor should be added: change of perception of women and their position in society in general.

The fall of the Berlin wall in 1989 has ignited political and economic changes in Poland. The generation of older academic staff, who started their career in Communist Poland was replaced by younger generations; in many departments of architecture consisting of mostly women (3 female deans were elected). According to Agata Gawlak, Piotr Marciniak and Magda Matuszewska, women graduates at the Polish departments of architecture at technical universities represent 73% of total.⁷⁰

The Bologna Process caused significant structural changes in the study programme and curricula at Universities all over Europe, which in many cases demanded employment of new staff for new courses. In Croatia, the percentage of women architects and civil engineers with doctor degrees has doubled in comparison with men since 2000, thus the pool of professionals from which new

staff could be selected was limited mostly to female. In Croatian Faculties of Architecture women lecturers and professors currently represent 53% of faculty staff, while women also make up 60% of all students.⁷¹ Since the end of 1970s, when the first 'feminisation' phase occurred in architecture studies, Croatian women have been elected to posts of 2 deans, 6 vice-deans and 3 heads of departments.⁷²

In Ukraine the last economic crisis (2006) has caused a 'significant decline in the financing of science, the fall in the prestige of scientific work the brain drain of highly skilled personnel from science and form the state in general'.⁷³ The consequence of this trend, which had begun already in 1990s is an increase in numbers of female scholars at architectural departments, primarily because of the outflow of men from the low-paid academic sphere. Although at the moment women make up the majority of academic staff in architectural higher education (62%), they still occupy the lowest levels on the career ladder. On the other hand, feminisation is obvious also in among students, where women represent 76% of graduates with bachelor degrees, but only 33% those with habilitation doctoral degrees.⁷⁴

Is feminisation of the architectural profession a global phenomenon? What are the causes for their absence from the professional field once they finish their studies? These questions remain open and should be dealt with in the future.

66 Ruben Larramendi and Lucia C. Pérez Moreno, "Rosa Barba and the Barcelona School of Architecture (1992–2000): Landscape as a New Agency for Female Architects," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018).

67 Frey and Perotti, "Flora Ruchat-Roncati," 65.

68 Charlotte van Wijk, "Women's Studies at the Architecture Department of Delft Technical University," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 193–200.

69 Rana Dubeissy, "Gender in Architecture: A Feminist Critique on Practise and Education," *Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU, France Stele Institute of Art History, ZRC Publishing House, 2018), 115.

70 Gawlak, Marciniak and Matuszewska, "Women in Polish Architecture."

71 Barišić Marenić, Bertina and Mrinjek Kliska, "Contribution to Research of Architecture," 44.

72 Ibid.

73 Mykhaylyshyn and Linda, "Feminization of Architectural Education and Science," 92.

74 Ibid, 67–68.

Annex

Zrinka Barišić Marenić

Marina Bertina

Neda Mrinjek Kliska

University of Zagreb, Faculty of Architecture | Croatia

Contribution to Research of Architecture and Architectural Education in Croatia (1918-2018)

Introduction: Croatian Modern Architecture

University programmes in architecture were introduced in Croatia as late as 1919, first in Zagreb, and only recently in Split and Osijek.¹ Since prior to 1919 Croatian students could not study architecture within Croatia, young men had to go to European cities to receive higher education in that field. After returning home, they achieved remarkable professional results with their works. They made a significant contribution to the assertion of modern architecture with their public engagement and resisted the value system theretofore ingrained. Professors who had received architectural education abroad² formed a higher education programme in Zagreb.

In 1919, the Polytechnic in Zagreb with the Department of Architecture were founded in Zagreb and in 1926 transformed into the Technical Faculty.³ Study programmes were recommended exclusively to unmarried women of higher classes. Among the courageous women who faced great prejudice in their social environment, there were female students at the Architecture Department of the Polytechnic.⁴ In the first fifteen generations of the Polytechnic later Technical Faculty, eight female graduates represent less than 6% of graduated architects at Zagreb Polytechnic. In addition to

1 Before 1919, vocational education in Zagreb could be received only at the Professional Building School and its sub-department of School for Architects, which had no female students.

2 Professors Janko Holjac, Edo Šen, Hugo Ehrlich, Viktor Kovačić, Vjekoslav Bastl, Drago Ibler.

3 Zrinka Barišić, "Tehnički fakultet (1926.–1956.)," *Sveučilište u Zagrebu, Arhitektonski fakultet 1919/1920-1999/2000*, edited by Mladen Obad *Šćitaroci* (Zagreb: Arhitektonski fakultet Sveučilišta u Zagrebu, 2000), 21–24.

4 The first female students could enrol in the University in Zagreb and in other parts of Croatia as part-time students and they attended lectures at the Faculty of Philosophy in the late nineteenth century. They were brought into an equal status as their male counterparts as late as 1901.

the programme at the Polytechnic, which produced architectural engineers, another architectural studies programme was at the time being implemented at the Architecture Department of the Fine Arts Academy in Zagreb where there were no female graduates.⁵ The so-called 'Zagreb School of Architecture' was formed gradually and it manifested itself through not only the educational process but primarily through a particular architectural expression. Architects merged principles of modern architectural tendencies with local characteristics and features and constructive and structural possibilities in order to emphasize and protect specific spatial values and affirm innovative morphological and formal designs. War devastation, poverty and the change of the political system in the Second World War led to the stagnation of architectural activities and education. Although professional work did not entirely disappear, a specific architectural expression in those circumstances was conditioned by destitution.⁶

After the war, in 1945, Croatia was one of six constituent republics of the Federal People's Republic of Yugoslavia. The new socio-political regime and the changed relationships in production of goods resulted in a restructuration of the profession according to socialist principles and abolishment of the private architectural practice. However, it was clear that the profession continued onto the previous periods despite the initially strong pressure from Belgrade, and indirectly from the Soviet Union. The priority was a renovation of the war-inflicted devastation in the country, 'electrification and industrialisation', and the construction of residential buildings and essential ancillary facilities.

In the 1950s, these frameworks were overcome and architectural design was focused on a wider field of individual creativity. The 1970s in Croatia saw partial considerations of postmodern principles, which did not resonate in Croatia as strongly as elsewhere. By placing it in its historical and spatial context, Boris Magaš, a member of the Croatian Academy, wrote emphatically about a decisive orientation of Croatia towards western progressive developments and inclinations.⁷

The continuity of modernism was a determining characteristic of twentieth-century architecture, which in the 1990s and the period of Croatia's newly gained independence, transformed into particular contemporary accomplishments of younger generation of architects. Among them, increasingly more attention and praise was being given to the architecture designed by female

architects, which can be attested by a great number of professional awards they received.⁸

Croatian architecture was established on the firm grounds of modern architecture that had been defined in the early twentieth-century, and was transformed through time in accordance with contemporary tendencies and specificities of its spatial context.

University Education in the Field of Architecture

Faculty of Architecture, University of Zagreb

The University of Zagreb's Faculty of Architecture has been the most prominent and, for a long time, the only institution in the field of architectural education.⁹ It includes the undergraduate and graduate study programmes in architecture and urbanism and design (based on the Bologna reforms) and the doctoral study programme in architecture and urbanism.

Periodic changes in the curriculum are a necessary adjustment to the changing circumstance of architecture making.

Studying architecture according to a functionalist approach, typologies and classification gradually transformed in the direction of the creation and education that provides competencies for nurturing an environment that evolves together with the comprehension of the civilized world and its complexity. This is a shift from an architect who is 'an artistically designing constructor' to an architect who goes beyond the apparent domain of the discipline and creates a technology of complex, not always materialized systems of the present day.¹⁰

An ideal professor presents unity of educational, artistic and scientific qualities, whose personality and engagement contribute to the identity of an architectural studies programme. Female members of the teaching staff at the Faculty of Architecture in Zagreb have been employed with these characteristics as decisive factors for their positions.¹¹ They have been present on the architectural professional scene with a number of completed projects and design plans (competition entries), published papers and participations in exhibitions in Croatia and abroad. Most of them received

5 Ljerka Biondić, "Arhitektonski odjel Akademije likovnih umjetnosti u Zagrebu (1926.–1942.)," *Sveučilište u Zagrebu, Arhitektonski fakultet 1919/1920-1999/2000*, edited by Mladen Obad Šćitaroci (Zagreb: Arhitektonski fakultet Sveučilišta u Zagrebu, 2000), 19.

6 During the 1940s Croatia witnessed influences from several political systems whose ideology required closer approaches to national and regional architectural expressions.

7 Boris Magaš, "Saznanja i mogućnosti teorijske misli," *Arhitektura* (thematical issue: *Arhitektura u Hrvatskoj 1945–1985*), 196–199 (1986), 27–30.

8 Zrinka Barišić Marenčić, Marina Bertina and Neda Mrinjek Kliska, "Contribution to Research of Modern Architecture in Croatia (1969–1989)," (paper presented at the MoMoWo 3rd International Conference-Workshop on Women Designers, Architects and Civil Engineers between 1969–1989, University of Oviedo, Oviedo, Spain, October, 2–4, 2017).

9 It developed from The Architecture Department of the Polytechnic (1919–1926), Technical Faculty (1926–1958) and the Faculty of Architecture, Civil Engineering and Geodesy (1958–1962)

10 Tonči Žarnić, "Nastavni planovi i programi," *Sveučilište u Zagrebu, Arhitektonski fakultet 1919/1920-1999/2000*, edited by Mladen Obad Šćitaroci (Zagreb: Arhitektonski fakultet Sveučilišta u Zagrebu, 2000), 72.

11 They all graduated from the Faculty of Architecture in Zagreb, where some of them obtained their PhD degrees, while some gained their MSc and PhD degree abroad.

professional and national awards. They have authored university textbooks, books and professional and scientific papers. They participate in professional and scientific conferences, hold lectures at other universities, and supervise extracurricular workshops. They are members of the highest bodies and committees of professional associations.¹² They also participate as members of jury for architectural and urban design competitions and as members of award committees.

Department of Architectural Design

The Department of Architectural Design is the fundamental nucleus of the study of architecture based on the creative aspect of architectural design thus exercising a strong influence on the professional formation of future architects.¹³

The first woman employed at the Department of Architectural Design in 1946 was **Božena Ostrogović** and soon after, she was joined by **Dragica Crnković Očko**. As one of Yugoslav's experts employed by the state as technical or other sort of assistance in third world countries, Crnković Očko lived and worked in Ethiopia, Zambia, Swaziland and Sierra Leone. Her approach to design merges influences from Croatian modern architecture and Sub-Saharan Africa.¹⁴

Buildings for cultural institutions with an emphasis on theoretical considerations of theatre architecture were the focus of the academic and professional work by **Vera Marsić**, who authored the book *Theatre from the Renaissance to the Croatian National Theatre* and co-authored a monograph on *Božidar Rašica* (with Petar Selem and Zvonko Maković). She received several awards and distinctions for her work.

Ines Filipović designed a wide range of buildings of diverse architectural types, among which the most successful was the reconstruction of *Dubrovnik Hotel* and the new *Dubrovnik II Hotel* (1982 with N. Filipović – the annual Viktor Kovačić Award). She made a particular contribution to Croatian architecture with her interior designs that became outstanding public places in Zagreb, such as the *Charlie Cafe* (1985), *Argentina Cafe* (1988), *Velvet Cafe* (1993), *Harmica Cafe* (1995) and many others. She was the first autonomous female architect laureate of the annual Vladimir Nazor Award (1988) and Viktor Kovačić (2000) Lifetime Achievement Award.

The third autonomous female architect laureate **Hildegard Auf-Franić**, former dean and vice-dean, and a professor emerita of the Croatian Academy of Engineering¹⁵ critically examines and researches functional typologies through the logic and the importance of 'social standard'. She combines her academic and artistic interests in design plans, both realised and unrealised, such as educational buildings, university buildings and campuses, and treats them theoretically through research projects and publications. She was recipient of numerous national and professional awards for professional work and academic accomplishments and distinctions for her continuous public engagement.¹⁶ She received Vladimir Nazor (2012) and Viktor Kovačić (2015) Lifetime Achievement Awards and she was honoured for design of *Malešnica Kindergarten* in Zagreb (1996, with T. Žarnić – Viktor Kovačić and Vladimir Nazor Awards), *Faculty of Philosophy* in Rijeka (2012, with T.S. Franić and V. Rister – 47th Zagreb Salon Award) and nominated for design of *Pavilion 6* of the Faculty of Agriculture in Zagreb (2006, with T. Oluić – Viktor Kovačić Award nomination).

A critical approach to analysing residential architecture was concern by **Ljerka Biondić**, the author of the book *Introduction to Residential Building Design*.

Renata Waldoni adopted an approach along the lines of artistic research of architecture as an autonomous discipline.¹⁷ She has created numerous design plans and drawings among which the most prominent are: the interior of the *Camel Club café* in Zagreb (1994, 29th Zagreb Salon Award for interior design), the *Blitz commercial house* in Zagreb (1996, Piranesi Award), design for the *Memorial Monument to Fallen Croatian Soldiers* in Livno (1997, with A. Uchytíl – 32nd Zagreb Salon award for design) and the *Evangelist Church of St John* in Utrine in Zagreb (2009, with A. Uchytíl – 44th Zagreb Salon's Grand Prize).

Helena Paver Njirić achieved international recognition, which can be attested by numerous works that appeared in esteemed international publications, and especially in the monographic issue of the *El Croquis* magazine (2003).¹⁸ As a visiting professor, she taught at numerous European universities.¹⁹ She curated the exhibition at the Croatian pavilion at the 2004 Venice Biennale and

¹⁵ Hildegard Auf Franić was a candidate for the rector position at the University of Zagreb.

¹⁶ Hildegard Auf Franić was a recipient of the following awards: Grand Prize of the 14th Zagreb Salon (1979), The Order of Danica Hrvatska for Science – Ruđer Bošković for scientific contributions (1998) and the Order of Danica Hrvatska for Culture – Marko Marulić for artistic merit (1999), the Croatian Academy of Engineering's Rikard Podhorsky Award (2005) and the Power of Knowledge Award for the Lifetime Achievement (2013), The City of Zagreb Award for education building projects (2006), Croatian Association of Architects' public recognition award (2008) and the Award of the Croatian Chamber of Architects and Engineers (2012).

¹⁷ Maroje Mrduljaš, "Druga arhitektura," *Život umjetnosti* 42 (2008), 135.

¹⁸ *El Croquis*, Madrid, 114 (II) Njirić + Njirić (1997–2003). Helena Paver Njirić was a managing partner at the njirić+njirić architectural office from 1989 to 2000, and since 2000 has her own office called hpnj+.

¹⁹ Helena Paver Njirić was an affiliate professor at KTH Stockholm (2008–2013), guest professor at TU Darmstadt (2010–2012), Università di Camerino in Ascoli (2012) and TU Berlin (2001–2003).

¹² Hildegard Auf Franić served as president and Helena Paver Njirić and Karin Šerman as vice-presidents of the Croatian Association of Architects.

¹³ Ivan Crnković, "Department of architectural design," *University of Zagreb, Faculty of Architecture 2001/2002*, edited by Vesna Mikić (Zagreb: University of Zagreb, Faculty of Architecture, 2003), 90.

¹⁴ Mojca Smode Cvitanović, Marina Smokvina and Andrej Uchytíl, "Dragica Crnković Očko," *Prostor* 1(2016), 90–101.

exhibited her works at the 2010 Biennale in Venice at the Croatian and Hungarian Pavilions. Her research, both academic and practical, aims to push the boundaries towards innovative design that can encourage new forms of social behaviour. Among a great number of awarded buildings and design plans especially important are the *Baumaxx Hypermarket* in Maribor (1999, with H. Njirić – 35th Zagreb Salon Award, Piranesi Honourable Mention, Viktor Kovačić Award), permanent exhibition design at the Jasenovac Memorial Museum (2006, Bernardo Bernardi Award, 41st Zagreb Salon's Grand Prize) and the *Moiré* installation exhibited at the MAXXI Museum in Rome (2010, Bernardo Bernardi Award nomination).

Different types of residential architecture and welfare institutions form the focus of **Sanja Filep**²⁰ and **Vesna Mikić**, whose design plans and buildings received numerous awards for competitions entries. Additionally, Vesna Mikić served as vice-dean and authored the book *Architect Antun Ulrich, Modern Classicism*. **Dina Vulin** (with B. Ileković) designed lamps 'MCMLXXXVIII-I' and 'Totem of Light' which were awarded by Bronze award / Third prize at Koizumi International Lighting Design Competition, Japan, in 1988 and 1989. She designed a great number of buildings, among which the library of the Faculty of Arts in Zagreb (with B. Ileković) was nominated for the Vladimir Nazor Award. Colour and light in architecture and their impact on people are the focus of research and practice of **Neda Cilinger**.

The former vice-dean **Alenka Delić** explores virtuality in residential architecture and the impact that information and communication technology exerts on it.

Lovorka Prpić designed several conceptually and formally intriguing interior spaces among which especially prominent is the *La Coullisse salon* in Zagreb (2003, with M. Bernfest – Bernardo Bernardi Award nomination). Her design for the *Social Welfare Centre* in Sisak (2009, with M. Bernfest) was nominated for the Mies van der Rohe Award and the annual Viktor Kovačić Award. **Sonja Tadej** received awards for several competition entries.

Ivana Ergić²¹ explores in her projects and academic work the area of typologies of small residential buildings as a transitional forms of residential buildings. She has designed numerous buildings among which the most awarded is the social housing on the island of Cres (2004, with V. Ilić and V. Milutin – Vladimir Nazor Award, 31st Zagreb Salon Award, Luigi Cosenza silver plate in 2005, and Piranesi Award).

In addition to her activities as a member of this Department, **Vjera Bakić**²² also has been participating in research projects headed by the Institute for the History and Theory of Architecture (ETH) in Zürich (since 2013). Her most significant architectural design project is the *Svetice Swimming Pool complex* in Zagreb (2016, with M. Kulstrunk – the 2017 Vladimir Nazor and Viktor Kovačić Awards, nominations for the international Piranesi and Mies van der Rohe Awards in 2017 and the Bauwelt Award).

Ana Martina Bakić focuses her interests on contemporary architecture and stage design and explores relationships between space and events in all their manifestations and contexts. She was awarded at the 13th Quadriennial in Prague with the Gold Medal PQ 2015 for *Provoking a Dialogue* and with the Bernardo Bernardi Award for the stage set for the play *Grmače* (2007, with I. Knez). The use of contemporary information and communication technologies in architecture is the topic explored by **Kristina Careva**, initiator of the interdisciplinary project *Acupuncture of the City* (with R. Lisac).

Mia Roth Čerina, a current vice-dean and a Croatian delegate of the Architecture and Children Working Programme within the International Union of Architects, has designed numerous award-winning projects among which prominence has been given to the kindergarten in Lanište (2005 – 2008, with T. Čerina – Viktor Kovačić Award nomination).

Throughout the years, numerous female lecturers, junior researchers and teaching assistants have participated in the activities of the Department whose dedicated work has contributed to the advancement of the educational process. They include **Ljiljana Šepić**, **Marija Rendić Miočević**, **Ana Marija Babić Poljanec**, **Ada Pavlić Cottiero**, **Davorka Križ Filipović**, **Ivana Tutek**, **Roberta Pavlović**, **Marina Bertina**, **Tihana Hrastar**, **Morana Pap**, **Nika Dželalija** and many others.

Department of Urban Planning, Spatial Planning and Landscape Architecture

The Department of Urban Planning has traditionally been dealing with issues such as solving complex urban tasks, preserving natural and cultural heritage, teaching ethical urban behaviour both in and out of town in accordance with legislation and potential space use and emphasizing the importance of protecting public interest.²³

The first female employee at this Department was **Sonja Jurković** who started her university career in 1971. She worked on a number of urban plans, studies and landscape architecture designs. In cooperation with Olga Maruševski, she published the book *Maksimir Park, an Analysis of the Landscape Composition*. She was the principal coordinator of the doctoral study programme and

²⁰ Sanja Filep obtained her PhD degree in 1999 at the University of Stuttgart under the supervision of Profesor Podrecca.

²¹ Ivana Ergić teaches courses within the architectural studies programme at the Faculty of Civil Engineering in Osijek and the Faculty of Civil Engineering, Architecture and Geodesy in Split.

²² Vjera Bakić graduated from the Faculty of Architecture in Zagreb (2001) and the ETH in Zurich (2006).

²³ Mladen Obad Šćitaroci and Srećko Pegan, "Department of Urban Planning," *University of Zagreb, Faculty of Architecture 2001/2002*, edited by Vesna Mikić (Zagreb: University of Zagreb, Faculty of Architecture, 2003), 62–63.

served as president of the Croatian Association of Landscape Architects.

The Head of the Department is currently **Bojana Bojanić Obad Šćitaroci**. She actively participates in scientific research projects and conferences related to landscape and cultural heritage protection and tourism. She is author/co-author of number of scientific books and papers as well as urban plans and landscape architecture projects.

A significant contribution has been made by the research of **Lea Petrović Krajnik**, **Sanja Gašparović** and **Ana Mrđa**, the current vice-president of the Croatian Association of Architects. They are all members of the Heritage Urbanism project team led by Prof **Mladen Obad Šćitaroci**. The project that was developed within the last decade has entailed research focused on a creative, sustainable and responsible use of urban, architectural and landscape heritage as non-renewable resources.

Department of Architectural Structures and Building Construction

The Department of Architectural Structures and Building Construction encompasses approximately one third of the overall teaching program at the Faculty of Architecture and includes preparatory, technical, technological and planning courses thus covering all engineering aspects of the architectural profession. The status of this department and its share in the overall architectural education depend on the assumed role of the engineering aspect of architecture versus the artistic one.²⁴

Mira Molnar, the first female architect at the Department, was employed in 1947. She was developing technical standards for furniture and later for doors and windows.

Olga Vujović was professionally engaged on building physics as part of a building's design project. She designed several competition entries as well as realised buildings. **Doroteja Ložnik** participated in significant architectural projects as a team member. **Nada Jurković**, **Branka Rosandić** and **Marta Sulyok-Selimbegović** focused on high-rise building construction. **Jasna Brusić** supervised on site the construction and quality of work of several prefabricated dwelling buildings, schools and kindergartens. **Marija Rebec** explored structural elements from the financial aspect and was in charge of construction cost management for various projects. **Jasenska Bertol Vrček** deals with energy savings and thermal insulation of buildings both academically and professionally. Research and practical work in the field of healthcare architecture has been done by **Gordana Žaja**. **Ariana Štulhofer**, a member of the research project Atlas of Architecture of the Republic of Croatia, has primarily been exploring sports architecture and actively participating in academic and publishing

²⁴ Đuro Mirković, "The Department of Architectural Structures and Building Construction," *University of Zagreb, Faculty of Architecture 2001/2002*, edited by Mikić Vesna (Zagreb: University of Zagreb, Faculty of Architecture, 2003), 16–17.

activities. A broad range of research, professional and/or publishing interests is characteristic for a younger generation of architects working at the Department: **Zorana Protić** who received awards for several competition entries, **Iva Muraj**, **Tajana Jaklenac**, **Dunja Mandić** and **Stanka Ostojić**.

Department of History and Theory of Architecture

'The Department of History and Theory of Architecture focuses on the study of historical architecture, contemporary architecture and their comprehensive theoretical backgrounds'.²⁵ The first female assistant employed at the Architectural Department of the Faculty of Technology in 1946²⁶ was **Sena Sekulić Gvozdanović** (1916–2002). Furthermore, she was the first female vice-dean (1978/1979) and dean (1979–1981), first Head of Department (1983–86) and first female professor and professor emeritus (1998). The primary field of her specialization was architectural history and the protection of architectural heritage.²⁷ From 1983, she had actively participated in conferences of the International Union of Women Architects and promoted the topic in Croatia. In 1998, she published the book *Žena u arhitekturi – tragom žene kreatora i žene teoretičara u povijesti arhitekture (Women in Architecture – Following the Steps of Female Creators and Theoreticians in Architectural History)*. In addition to numerous prizes, she received the Viktor Kovačić (1983) and the Vladimir Nazor (1997) Lifetime Achievement Awards. Sena Sekulić-Gvozdanović and Melita Viličić completed their PhDs in 1976. These were the third, and the fourth, doctoral theses at the Faculty in a 50-year period. These professors were associate members of the Croatian Academy of Sciences and Arts as the only female members of the Academy's Department of Fine Arts (architecture and urbanism). **Melita Viličić** (1913–2005) was also a professor employed by this department. Her academic interest entailed a wider range of topics, from non-European cultures to Croatian built heritage, and her research focused on analysis and synthesis of architecture in Senj. In addition to around thirty scientific and professional papers, she also authored 19 entries in the *Encyclopaedia of Fine Arts*.²⁸

Present Head of Department, **Karin Šerman** obtained her MA degree at Harvard University in Cambridge (USA) and received in 1996 the Gerald M. McCue Medal. She is teaching Theory of architecture and also the laureate of the Neven Šegvić Award in 2014 for her research work. She was

²⁵ Nikola Filipović and Karin Šerman, "Department of History and Theory of Architecture," *University of Zagreb, Faculty of Architecture 2001/2000*, edited by Vesna Mikić (Zagreb: University of Zagreb, Faculty of Architecture, 2003), 48–49.

²⁶ Even 27 years after the establishment of the Faculty. It was in the 1960s that newly opened positions for female architects reached 10%.

²⁷ *Conservation, restoration and adaptation design plans for the Sisak Historic City* (1954, first awarded competition entry, realisation of the project was entrusted to Denzler), *Music Academy* in the Upper Town in Zagreb (1964–83, cooperation with A. Albini).

²⁸ Marina Šimunić Buršić: "Melita Viličić," *Sveučilište u Zagrebu, Arhitektonski fakultet 1919/1920-1999/2000*, edited by Mladen Obad Šćitaroci (Zagreb: Arhitektonski fakultet Sveučilišta u Zagrebu, 2000), 220.

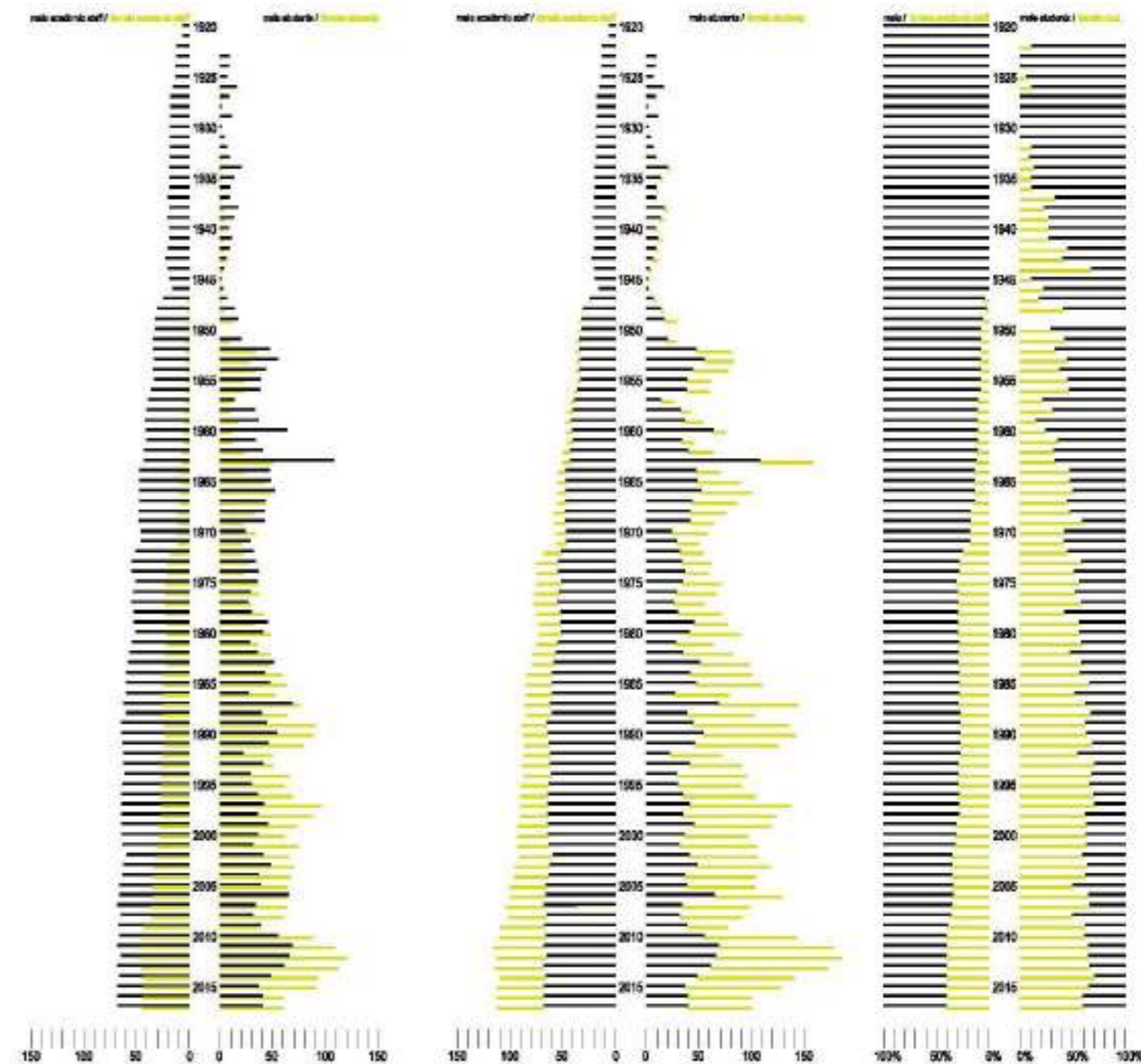
Croatia's commissioner at the 14th Venice Biennale of Architecture where she co-curated the *Fitting Abstraction (Podešena apstrakcija)* exhibition on Croatian modernism in architecture from 1914–2014. Several younger female members of the departmental teachers have also worked as authors and curators: Zrinka Barišić Marenčić, Melita Čavlović, Nataša Jakšić, Mojca Smode Cvitanović, and Marina Smokvina. The history of architecture forms the focus of **Nataša Jakšić** and the industrial archaeology of **Zrinka Barišić Marenčić**. She conducts field courses Croatian space and architecture with focus on Zagreb and northwest Croatia. Five field courses taught at the Faculty, according to Stefano Boeri, profile *differentia specifica* of educational process of this faculty. Andrej Uchytíl, Zrinka Barišić Marenčić and Emir Kahrović authored the book *Lexicon of Architects - Atlas of 20th Century Croatian Architecture* (Zagreb: University of Zagreb, 2009, English translation 2011), which received the National Science Award of the Republic of Croatia.

Female Students

Female have been represented in the total number of architecture students ever since the foundation of the Polytechnic. What used to be characterised as the predominantly male studies lost that attribute by a gradual gender segregation of the profession. In the late 1970s, the number of women studying at the Faculty started to outgrow the number of men, which has progressively continued into the twenty-first-century when the ratio between male and female students is approximately 40 % to 60 % in favour of female students.²⁹ The number of Rector's Awards for individual research or artistic achievements that they have received can prove the quality of their work. Before 2000, 43% of the total amount of awards was given to female students, whereas that number amounted to 70% in the period from 2000 to today. The number of women wishing to obtain the highest degrees in education and enrol in doctoral study programmes is on the rise. Before 2000, the total amount of PhD holders included 22% of women who gained the degree after a long and extensive research. Today, there are 46% of female doctors of architecture. These percentages speak convincingly about the outstanding work and quality of female architects today. (Fig.1)

Faculty of Civil Engineering and Architecture, University of Split

The idea to establish an architectural studies programme at the university in Split goes back to the 1970s. However, the programme was created as late as 2003 at the then Faculty of Civil Engineering,



²⁹ The growing figures of female students at the Faculty of Architecture in Zagreb showed a similar trend at other Croatian universities, and since the 1980s, the figures are even bigger. Certain years saw extreme numbers, such as the academic year 2017/18 when the number of female students 77% of the total number of students enrolled in the first year of the studies.

Fig. 1. The ratio of male to female academic staff and male to female diploma / professional degree of the Polytechnic 1919–1926 / Technical Faculty 1926–1956 / Architectural, Civil Engineering and Geodesy Faculty 1956–1962 / Faculty of Architecture after 1962. Propriety of the author

the institution which was reorganised and changed its name first into the Faculty of Civil Engineering and Architecture, and then into the Faculty of Civil Engineering, Architecture and Geodesy. Faculty of Architecture in Zagreb, as the only higher education institution for the education of architects in Croatia at the time, with its dean Hildegard Auf Franić supported establishment of architectural studies in Split.

A particular contribution to the establishment of the study programme was made by **Ivana Šverko** as one of its creators and the coordinator of the "Architectural Studies Programme – Under Formation." She also co-created the programme in art history and authored the study report on the foundation of the Faculty of Arts, later renamed into the Arts Academy in Split. In 2010, the University of Split presented her with an award for the development of this institution. In the course of her fruitful career in education, she held the position of vice-dean of the Arts Academy and coordinator of the Graduate Study Programme in Architecture in Split. In addition to education, she is engaged in research and professional, practical work. Special mention should be made of her accomplishments for which she received the 3rd Prize at the Shinkenchiku Residential Design Competition in 1975 for *Brigitte Bardot House* (with Emil Šverko).

Katja Marasović has been longstanding Head of the Mediterranean Centre for Built Heritage of the Faculty of Architecture in Zagreb, with the seat in Split. Additionally, she is currently heading the Department for Architectural Heritage at the Faculty of Civil Engineering, Geodesy and Architecture University of Split. She is engaged in the research, conservation and rehabilitation of historical buildings especially of Diocletian's palace and the historical core of Split as well as medieval and Renaissance fortifications in Dalmatia. Her research and professional interests include built heritage. Among the completed building projects she worked on, especially prominent is the renovation project for *Vitturi Castle* in Kaštel Lukšić.

In addition to the visiting professors **Ivana Ergić** and **Karin Šerman**, the teaching staff includes several architects with recognised professional achievements and educated at the Faculty of Architecture in Zagreb.

Iva Letilović was a recipient of several awards including the 2003 Vladimir Nazor and the Drago Galić Awards for the residential building within the subsidies housing programme in Krapinske Toplice (with Morana Vlahović) and the Bernardo Bernardi Award in 2011 for the project *Cages – Temporary Exhibition Galleries* in the Rector's Palace in Zadar (with Igor Pedišić).

Vanja Ilić was a laureate of the annual Vladimir Nazor Award for the residential buildings within Croatia's subsidised housing programme in the city of Cres (with I. Ergić and V. Milutin), the 2012 Bernardo Bernardi Award for the *Donassy Open Studio* and the Viktor Kovačić Award in 2015 for the *Vučedol Culture Museum* in Vukovar (with Radionica arhitekture).

Lea Pelivan and her partner Toma Plejić won a number of awards among which the most significant

include the 2009 Drago Galić Award for the *P-10 Sukošan North*, a commercial and residential building with a public garage in Split, the 2010 Bernardo Bernardi Award for the building of the *Spectator Group Headquarters* in Zagreb and a number of awards for the buildings of the *grammar school* and *sports hall* in Koprivnica (European Union Prize – Mies van der Rohe Award – Emerging Architect Special Mention in 2009, Vladimir Nazor Award in 2008, Viktor Kovačić Award in 2009, Piranesi Award in 2007).

Faculty of Civil Engineering, Josip Juraj Strossmayer University of Osijek

In 2016, a new undergraduate study programme in architecture and urbanism was launched at the Faculty of Civil Engineering in Osijek. Among several other female architects, the teaching staff includes Željka Jurković, the current president of the Croatian Chamber of Architects.

Conclusion

The Faculty of Architecture in Zagreb continues a centennial tradition and experience in educating architects in Croatia, but also the legacy of those who created, developed, regenerated and empowered it, as well as those who defined its identity. A significant role in that process have been played by a number of female academicians who continually redefine frameworks of architectural education and production while responding to challenges of given circumstances.

There are three periods when the percentage of women employed at the Faculty was higher than what was considered usual (**Fig.2**). They coincide with a significant increase in the number of teaching staff in general and with significant structural changes at the Faculty of Architecture and its study programmes. At the same time, the increase in these periods were also a reflection of social circumstances that witnessed a change of the perception of women and their position in society.

Early post-war years saw the change of political power and the socio-economic system in Croatia with an extensive renewal and modernisation of the country and its economic growth. A shortage of architects resulted from an increased enrolment quotas and the need for a larger teaching staff. In the period from 1941 and 1950, the number of newly employed lecturers, architects, was almost the same as the entire number of employees in the period before the war. Among them, there were 28% of women. This growth in numbers resulted from a progressive socialist project that focused on emancipation of women and the creation of 'new women' on equal footing with men in all segments of life and work. The project weakened in the 1950s with an emerging discrepancy between the ideal, a new progressive woman and everyday life.

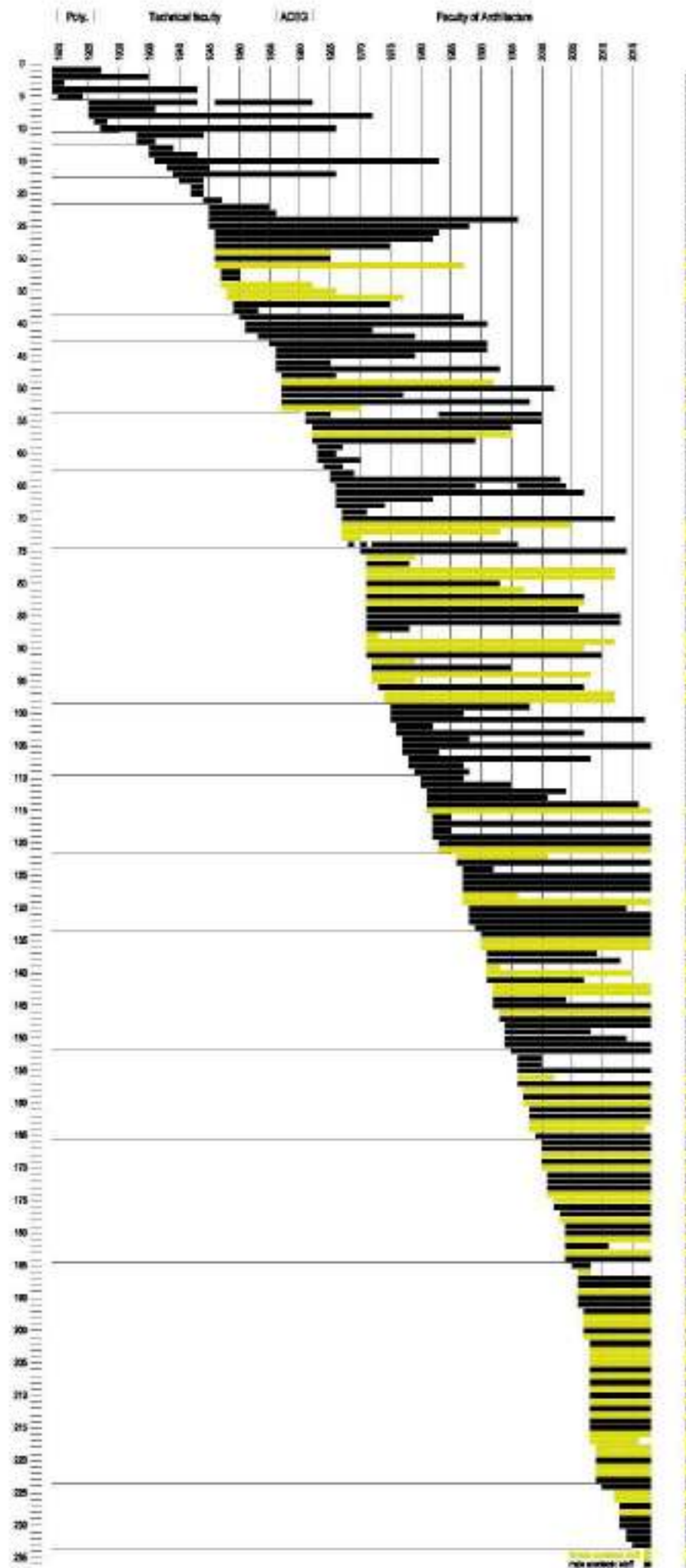


Fig. 2. The ratio of male to female staff of the Polytechnic 1919–1926 / Technical Faculty 1926–1956 / Architectural, Civil Engineering and Geodesy Faculty 1956–1962 / Faculty of Architecture after 1962. Propriety of the authors

The second significant increase in the employment figures of the teaching staff occurred between 1970 and 1975. This was a result of the newly gained autonomy of the Faculty, its improved organisation and modernised curricula. Among the newly employed, there were 54% of women, which overlapped with the increasingly stronger feminist movement, that is, the transformation of female identity and redefinition of the social position of women. This was at the same time the period of a gradual 'feminisation' of the architectural profession, at least in terms of numerical dominance of women, which has continued to the present day.

The adoption of the principles arising from the Bologna Process³⁰, and the consequent newly formed study programme and curriculum, was the reason for yet another increase in staff in the period between 2005 and 2010. The new staff included 53% of women. At the same time, the study programme in Split was being formed and the profile of the staff, including female members, was also being defined.

The number of female architects' educators has gradually increased, but the ratio between men and women is still greatly disproportionate when compared with the percentage of female architectural graduates in relation to their male counterparts in each period. Female teaching members built their careers by advancing their position within the formal structure of the institutions, proving their merit in architectural practice and research, and leaving behind important educational, academic and creative legacy. Each of them, with their personality, sensibility and dedication have contributed to Croatian architectural space by directly creating in it or indirectly pushing the boundaries of their academic work by shaping the education of new generations of architects.³¹ The improved status of women in the Croatian architectural arena owes much to the female architects' educators who gained esteem with exquisite accomplishments and whose overall activities paved the way for new generations of women.

³⁰ A newly formed study programme based on the Bologna Process has been carried out at the Faculty of Architecture in Zagreb since the academic year 2005/06.

³¹ The Faculty of Architecture of Zagreb is on the list of 50 top schools of architecture, which has been published by the prestigious Italian *Domus* magazine. Nicola di Battista (ed.) "Europe's Top 100 Schools of Architecture and Design 2014," *Domus* 975 (2013), supplement 118–119.

Iris Meder

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Women Designers and Architects in Early Twentieth Century Vienna

Around 1900, higher education and professional training for women gained in importance.¹ At that time in Vienna, women could study design at the *Kunstgewerbeschule* (School of Applied Arts), which admitted women from its establishment in 1867.² The demand was so great that in 1886–87 the school temporarily stopped admitting women and limited their participation until 1889 by means of a quota system³— according to the prevailing view at the time, if a co-educational institution had too many women, it risked not to be taken seriously.

Before the First World War, an existence as a financially independent designer was rare for women, but the women themselves soon found nothing unusual in it. As Elisabeth Gotthard wrote in 1933 in the thematic issue *Die schaffende Frau* (The Creative Woman) of the architecture magazine *profil*,

- 1 Especially Jewish middle-class families often encouraged their daughters to attend secondary school; see Elisabeth Malleier, *Jüdische Frauen in Wien 1816–1938* (Vienna: Mandelbaum, 2003). In 1910, with a Jewish percentage of ca. 8 %, 46 % of the pupils at girls' high schools in Vienna were Jewish – see Michaela Raggam-Blesch, *Zwischen Ost und West: Identitätskonstruktionen jüdischer Frauen in Wien* (Innsbruck: Studienverlag, 2008), 50–51. In Eugenie Schwarzwald's Reform High School for girls the Jewish percentage was 69 % – see Rebecca Căcilia Loder, "Die ersten jüdischen Studentinnen an österreichischen Universitäten (bis 1939)" (diploma thesis, Karl-Franzens-Universität Graz, 2011), 90; Louise Hecht, «Jüdische Frauen zwischen Emanzipation und Tradition," *Beste aller Frauen: Weibliche Dimensionen im Judentum*, edited by Gabriele Kohlbauer-Fritz and Wiebke Krohn (Vienna: Jüdisches Museum Wien, 2007), 144–156, Exhibition catalogue; Harriet Pass Freidenreich, *Female, Jewish, & Educated: The Lives of Central European University Women* (Bloomington: Indiana University Press), 2002.
- 2 See Gottfried Fliedl, *Kunst und Lehre am Beginn der Moderne: Die Wiener Kunstgewerbeschule 1867–1918* (Salzburg-Vienna: Residenz, 1986); *Kunst: Anspruch und Gegenstand: Von der Kunstgewerbeschule zur Hochschule für Angewandte Kunst in Wien 1918–1991* (Vienna/Salzburg: Residenz, 1991).
- 3 Elisabeth Johanna Michitsch, "Frauen – Kunst – Kunsthandwerk. Künstlerinnen der Wiener Werkstätte" (diploma thesis, Vienna University 1993), 8, 56–57. After 1916 the proportion of female students at the Kunstgewerbeschule remained over 50 percent, even after the war.

women designers considered a 'special status' or even the term 'creative woman' to be out-of-date, preferring the term 'working woman'.⁴ Many of these 'working women' were trained in the two design and architecture classes at the *Kunstgewerbeschule*, headed by Oskar Strnad and Josef Hoffmann. Strnad's women students were described by their fellow Ernst Plischke as somewhat condescending:

Strnad's class consisted of two rooms. One room was for building and furniture design, separated by a jute screen from the other room for stage set, costume, and fabric design. This department was filled with the chatter of elegant birds of paradise, the daughters of leading Viennese families from the world of finance and industry.⁵

Hoffmann's American student Lillian Langseth-Christensen found it difficult to make contact, especially with Hoffmann:

We didn't even dare to ask him a question, and there was no way or opportunity to look him in the eye. ... We only went to our classrooms and worked. Most of us brought and ate our own luncheons, worked again and went home.⁶

The boundaries between Hoffmann's and Strnad's classes and their students were fluid. There also seems to have been no preference by Jewish students for Strnad or by non-Jewish students for Hoffmann. Hoffmann had more women in his classes than Strnad, however, no doubt because he taught many women who did not intend to become architects. Hoffmann's classes were regarded as a training ground for the *Wiener Werkstätte*, where many female artists worked after graduation.⁷

Strnad's and Hoffmann's classes were in close contact with the architecture and design scene of the time and attracted international attention through the highly publicized school exhibition in 1924 and the 1925 Paris Expo. Female architecture students in Hoffmann's class included Maria Schläfrig, born in 1911 and herself the daughter of an architect,⁸ and Lilly Engl, born in 1903. Engl's model of a swimming pool complex was shown at the school exhibition, the *Paris Expo*, and the *Machine Age Exhibition* in New York in 1927, as was a country house model by Strnad's student Lotte Zentner, born in 1905.⁹ Also Strnad's student Rosa Weiser, born in 1897, designed a country

4 Elisabeth Gotthard, "Die schaffende Frau," *profil* 1, 4 (1933), 110.

5 Ernst A. Plischke, *Ein Leben mit Architektur* (Vienna: Löcker, 1989), 34. In the academic year 1920/21 the separation of men and women was abandoned; see Michitsch, *Frauen – Kunst – Kunsthandwerk*, 57.

6 Lillian Langseth-Christensen, *A Design for Living (Vienna in the Thirties)* (New York: Viking, 1987), 104–06; see also Iris Meder, "In der Kärntnerbar, in Cabarets und Nachtlokalen: Loos, Strnad, Frank, Hoffmann und ihre Schüler," *Leben mit Loos*, edited by Inge Podbrecky and Rainald Franz (Vienna-Cologne-Weimar: Böhlau, 2008), 213–242, conference proceedings, Looshaus Vienna 2006.

7 Michitsch, *Frauen*, 9.

8 Helmut Weihsmann, *In Wien erbaut: Lexikon der Wiener Architekten des 20. Jahrhunderts* (Vienna: Promedia, 2005).

9 Lotte Zentner emigrated to Britain in 1938. Sabine Plakolm-Forsthuber, *Künstlerinnen in Österreich 1897–1938: Malerei – Plastik – Architektur* (Vienna: picus, 1994).

house that was shown in the school exhibition and the *Expo*.¹⁰ In the 1932 Vienna *Werkbundsiedlung*, Weiser designed the interior of a house by Gerrit Rietveld.¹¹ Elzy Lazar from Romania was another Strnad student; her Tataru house in Cluj, designed during her work in Gio Ponti's Milan office, was published in 1939 in *Domus*.¹² The designer, interior architect, and artist Ilse Bernheimer (1892–1985) studied with Kolo Moser and Oskar Kokoschka, and in the early 1920s was acquainted with Henri Matisse and Albert Marquet in Paris. In 1926–27 she was Strnad's assistant. In 1932 she furnished a house by Anton Brenner in the Vienna *Werkbundsiedlung*. In 1938 she emigrated to Italy, where she taught at the *Zanetti Scuola di Vetro* in Murano.¹³

Through her teacher Hoffmann, *Wiener Werkstätte* designer Felice 'Lizzi' Rix¹⁴ met the Japanese architect Isaburō Ueno, who worked in Hoffmann's office. They married in 1925 and moved to Kyoto, where Lizzi Rix-Ueno was responsible in Ueno's architect's office for interior design, textiles, and product design.¹⁵ After the war she had a professorship at the Kyoto City University of Arts. In 1963 she and her husband founded an international design research institute that still exists today. Another couple that met in Josef Hoffmann's class were Gerhart Lohner and Grete Fingerlos, both born in 1906, who lived and worked as architects in Linz, Upper Austria.¹⁶ Marriages between designers and architects were not uncommon in Vienna between the wars.¹⁷ Once married it was quite usual for the women to take a double-barrelled name and to continue working, often together with their husbands.

Adolf Loos opened his private architecture class in Vienna explicitly for women, too. Obviously, however, there were no women attending his class, but female architects worked in Loos's office – the

most famous one being Margarete Schütte-Lihotzky (1897–2000), who was in his office in the early 1920s before going to Frankfurt, later to Moscow, marrying the architect Wilhelm Schütte and working in the anti-Nazi underground,¹⁸ another one Ilse Günther, born in 1904, a close friend of Loos's third wife Claire Beck. Ilse Günther, married name (von) Henning, worked with Loos on several projects in her hometown Pilsen.¹⁹

One of the most important female artists and architects of the First Republic was Friedl Dicker, born in 1898. She attended Johannes Itten's Vienna art school. Itten's Viennese women students included Grete Wolf-Krakauer (1890–1971), who in 1925 moved to Palestine, following her husband, the architect Leopold Krakauer, and Sofie Korner (1879–1942),²⁰ who came from the *Kunstgewerbeschule* and followed Itten when he was invited in 1919 to the Bauhaus in Weimar. Friedl Dicker and her partner Franz Singer also went to Weimar with Itten, as did their friend and colleague Anny Wottitz (1900–1945), with whom Dicker worked together as a graphic artist. After the construction of their Vienna house designed by Adolf Loos, Anny Wottitz and her husband, the textile industrialist Hans Moller, commissioned Singer and Dicker to design a tea pavilion for the garden. Singer and Dicker designed a number of other buildings in Vienna in the spirit of the Bauhaus, all of which have been demolished.²¹ After separating from Singer, Dicker opened her own studio in 1931. She was arrested in 1934 for Communist activities and moved to Prague in 1936, where she married her cousin Pavel Brandeis. They were both deported to Theresienstadt, where Friedl Dicker-Brandeis gave children's drawing lessons. She was killed in 1944.

For a long time it was unthinkable for women to study not only applied arts and interior design but also 'technical' subjects like architecture. After 1897, women in Austria-Hungary were gradually admitted to some faculties.²² From 1919, they were admitted as regular students also at the Vienna Technical

10 See *Baugilde* (1924), 607; *Deutsche Kunst und Dekoration* 54 (1924), 339.

11 *Ein Manifest des Neuen Wohnens. Werkbundsiedlung Wien 1932*, edited by Andreas Nierhaus and Eva-Maria Orosz (Vienna: Wien Museum, 2012), 208, Exhibition catalogue.

12 Elzy Lazar died in Tel Aviv in 1973.

13 *Ilse Bernheimer*, edited by Walter Zettl (Rome: Istituto Austriaco di Cultura di Roma, Galleria d'Arte, 1970), Exhibition catalogue.

14 Lizzi Rix-Ueno's younger sister Kitty Rix-Tichacek, married to the architect Paul Tichacek, also worked for the Wiener Werkstätte. The third sister, Edith, worked as a photographer, the fourth one, Gertrude, as a textile designer. See: Georg Gaugusch, "Wilhelmine Rix, die Erfinderin der Pasta Pompadour – eine Wiener Vorläuferin Helena Rubinsteins," *Helena Rubinstein: Die Schönheitserfinderin – Pioneer of Beauty*, edited by Iris Meder (Vienna: Jüdisches Museum Wien, 2016), 83, Exhibition catalogue.

15 See "The Isaburo & Felice 'Lizzi' Ueno-Rix Collection: From Vienna to Kyoto/From Architecture to Crafts," MOMAK (posted December 22, 2008), <http://www.momak.go.jp/English/exhibitionArchive/2008/370.html> (accessed January 10, 2018).

16 See *Kunst in Österreich 1934: Österreichischer Almanach und Künstler-Almanach*, edited by J. Rutter (Vienna 1934), 118 and 121; *Das Wüstenroter Eigenheim* (1934), 338–339 / (1935), 98–99 / (1935), 256–257. They were divorced in 1941. Gerhart Lohner took his life the same year. Grete Lohner-Fingerlos died in the 1980s.

17 See Iris Meder, "Offene Welten: Die Wiener Schule im Einfamilienhausbau 1910–1938" (PhD dissertation, Stuttgart University, 2004).

18 Margarete Schütte-Lihotzky, *Warum ich Architektin wurde* (Salzburg: Residenz, 2004), 50.

19 Cf. Ute Maasberg and Regina Prinz, *Die Neuen kommen! Weibliche Avantgarde in der Architektur der zwanziger Jahre* (Hamburg: Junius, 2005); *Loos: Pilsen: Souvislosti*, edited by Petr Domanický (Plzeň: Západočeská Galerie, 2011), Exhibition catalogue. Non-Jewish Ilse Günther bought Claire Beck's sister Eva's house in the Vienna *Werkbundsiedlung* after the 'Anschluss'. She lived there until her death in the 1980s.

20 Julie M. Johnson, *The Memory Factory – The Forgotten Women Artists of Vienna 1900* (West Lafayette, Indiana: Purdue University Press, 2012).

21 *Franz Singer Friedl Dicker. Bauhaus in Wien* (Vienna: Hochschule für angewandte Kunst, 1988), Exhibition Catalogue; *Friedl Dicker-Brandeis: Ein Leben für Kunst und Lehre*, edited by Elena Makarova (Vienna: Kunsthistorisches Museum, 1999), Exhibition catalogue; *Vienna's Shooting Girls – Jüdische Fotografinnen aus Wien – Jewish Women Photographers from Vienna*, edited by Iris Meder and Andrea Winklbauer (Vienna: Jüdisches Museum Wien, 2012), Exhibition catalogue. The Jewish TH graduate Anna Szabó, born in 1907, also worked in the Singer & Dicker office. In 1946–47, she registered at the TH again. She died in London in 1988. I thank Paulus Ebner from the archive of the TU Vienna for this information.

22 See Alfons Dopsch, *Dreißig Jahre Frauenstudium in Österreich 1897 bis 1927: Festschrift* (Vienna: Festausschuss anlässlich des dreißigjährigen Frauenstudiums jubiläums, 1927).

University.²³ In the first five years, 14 women students enrolled.²⁴ At this time it was possible to study architecture in Vienna at the Kunstakademie (Academy of Fine Arts), the Technische Hochschule (Technical University), and the Kunstgewerbeschule. The degree at the latter school, however, did not permit graduates to work as independent architects. Many graduates of the Kunstgewerbeschule therefore continued their studies at one of the other universities.²⁵

Also Ella Baumfeld, a lawyer's daughter born in 1880, married name Ella Baumfeld-Briggs, first studied at the Kunstgewerbeschule. From 1911 she worked in New York, Breslau (Wrocław, Poland), and Vienna as an interior designer. From 1916 to 1918 she was a guest student at the Vienna Technical University. After her application for admission as a regular student had been refused, she continued her architecture studies at the Munich Technical University, where she graduated in 1920. In 1921 she became the first qualified female architect in Austria and also the first female member of the Österreichischer Ingenieur- und Architektenverein (Austrian Society of Engineers and Architects). After working in New York and Philadelphia, she opened an architect's office in Vienna. Alongside Margarete Schütte-Lihotzky, she was one of two women to design a housing project during the socialist Red Vienna era, Pestalozzihof, with a dorm for single women. From 1927 she designed residential buildings in Berlin, and in 1936 she opened an office in London. She died in 1977.²⁶ Little is known about her life and work.

Liane Zimble, née Fischer, born in 1892, had to transfer from the Kunstgewerbeschule to Munich Technical University to finish her architecture degree. In Vienna she established an informal network of female architects, artists, and designers. In early 1938, shortly before the *Anschluss*, she was the first woman to qualify as a civil engineer at the Technical University in Vienna. In 1938 with her husband, a lawyer, she escaped to California, where she later worked together with her daughter Eva

Huebscher-Zimble.²⁷ Ada Gomperz also worked in Zimble's American office. Born Adele Stepnitz in 1884 and married to the philosopher Heinrich Gomperz, she studied with Strnad from 1928 to 1932, after having planned logistic processes in restaurant and hotel architecture. Then with her fellow student Margarete Zak, who, after attending the *Kunstgewerbeschule*, graduated from the Academy in 1938 with Clemens Holzmeister, she worked in the office of Strnad's assistant Erich Boltenstern, with whom she participated in 1932 in the competition 'Das wachsende Haus' (The Growing House). With him she also furnished one of Hugo Häring's houses in the *Werkbundsiedlung* and designed the kitchen in another house.

Leonie Pilewski, born in 1897, also had to complete her studies in Germany. She attended lectures at the Vienna Technical University from 1915 to 1917. After her application to enrol as a regular student of mechanical engineering had been refused several times, she transferred in 1917 to Darmstadt Technical University to study architecture, graduating in 1922.²⁸ In 1930 she moved to Moscow and reported on Soviet architecture for media like the Werkbund magazine *Die Form*. On her return to Vienna, Josef Frank commissioned her to furnish a house by Hugo Häring in the *Werkbundsiedlung*. After her marriage, she devoted herself to painting in Swedish exile. She died around 1990.

For women, the Technical University was at first the only possibility for finishing their studies with a proper degree in Austria. Little more than the name is known of the first female architecture graduate of the Technical University, Henriette Bachrach, married name Stricker (1900–1985). With her husband and two children she emigrated to London. Even less is known about Helene Hammermann, also born in 1900, the first female Austrian building engineer, who graduated at the Technical University in 1930.²⁹ The first female engineer in architecture in Austria was the 22-year-old Helene Roth, who graduated from the Technical University in 1926.³⁰ After the Socialist Party of Austria (SPÖ) was banned in 1934, as a socialist, she lost her job and emigrated to Tel Aviv, where she died in 1995.

23 See Juliane Mikoletzky, Ute Georgeacopol-Winischhofer and Margit Pohl (eds.), *"Dem Zuge der Zeit entsprechend..": Zur Geschichte des Frauenstudiums in Österreich am Beispiel der Technischen Universität Wien* (Vienna: WUV-Universitätsverlag, 1997), Series Schriftenreihe des Universitätsarchivs der TU Wien, 1; Brigitta Keinzel and Ilse Korotin, *Wissenschaftlerinnen in und aus Österreich: Leben. Werk. Wirken* (Vienna;Cologne;Weimar: Böhlau, 2002).

24 Ute Georgeacopol-Winischhofer, "Sich-bewähren am Objektiven: Bildung und Ausbildung der Architektin an der Technischen Hochschule in Wien von 1919/20 bis 1944/45," *"Dem Zuge der Zeit..."*, 210.

25 Verena Pawlowsky, *Die Akademie der bildenden Künste Wien im Nationalsozialismus: Lehrende, Studierende und Verwaltungspersonal* (Vienna;Cologne;Weimar: Böhlau, 2015). While Holzmeister had several female students, Ernst Plischke recalls that Peter Behrens's class at the Akademie was 'all male'; Plischke, *Leben*, 53.

26 See Katrin Stingl, "Ella Briggs(-Baumfeld)" (diploma thesis, Vienna University, 2008); Maasberg and Prinz, *Die Neuen kommen!*; Inge Scheidl, "Ella Briggs," *Architektenlexikon: Wien 1770–1945* (posted November 1, 2005), <http://www.architektenlexikon.at/de/65.htm> (10 January, 2018); Corinna Isabel Bauer, "Architekturstudentinnen in der Weimarer Republik: Bauhaus- und Tessenow-Schülerinnen" (PhD dissertation, Kassel University, 2003).

27 See Christina Gräwe, "Liane Zimble: Spurensuche - Die österreichische Architektin in Wien und im amerikanischen Exil," Liane Zimble (Diploma thesis, Architekturfakultät der TU-Berlin, 2003), <http://www.liane-zimble.de> (accessed January 10, 2018); Sabine Plakolm-Forsthuber, "Ein Leben, zwei Karrieren: Die Architektin Liane Zimble," *Visionäre und Vertriebene*, edited by Matthias Boeckl (Vienna: Kunsthalle Wien, 1995), 295–310, Exhibition catalogue.

28 See Juliane Mikoletzky, "Der Weg zum ordentlichen Technikstudium für Frauen," *"Dem Zuge der Zeit..."*, 53–56; Bauer, *Architekturstudentinnen*, 383–384.

29 Helga Eberwein, "Einzug der Frauen in die Technik: Pionierinnen an den Technischen Hochschulen in Graz und Wien" (diploma thesis, Klagenfurt University, 2004).

30 Hans Adolf Vetter, "Die Architektin," *profil* 1, 4 (1933), 121–123; Gisela Urban, "Wie schaffen Wiener Architektinnen?" *Neue Freie Presse (Abendblatt)*, February 15, 1933, 6; Gisela Urban, "Frauliches Schaffen," *Innendekoration* 45, 3 (1934) 103–104.

Brigitte Kundl, married name Muthwill (1906–1992) took part in the 'Das wachsende Haus' (The Growing House) competition together with her fiancé Werner Theiß in 1932.³¹ In 1934 she finished her studies at the Technical University with Theiß's father, professor Siegfried Theiß, in whose office she was subsequently employed. The topic of her thesis was an airport for Vienna. In 1935, with her dissertation on the same subject, she became the first female doctor in architecture in Austria, followed shortly afterwards Hermine Frühwirth (1909–1991).³²

Another student at the Technical University, who preferred to complete her studies abroad because of what she considered to be the sexist and reactionary attitudes of the professors, was Elisabeth 'Lisl' Scheu. Born in 1912 as the daughter of the owners of a house designed by Adolf Loos, which was to inspire her to choose the profession of architecture, she grew up in a progressive environment. Her grandfather Josef Scheu was co-founder of the SPÖ, her father, the lawyer Gustav Scheu, a supporter of the 'Siedlerbewegung' (settlement movement), and her mother, Helene Scheu-Riesz, a feminist writer and publisher. After two years at the Technical University, Lisl Scheu won a scholarship to MIT in Boston. From 1938 she worked together with her fellow student Winston Close. She is said to have married him in her lunch break while working on a competition. Lisl Close died in 2011.

At the Vienna Academy of Fine Arts, Clemens Holzmeister's class was an alternative to the all-male class of Peter Behrens. The first woman to finish her studies with Holzmeister was Martha Reitstätter, born in 1912. After her diploma, she was employed in his Vienna office, working on important projects like the *Kleines Festspielhaus* in Salzburg and the Vienna *Funkhaus* (Radio broadcasting building), whose interior she designed and for whose construction management she was responsible. When Holzmeister left Austria in 1938, Reitstätter, a convinced National Socialist until her death, opened her own office. A trustworthy collaborator of *Gauleiter* Baldur von Schirach, she designed his apartment in the Belvedere palace. After 1945, together with her husband Leo Nikolaus Bolldorf von Grazigna, she participated in numerous competitions. Martha Bolldorf-Reitstätter died in 2001.

The first female architect to study architecture at Graz Technical University was Bulgarian-born Anna Lülja Praun née Simidoff (1906–2004), who started her studies in 1924 as the only woman in her class. In 1930–36, she lived and worked together with the communist architect Herbert Eichholzer, who later was in the Anti-Nazi underground with Margarete Schütte-Lihotzky, and was executed in 1943. From 1936 to 1938, Anna Lülja Simidoff, like Martha Reitstätter, worked with

Holzmeister, where she met Strnad's student Richard Praun. After marrying him, she opened her own office in 1952. Subsequently, she and Praun split up, among other things because Praun didn't want to work together with her.

Another architect who worked with Eichholzer was Herta Rottleuthner-Frauneder, née Frauneder (1912–1999). In 1935, she was the second female architecture student and the first woman to get a diploma in architecture at Graz Technical University. In 1941, she married Ernst August Rottleuthner. Being responsible also for their three children, she often had to work on the couple's competition entries at night, and frequently ran their Graz office by herself, her husband returning from war captivity only in 1947. She divorced him in 1968, then working together with her daughter Elisabeth. As an architect, she was specialized in designing public swimming pools, none of which have survived to this day.

31 Leopold W. Rochowanski, *Wachsende Häuser: 18 Projekte* (Vienna; Leipzig: Verlagsbuchhandlung Emmerich Bécsei, 1932), 37. Werner Theiß died in the Second World War.

32 Keinzel and Korotin, *Wissenschaftlerinnen*, 216–217.

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Flora Ruchat-Roncati, First Woman Professor at ETH Zurich: Introducing Women's Standpoint in Architectural Pedagogy



Fig. 1. Flora Ruchat-Roncati in 1986.
Courtesy of Archivio del Moderno, Chiasso.

Introducing Flora Ruchat-Roncati

This paper traces the pioneering academic career of Swiss architect Flora Ruchat-Roncati (1937–2012) (Fig. 1), investigating mainly Ruchat's activities within the Swiss Federal Institute of Technology in Zurich (ETH), from her student formation (1956–61) to her time as visiting lecturer (1979–81) and her professorship (1985–2002).¹

Born as Flora Roncati in 1937 in Mendrisio, in the Italian-speaking region of southern Switzerland, she studied architecture at the Swiss Federal Institute of Technology in Zurich and opened a practice in 1960 with Aurelio Galfetti and Ivo Trümpy. She rose to prominence as a protagonist of the Ticinese architecture that gained wide recognition in the mid-1970s, whose influence on the international architectural discourse is still perceptible today. In 1975 she settled in Rome, operating as an adviser of the Italian national cooperative housing association, building, among others, for the trade unions the huge social housing complex *La Colasiderta* in Taranto (1978–82), in Southern Italy. The pivotal breakthrough in her academic career was her appointment in 1985 as full Professor in Architecture at ETH, being notably the first woman to gain this position since the founding of the Swiss polytechnic institution in 1854. During the time span of nearly twenty years –she taught there until her retirement in 2002– she contributed to the formation of several generations of Swiss architects who are now leaders in their professional field and performed as

a unique role model for young students and women architects in Swiss academia.

To her work as practitioner and educator, theoretician and planner, one might also add the political federalist dimension of Ruchat-Roncati's oeuvre, as one of the most effective figureheads to have connected the otherwise heterogeneous, sometimes divergent architectural productions of Italian, German and French-speaking Switzerland. Her built production spanned the challenging regional and cultural boundaries that are still perceptible across Switzerland, achieving major infrastructural works in the Jura and the planning and design of the EPFL campus in Lausanne. At the same time, her former students are teaching and practicing across Switzerland, their education forming a solid common basis for an increasingly unified, highly performant architectural production that became a recognisable feature of contemporary Swiss architecture.

This notable legacy was accomplished through a subtle yet powerful combination of talent and diplomacy, determination and flexibility. Ruchat's built production was itself heterogeneous, consciously avoiding a signature style in favour of finding the most appropriate solution for each situation. Ruchat's preference for projects in collective authorship, from her early partnership with Aurelio Galfetti and Ivo Trümpy in Bedano (1960–71) to the shared practice with Dolf Schnebli and Tobias Ammann in Zurich and Agno (1990–6), and with Renato Salvi on the Transjurane infrastructural project (1989–98), testifies to a permanently fluid mode of research, eschewing rigid positions and thus capable of bridging between the often monolithic positions of her male colleagues.

A Highly Professional Setting – Flora Ruchat-Roncati's Education and Training

Since, in investigating the professional biography of women, many aspects rotate around the question of exceptionality, the access to education and training are of major significance for exploring the particular ways and strategies through which women find access to traditionally male-dominated professions and fields of activity. In the case of Flora Ruchat-Roncati, her middle-class affiliation, the bourgeoisie milieu of her provenience and its cultural background obviously granted her access to a solid, high-quality education. Interestingly, Ruchat-Roncati rejected the myth of the artistic or

¹ This paper presents some aspects of an on-going research project "Flora Ruchat-Roncati at the ETH Zurich, 1985–2002. Professor, Architect, Theorist," funded by the Swiss National Science Foundation (2017–18) and hosted by the Architectural Department of the Swiss Federal Institute of Technology (ETH) in Zurich. The research team consists of Eliana Perotti (PI), Katrin Albrecht, Irina Davidovici, Katia Frey, Julia Hämmerling.

professional calling; she rather took pride in belonging to a family of builders and liked to recount that her grandfather was a mason.² Her father was the civil engineer Giuseppe Roncati, and her mother, Angela Bertola, was related to the Italo-Ticinese Chiattone family of architects, sculptors and artists. As engineer in the municipal office of works (Ufficio Tecnico) in the small town of Mendrisio, Giuseppe Roncati designed many public buildings and was a successful professional. He not only supported Flora's choice to study architecture at ETH in Zurich, but also introduced her to the trade, taking her with him on building sites as she remembered – 'Ich war oft mit meinem Vater auf der Baustelle'.³ Later on, he assigned to her some of his contracts, especially school buildings. Already during her studies she worked with her father on some projects, such as the family boathouse in Brusino (1958); this form of professional support by the family as patron and network is a traditional characteristic in the trajectory of women architects.

The education at the polytechnic school (1956–61) was, however, not decided from the beginning. Musically talented, young Flora considered attending the Music Academy, however her father encouraged her to enlist in the *Liceo scientifico*. After her high school graduation in 1956, she followed her boyfriend and later husband André Ruchat to Zurich, where he had signed up for engineering at ETH. Flora began to study in parallel piano and architecture, giving up the music path after one year.

During her studies, Flora not only made friends with her fellow students, but also with the teaching staff and professors. An important connection was with the architect Rino Tami, a pioneer of Ticinese modernism, who, as she reported, introduced her to the 'indescribable beauty of architecture'⁴ during the first year, and with whom she would stay in lifelong friendship. Alfred Roth, a hero of the *Neues Bauen* in Switzerland, significantly shaped her approach to project, always departing from the urban situation and privileging the idea of public space. In the last year, she took courses with Geneva architect and engineer Paul Waltenspühl, who was concerned with the design and urban planning of schools in a reformatory pavilion system, employed since the end of the nineteenth century, but only for hospitals. Thirty years later they would collaborate on a project for the campus of the new EPFL in Lausanne.

Still a student, she married and became a mother in 1959. Tragically, before obtaining her degree, she became a widow; her husband, freshly graduated engineer, died in a plane crash during a military

exercise. In mourning, Flora put off her diploma and took refuge in working and competitions.⁵ Supported by her family and friends, she finally graduated in 1961 under the supervision of Professor Tami. Ruchat-Roncati's choice of the specific intellectual environment of ETH, as well as her selection of teachers, were essential in forming the basis for her conceptual thinking, design and working method, as well as formal architectural language. These figures, while constituting a heterogeneous constellation representing the three Swiss cultural regions, expressed a form of genealogical continuity with the heroic protagonists of the Modern Movement. Rino Tami, whom she chose as supervisor for her diploma, had studied at Bauhaus, Alfred Roth had worked at the office of Le Corbusier, and Paul Waltenspühl had participated to CIAM-congress in 1953 in Aix-en-Provence. In relating herself to them, intellectually, pedagogically and institutionally, Ruchat-Roncati consciously and confidently put herself in the line of the male actors of the Modern Movement.

First Female Chair at ETH – an Institutional Position

Her outstanding academic curriculum at ETH began in 1979 as the first woman guest lecturer (Docent) at ETH and culminated, in 1985, with her becoming the first woman to hold a chair, not only in the architecture department, but in the whole ETH. This late date constitutes, a fortiori, a tangible landmark in the history of Swiss academia, as well as in the dismal national history of women's rights, in a country where they gained suffrage only in 1971. To fully understand the importance of Ruchat's nomination in 1985, one must be aware of the particular significance that the Swiss Federal Institute of Technology holds within Switzerland. The ETH in Zurich was founded in 1854 as the first federal educational institution, directly administrated by the government, with the aim of training the professionals needed to modernize and unite the country. By the 1950s, ETH had built up a highly representational value, being entrusted with upholding the national reputation for scientific excellence and technological advancement. The role of women in this institutional framework was from the beginning an ambivalent one. ETH was the second university in Europe to grant women access to study, but offered this opportunity only to foreign women, due to the lack of female gymnasia in Switzerland; it was only in 1911 that a woman gained a doctorate at ETH. At the time when Ruchat-Roncati studied there, in the mid-1950s, student numbers were continuously on the rise.⁶ In time, the international success and accumulated Nobel prizes forged

2 "Flora Ruchat Roncati, Architetto," *Agorà*, May 10, 1989, published at "Ruchat Roncati," Alida Airaghi (posted October 9, 2015), <http://www.alidaairaghi.com/intervista-allarchitetto-flora-ruchat-roncati/> (accessed June 5, 2018).

3 Charlotte Rey and Katharina Wanner, "Das Poly blieb eine Männerburg: Interview mit Flora Ruchat und Beate Schnitter," *Aktuelles Bauen*, 16, no. 9 (1980), 21.

4 "Unbeschreibbare Schönheit der Architektur," in Flora Ruchat-Roncati, "Una cassetta in legno di rovere: Eine Schachtel aus Eichenholz," *Rino Tami: Segmente einer architektonischen Biographie: Segmenti di una biografia architettonica*, edited by Werner Oechslin, Philippe Carrard and Flora Ruchat-Roncati (Zurich: gta Verlag, 1992), 45.

5 Rey and Wanner, "Das Poly blieb eine Männerburg," 21.

6 The number of the students at ETH grew from 1955 to 1979 from 2776 to 6003, the professors from 105 to 26. Peter Fleer and Hans Werner Tobler, "Eidgenössische Technische Hochschulen (ETH)," *Historisches Lexikon der Schweiz* (HLS), (published January 31, 2018), <http://www.hls-dhs-dss.ch/textes/d/D10419.php> (accessed June 5, 2018).

ETH's reputation as the veritable flagship of Helvetic science, a federal landmark institution clearly perceived as predominantly male.

More than 30 years after Ruchat's appointment, the interview procedure and the deliberations of the selection committee are still confidential. Inevitably, given the pioneering nature of this appointment, many assumptions have been brought forward which reflect the ideological spirit of the time, as well as the consensual policy of the multilingual and multicultural national institution. The actual criterion to have favoured Flora Ruchat-Roncati was her already considerable professional experience, on the basis of a built oeuvre with national and international reputation. Moreover, she could demonstrate some teaching experience gained as visiting critic and lecturer at several architectural schools in Europe and the United States, as the University of Reggio Calabria, Syracuse University in Syracuse (NY) and Florence, Harvard University, Università degli Studi La Sapienza in Rome, und Akademie van Bouwkunst Amsterdam. Politically, although this cannot be corroborated, it appears that her status as widow of a Swiss officer dead in the exercise of his function, hit a political nerve. At a professional level, her case was being strongly supported by Professor Tami.

Her successful career-path was recorded, from its beginning, mainly through the press. Already in 1979, the Swiss magazine for building and economics *Aktuelles Bauen* featured, in a special issue on *Woman and Architecture*, interviews with several active Swiss women architects of the time, with Trix Haussmann, Lisbeth Sachs, Beate Schnitter and Flora Ruchat-Roncati being considered the most successful ones.⁷ The discussion with Ruchat-Roncati clearly revealed that, in spite of many similarities with other female careers, her trajectory was an exceptional one, in particular regarding her ground-breaking role in Swiss academia. The announcement of her appointment as Full Professor at ETH in 1985 was saluted by *Zürcher Student*, the students' magazine of the University of Zurich with the title "Last male bastions have fallen," engaging a debate on gender equity in Swiss universities.⁸

Teaching Architecture – a Holistic View of the Task

Flora Ruchat-Roncati considered the double competence in practice and theory as indispensable fundament to her teaching activity. She understood this activity as essentially conveying methods and tools rooted in practice, and, in reverse, verifying theory through its practical application. The project

7 '... die Erfolgreichen, für die vieles, was Anderen vielleicht zum entsprechenden Problem wurde, selbstverständlich oder ohne Bedeutung ist.' Charlotte Rey and Katharina Wanner, "Weiblichkeit als Handicap?" *Aktuelles Bauen* 16, no. 10 (1980), 35.

8 "Erste ordentliche ETH-Professorin: Letzte Männerbastion gefallen," *Zürcher Student*, 5 (1985), 11.

of the housing estate *La Colasidera* in Taranto (1978–82) illustrates this essential connection between knowledge and building in her work. As a kind of paraphrase of Corbusier's *unité d'habitation*, it documents her deep interest in the history of social housing, especially the typology of collective housing, a topic she dealt with continuously, as testified by her notes, papers and lectures, also in relation to feminist projects for kitchen-less houses.⁹ As recorded in her notebooks, visualized in her didactical documents and testified by the consistency of her library, Ruchat-Roncati as an architect marked a very humanistic, intellectual position, dealing intensively with history and theory. This deepened confrontation with discourse enabled her to transmit through her teaching a broad, contextualizing and informed setting as the departing point for a planning procedure aware of its historical, social and political surroundings.

Long before starting to teach, Flora Ruchat-Roncati came across pedagogical and reformist philosophy in architecture. One of her student works in the class of Alfred Roth was a project for a primary school in Zurich-Seebach (1958–9), her first contract actually was a competition she won for a kindergarten in Chiasso (1960–4).¹⁰ Educational architecture formed an important chapter in her early work in Ticino, where she built, in collaboration with Aurelio Galfetti and Ivo Trümpy, some of the most iconic and progressive pedagogical architecture in Switzerland: the kindergarten in Viganello (1966–71) and the primary school in Agno (1967), and especially the school complex in Riva San Vitale (1962–4, 1970). Having settled in this small Ticinese town in 1970, Ruchat-Roncati left, through her architectural and planning interventions, an undeniably strong imprint on its built environment. The school complex, comprising a primary school (1962–4, 1970) (Fig. 2), a kindergarten (1968) and a sports hall (1974), is a remarkable illustration of progressive pedagogical



Fig. 2. Flora Ruchat-Roncati, Aurelio Galfetti and Ivo Trümpy, *School in Riva San Vitale*, 1962–4, 1970, Photographer Katrin Albrecht, 2017. Courtesy of Katrin Albrecht.

9 Flora Ruchat-Roncati, "Vom Familistère zur Unité," (lecture at the conference at ETH Zurich, December 15, 1994). Cf. also notes for lectures and courses (manuscript, Archivio del Moderno, Flora Ruchat-Roncati Bequest). The archives material is not yet catalogued.

10 Rey and Wanner, "Das Poly blieb eine Männerburg," 21.

principles spatially translated into the complex layout of buildings and courts, in the differentiated arrangement of the visual axis, and the interplay of transparent and solid elements.

The political attitude of Ticinese architecture in the 1960s and 1970s is best encapsulated in the many educational buildings designed at the time, as the nucleus of an emancipatory society project, culturally close to contemporaneous Italian theoretical positions, to which Ruchat-Roncati's early work clearly belonged. The demographic expansion and the municipalisation of schools in little communes explain the surprising density of school buildings from this time in the Ticino, many of them being planned and constructed by the protagonists of the architectural *Tendenza* movement. This particular feature is also connected to Ticino's pioneering position in Switzerland in regard to the preschool institutions for young children, a tradition that goes back to the nineteenth-century, assimilating and adapting innovative and reformistic pedagogical models, from Robert Owen to Friedrich Fröbel, Maria Montessori, Ovide Decroly, the Agazzi sisters Rosa and Carolina, up to Jean Piaget.¹¹ Many of these pedagogical principles found expression in Flora Ruchat-Roncati's projects for schools and kindergartens. Noticeably, her exploration of design possibilities and the care for accorded to interiors as constituting environments in children's education can be traced back to Montessori philosophy. Through this theoretical and biographical background, Ruchat-Roncati developed for herself a defined pedagogical position, based on the humanistic (rather than technological) fundament of architectural education, its mission being essentially to bring young people to take decisions which will assure social progress.¹²

A further important topic of the educational standpoint of her teaching concerned the gender issue. Her position as first and only woman professor put Ruchat-Roncati in a public light, forcing her into the mould of a prominent role model. Her growing awareness of the importance of the women's status in the profession shaped her interest for the presence of relevant female figures in history. In her note-books, she comments on Katharina von Medici, Gertrude Stein, Peggy Guggenheim or Margherita Sarfatti, focusing mainly on fundamental issues of female biography and career, on the importance of education, their financial or political positions.¹³

11 Gianna Miotto Altomare and Martino Beltrani, "La scuola dell'infanzia del canton Ticino: Sviluppi storici e modelli pedagogici," *Rivista svizzera di scienze dell'educazione* 2, no. 25 (2003), 211–234; Maria Luisa Delco, "Per una scuola dell'infanzia: L'evoluzione degli indirizzi per gli edifici e gli spazi prescolastici in Ticino," *Archi*, 2 (2015, special issue *Scuole e palestre*), 42–45.

12 '... jungen Menschen die Fähigkeit [zu] vermitteln, selbständig Entscheidungen zu treffen, die ein kulturelles Wachstum unserer Gesellschaft fördern,' in Tibor Joanelly, "Erfahrung und Zufall: Gespräch mit Flora Ruchat-Roncati, der einzigen, nun scheidenden ordentlichen Professorin des Departements Architektur der ETH Zürich," *Tec* 21 128, no. 29–30 (2002), 6.

13 Notebooks undated, manuscript, Archivio del Moderno, Flora Ruchat-Roncati Bequest.

As two students remember, they took her course in 1979, when she was a visiting lecturer, specifically because they expected new impulses from her position as a woman.¹⁴ Her teaching confronted openly and un-dogmatically various contemporary tasks, and reflected on gender issues: 'Objectively seen it has been very important, that finally also women have been appointed to high-level positions'.¹⁵ Reflecting on FRR's awareness on women's position in the profession, Petra Stojanik, her pupil in 1979 as FRR was guest professor and later assistant (1985–92), states that Flora was conscious about women's situation and the joint difficulties, and that they were expected to work extraordinarily hard to reach the same positions that could be swiftly gained by men.¹⁶ Evidences regarding Ruchat-Roncati's gender awareness, her policy and her aura as a role model are testified in many interviews conducted with her former colleagues, assistants and students. Once again, Petra Stojanik formulated this clearly: 'when you saw her, you told yourself, yes, I would like to be like her'. Stojanik also reports that Ruchat-Roncati had always grasped opportunities to support women in their careers: she was the one who suggested Petra Stojanik for the position of Assistant Professor in 1993, as she had proposed and supported Inès Lamunière, whom she had met during her Roman time, for the position of Assistant Professor in 1992.¹⁷

Her personality and teaching spirit helped open up new perspective in the curriculum, as attested by innovative elective course "Women in the history of architecture," set up in 1994 in collaboration with Petra Stojanik, and which has been the first gender educational effort at the Architecture Department of ETH. This course influenced a whole generation of female students and initiated a pioneering interest for a completely neglected topic at the institution.¹⁸ Lighting up the darkness surrounding other women has been also part of FRR disciplinary activity in academia; very early, in a time as Eileen Gray was still overlooked in historiography, Flora Ruchat-Roncati showed interest for the work and the figure of this multitalented architect and designer, regularly quoting Gray in her lecture, as many students did remember and as recorded in her personal notebooks.

14 Attilio D'Andrea and Annegret Diethelm, "Eine Annäherung an eine Tessiner Architektin," *Tessiner Zeitung*, October 7, 2016, 19.

15 'Objektiv gesehen war es sehr wichtig, dass endlich auch Frauen an höhere Positionen berufen wurden', in "Flora Ruchat-Roncati. Ordentliche Professorin für Architektur und Entwerfen," *Wege in die Wissenschaft: Professorinnen an der ETH: 16 Portraits*, edited by Stelle für Chancengleichheit für Mann und Frau an der ETH Zürich (Zurich: Stelle für Chancengleichheit für Mann und Frau an der ETH Zürich, 1997), [33].

16 '... sie war sich sehr bewusst, dass Frauen es wesentlich schwerer haben in der Architektur.' Interview with Petra Stojanik, , September 9, 2017.

17 '... wenn man sie gesehen hat, hat man sich gesagt, ja so möchte ich sein.' Interview with Petra Stojanik, September 9, 2017.

18 The elective course "Frauen in der Geschichte des Bauens" was carried out from summer semester 1994 to summer semester 1995; Petra Stojanik edited the guest lectures: 1. *Die 20er Jahre und die 'Neue Frau'*; 2. *Wohnräume und Wohnformen: Zuweisungen und Aneignungen*; 3. *Ausstellungen, Darstellungen*. Flora Ruchat-Roncati contributed a paper in each volume.

Flora Ruchat-Roncati's presence at the ETH labels a significant updating and renewing of the department's teaching. She introduced a holistic approach to planning, decisively opening up a range of innovative topics, of which the gender one is the most evident, but not the only one. On a didactic level, she was also to mediate Italian and Ticinese theory and positions, joining them to the Northern tradition, to which Zurich was bound, thus strengthening the connections first forged by Aldo Rossi's presence at ETH in the 1970s as visiting lecturer. Ruchat-Roncati introduced spontaneously the modern image of a teacher that maintained an open, dialogical and amicable relationship with the students, avoiding rigid standpoints, and dogmatic methodologies in favour of informed improvisation and critical tolerance.

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Women in Polish Architecture as an Example of Feminization of the Architectural Profession over the Twentieth Century

Introduction: Terminology, General Situation and Historical Context

The discussion on the modern role of female architects is of an international nature and is simultaneously pending in many different countries. The role of a woman has significantly changed in many Eastern European countries over the last several decades. Considerable involvement of women in their professional work, their self-awareness and legal frameworks have enforced changes in the traditional division of social roles. This also applies to women's activities in the sphere of architecture. Owing to the political changes, women have been enabled to undertake work in a number of various professions; this has made them much more independent and has increased the importance of their output due to their professional achievements.

The research on professional activities of women, and in particular - their involvement into architectural activities, has been undertaken relatively recently. Such research used to be mainly undertaken in view of historical data; the research on current professional and creative involvement of women has so far been pretty fragmentary.¹

¹ In this respect we can name such works as: Małgorzata Fidelis, *Women, Communism and Industrialization in Postwar Poland* (Cambridge; New York: Cambridge University Press, 2010). Regular research on architectural activities of women has been undertaken by Marta Leśniakowska, cf. Marta Leśniakowska, "Polskie architektki w dyskursie nowoczesności około 1960r.," (Polish female architects in the discourse on modernity around 1960), *Jestem artystką we wszystkim, co niepotrzebne: Kobiety i sztuka około 1960 roku* (I am an artist in everything what is not needed: Women and arts around 1960), edited by Ewa Toniak (Warsaw: Neriton, 2010), 123–135; Piotr Marciniak, "Spousal Collaboration as a Professional Strategy for Women Architects in the Polish People's Republic," *Ideological Equals: Women Architects in Socialist Europe 1945–1989*, edited by Mary Pepchinski and Mariann Simon (London; New York: Routledge, 2016), 63–77; also Janusz Żarnowski, "Praca zawodowa kobiet w Polsce międzywojennej," (Professional work of women in Poland in the inter-war period), *Kobieta i praca* (Woman and work), edited by Anny Żarnowska and Andrzej Szwarz (Warsaw: Historia Polski, 2000), 119–140.

Architecture is one of those professions which from its onset have been associated with a man-dominated and masculine zone. What's interesting, the gender of the noun 'architecture' in Polish is female. At present, women more than ever before are professionally active and demand that their professional achievements be recognised (list of renowned female architects). The fact that the term 'female architect' has been coined suggests that women had to fight for their position and equal treatment but it also seems that it sparks opposite reactions. According to a Danish architect, Dorte Mandrup, introduction of this term establishes a certain type of segregation and introduces architects of secondary category. She says about herself: 'I am not a female architect. I am an architect'² and she wants to be 'considered as an architect, without a pre-fixed set of values or attributes, as a creative person working within a creative field'.³ Whereas in the Polish language, gender of an architect is distinguished not by an addition of the word 'female' but by addition a word forming suffix '-ka'. The so formed new, separate (of non-descriptive nature) word is listed in the Polish Language Dictionary - namely this is the word *architektka*. Although the female equivalent of the word 'architekt' is in common use, some of female architects prefer to be called *Pani Architekt* (Mrs Architect).

The situation of female architects in Poland has been pretty unique in comparison to other countries. As early as in 1920 women in Poland were granted rights to study at universities. In the entire inter-war period, female students made 30% of the overall student population, in this in the field of architecture that percentage was around a dozen.⁴ Such a state of affairs can only be interpreted as significant progress in the area of equal treatment of sexes.⁵

The end of the Second World War saw a major breakthrough - a number of university students increased dramatically. At architectural studies - a large percentage of students were women; in the 1980s their numbers reached 50% of the students. However, after graduation, the percentage of professionally active female architects was much lower. The overall percentage of professionally active women was in general very high reaching 70%, and among white collar employees - even 77%.⁶ After university studies, in actual professional realities, to earn a living women had to apply the mimicry principle, only

a few managed to make a name for themselves. Only a small group of women were promoted to high positions, this in particular concerned female architects. Despite officially declared by the authorities in those times equality, only a minor part of women attained relative independence.⁷ What's particularly interesting as regards the activities of female architects in Poland, many designed in duo-teams with their husbands, which let them combine professional and family life together. Apparent equality in the roles of men and women (a tool of propaganda) failed to be reflected in the actual professional positions of women. The fact that more and more women decided to work professionally was due to higher demand for female labour and economic pressure - low pays forced a husband and wife to work in order to maintain the minimum living standards in the family. All that was accompanied with a wide-ranging advertising campaign of communist authorities in the press, films, songs and a wide offer of such child care facilities as crèches and nursery schools.

In the post-war period in Poland there were many state-run, cooperative and departmental design offices, which at the beginning of the 1980s ran almost entirely the overall architectural operations. Most of the working women were employed exactly in such offices, only a small percentage of women found employment in architectural and construction administration and at universities. As per the estimated data, in 1975 there were about 8,500 architects in Poland.⁸ Women made a large proportion of the employees in the state-run design offices (around 40-50%), only a few of them held decision-making positions. A large majority of the employed women worked at low level positions or as technical assistants. In other design units in Poland, the situation was similar. Women rarely held managerial positions. Despite officially proclaimed equality, majority of managerial positions were reserved exclusively for men. Women, busy with their household duties resulting from traditional division of roles, could only engage into a professional career to a much lesser extent. One of the most important reasons why women were so busy was simply the fact that they had to face everyday problems how to provide the family with basic goods and services which were hard to get in the communist regime.

Trends: Core Research Findings

The collapse of communism in Poland was an impulse for Polish modern architecture. A totally new generation of designers arose; women gained independence and opened their own, individual

2 Dorte Mandrup, "I am not a female architect. I am an architect," (posted May 25, 2017), <https://www.dezeen.com/2017/05/25/dorte-mandrup-opinion-column-gender-women-architecture-female-architect/> (accessed June 5, 2018).

3 Ibid.

4 These issues have also been discussed in Piotr Marciniak, "Sławne, pracowite i zapomniane? Architektoniczna działalność kobiet w okresie PRL," (Famous and forgotten, Women architects in Communist Poland), *Quartety - Kwartalnik Architektury i Urbanistyki*, no. 4 (2016), 5-38.

5 Żarnowski, "Praca zawodowa kobiet w Polsce międzywojennej," 134.

6 Adam Kurzynowski, *Aktywizacja zawodowa kobiet zamężnych w Polsce Ludowej: Geneza - czynniki rozwoju - perspektywy* (Professional activation of married women in Communist Poland, Genesis - development factors - prospects), (Warsaw: Książka i Wiedza, 1979), 29-33.

7 Compare Piotr Marciniak, "Famous or Forgotten: Women Architects in Communist Poland," *Investigating and Writing Architectural History: Subjects, Methodologies and Frontiers, Papers from the Third EAHN International Meeting*, edited by Michela Rosso (Torino: Politecnico di Torino, 2014), 855-864.

8 Data of the Central Statistical Office GUS and the Association of Polish Architects SARP.

design offices. At present in Poland there are almost 25,000 professionally active architects (24,991) of which only 25% (6,997) are women.⁹ The Central Statistical Office GUS also provides the information that in 2010 the most feminized sectors in the national industries were: health care and welfare, with 550 women and 110 men employed in the sector, education - with 575 women and 153 men employed therein. Whereas the least feminized industry branch is engineering, production processes and construction with 4,892 men and 1,165 women employed in this sector.

The Faculty of Architecture at Poznan University of Technology is one of the 10 departments that are most popular with female students at this university. For years we have been observing the feminization trend of the faculty. The ratio of female to male students has been on constant rise and classes of students composed of 100% of women are no longer a rarity. In view of the history, the first woman started studying at a technical university in Poland (Warsaw University of Technology) in 1915. Today, architectural studies are held at 10 faculties of architecture at universities of technology.

To identify the trends concerning the proportion of women in architectural education and in professional architectural work in Poland, a number of studies have been carried out on career paths of the female graduates of selected universities,¹⁰ furthermore, the proportion of female academics at the Faculties of Architecture in Poland has been analysed as well as the proportion of female deans and vice deans. Additionally, data concerning female architects licensed in the last 7 years has been analysed in comparison to all architects belonging to Wielkopolska Regional Chamber of Polish Architects.¹¹ Interdependencies aimed at identifying the ratio of women to all employees in freely selected architectural studios situated in the biggest Polish cities have been the subject of further studies.

On the basis of the results of the research concerning the careers of graduates in Poland¹² it can be confirmed that the number of female graduates of departments of architecture at universities of technology has been gradually rising (the studies related to the last several decades data), with the annual growth being around 5–8%. This means that if in 2006/07 around 58% of the graduates were female, then in 2015/16 - they represented 73% of all the graduates. To exemplify the trend, we can

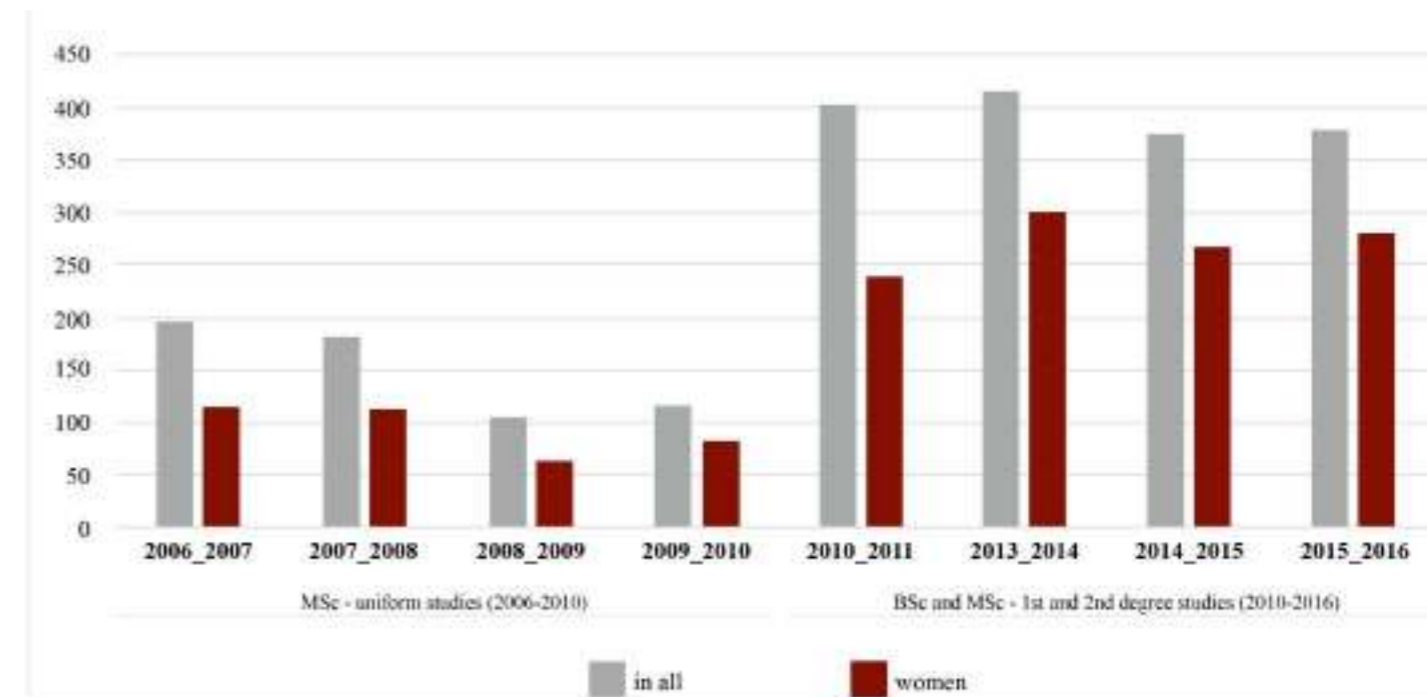


Fig. 1 Women in the overall number of graduates (Faculty of Architecture, Poznan University of Technology)

assess the growth of female graduates only at one of the selected faculties at Poznan University of Technology (Fig. 1).¹³

This proportion has no direct reflection in employment, because on average, around 60–70% of female graduates directly after graduation are unemployed. It is estimated that a majority of female graduates, after completion of their studies, choose a career path in professions related to a profession of an architect, namely: interior designer, landscape designer, designer etc. In 5 subjectively selected for the analyses interior design studios¹⁴ it has been observed that female interior designers represent on average about 70% of the entire design teams. The representative sample selected for the research is too small to be able to unambiguously confirm feminization in this profession, there are, however, certain grounds on the basis of which we can come up with such an assumption.

Membership in the Regional Chamber of Architects confirms the acquisition of a licence to practise as an architect and the right to run an individual practice. At present, on the basis of data from Wielkopolska Regional Chamber of Architects, it may be estimated that women represent less than

⁹ On the basis of the Central Statistical Office GUS data of 2016.

¹⁰ Data concerning 2007–17 female graduates of the Faculty of Architecture at Poznan University of Technology was analysed in the "Careers of the graduates] survey drawn up on the basis of the information" from the Polish Social Security Company.

¹¹ Data from Wielkopolska Regional Chamber of Polish Architects and the National Chamber of Polish Architects.

¹² Data acquired on regular basis from the Polish Social Security Company by Polish universities for the purpose of studies on the careers of their graduates.

¹³ In the academic year 2010/11 out of 399 graduates, 245 were female graduates, in 2013/14 out of 412 graduates, 297 were female graduates, in 2014/15 out of 372 graduates, 267 were female graduates, in 2015/16 out of 375 graduates, 276 were female graduates.

¹⁴ Modelina architekci, SARNA Architekci Moomoo Architects' Loft Magdalena Adamus, BEZ CUKRU.

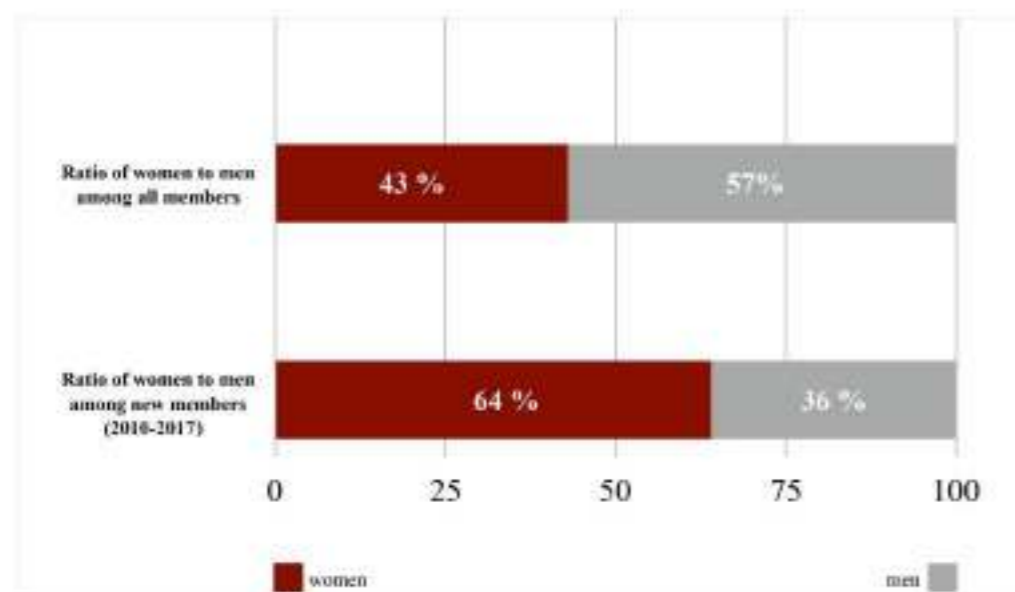


Fig.2 Ratio of women to men among members of Wielkopolska Regional Chamber of Architects (WOIA)

50% of professionally active architects, out of 987 members of the Chamber - 421 are women, therefore their proportion among practising architects is 43% (Fig.2).

It must be pointed out that this ratio results from a long-term domination of men in architectural profession, beginning as early as in the 1960s. Whereas, if we take into account the results of recent research, in this in particular data concerning the gender of licensed professionals in the period from 2010 to 2017, we can observe a reverse trend (Fig.2).

The results unambiguously show that the percentage share of women in a group granted with licences to practice as architects has clearly changed in the last eight years (based on WOIA example) and now is 64%. The aforementioned statistical data indicates that in recent years we have seen a significant change and that the profession of an architect clearly undergoes feminization in contrast to the historical data which shows that it was once a male dominated profession (Fig.2).

However, if we look closely at the percentage share of women in the overall number of architects broken by respective years, in order to assess whether the feminization trend is rising or decreasing, we can find out that last year this trend was reversed - that is for the first time in at least eight years WOIA registered more men licensed to practice than women.

Case Studies

In the recent years we have been observing an increasing role of architectural education - it has been introduced to education at lower levels of its organisation. Professional associations of architects have implemented a number of primary school, secondary junior and secondary school programs. For example, the Polish National Chamber of Architects, for 5 years now, has been implementing the education-supporting program intended for students in secondary junior and secondary schools, entitled "Shaping of Space."

In the declaration issued by this organisation, we can read that 'the Polish National Chamber of Architects, in view of noticeable decline in aesthetics in our society, has appointed a team for the education of children and youth, which inspired with the Irish educational program developed by the Royal Institute of the Architects of Ireland, has worked out its Polish version entitled "Shaping of Space"'.¹⁵

Modern output, designed or co-designed by female architects, who, however, worked in the shadow of their own husbands, has sparked much interest and triggered research thereon. Difficult social context of the inter-war period stimulated socially engaged female architects to creative activities, among such women we can name: Barbara Brukalska, Helena Syrkus, Teresa Żarnowerówna, Anatolia Hryniewiecka Piotrowska or Halina Skibniewska.

In a way, we are at present rediscovering the heritage enrooted in the Communist Poland. In this process we shall pay attention to an important interdependency in the career paths of female architects in the times of the Polish People's Republic. Many of them had an opportunity to work and be recognised only due to the fact that they worked together with their husbands, for example Helena Syrkusowa, Barbara Brukalska, Anatolia Hryniewicka-Piotrowska, Zofia Hansen or Hanna Adamczewska-Wejchert. This trend of couples working together in one team was even more noticeable in the post-war period. In communist reality, it was extremely hard for women to be individually recognised, though Jadwiga Grabowska-Hawrylak is actually an embodiment of such a success.¹⁶

Even if we may indeed deem the achievements of these iconic female architects a model to follow for Polish women architects today, we still need to remember that their realities would not allow

¹⁵ The education-supporting program of IARP "Kształtowanie Przestrzeni" [Shaping of Space] was elaborated with secondary junior and secondary school education in mind. The pilot version of the program was launched in the summer semester of 2012/2013 in 13 schools. The patronage over the program was taken by the Minister of National Education and the Ministry of Culture and National Heritage. Finally, the program was introduced to a complete educative offer intended for secondary junior and secondary schools and is compliant with the so-called 'core curriculum'.

¹⁶ These issues were described in detail in the work: Marciniak, "Spousal Collaboration," 63–77.

them to be independent working professionals, which is a priority for female architects today.

Nevertheless, even today, there are well-known couples of architects working in Poland today, in their relationships; however, the position of a woman is equal with that of her husband. As examples we can name the studios run by Ewa and Stefan Kuryłowicz, Ewa and Stanisław Sipiński, Marcin and Małgorzata Włodarczyk or Dorota and Mariusz Szkachcic. It seems, however, that the current role of women in architecture is reflected in numerous modern buildings designed by women, which only confirms a growing importance of women in Polish architecture. At the moment, the following renowned female architects are deemed to be top Polish architects: Anna Fedorowicz – Tomaszewska, Renata Gajer, Anna Drabowska, Krystyna Łyczakowska, Natalia Paszkowska, Anna Misura or Małgorzata Sadowska-Sobczyk.

After 1989 the situation changed fundamentally not only on the architectural labour market but also at the universities. The generation, which had started their career as academics in the Communist Poland, came to an age when their voice started to be heard. At many academic centres women formed the core of the academic staff at Polish departments of architecture. The universities in Warsaw, Cracow, Wrocław and Gliwice can certainly be included in that group. It is impossible to give the names of all female professors, however, there are outstanding figures among them: Jadwiga Ruguska Maria Brykowska and Miriam Wiśniewska from Warsaw, Maria Misiągiewicz, Ewa Węclawowicz-Gyurkovich and Anna Mitkowska - from Cracow, Nina Juzwa and Elżbieta Niezabitowska from the Faculty of Architecture in Gliwice. Many of these women, who started their careers in the Communist Poland, have so far continued to score a range of successes, the last years have in particular brought about a significant, qualitative change - female professors have been elected deans of departments of architecture: Lucyna Nyka in Gdańsk, Ewa Pruszevicz-Sipińska in Poznań and Elżbieta Trocka-Leszczynska in Wrocław.

What is interesting, the list of the most renowned female architects includes women with a long-term work experience as well as fresh female graduates. This only confirms a strong position of female architects, they have eventually won for themselves in the field of architectural designing, which for so many decades used to be dominated by men. At the same time, analysing the recent construction projects, we may come to the conclusion that it is all owing to mutual cooperation and respect for individual achievements and independence. In view of the aforementioned examples, it is hard to refer to the statements maintaining that the profession of an architect is a definitely male profession. Amanda Levete, a female architect of an international renown, is of the opinion that the reasons behind such statement may lie in the fact that an architect is not just a profession it is your lifestyle outside the office, the lifestyle which is sometimes not much suitable for a family life.

It is a fact that today designs are often worked out in interdisciplinary teams, where gender is of little importance. To identify a share of female architects in the sampled design teams, we have

statistically analysed their male to female ratio. To carry out the research, the author has subjectively selected a dozen of major architectural studios operating in the Polish market. Conclusions were drawn on the basis of the analysis of 20 most recognisable architectural studios from the biggest Polish cities.¹⁷

To analyse the gender structure of the employed architects, we used the information published on the websites of the selected architectural studios. The studies focused on the proportion between the number of women employed in respective studios and the overall number of staff in designing teams. All 20 above named architectural studios (including larger and smaller studios as regards the total number of employees), according to the data obtained on 9 January 2018, employ 764 architects in total, in this 383 women, who represent slightly more than 50% of all the employed.

Without doubt, the observation that out of 20 subjectively selected for the research architectural studios, in 9 of them women hold at least one managerial position (that is a woman is a co-owner, is a member of the Management Board or is one of the partners) and in some of them women are lead architects or team managers, is important from the view of the analysis of feminization of the architectural profession. The analysis shows, however, that women most often hold lower level positions in the organisational structures of the firms. Several of the architectural studios selected for the research have disclosed to us data on previous years employment structure. On the basis thereof, we have found that female architect employment trend is rising and that their employment in the architectural studios is characterised with increased stability.

Conclusions

Over the twentieth century time span the roles and professional positions of women to a large extent reflected the traditional division of social roles. Work in a mixed gender team or at a university offered an opportunity for relatively independent creative activities, which was otherwise hard to find. In the communist period response to daily unpredictability consumed a large part of women's vitality. Maybe for that reason fame and independence was of secondary value to them.

In the Communist Poland quantitative, collective involvement mattered, having, however, no major impact on actual possibilities of professional practice, whereas after regaining independence and after the introduction of free-market economy, the roles of men and women became indeed equal.

¹⁷ JEMS ARCHITECTS, KURYŁOWICZ & ASSOCIATES, APA Wojciechowki Architekci, HRA Architekci, medusagroup, JSK Architects, WXCA, WWA, Grupa 5, Ingarden & Ewy, Kozień KKM, BXB Studio, MAĆKÓW, Litoborski+Marciniak, Sipińscy - Pracownia Architektoniczna Ewy i Stanisława Sipińskich, CDF Architekci, Ultra-Architects, ASW Architekci, Konior Studio, Kwadrat.

In the recent years we can observe a clearly rising proportion of women running professional business activities. The presented above studies clearly show the tendency of feminization in the profession of an architect in Poland. The studies were carried out in: higher education institutions offering architectural instruction to students, licensing chambers of architects and design offices. In each of the analysed areas a share of women was found to be significant and on the rise in comparison to the previous year's data. Statistical data showing quantitative parameters is nevertheless convergent with proportional participation of women in professional activities. Professional activities of female architects exert a major impact on the shape of modern architecture today; their voice is heard and recognised.

The number of women running their own architectural studios is rising. A majority of them are professionally successful. We shall pay our attention to the practical scale of their operations, with particular focus on landscape architecture and interior design.

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Giulia Teresa Veronesi, Maria Brandon Albini and Rosa Giolli Menni: Three (Intellectual) Women in 1920s-1930s Milan

Introduction

Giulia Veronesi keeps without doubt a remarkable role inside the Italian architectural culture in which she has maintained, beginning from the post-Second World War period, also if with ways and different effects, a clear recognisability.

In comparison to the seminal figures of the founders of the contemporary historiography as Sigfried Giedion, Nicholas Pevsner, Henry-Russell Hitchcock, Bruno Zevi or Manfredo Tafuri, Giulia Veronesi has had a marginal role, despite the continuity of her presence on the Italian cultural scene during and after the two wars: she was the reference of a generation of busy historians and she was directly engaged in the line of an unequivocal choice of field.

The initial census of the writings of Giulia Veronesi and Maria Brandon Albini, represented the point of departure of this research and the first attempt to give order to an abundant and variegated production that over the years, has multiplied and diversified following the amplest possibilities offered by the publishing panorama. It surprises in fact the quantity of the writings for the differentiation of the faced themes.

Going back to the sources, measuring with the testimonies and documents, I propose a first historical and criticism analysis of the work of these intellectuals women, not by chance of some works I don't speak if not tangentially, while of others account is given in the useful measure to better understanding the specificity of the cut of search adopted.

In fact, the heterogeneity of the writings, ranging from literature, to cinema, to theatre, to figurative arts up to touch architectural themes, has made necessary to circumscribe entirely this

conventional work, it deals with delimiting a ground of job on which the gaze necessarily spaces over the established limits.

In the awareness of the incompleteness that a first research of this kind involves, I have tried therefore to build some cultural biographies making to emerge personality from the manifold aspects, not only cultural, but also social and political, determined in their historical passion. The difficulties that normally introduced in to trace any biographical profile are greater in the case in matter.

The lack of equipment and bio-bibliographic sources on the three researches, a problem that still afflicts most of women artists who lived in those years, of which in many cases only the names remain, has prevented a capillary investigation and deepened. Moreover, the impossibility of comparing with oral testimonies of architects, friends or relatives, who knew them and therefore useful to define a specific period, more than to furnish final historical data, has inevitably conducted to exclusively assemble the whole search on the traces of theirs lived appearing on the surface in few texts.

During the research some elements have been acquired, which have already been sufficiently investigated by the critics, while little known periods have been analysed, such as training in the Academy, or in-depth interventions such as active participation in the field of applied arts. In those years, in fact, begins to fuel a theoretical reflection which, still far from being completed, takes place in a problematic way, almost self-taught, whose analysis presents all the difficulties of the case and requires to proceed with caution, verifying concretely the hypotheses, comparing them with documents and archival materials, and ideally, trying to evaluate the real influence of some elements; rather than the personal interpretations of the protagonists themselves. In this sense it has been very useful to have recourse to bibliographic sources, in recent years more and more careful and refined, on the historiography of architecture and art, but also on the role and formation of young intellectual women between the two wars.

During the exposure I given for acquired some elements, already investigated to sufficiency by the criticism, while a little known period as the formation are analysed in Academy or interventions a little deepened as the active share in the field of the applied arts. In that years starts to feed a theoretical reflection which, still distant from the being finished, it develops them in problematic way, almost from autodidactic, whose analysis introduces all the difficulties of the case and imposes to have to proceed with caution, verifying the hypotheses both concretely, comparing them with the documents, both ideally, trying to appraise the real influence of some elements, rather than the personal interpretations of the same protagonists.

This paper also aims to reread the figures of three intellectual women on a wider field against the backdrop of a broader context, capable of understanding motivations and choices relating to an

entire generation. Precisely for this large space is given to protagonists of the national architectural scene that, in various nature and with different intensity, have acted in a dialogue with many voices.

The concept of modernity, understood as a current approach to every artistic event, is the pivot around which certain basic choices are taken with the aim of de-provincializing Italian artistic culture; for the three Milanese women, modernity is not a time measurable value, it is a state, a function, a conscience, which makes the crisis to value: this is one of the fundamental keys to their thinking.

A formation that of the Veronesi, Brandon Albini and Giolli Menni whose maturation, constitutes the beginning, not already the completeness, of their critical activity.

Absent any sectoral or specialist rigidity, experienced and profound knowledge of the facts and of the properly architectural problems, we can appreciate in these pages, a notable wealth of ideas and critical themes because proposed through a complex of relationships and frameworks comparative organizations. Yet these pages are never pages of occasion, but opportunities for meditation, clarification and research.

The value of impressions, of personal memories near and far in time stands out, an appreciable frankness of judgments, expressed with warmth, with human and total participation.

It jumps the value of impressions, of memoirs near and distant personalities in the time, an appreciable frankness of judgments, express with heat, with human and total share.

The narrative style developed in most of their studies, suspended between erudition, historiographical rigor and critical partiality, owes much to the attendance of different men of culture or to the encroachment in themes not strictly pertinent to the history of architecture. A story of feelings emerges in their pages. This is a condition not only rooted in time, but that has taken different forms over the years, assuming variable ways, in which every time is the life of the three women to be reflected in their writing.

The narrative style developed in the greatest part of their studies, suspended among erudition, historiographical rigor and critical partiality, very it owes to the frequentation of different men of culture belonging to themes not hold pertinence of the history of the architecture. It is not only this a rooted condition in the time, but that has taken different forms in the years, assuming varying formality, in which every time is the life of the three women to have reflected in their works.

The figures of these three women assumes a not negligible relief as it regards the updating of a discipline the History of the architecture, that had been stagnating for years in the shoals of a lingered positivism. In fact the three researchers since they immediately are found to make part of that 'fabric' of intellectual women that operate in key points of the history of the architecture and the design, directly intervening in the project both with an active presence in the cultural debate.

Moreover, their contribution, all female, to a professional world dominated by men, shows as the presence of the woman in the architecture, both in the professional practice and in theoretical research, in the years of the two wars, has intrinsically been tied to the modern movement, to the innovative climate that it brought with it itself, as well as to the principles progressive which it was inspired.

In Europe some women are active in the Modern Movement, almost always alongside the Masters or inside the processing facilities such as the Bauhaus and the CIAM, rarely by themselves; in Italy they are entirely almost absent for the period before the Second World War.

If this datum belongs to the characters of the Italian rationalism, less addressed than in other nations to the transformation of the city and the social in operation residence, as can question us if subtractions and what subtractions are been brought to the architecture, and to Italian architecture, from the absence of women. Only after the war appear in Italy in a very slow increase, the female presence in the profession and in university teaching makes its way, road to forehead of a sensitive increase of the students in the face of a very sensible increase of female students.

Giulia Teresa Veronesi, art, architecture, theatre and photography historian and critic, belonged to that fascist generation that was born and raised during the so called *Ventennio* (the twenty year long fascist era), and took her first steps in the political and cultural scene in those very years that Renzo De Felice called 'gli anni del consenso' (the consensus years).¹

Her book *Difficoltà politiche dell'architettura in Italia 1920-1940*² (Political difficulties of architecture in Italy 1920-1940) still represents the key to fully comprehend her operational thinking, which had already been outlined in a nutshell during her time as a student in Italy, with the, even political, aim to disseminate a more comprehensive idea of modernity and architecture.

This pathway developed in Milan between the 1920s and 1930s.

The 'Ente Autonomo Amici dell'Arte' (Friends of Art Independent Body) was established in April 1920, on the initiative of lawyer Gennaro Melzi, who had gathered a small group of passionate art lovers. The purpose of the *Ente* was to promote 'the best and most independent development of



Fig. 1. Giulia Veronesi in Galleria Lorenzelli in Bergamo, 1965, Luigi Veronesi Achievement



Fig. 2. Cover of the book, Giulia Veronesi, *Difficoltà politiche dell'architettura in Italia 1920-1940* (Milano: Tamburini, 1953)

Italian art in any event, as well as a new form of appreciation of Italian Art in Italy and elsewhere'.³

The *Ente* was aimed at opening cultural, research and meeting centres for intellectuals. As a result of this initiative, the 'Circolo d'Arte e di Alta Coltura' (Art and High Culture Club) was inaugurated in early 1921, and it would play a crucial role in the Italian art scene in the immediate aftermath of the First World War, due to the many initiatives promoted by zealous art critic Raffaello Giolli, the main 'Director' of the club's events and rallies.

The *Circolo*, in an endeavour to increase the 'cultural' initiatives that had been set up so far, would open some 'Scuole di Perfezionamento' (Refinement Schools) – with 'Scuole professionali d'arte' (Vocational Art Schools), 'Scuola superiore di musica da camera' (Chamber Music High School) and 'Scuola superiore di storia dell'arte' (History of Art High School) being the only options at first. In addition to these, the 'Accademia Libera Femminile di coltura e d'arte' (The Women's Free Academy

1 R. De Felice, *Mussolini il duce: Gli anni del consenso 1929-1936* (Turin: Einaudi, 1974).

2 Giulia Veronesi, *Difficoltà politiche dell'architettura in Italia 1920-1940* (Milan: Tamburini, 1953), this book is the logic but not self-evident conclusion of a training pathway whose lead characters are the people, men and women, the author has owed a great deal throughout the all process, without any significant changes, till the last pieces she wrote.

3 "Le origini del primo Istituto d'Arte e di Alta Coltura e del Circolo Amici dell'Arte," *L'Araldo del primo Istituto d'Arte e di Alta Coltura*, no. 1 (January 1924), 1. Most information regarding these educational institutions can be found on *Araldo*, a periodical dispatch published by the very institutions that, under the auspices of the Istituto d'Arte e di Alta Coltura, had their headquarters in Palazzo dell'Arte e dell'Alta Coltura in Milan, with the aim to have the most relevant literary, scientific and artistic associations of that time under the same roof.

of Art and Culture) was established in 1923: a new type of scholastic institution that was conceived and promoted by professor Vincenzo Cento,⁴ which had art at its enlivening core and included two study pathways: the Gymnasium, just for 'young ladies' and the Refinement Course, a sort of intermediate school between Upper Secondary School and University, which could be attended by women and men. An Attendance Diploma was granted at the end of the school term, and an Academic Diploma after the three-year refinement period. The fact that a Greek temple stood out on the headed paper illustrating the school courses, with an inscription of the Delphic maxim 'Know Thyself', is surely surprising.

Giulia Veronesi gave up her studies while attending her upper secondary at Liceo Parini in Milan, to enrol at the Academy of Art and Culture, where she attended literature, psychoanalysis, music and history of art courses; this set of choices highlights a personality whose critical thinking skills developed thanks to the collaboration and interaction with historians, architects, poets and artists rather than in a specific school. During the few years separating her time as a student and her first article on architecture, which featured *Casabella* magazine in 1937,⁵ Veronesi went through a remarkable part of that journey that would eventually lay the foundations of her 'critical analysis practise': those years set the terms of her personal training, in constant balance between art and architecture, photography and cinema. At a first glance, the Academy may have looked like a fancy school for 'upper-class young ladies', though it was a real coenoby where true moral independence thrived. The teaching staff included Carlo Saggio, Cesare Magni, Lionello Venturi, who gave his first lectures on the Taste of the Primitives, Virgilio Talli, in charge of drama courses, and Ferdinando Ballo holding musicology and history of music courses. The students were entitled to elect a board of their own delegates who could legitimately discuss their teachers' work, any new subjects or study methods to be introduced, directly with the Headmaster. The vision of the Academy was to try and provide anyone, depending on their natural characters, with the necessary knowledge to master and deploy the tools set forth to them 'such as the ability to perform vigilant criticism, sagacity, reasoning, the art of comparing false and authentic culture and distinguishing the former from the latter'.

These are the same years when Giulia Veronesi met Maria Brandon Albini, architect Franco Albini's sister, who would take her first steps as a teacher at the Academy itself, where she had been a student. In fact, at that time elementary education became secularized and pre-school education was reformed, so that women were granted the opportunity to apply for teaching jobs: the so called 'normal' schools became schools for girls – a training ground where anyone could develop their own culture and job-skills. In *La Gibigianna*, one of Brandon Albini's best known books, she clearly outlined

the purpose of this new educational institution: 'fill you with coherence, inventory your beliefs and eventually wonder: "What do I want to do with myself?": this was what Vincenzo Cento taught'.

When history of art vacancies were introduced as a result of Gentile reform in 1923, Raffaello Giolli started working as a teacher for three Milan's 'Licei' (grammar schools): Berchet, Parini and Beccaria. However, since he refused to swear allegiance to Benito Mussolini's regime he was obviously removed from the job, and Vincenzo Cento hired him in 1925 as a history of art teacher. Giolli himself, whom Veronesi and Albini first met during their school years, first at Liceo Parini and then at the Academy, would turn out to be extremely influential for their future careers and lives. He would support these young female students of his, with whom he shared comments and observations. He also spurred them to join the activities associated with the Academy, spend time with literary groups and go to avant-garde studios as well as antifascist cafés, bookstores and groups where ideas could still circulate freely. Last but not least, Veronesi and Albini were also offered the chance to mingle with the editorial staff of *Casabella* including Giolli, Venturi, Giuseppe Pagano and Edoardo Persico. In this stimulating and fruitful milieu, the traditional role of women was also a matter of debate and, in this regard, the idea of home drifted away from that of a "doomed" isolation. On the contrary, it embodied a further place where everyone could realize their potential, socially and intellectually.

Speaking of these young women's training, it is also worthy recalling the accord and the irregular collaborations they conducted with their brothers - Luigi Veronesi, a painter with a long-time flair for abstract art, who introduced her sister to the most ground-breaking European painters and architect Franco Albini.

Besides instilling passion for artistic and architectural criticism into Veronesi, Giolli also introduced her to his wife, Rosa Menni who, in the studio she had owned since 1914 in partnership with Anna Beatrice D'Anna and Gemma Pero, drove her artistic research away from the traditional coordinates she was taught during her time as a student at the Academy of Fine Arts of Brera in Milan. In Lombardy, the role of women for what concerns the so called minor arts was particularly relevant: in the apartment building in Via Curtatone, the three female artists made their personal contributions to their common avant-garde research ground. Indeed, Menni, D'Anna and Pero were behind some small exhibitions held at the 'Lyceum', at first only for women and then extended to men.

Menni left painting in 1920 and started to design handmade fabrics with Art Deco patterns she created. In the meanwhile Veronesi crafted some embossed and dyed leather works after exploring textile design techniques that immediately evolved thanks to a focus on shape-simplifying images, both figures and still lives, and the attempt to match contrasting and antinaturalistic colours as suggested by the Fauves and the German expressionists. Unfortunately, only a set of black and white photographs is there to keep memory of all of this, and the idea of colour, one of the most prominent values of this production, is therefore not well expressed.

4 For further information on Vincenzo Cento's teaching practice, see: V. Bernardino, *La scuola per la vita: Scritti pedagogici raccolti e annotati da Vincenzo Cento* (Florence: La Nuova Italia, 1953).

5 Giulia Veronesi, "Il Palazzo di Cristallo alla Prima Esposizione Universale," *Casabella* 112 (April 1937), 6–10.

Right from the outset, Veronesi was part of that network of intellectual women working in key aspects of the history of architecture and design, either as designers or by actively participating in the cultural debate.

Her active presence in the field of arts, with a cultural baggage of works and articles spanning over fifty years of Italian history of art, stressed the importance of experience as a form of discovery and knowledge practice. This aspect of her training should be taken into account, even though it falls beyond the boundaries of theory, since it provides food for thought even for general considerations on contemporary artistic production and helps better understand the promotional structure lying behind the exhibition spaces of that time.

Women's presence in artistic output in mid-twentieth century and all the way through the end of the Second World War, was not scarce at all, on the contrary, their ranks were quite populous. The role of women in the field of applied arts has always been approved, specifically concerning textile and ceramic arts that used to be considered as suitable for women since they appeared to be a sign of good housekeeping. Nevertheless, women were generally denied the creative stage, in fact the preparatory cartoons for tapestries were an exclusive men's prerogative, although women would do the practical work. Things started changing ever since the late nineteenth century - decorative arts benefitted from a newly found dignity and *raison d'être*, drawing the attention of prominent artists that helped save them from industrial manufacturing, which was on the rise at that time. Women played an increasingly important role all along this re-evaluation process: from being merely task performers, they quickly accessed the design phase, so to become relevant figures in the main design schools of the western world. The most famous case is that of Bauhaus art school, aimed at tackling the issue of industrial manufacturing, its consequent new production methodologies and, eventually, the value of the final product, by means of criteria that were no longer academic or associated with vocational schools where traditional arts and crafts techniques were taught. Many of the students attending these schools were women who, despite the much-trumpeted gender equality, were forbidden to access the architecture section and thwarted from picking the ceramic workshop, so that they were just left with the weaving classes.

The first step taken by Italian women in the path of decorative arts in the modern age is represented by 'Aemilia Ars, merletti e ricami' (needle laces and embroideries), a Society that was active in Bologna between 1900 and 1935 and was managed by high-class ladies guided by philanthropic ideals. Women dealing with applied arts in the early twentieth century shared some common traits: nearly all of them came from middle class families being sufficiently open-minded not to think that, as Bice Lizzari once claimed, attending the Academy 'is unbecoming of a young lady'. The very 'Gymnasium', that Veronesi and Albini attended at the Free Academy of Culture and Art, catered for 'aristocratic and high-class young women: those subjects that generally attend studies with

neither interest in leaving diplomas nor working purposes'.⁶ Based on the example set by other European institutions such as Bauhaus, Italian schools dealt with the whole cultural complexity of applied arts with quite a delay. Moreover, the study of these arts was restricted to a mere vocational apprenticeship – so that women eager to embrace these disciplines generally turned to Academies.

Thanks to the help and support provided by Giolli, in the 1930s Menni and Veronesi, despite of a different attitude of the Mussolini's regime towards applied arts, fulfilled their artistic intents as sophisticated artisans and fabric and clothes designers.

Palazzo dell'Arte (Art Palace), expressly designed by Giovanni Muzio, almost an acknowledgement of the success achieved by *Triennale di Milano* (a Milan's cultural institution controlled by the Italian Ministry of Cultural Heritage and Activities and Tourism, where Palazzo dell'Arte is its headquarter), housed artist's fabrics and especially fabric decorations that drew a great deal of, by no means certain, attention, so much so that they were now considered as part of those 'applied arts' that would precede industrial design. The *Mostra dei tessuti* (Exhibition of Fabrics) exhibition opened at *Triennale di Milano* in 1930. It was curated by Luciano Baldessari with a specific peculiarity that would end up being a model to follow – fabrics were exhibited on mounting-blocks, in bands, so to admire the whole pattern. In the fifth edition of the event, the so called *Mostra di tessuti pizzi e ricami* (Exhibition of Fabrics, Laces and Embroideries) stood in a prominent position as part of the *Mostra internazionale delle arti decorative e industriali* (International Exhibition of Decorative and Industrial Arts), curated by Baldessari, who would launch an interesting *Mostra delle industrie tessili* (Exhibition of Textile Industries) in 1936, as a result of a *Concorso per dieci stoffe d'autore, stoffe d'arredamento* (Competition of Ten Designer Fabrics, Furniture Fabrics), promoted by the Ente Autonomo Amici dell'Arte in partnership with De Angeli Frua textile company. The eminent jury consisted of Baldessari himself, Carlo Alberto Felice, secretary of the institution, artisan and artist Flavio Poli, architects Giò Ponti and Giuseppe Pagano and Mario Sironi. The jury members would review over 1500 drawings to eventually slim down the list to almost thirty fabrics with highly-diversified patterns by deliberately anonymous artists. According to the competition guidelines, published on *Domus* and *Casabella* magazines, the patterns had to be designed on eighty centimetres high and one metre long cotton fabrics with no more than six colours. Marcello Nizzoli won the first prize with two patterns and other prizes were awarded to Negrin, Giulia Veronesi, Fausto Melotti, Lucio Fontana, Bruno Munari and Riccardo Riccas.

It is hard to retrace Albini's, Menni's and Veronesi's creative developments and contributions to the history of women's design, over the twenty-year period considered; as Anty Pansera remarked,

6 "Le origini del primo Istituto d'Arte."

Rosa's archive survived to her ... the one belonging to Giulia Veronesi is nowhere to be found. Veronesi, together with Edoardo Persico, collaborated to promote the masters of the Modern Movement during the fascist regime in Italy ... therefore, she should have been the starting point to tackle the issue of "communicating/disseminating industrial design," but the difficulty to find original material and the fear to convey what was already known, resulted in favouring a reflection on women who made a significant contribution to the cultural debate, going beyond the dissemination of design and the "culture of dwelling."⁷

These two decades stressed the fact that during the fascist regime women's empowerment was possible and this radically changed both workplaces and social relationships. This multidisciplinary interpretation is based on a vast and varied range of design projects, experiences and outputs that are still unknown to most people nowadays, where these women's activities even in the form of daily tasks (home, tools, and decoration as well) were too frequently considered as a mere vision of the problem from within, especially in Italy.

This is the story of a whole era, which was investigated through the writings and creations of this well-aware, experienced and sensitive women; it is a rediscovery of the past to finally find the very roots of the struggles that marked the path towards women's empowerment and weave the threads linking up circumstances that, thanks to these women's experiences, helped define a woman's role in contemporary society.

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Feminization of Architectural Education and Science: Example of Ukraine

The twentieth century was crucial for the issue of gender equality. Women have mastered many new professions, including architecture. At the same time, the vector of architecture changed from the 'patriarchal' to the democratic one. Has it become 'matriarchal' today?

This question is especially relevant for modern Ukraine, and the answer may be quite indicative, taking into account the historical development of Ukrainian society, as well as current social problems and challenges. The dynamics of feminization of architectural education and science in Ukraine may be also indicative in comparison with the European trends. We should outline some aspects of the socio-cultural background for strengthening of the role of women in these activities to understand the features of this process in Ukraine during the twentieth and, especially, the beginning of the twenty first century. The report *Women's Participation in the Social and Political Life in Ukraine. 2010–2012* notes that the social activity of Ukrainian women has developed historically. Ukrainian customs did not limit the participation of women in social and cultural life. The national history teems with bright female leaders, patrons, scholars, artists, public and political figures, fighters for the independence of Ukraine and the preservation of national traditions. Starting from the ancient references in Herodotus's *History* and the *La Description d'Ukraine* by Guillaume Le Vasseur de Beauplan (seventeenth century), the sources of Ukrainian studies suggest that Ukrainian women have long been distinguished by education, activity, extent of rights and social freedoms.¹ At the same time, women were responsible for keeping the family, taking care of children, and running

⁷ Anty Pansera and Tiziana Occleppo, *Dal merletto alla motocicletta: Artigiane/artiste e designer nell'Italia del Novecento* (Cinisiello Balsamo: SilvanaEditoriale, 2002), 20.

¹ Marfa Skoryk et al., *Women's Participation in the Social and Political Life in Ukraine: 2010–2012* (Kyiv: Ukrainian School of Political Studies, Council of Europe, 2013), 6.

the home. Therefore, the socio-cultural tradition is one of the mental prerequisites for modern processes, including those in Ukrainian architectural education and science. This tradition remains stable and enduring until nowadays.

The change of epochs both at the global and local Ukrainian levels in the second half of the nineteenth century, the beginning of the industrial era, led to a change in the social role of women. Women were able to obtain higher education and get qualification for professions that were considered traditionally male. At that time, the regions of modern Ukraine were parts of the Austro-Hungarian and Russian Empires, but in both countries, architectural education at public universities officially remained a purely male privilege for a long time.

The beginnings of architectural education in Ukraine lie in the eighteenth century, when painting courses were opened at Lviv University. The first architectural school was formed in the second half of the nineteenth century, when the Faculty of Architecture was opened at the Polytechnic School (now Lviv Polytechnic). It is interesting to note that on 10 July 1912 Marie Skłodowska-Curie delivered a lecture at this school. On the same day, the academic council of the institute awarded her with the title of a Honorary Doctor of Engineering.² However, this event did not affect the gender policy of the Faculty of Architecture: until 1939, there were no women among students, not to speak of female teachers. That also means that exclusively men acquired academic degrees in the field of architecture.

At the same time, no single educational institution of this type existed in the largest city centres of the south western provinces of the Russian Empire (the territories of northern, central and south eastern regions of modern Ukraine). In the Russian Empire, a number of architectural schools for women were functional at the beginning of the twentieth century. Among them – Moscow engineering and construction courses for women since 1901, St. Petersburg higher construction courses since 1904, higher polytechnic courses for women since 1905,³ St. Petersburg higher courses of architectural knowledge since 1906 (in 1915 converted to Petrograd Polytechnic Institute for Women)⁴ and others. All these educational institutions were private.

After the revolution in Russia in 1917 and the formation of the Soviet Union in 1922, where Ukraine became one of the republics, the situation in the sphere of women's education changed dramatically.

The state proclaimed suffrage rights for women, full employment, access to education, science, etc. Such a gender policy of the USSR had several explanations. Firstly, due to the significant loss of specialists because of wars and emigration, there was an urgent need to strengthen the economy and industry of the state by new highly skilled workers. Secondly, it was one of the ways to implement the Soviet ideological doctrine, which declared the construction of a new type of society, where there is general equality of citizens, regardless of gender. Unlike the Western powers, where the process of emancipation was evolutionary, organic, and continuous, the essence of the Bolshevik gender policy was to recognize the formal equality between men and women.

The change in the political course of the USSR at the turn of the 1920s and 1930s in the direction of further centralization and party's monopoly for leadership in all spheres of public life led to a change in the status of women. Women were seen as an important tool of socialist construction. Evidence for this was the rapid pace of their involvement in public production as required by the industrialization of the country. It was the time when the official discourse of the Soviet 'superwoman' developed. The formula of double load (at work and at home) becomes part of the normalized stereotype of femininity.⁵

According to the communist doctrine, the Soviet 'new woman' should have been a 'woman-worker,' an 'activist woman' and, at the same time, a 'working mother'.⁶ In the first hypostasis, the state formally offered a new social position for women, in the second – it restored the usual role of women in the patriarchal society, which the Soviet Union really remained.

At the end of the 1920s, the leadership of Soviet Ukraine drew attention to the need to increase the number of female students in technical universities up to 20% of the total number of students.⁷ Almost synchronously, in accordance with the decree of the USSR government *On the Training of Technical Personnel for the National Economy* (1930), the transformation and reform of the network of higher educational institutions of the country began.⁸ Technical and construction universities were founded in Kyiv, Odessa, Poltava and Kharkiv. Existing universities in Kyiv, Odessa and Kharkiv formed architectural faculties. Among first female architects who received professional education in Ukraine were O. Alyoshina, T. Budyanska, O. Lozinska, Y. Lyubomilova, N. Manucharova, E.

2 Andriy Peleschyshyn, "Mariia Skłodowska-Kiuri u Lvivskii politekhnitsi," *Ukrainska Naukova Internet-Spilnota* (posted April 8, 2011), <https://nauka-online.org/content/mariya-sklodovska-kyuri-lvivskiy-politekhnitsi> (accessed September 15, 2017).

3 "Tsarskaya Rossiya: Vysshie obrazovanie dlya zhenshin," *LIVEJOURNAL: LJWANDERER*, <https://ljwanderer.livejournal.com/25681.html> (accessed January 18, 2018).

4 Natalya Katsalova, "Stanovlenie vysshogo zhenskogo inzhenerno-promyshlennogo obrazovaniya v Rossii v kontse XIX – nachale XX v.," *Diskussiya* 33, no. 3 (2013), <http://www.journal-discussion.ru/publication.php?id=159> (accessed January 18, 2018).

5 Elena Zdravomyslova and Anna Tyomkina, "Gosudarstvennoe konstruirovaniye gendera v sovetskom obschestve," *Zhurnal issledovaniy sotsialnoy politiki (The Journal of Social Policy Studies)* 1, no. 3–4 (2004), 291–321.

6 Olena Kokhanova, "Formuvannya obrazu 'novoї radianskoї zhinky' v USRR (1920–1930-ti rr.): Vymoha chasu chy ideolohiia radianskoї vlady," *Zbirnyk naukovykh prats Kharkivskoho natsionalnoho pedahohichnoho universytetu im. H. S. Skovorody: Seriya "Istoriia ta heohrafiia"* 46 (2012), 20–23.

7 Liudmyla Babiuk, "Osvita zhinok Radianskoї Ukraini kriz pryzmu yikh povsiakdennoho zhyttia u 1920–1928 rr.," *Hileia* 116 (2017), 38–43.

8 "Utvorennia Kharkivskoho inzhenerno-budivelnoho instytutu," *Vydavnychiy tsentr 'Lohos Ukraina'*, <http://www.logos.biz.ua/proj/hnue/019.php> (accessed November 10, 2017).

Marynchenko, V. Montlevich, L. Nivina, L. Semenyuk, N. Chmutina, etc. Professors at these faculties until the beginning of the Second World War remained exclusively male due to the objective situation of the absence of women in the architectural profession.

The significant increase in the number of women and their role in the architectural education and science of Ukraine took place after the Second World War. As in the 1920s, the technical universities faced the task of training specialists for the rapid post-war reconstruction of cities and villages, as well as the direct execution of design and reconstruction works. Broad professional opportunities contributed to the increase in the number of women with higher education, but at the same time caused double employment: the system of social services did not relieve them of the numerous responsibilities for keeping a household. The model of women's participation remained intact in the scientific activity as well – 'mother working in science,' which was formulated in the 1930s.

Despite the Soviet approach to equality, many female professionals in the Soviet Ukraine still chose this way.

The figure of the architect Natalia Chmutina (1912–2005) became significant for the development of Ukrainian architectural science, practice and education in the second half of the twentieth century. After graduating from Kyiv Construction Institute in 1936, the architect was a co-author of the project of the house of the *Verkhovna Rada* of Ukraine, and in the late 1940s, she worked on the reconstruction project of the war damages. Chmutina became the second, after Manucharova, female architect on the territory of the USSR; in 1952, she was awarded with the academic degree of the candidate of architecture (equivalent to PhD).⁹ It is worth mentioning that the dissertation was devoted to the formation of architectural and planning requirements for the design of a new type of buildings – palaces of marriage (on the example of such a building for Kiev) – a quite symbolic topic for a female architect. The urgency of the topic was explained by the national policy aimed at strengthening the institution of the Soviet family. Characteristic feature of that time as well as creative activity of Chmutina was a combination of practical, scientific and educational components (Fig. 1). For example, during 1946–99, Chmutina gave lectures at the Kyiv State Art Institute, at the same time engaged in real and experimental design at the Kyiv Regional Research and Design Institute and created her own academic school.¹⁰

We may argue that the work of Chmutina initiated the feminization process in the architectural education and science of Ukraine within the Soviet Union. It was not caused by feminist or democratic movements for the rights of women as it was in European countries. Strengthening the

⁹ Olena Maznichenko, "Stanovlennia shkoly Natalii Chmutinoini v konteksti arkhitekturnoi kultury Ukrainy Radianskoi doby" (PhD dissertation, Kyivskiy Instytut problem suchasnoho mystetstva, 2015), 8.

¹⁰ Maznichenko, "Stanovlennia shkoly Natalii Chmutinoini," 8–9.



Fig. 1. Natalia Chmutina at the construction site of a hotel in Kyiv, 1962. Source: Olena Maznichenko (ed.), *Nataliia Borysivna Chmutina: Zhyttievyi ta tvorchi shliakh arkhitektora* (Kyiv, 2012), 143.

presence of women in the academic and educational spheres was stimulated by a totalitarian state to demonstrate the 'achievements of socialism', social opportunities and achievements of a 'free Soviet woman'. Beginning in the 1960s, well-known female practitioners came to the architectural science and continued their work at universities. The absolute majority among them were residents of the largest cities – Kyiv, Lviv, and Kharkiv. Work in large research and development design institutes allowed female architects to combine project activities with scientific research, which made up an integral part of official and professional duties. The generalization of the results of experimental design and historical and architectural research was the basis of the candidate's theses (PhD) of Z. Moyiseenko in 1962 (Kyiv), M. Konsulova in 1963 (Lviv), T. Panchenko in 1967 (Kyiv), I. Karakis in 1968 (Kyiv), O. Godovaniuk in 1972 (Kyiv), T. Tregubova and V. Mayevska in 1973 (Kyiv).

Women who worked in the 1960–80s in provincial state design institutes had low chances of making an academic career. The design process was organized according to a model of industrial enterprises in the planned economy of the Soviet Union (full-time job (8 hours a day, 5 days a week), the need to keep up with the plan, brigade method, significant scale of project work) and did not include academic component. In fact, the design institute was an enterprise that created products in the form of project documentation, and the female architect was a worker who followed the plan.

At that time, the state provided the priority development of technical, technological, medical, pedagogical and military institutes and universities. Therefore, enough women entered the architectural faculties of technical universities in Ukraine. In the quantitative composition of the students, it was recommended to follow the proportions of 50:50 (men and women). All graduates

were provided with a job. For architects, this has always been a job in a comfortable office environment, which at that time was a significant advantage for women.

During the 1960s – 1980s, the number of female lecturers at the Faculty of Architecture increased steadily, amounting to 30–35% of the total number of lecturers. Socioeconomic reasons caused this growth. Firstly, the profession of a university teacher was prestigious. Secondly, female lecturers had a more flexible work schedule, compared with female architects who worked in design institutes. Therefore, it was much easier to combine family, maternity, work and academic activity. Thirdly, female scientists received higher wages than practitioners did. The abovementioned benefits mitigated the conflict between the role of women in the family, her professional life and academic career.

In spite of the significant contribution of women to Soviet architectural science and education, in the vast majority of cases, this did not affect their promotion up the career ladder, where men occupied dominant positions.

During the transition period of the 1990s, significant changes took place in the educational and scientific fields of the countries of Central and Eastern Europe, the countries of the former Soviet Union: decentralization of scientific policy, autonomy and optimization of scientific, academic institutions and their composition. However, the gender history of the academic sphere of post-totalitarian states (including Ukraine) is more complex, compared with countries located to the west of its borders, because there is a large discrepancy between the high professional activity of women and the conservative mind-set in gender issues. In the conditions of modern Ukraine, this situation is influenced by crisis socio-economic phenomena, which cause a significant decline in the financing of science, the fall in the prestige of scientific work, the brain drain of highly skilled personnel from science and from the state in general.¹¹

Crisis in the transition economy, which was reflected in a significant reduction in the volume of public construction, led to the collapse of the system of design institutes and the release of a significant number of workers, including female architects. Some of them continued to work in higher education institutions, which required lecturers with practical background to provide high-quality training for future architects. As in the previous place of work, they occupied the lowest levels of the career ladder. The condition for career growth was a productive academic activity and obtaining a degree of a candidate of sciences (PhD).

Analysis of the distribution of specialists with higher education in the branches of science in Ukraine

11 Vira Troian and Natalya Taran, "Problema hendernoi rivnosti v nauksi: Dosiahnennia ta vyklyky," *Naukovi zapysky natsionalnoho universytetu "Ostrozka Akademiia"* 2 (2016), 104.

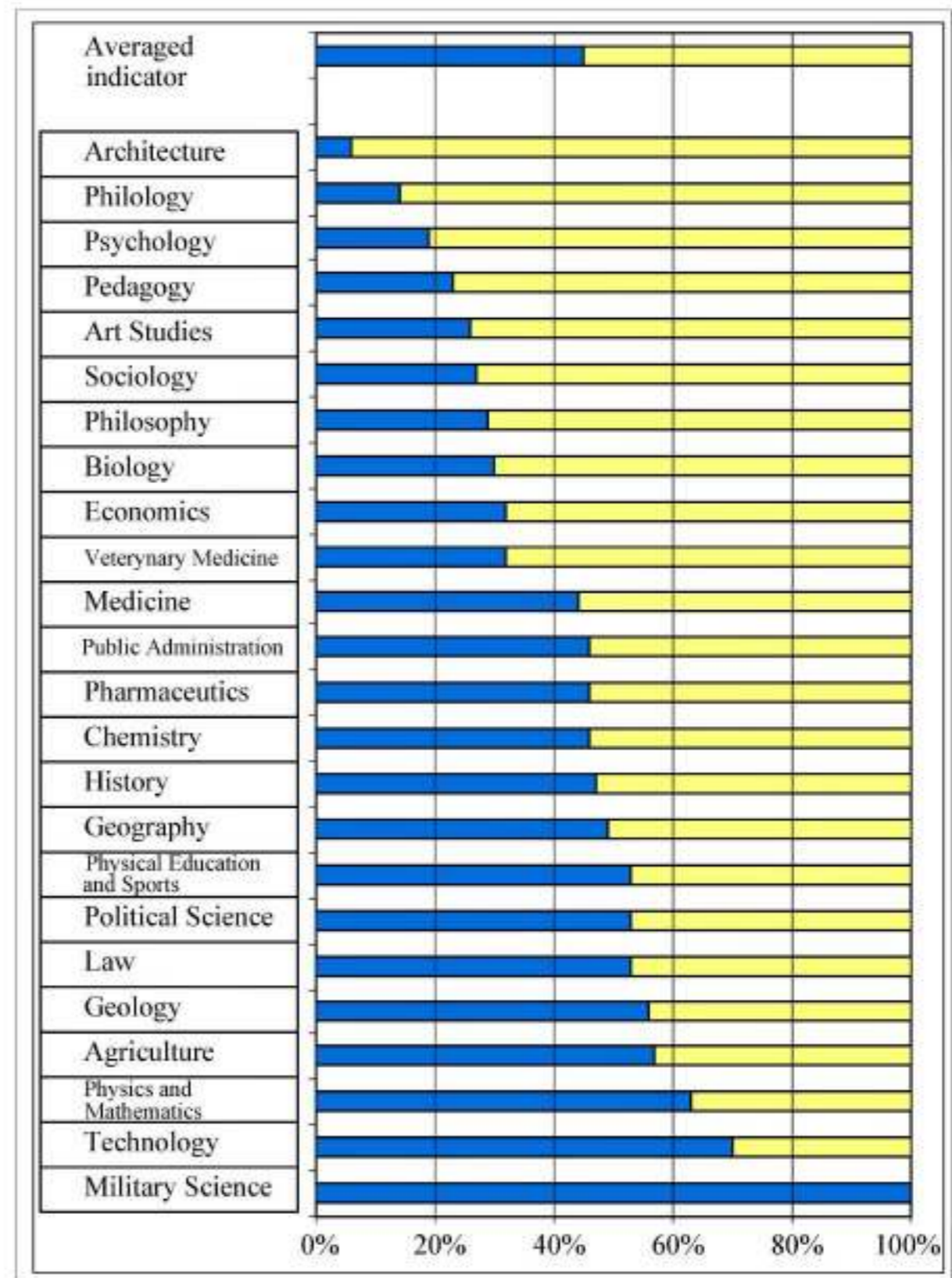


Fig. 2. The number (%) of PhD thesis defenses by women (yellow) and men by the sphere of knowledge (2007). Drawing by Olga Mykhaylyshyn according to Vira Troian, Natalya Taran and Iryna Vavylava, "Yevropeyskyi naukovyi prostir: Rol zhynok vchenykh ta yevropeyskyi kontekst," *Svitohliad* 1 (2009), 38.

at the beginning of the twenty-first century allows to distinguish certain 'female' branches. Among them are pharmaceuticals (72%), psychology (70%), philology (65%), architecture (62%), chemical, pedagogical, medical sciences.¹²

The feminization of science, including architecture, takes place in Ukraine on the background of a general increase in the defence of theses.

Since 2001 there has been a stable movement towards gender equality among the PhD degree holders (at least 50%) as well as the apparent increase in the number of women – habilitated doctors of sciences. However, this situation is not a result of gender policy of the state, but is a consequence of the outflow of men from the low-paid academic sphere.¹³ The statistics on the quantitative ratio of PhD theses, defended by women and men, is very indicative. In 2007, more than 90% of these on architecture in Ukraine were defended by women, which became an absolute record in comparison with other branches of science.¹⁴ (Fig. 2) The rapid increase in the number of female scholars during a short historical period is another confirmation for the phenomenon of 'feminization,' characteristic of transitional societies. The positive consequence is that women were able to take a niche, which remained empty due to the general crisis in Ukrainian science.

Sociological data show that the total number of women decreases at each subsequent stage of a career ladder in Ukrainian science. Women make up 76% of graduates with a bachelor's degree, 69% masters, 43% PhDs, and finally – 33% of doctoral habilitation degrees.¹⁵ However, these data do not reflect the present situation at the architectural faculties in technical universities of Ukraine. An example is the increase in the number of women in obtaining degrees. Thus, in the Institute of Architecture of Lviv Polytechnic, women defended 62 (60%) of 102 theses defended during 1998–2017: 59 of 96 PhD theses (62%) and 3 of 6 doctoral theses (50%).¹⁶ It should be noted that in 2013 the first doctoral degree in architecture in Lviv Polytechnic University was also obtained by a woman (S. Linda).

During 2014–16 such a tendency is observed at the Kiev National University of Construction and Architecture (12 of 15 theses were defended by women) and Kharkiv National University of

Construction and Architecture (9 of 15 theses). In general, 16 doctor habilitation theses were defended in Ukraine in 2013–16, women defended 13 of them.¹⁷

Despite the outlined trends in the feminization of architectural science and education, (the growth of scientific qualifications and the number of women scientists in the faculties of architecture), they do not mean that women hold high leadership positions at universities and become deans, directors of institutes, rectors. Changes take place only at the department level. An engineer T. Rischenko from Kharkiv National University of Municipal Economy is the only female dean for 15 departments of architecture in Ukraine. Therefore, the level of scientific qualification in Ukraine, even at this stage, is not a factor in the career promotion of women in the 'female' architectural profession. Stereotypical ideas about architecture as a 'male' specialty, formed during the previous centuries, hinders this trend.

Most of the abovementioned facts indicate a change in the role of female architects in society, education and science in independent Ukraine and are characteristic of the academic and educational spheres. These changes are different in essence: the general strengthening of social positions, real emancipation and the self-sufficiency of a female teacher/scholar, which is a logical continuity of Ukrainian socio-cultural traditions. At the same time, they outline problems associated with the current socio-economic situation in the state. Firstly, old 'gender order' is still present in the educational and academic environment, which is the synthesis of elements of the 'Soviet patriarchy' (latent discrimination of women despite declaring equality) and traditional (matriarchal) activity and ambitions of Ukrainian women. Secondly, the double burden that almost all women still face is also there. In addition to their jobs, they are busy keeping a household and raising children, which limits the opportunities for professional development and growth. Thirdly, the difficult economic situation in Ukraine is one of the leading factors that has stimulated and continues to stimulate feminization processes in Ukrainian architectural education and science. Academic activity for women (and its formal completion after obtaining a degree) is often an instrument for achieving the desired economic stability and confidence in the future. Answering the question at the beginning of the article, we may conclude that the development of architectural science and practice in Ukraine goes in the direction of gender equality. However, only cooperation between the state and the civil society, employing the European model, will make this trend irreversible.

12 Olena Binetska, "Hendernyi analiz osvithno-naukovoï sfery suchasnoï Ukrainy," *Hileia* 74 (2013), 84.

13 Troian and Taran, "Problema hendernoï rïvnosti," 104.

14 Vira Troian, Natalya Taran and Iryna Vavyl'ova, "Yevropeïskyi naukoviï prostir: rol zhïnok vchenykh ta yevropeïskyi kontekst," *Svitohliad* 1 (2009), 37.

15 Irina Kogut, "Chym vidrizniaiutsia zhinky i choloviky: pro hendernu (ne)rïvnist u vyshchii osviti," *CEDOS*, June 10, 2014, <https://cedos.org.ua/uk/discrimination/chym-vidrizniaiutsia-zhinky-i-choloviky-pro-hendernu-ne-rïvnist-u-vyshchii-osviti> (accessed January 18, 2017).

16 Analysis was carried out by authors based on the data from the Archive of the Institute of Architecture of Lviv Polytechnic.

17 Analysis was carried out by authors based on the data from the journal *Osvita Ukraini* for 2013–16. http://lib.pedpresa.ua/category/ofitsiyni-vidannya/spetsvipusk-do-gazeti-osvita-ukraini?_ga=2.257648067.992512247.1517160982-1611950359.

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Canadian Women in Architecture: Behind the 100 Year Façade of Practice

It is with awe and gratitude that this paper shares the accomplishments of Canadian women who lead the way for architects today. They shattered glass ceilings and refused to fit within the stereotypes given to them by a male world who assumed they could only build cottages or renovate kitchens as 'girl architects'. From them, so many more women have built their careers and have been involved in shaping Canadian cities. This paper begins with a historical outline to highlight the contributions of women architects, their educational and professional formation and the challenges they faced. It reviews the early pioneering phase from 1920 to 1970 and post- pioneering years from 1970 to 1992. Finally, the paper will discuss the phenomenon of deregistration within professional practice. This should not be considered a set back as these women shed light on what it means for a woman to remain within architecture and attain work-life balance. As a final point, this paper closes with an open-ended discussion; have women in architectural practice overcome the early struggles the pioneers faced? If not, what are the challenges women face today?

The Pioneering Period: 1920–1970

To provide a historical backdrop, the early 1920s were referred to as the 'Roaring Twenties' as Canada transitioned from the First World War to peace and prosperity. The country saw many political and social changes as well as new inventions associated with modernity such as silent movies, radio, television, airplanes automobiles, flappers, booze and jazz and even new ways of dancing. Women wore short skirts, bobbed their hair and smoked in public. Most importantly, it

was also when women began to advocate for their place and power in the public realm and saw that an education was essential. Accessing a professional degree in architecture, however, was a very slow process. The first woman who ventured in pursuing studies in Architecture was at the end of the 1890s at McGill University in Montreal but after two years in the program, she was told that a degree in architecture could not be granted to a woman. In 1908, a woman's application to study architecture at McGill was rejected as it was not considered suitable for women. Catherin Chard Wisnicki was accepted at McGill 1939, after she applied for four consecutive years. She later became the school's first woman student and the first to complete the program in 1943.

Therefore, when Esther Marjorie Hill graduated in architecture in 1920 and was the first woman to register as licensed architect in 1925, she began to pave the road for women in architecture and set a milestone in Canadian history. Gradually, all the provinces in Canada obtained association status and license registration was in place. Thus, since the 1920s women have achieved competencies and professionalism.

Several of these pioneering women had versatile careers and made important contributions to Canadian society. Some of these pioneering women, to name a few, were Marjorie Hill who had a versatile career. Her work included the Carnegie Library in Edmonton, interior design at Eaton's Department Store, houses, a motel addition, hospitals and residential renovations.

Ann Gauthier Malott graduated in 1938 and was the first woman hired in the architectural department at the Rockefeller Center in New York where she worked on the office layouts and interior design. She was also the Assistant Chief draftsman and later the principal draftsman in the design office of the Federal Inspection Board in Ottawa. After she started a family, she did not return to practice. Nevertheless, she continued to be involved in housing projects through the Montreal Council of Women and her work led to the development of the Public Housing Project of 1958 in Montreal.

Mary Imrie was another remarkable architect who graduated in 1944 and became the chief architect for the city of Edmonton, designing schools and public buildings. In 1951, Imrie in partnership with architect Jean Wallbridge established their architecture firm. They were two determined and independent women who travelled the world and informed on architectural and design issues to Canadian architects. Their work included commercial buildings, houses, apartments and senior citizen housing.

Blanche Lemco van Ginkel was another extraordinary pioneer woman as she was among the first women to graduate from Mc Gill University in 1945. She later completed a master's degree at Harvard University in 1950. Lemco van Ginkel worked in London with William Crabtree, in Paris with Le Corbusier and in Montreal with Mayerovitch and Bernstein. She also worked in municipal planning for the cities of Windsor and Regina in Canada. In 1957, she established an architecture and planning office with her husband Daniel Van Ginkel. Their practice was known for its bold

and modernist design and thoughtful approach to urban planning as well as their commitment in historical conservation, sustainable solutions and pedestrian accessibility. Blanche has been a leading figure in architecture, urban planning, academia and journalism. In 1972, she was the first elected officer of the Royal Architectural Institute of Canada (RAIC) Journal, a highly regarded professional publication in Canadian Architecture. In 1977, she was appointed Dean of Architecture of the University of Toronto, the first woman to have such a position in North America.

Pioneer architect women not only faced strong barriers to be accepted in architecture programs in Canadian universities but also in accessing employment. In the early years, women architects had extensive periods of absence in the professional field, working in other areas and taking care of their families. For example, M. Hill was a glove maker, greeting card designer and weaver. A well-known architect, Beatrice Centner Davidson while searching for employment was told 'to return in five years with proof of experience and then she (I) would be hired...- as long as (I) she signed an agreement not to marry for another ten years'.¹

Nevertheless, their strength, determination and commitment to overcome the many obstacles and an overall prejudice towards women in architecture are exemplary and celebratory. In addition, during these years, the immigrant women architects arrived with substantial work experience, bulldozed past gender constraints, thus supporting Canadian women in their quest. These immigrant architects, such as Phyllis Lambert, Alexandra Biriukova and Eva Hollo Vecsei, were role models for many Canadian women in the field. Their presence was felt in numbers and in the contributions they made to Canadian architecture.² Finally, during this pioneering phase, between 1920 and 1950, 90 women graduated in architecture and 43 women registered as licensed architect throughout Canada.³

Post Pioneering Years: 1970–1992

In the post pioneering time, two important issues need to be addressed: the registration of women architects as well as de-registration. It is worth mentioning that in Canada registration is not essential in order to work. This is particularly common in larger architecture firms where one or two architects are registered and many non-registered architects do a great extent of the work. These

issues merit discussion because they continue to be relevant to current issues around the practice of architecture.

Adams and Tancred (2000) conducted a thorough research study on women architects from 1920 to 1992. The results of their in-depth interview study across Canada of 37 de-registered architects, 27 women and 10 men who obtained their degrees between 1940 and 1980 provides a synopsis of their experiences over fifty years regarding their careers and subsequent work following de-registration.

The data of registered and unregistered professionals was taken from national census data. It provides a functional snapshot of the trends in architectural registration. According to authors, the registration of women between 1920 and 1970 was very slow, it doubled in the 1970s, slightly tripled in the 1980s and kept increasing in the 1990s, reaching a total of 11.5 % in 1992 due to mainly to western provinces and the presence of immigrant women.

The 1970s was a turning point for women architects to register, particularly in Quebec where registration reached 18%, compared with other provinces where registered women represented between 5 to 9%. The peak in registration in Quebec was due to a building boom, specifically the building needs of EXPO 67, as well as, other major commercial projects such as Place Bonaventure. The census data shows some interesting gender differences where women, despite their university degree as a qualification, were more likely to lack full time employment, fewer weeks of work, more likely to be on a salary instead of self-employed and more likely to be single in comparison with male architects. Another interesting difference was that the proportion of women who described themselves as architects but were not registered, which was remarkably higher than men. Adam and Tancred (2000) reported that as of 1991 the percentage of women who were not registered in professional associations was 64% compared with men that was 29 %. The other interesting data was that women left professional associations at the same rate of men. Nevertheless, between 1920 and 1992, one eighth of female architects had exited professional associations, that is, 11.8%, which does not include those who retired and passed away. In addition, it is worth noting that women who exited the profession after 1970, at least in the two largest associations, did so within 5 years of practice. These authors found that women who de-registered sought employment linked with their architectural skills. One fifth of the women interviewed worked 'unofficially' in architecture as consultants, project managers, advisers, independent architects or with a family firm. Others sought employment in education, particularly teaching at a college level in architecture related fields such as engineering, design, interior design and art. A small proportion went on to work in urban planning, art galleries and museums and another fifth of them transitioned into marketing for construction products, journalism, real estate and as managers in housing development.

Adams and Tancred (2000) found a common narrative in women's responses regarding their

1 *For the Record: The First Women in Canadian Architecture*, edited by Joan Grierson and the For the Record committee (Toronto: Dundrun Press, 2008), 30.

2 Anmarie Adams and Peta Tancred, *Designing Women: Gender and the Architectural Profession* (Toronto: University of Toronto Press, 2000), 19.

3 *For the Record*, 61.

experiences in the workplace and deregistration. One theme was related to irregular schedules that included long workdays, weekends and unexpected overtime hours, which interfered with family and personal life, as well as childcare responsibility. Other common themes were not feeling in control of their time allocated to work as well as with clients who often interfered in the design process, leading to budgeting issues and repercussions in remunerations. Another important theme was related with the architectural work assigned to women, described by the interviewees as routine, menial and fragmented, which prevented them from seeing the whole picture. Upon leaving architecture, post-employment choices were focused on jobs that could offer balance within personal and professional life while continuing to use their architecture skills in innovative ways.

To summarize this historical period, the path of women in architecture has been lined with many challenges, from the early pioneering years where access to education was denied, to the slow acceptance of women as registered architects, to barriers and inequity in employment within a male dominated profession. In addition to these challenges, from 1924 to 1973, the general negative attitude towards the role of women in architecture was unfortunately reinforced by the *RAIC Journal*. Specifically, the publication portrayed women architects in a demining professional role, belittling their value as professionals, such as depicting a dollhouse instead of an architectural model for example or using undignified and sexualized images.⁴ A close look at the *RAIC Journal* showed images of women in adjunct roles, as consultants or helpers to men rather than as architects, responsible for a whole project. The impression given was that women architects were best in subfields of housing, interior design, and historic preservation. These areas of architectural practice have been considered less prestigious than the design of public commercial buildings.⁵ In husband and wife architecture partnerships, women architects have typically been regarded as collaborators. Still now, this was evident when Robert Venturi was awarded to Pritzker prize in 1991 and yet, Denise Scott-Brown who is his architectural partner, and happens to be his wife, was not acknowledged. Despite of the growth of women's presence in terms of access to university programs since the late 1970s and 1980s and in the workplace, women continue advocate for equity in the workplace.

Present Day Indicators and Future Prospects

The historical review of the women who dared to pursue architectural studies and practice exposed

4 Refers to the image of Miss Metric, published in the *RAIC Journal*, January 1969, 57, published in Adams and Tancred, *Designing Women*, 53.

5 Adams and Tancred, *Designing Women*, 57.

many obstacles, biases and sexism, which would be unconceivable today. This section will examine the current conditions of women in architecture today that is, their educational and professional training, registration and overall presence in the field. The closing discussion will review the presence of women today within academia and professional practice in Canada.

Becoming an architect in Canada today is very similar to what was required 100 years ago, that is, education, work experience and a passing grade on the architect's examination.⁶ The academic requirements for architectural studies today merit a brief overview in order to contextualize and quantify the educational journey a Canadian student faces. Within the 12 schools of architecture across Canada offering degrees in architecture and landscape architecture, there are various undergraduate programs in Architectural Studies or Architectural Science; however, these are not professional degrees. Therefore, a student wishing to register as an architect, must first complete a four-year bachelor's degree followed by a master's of architecture (M.Arch.) which is the professional degree required for registration. M.Arch. programs vary from two to four years and acceptance into these programs is based on the student's undergraduate studies. As a result, a student will be in university from six to eight years, at an average cost of \$30,000 for undergraduate studies⁷ and from \$12,000-\$24,000 for the M.Arch⁸ program for tuition fees alone.

After completing these educational requirements, the graduate must enrol in the Internship in Architecture Program (IAP) with a provincial or territorial association in order to begin the registration process, only upon entering the program is work experience considered. The applicant, referred to as an Intern Architect and must complete a minimum of 3720 hours in specific categories of architectural experience, all of which is recorded, submitted and subject to review by the local association.⁹ Thus, the steady architecture graduate must find employment.

The architectural office in Canada, for the purposes this paper and simplicity, is categorized into three macro groups: the corporate/commercial office, the mid-size office and the design/research office. The corporate/commercial office is characterized by having more than one Canadian location, if not several international offices and is not necessarily a Canadian practice, such as HOK that has 23 offices in three continents with three Canadian locations. This typology of office is at one extreme

6 "How can I become an architect," RAIC (Royal Architectural Institute of Canada, <https://www.raic.org/raic/becoming-architect#howcan> (accessed January 31, 2018).

7 "Undergraduate tuition fees for fulltime Canadian students, by discipline, by province (Ontario)," Government of Canada Statistics Canada, <https://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/educ50g-eng.htm> (accessed January 28, 2018).

8 "Table 4: Weighted average, graduate tuition fees for Canadian full-time students, by field of study," Statistics Canada, <https://www.statcan.gc.ca/daily-quotidien/170906/t004b-eng.htm> (accessed January 28, 2018).

9 "Internship in Architecture Program (IAP)," Ontario Architects Association, <http://www.oaa.on.ca/professional%20resources/intern%20architects> (accessed January 28, 2018).

of the architecture office spectrum in terms of the number of employees, typically exceeding 30, often having an in-house engineering team and focusing on major public construction projects. At the other end of the spectrum is the design/research office that is much smaller, ranging from two to 20 people, with a 'high-end' design portfolio often in the private sector and widely published in various design magazines such as *Domus*, *Dwell*, *Dezeen*, *Azure* and other periodicals. In addition, this office type may have one or more founding partner(s) who is teaching at a university level and at times, this practice is involved in architectural exhibitions and self-publications. Lastly, the mid-size office, which is the majority of architecture offices, tends to be nestled in the private residential sector and is rather ubiquitous and commonplace in Canadian cities. Therefore, the architecture intern has a wide range of choice that will provide him or her with varying opportunities and possibility to complete the required work experience hours.

Once the Intern Architect has successfully completed 3720 working hours, typically within three years' time, s/he must attend and successfully complete a mandatory course offered by the local association that cover topics related to regulatory and legal matters. At this point, it is possible to take the Examination for Architects in Canada (ExAC), apply for an architecture license, and then, finally, legally use the term 'architect' and request a 'Certificate of Practice' in order to provide architectural services to the public.

It is a long road, both academically and professionally to achieve the title of 'architect'. The entire process can span from nine to eleven years, that is, without any personal interruptions. Not surprisingly, there was substantial statistical gap in number of students who graduate and those who register as architects as previously mentioned. To be more precise, from 1920–1950 there were 90 women who graduated yet only 43 registered as architects, that is, 47%. However, in considering just one decade, such as the 1950s, 37 women graduated and 11 registered, that is 29.7%.¹⁰ In order to see if and how this has changed today, we survey Ontario as an example where there are four schools of architecture and in 2014 the Ontario Architecture Association (OAA) published enrollment data for female graduate students to be 55%¹¹ on average. In addition to this data, the OAA also published that in 2015, 33.1% new female architects registered.¹²

It is important to recall that it was, and still is possible to work in Canada without registering as an architect, which may account for this difference. Nevertheless, failing to register as a licensed

architect can hinder professional advancement and result in a lower salary.¹³ Therefore, an analysis of the staff structure within the architecture office may shed light on this matter. Using the previously mentioned macro categories to study the make-up of architecture offices, this paper surveyed five corporate/commercial offices¹⁴ and nine design/research offices.¹⁵ The mid-size firm typology has few defining characteristics and being ubiquitous, it was not sampled for this comparative study. In looking at these office's 'team page' online, it is possible to quantify the number of women in senior positions, that is, principals, senior associates, associates and design leaders. The study revealed that within the corporate/commercial and design/research office, both types have a similar senior staff structure, that is approximately one third is female (**Tab. 1 and 2**). Similarly, we saw that just over a third of graduating women register as architects. This begs the question, what might be the presence of women in academia?

In order to answer this question, this paper reviewed each school of architecture's faculty listing and considered the total number of faculty members, that is, associate, assistant and emeritus professors only. All schools of architecture have female faculty, which range from 10 to 38% and have an average of 31% women faculty members (**Tab. 3**). Although the number of men and women in architecture programs is fairly balanced today, there is a lot to be said about the faculty in which a student is formed. Adams and Tancred (2000) argue how important the presence of female faculty was at the University of Manitoba during the 1940s - 1950s, which they attribute as an influencing factor to the number of women who registered as architects in that decade.¹⁶ Only time will tell if an increase in female faculty could increase the number of women registering, it is definitely important to provide this diversity and gender balance in education. In sum, considering academia as full time employment for women in architecture, we see once again that no more than one third are present in this sector.

13 Brandon Hubbard, "5 Factors Affecting your Architects Salary," *The Architects Guide*, <https://www.thearchitectsguide.com/blog/2015/7/21/5-factors-affecting-your-architecture-salary> (accessed June 21, 2018).

14 HoK Canadian Design Leaders (<http://www.hok.com/design/region/canada/>), NORR Canada (<https://norr.com/global/>), Perkins + Will Canada (<https://ca.perkinswill.com/>) – These websites do not provide staff information for each location. Therefore, the data used for table 1 reflects the total number of Canadian executives, leaders and principals – Stantec and IBI Group, both Toronto locations.

15 In addition to the already mentioned characteristics of this office type, architectural practices who also have at least one female founding partner were reviewed. These are: Patkau Architects (Vancouver), Manasc Isaac (Edmonton), 5468796 Architecture (Winnipeg), KPMB (Toronto), Superkül (Toronto), Lateral Office (Toronto) using the data from 2010 where the office had the highest number of collaborators, Menkes Shoener Dagenais Letourneux Architects (Montreal), Omar Ghandi Architect Inc. (Halifax), and Acre Architects (Saint John).

16 Adams and Tancred, *Designing Women*, 19

10 Adams and Tancred, *Designing Women*, 18.

11 "Women enrolled in Ontario's Schools of Architecture," Ontario Association of Architects, <http://www.oaa.on.ca/bloaag-detail/Women-enrolled-in-Ontario-s-Schools-of-Architecture-/392> (accessed January 28, 2018).

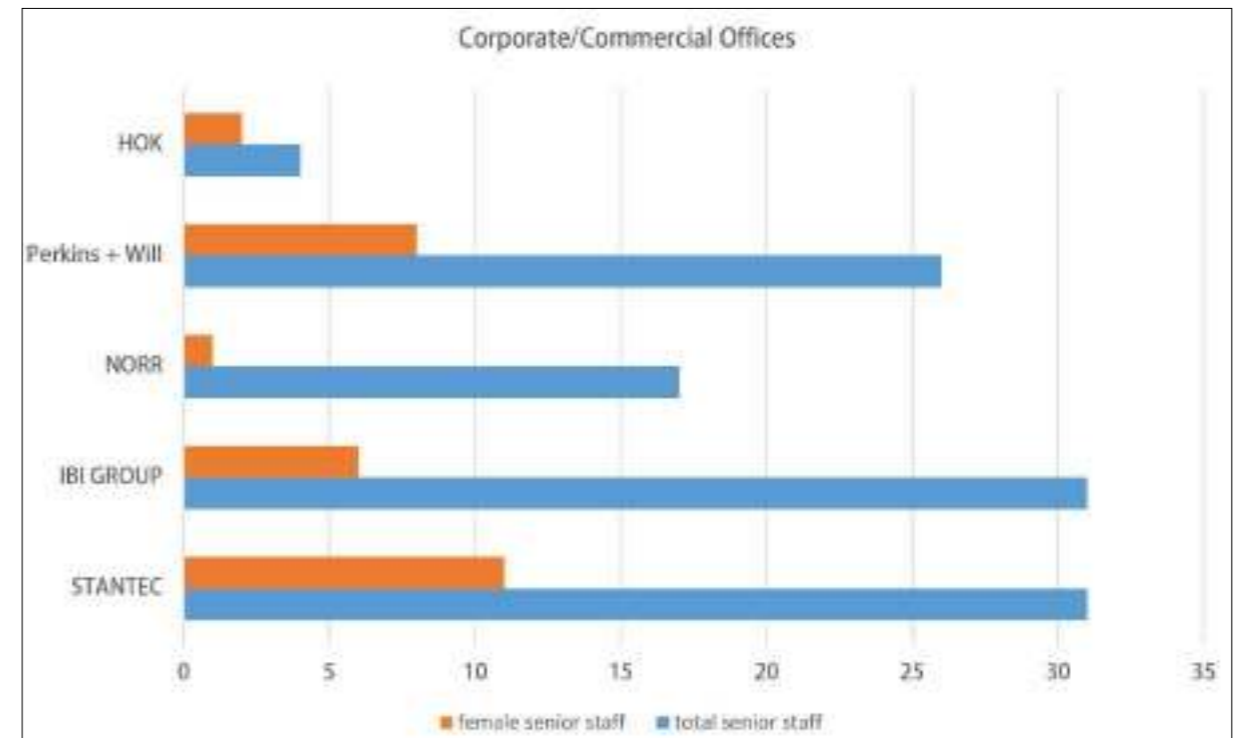
12 "Female architects in Ontario (2015)," Ontario Architects Association, [http://www.oaa.on.ca/bloaag-detail/Female-Architects-in-Ontario-\(2015\)/317](http://www.oaa.on.ca/bloaag-detail/Female-Architects-in-Ontario-(2015)/317) (accessed January 28, 2018).

Discussion

Fortunately, today a woman would not be turned away when she applied to study architecture, nor would a new registration requirement be introduced so that she would fall short, as was the case for M.Hill,¹⁷ or be questioned whether she deserved to be paid if her partner was in the same field.¹⁸ Pioneer women blew doors wide open and levelled the playing field from graduation, registration, to running a practice as a principal, managing major commercial projects and many other tasks necessary to coordinate a project. It is definitely an exciting time in history for women to pursue architecture in Canada; there are many success stories upon which to set objectives. Nevertheless, women architects face challenges today that closely resemble those endured by some pioneer women architects. Today the discourse is very much about an unfulfilled agenda of pay equity, equal pay for equal job, access to opportunities of promotion and retention, as well as a clear path for advancement in the career and for a balanced work-life schedule. Still, architects today, women and men alike, struggle with long and irregular work hours, a bizarre behavior that begins in architecture school and begins to breed an overtime culture. Moreover, we have seen that women continue to be under-represented today in both registration, senior professional positions and in academia, where no more than 30% are women.

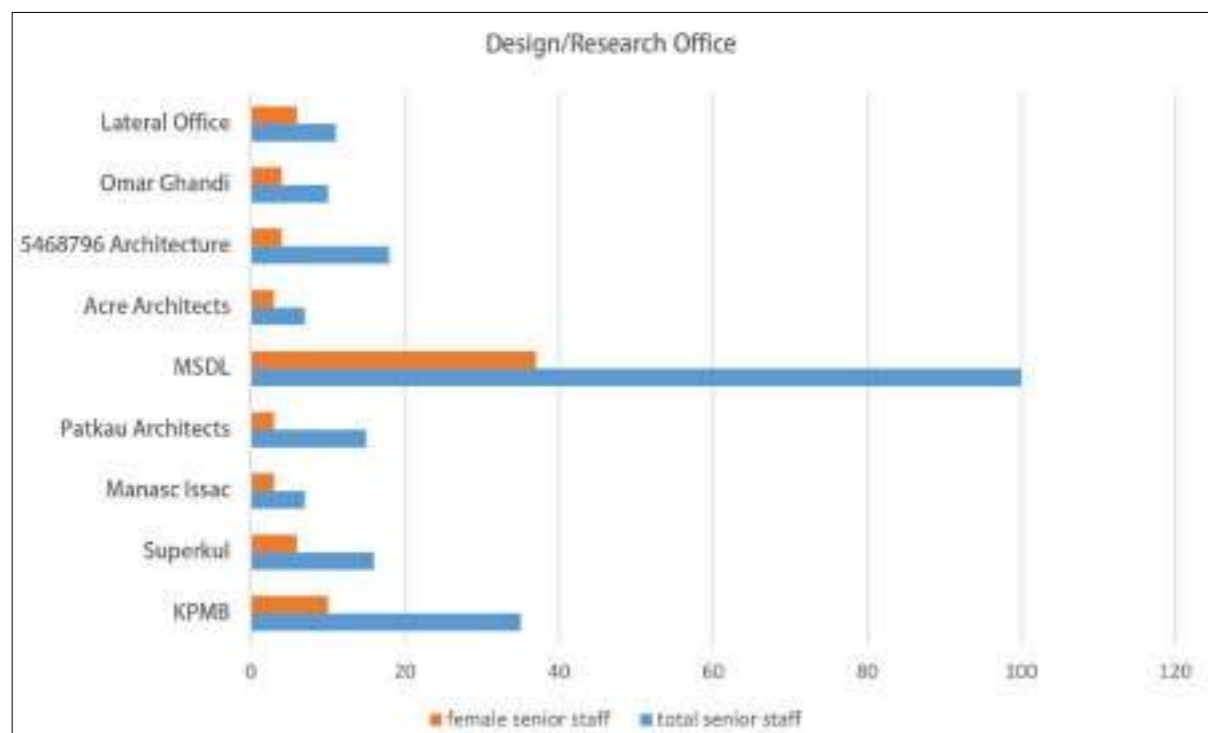
Definitely, women architects have achieved a presence and have significantly contributed to enrich the architecture field in Canada and abroad. However, women continue working, on one hand, to achieve a better quality of professional life and on the other hand, to legitimize the distinctiveness that they bring to architectural practice, urban planning, design, conservation, accessibility and sustainability. It is an evolving process that affects the individual female practitioner and women and men architects as a collective. Today advocacy groups, such as BEAT, Building Equity in Architecture Toronto, are working to make these issues known within the profession. Hopefully, not long from now, the profession will adjust in order to sustain architects not only in reshaping cities but in ways which they can be sustained personally and financially so that the profession does not continue to drain its well trained professionals.

¹⁷ Adams and Tancred, *Designing Women*, 16.
¹⁸ Adams and Tancred, *Designing Women*, 70.



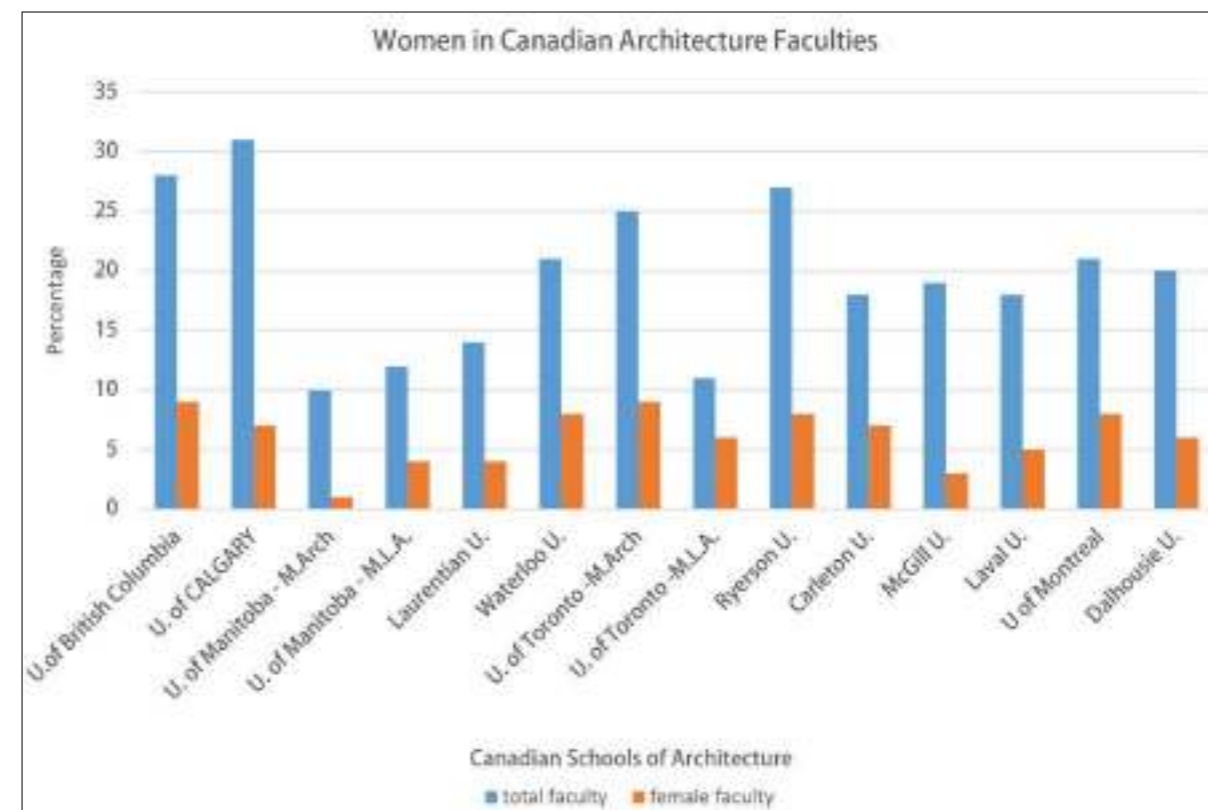
Tab. 1. Corporate/Commerical Office

Source of data: "About Us, Experts," NORR Canada, <http://norr.com/global/about-us/our-executives/> (accessed January 25, 2018); "Canada Leaders," Perkins + Will, <https://ca.perkinswill.com/people/regional-leaders> (accessed January 25, 2018); "Our People, Filter by Architecture, English," IBI Group, <http://www.ibigroup.com/our-people/?location=toronto&tags=architecture,english> (accessed January 25, 2018); "People, filter by design leaders," HOK, <http://www.hok.com/people/> (accessed January 25, 2018); "Toronto Office Team Members," Stantec, <https://www.stantec.com/en/offices/canada-locations/ontario-offices/toronto-ontario-office/team-members> (accessed January 25, 2018)



Tab. 2. Design/Research Office

Source of data: "About Us, Team," MENKES SHOONER DAGENAIS LETOURNEUX Architects, <http://www.msdl.ca/en/about-us/team/> (accessed January 27, 2018); "Contact," Manasc Isaac, <https://manascisaac.com/contact-us> (accessed January 27, 2018); "KPMB People," KPMB, <http://www.kpmb.com/people/> (accessed January 26, 2018); "Lateral Office Team," Lateral Office, <http://lateraloffice.com/filter/Office/TEAM> (accessed January 26, 2018); "Our Team," Superkül, <https://superkul.ca/about/people/> (accessed January 26, 2018); "Studio, People," Patkau Architects, <https://patkau.ca/studio/people/> (accessed January 27, 2018); "Studio People," Omar Ghandi Architect Inc, <http://omargandhi.com/people/> (accessed January 27, 2018); "The Acre Collective" Acre Architects, <https://theacre.ca/main/acre-architects/acre-collective/> (accessed January 27, 2018); "5468796 Architecture," 5468796 Architecture, <http://www.5468796.ca/> (accessed January 27, 2018)



Tab. 3. Women in Canadian Architecture Faculties

Source of data: "Academic Staff List Department of Architecture," University of Manitoba Faculty of Architecture Office of the Dean, http://umanitoba.ca/faculties/architecture/facstaff/faclist/DoA_academic_staff_list.html (accessed January 30, 2018); "Academic Staff List Department of Landscape Architecture," University of Manitoba Faculty of Architecture Office of the Dean, http://umanitoba.ca/faculties/architecture/facstaff/faclist/LA_academic_staff_list.html (accessed January 30, 2018); "Architectural Studies B.A.S. Faculty Notes," Laurentian University, <https://laurentian.ca/program/architecture> (accessed January 30, 2018); "Architecture Faculty Profiles," University of Waterloo, <https://uwaterloo.ca/architecture/about-waterloo-architecture/faculty-profiles> (accessed January 30, 2018); "Core Faculty MArch (Architecture)," University of Toronto John H.Daniels Faculty of Architecture, Landscape and Design, <https://www.daniels.utoronto.ca/people?type=14&program=8&s=> (accessed January 30, 2018); "Core Faculty MLA(Landscape Arch.)," University of Toronto John H.Daniels Faculty of Architecture, Landscape and Design, <https://www.daniels.utoronto.ca/people?type=14&program=9&s=> (accessed January 30, 2018); "Full Time Faculty," Department of Architectural Science Ryerson, <http://www.arch.ryerson.ca/people/full-time-faculty/> (accessed January 30, 2018); "École d'Architecture Professeurs" Faculté d'aménagement, d'architecture, d'art et de design Université Laval, <https://www.arc.ulaval.ca/enseignants-personnel/professeurs.html> (accessed January 30, 2018); "Faculty & Staff," Azrieli School of Architecture & Urbanism, <https://carleton.ca/architecture/people/> (accessed January 30, 2018); "Faculty and Staff," Faculty of Engineering Peter Guo-hua Fu School of Architecture McGill, <https://www.mcgill.ca/architecture/node/1539/faculty> (accessed January 30, 2018); "Faculté de l'aménagement Professeurs," Université de Montréal, <http://architecture.umontreal.ca/architecture/professeurs/> (accessed January 30, 2018); "MARCh Faculty," University of Calgary, Environmental Design, Architecture, Landscape Architecture + Planning, <https://evds.ucalgary.ca/content/march-program-faculty> (accessed January 30, 2018); "School of Architecture Faculty and Staff," Dalhousie University 1818 2018, <https://www.dal.ca/faculty/architecture-planning/school-of-architecture/faculty-staff.html> (accessed January 30, 2018); "School of Architecture + Landscape Architecture, Faculty," The University of British Columbia, <https://sala.ubc.ca/people/faculty> (accessed January 30, 2018)

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Gender in Architecture: A Feminist Critique on Practice and Education

Introduction

The new urban models and the suburban developments that prevailed in the 1950s and the 1960s in America had a dramatic effect on the lives of women. The social repercussions of this new urban model enhanced further discrimination against women. The suburban model praised working men, yet it marginalised women, providing them minor chances of work, or better keeping them distant at their suburban homes. This situation pushed the feminist efforts into further development. One of the significant feminist reactions at that time was in 1963 with Betty Friedan's book *The Feminine Mystique*. A new era of feminist consciousness was initiated, and it held high hopes to elevate the lives of women in the man's world.

Freidan called the new urban development 'the problem that has no name.'¹ Since then feminist ideas grew wider and reached architecture, exposing the discrimination against women and the domination of men in the field. However, the feminist argument did not develop until the 1990s, till the ideas of feminism became intense and more developed theoretical works came out. Many of these works had an important impact on creating awareness and developing new principles and ideas to improve the conditions of women in architecture. Among those works are: *Discrimination by Design: A Feminist Critique of the man-made Environment*,² *Bodyspace: Destabilising Geographies*

1 Betty Friedan, *The Feminine Mystique* (New York; London: W. W. Norton, 2013).

2 Leslie Kanes Weisman, *Discrimination by Design: A Feminist Critique of the man-made Environment* (Urbana; Chicago; Springfield: University of Illinois Press, 1992).

of *Gender and Sexuality*,³ and *Gender, Space, Architecture: An Interdisciplinary Introduction*.⁴ In the past 20 years, with post-structuralist perspectives over both architecture and gender, the feminism theory has developed into a more general critique of the heteronormative bias of the discipline of architecture.⁵

In an attempt to understand how gender is embedded in architectural spaces, Bonnevier presented her book in 2007, *Behind Straight Curtains: Towards a Queer Feminist Theory of Architecture*,⁶ in which she uses the deconstruction of the gender binary by Judith Butler, and her performativity theory and applied them on architecture.⁷ Bonnevier, with this approach, widens the perspective from just looking at the position of women in architecture, into deconstructing the architectural institution as a system of knowledge production, and as the institution; as both the subject and the object and their power.

In the same time, there is a growing number of female architects, the universities now have two-thirds of the architecture students as females, and one-third as males. The educational system still enforces the traditional design processes and the male-centred teaching strategies of design and leadership. Somehow these female architects disappear from the architectural field after graduation, to either be invisible architects working in offices conforming to male domination, or quite the discipline. The number of female practitioner architects remains very rare.⁸

Feminism in Architectural Practice

Women in architectural practice are divided into two categories: the first who wants to remain gender neutral conforming to the male norms in the discipline, and the second who is explicit with their feminist intentions. In both cases, women are facing challenges either of conformity or challenges of having to battle at every corner. To investigate the two categories, we investigate the experiences of the two practicing women architects, each of them is considered an advocate for a feminist approach. The first is Denise Scott Brown, who stated her views on feminism in her books and

3 Nancy Duncan (ed.), *Bodyspace: Destabilising Geographies of Gender and Sexuality* (London; New York: Routledge, 1994).

4 Jane Rendell (ed.), *Gender, Space, Architecture: An Interdisciplinary Introduction* (London; New York: Routledge, 2000).

5 Hilde Heynen, *Architecture and Modernity* (Cambridge, London: MIT Press, 1999).

6 Katarina Bonnevier, *Behind Straight Curtains: Towards a Queer Feminist Theory of Architecture* (Stockholm: Axl Books, 2007).

7 Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity* (London; New York: Routledge, 2006).

8 Based on Data from the Order of Engineers and Architects in Beirut, 2018.

essays. She is an advocate of 'feminism of equality.' The second is Frances Bradshaw, and her view on feminism is stated in her book *Matrix, Making Space: Women and the Man-made Environment*,⁹ and she is an advocate of 'feminism of difference.' Both women were active practicing architects in the eighties, and through their experiences, we can investigate how the theories on feminism were translated into architecture. Despite the fact that each woman represents a different perspective of feminism, it is essential to study both to get a wider perspective of the feminist concepts that prevailed in the eighties and to highlight where architecture and feminism intersect. Further reading of their writings from a post-structuralist perspective reveals many points that are still valid today and that their main argument is still relevant. In *Gender, Space, Architecture*, Rendell says that women dealing with feminism in architecture are coming from two different positions; those who follow the idea of equality, and those who follow the idea of difference.¹⁰ Another approach to gender differences from Hilde Heynen yields that both ideas produced critique on architecture itself and the institute of architecture.¹¹

(1) Feminism of equality is based on the principle that women are equal to men, they both can perform same tasks, they have same capacities. However, the inequality is in the distribution of power within a space which results in discrimination. The way we structure the space spreads this discrimination beyond the architectural practice.¹² In the history of architectural theory, the male body was always the model for architecture, and it was the perfect model.¹³ The repercussions of the male model are in the binary oppositions which are still dominating the architectural theory today. From the Cartesian mind/body dualism, most architectural spatial concepts are related to the male/female dichotomy.¹⁴ We can see the repercussions in most conceptual dualism in architecture like interior/exterior, and structure/decoration, where architecture and exterior are the masculine, while decoration and interior are feminine. The pair private/public was a significant indication of the spatial regulation of gender in our societies. The public is the rational space, objective and neutral associated with the male, while private is emotional and strictly female, subjective and related to the body of the woman. The public space with its politics is always related to the male body.¹⁵

We can find two profiles of women whom both follow feminism of equality. According to Rendell, there is a group of women who decide to stay invisible and not to raise any feminist issue; they prefer to work as 'architects' without any recognition to their female status.¹⁶ The other group is the women practicing architecture in partnership with a male architect. This model is more comfortable than the first, and the practice is more stable than the first.¹⁷ It is the way to develop their architectural career and having a family at the same time.

Denise Scott Brown states that the higher a female architect gets in her career, the more difficult it gets. The discrimination increases especially with the 'star system' in architecture, which is, according to Scott Brown, the central problem. It refers to the creation of the 'starchitects,' the idols in the field of architecture. Those who are involved in the prestigious projects and are internationally acclaimed and their buildings are characterised by being iconic. The practice developed these 'stars' as well as the media and the architecture critics. Within this system, all the acknowledgment goes to the famous member of the team,¹⁸ while in architecture we know that all design work is work of a team, not one individual. Moreover, architecture stardom is not a woman's privilege. As Scott Brown states: 'The star system sees the firm as a pyramid with a designer on top.'¹⁹ In her book, she criticises the macho culture and the educational system and how students are prepared to be stars instead of architects. It is notable here that Scott did not publish her writings in the 1970s because she feared the reaction against her explicit feminist critique of her career and her firm. She was aware of the men's hostility and their influence when it comes to making or breaking one's career. 'In the last twenty years, I cannot recall one major article by a high-priest critic about a woman architect'.²⁰

(2) Feminism of difference recognises the specificity of being a woman, which feminism of equality failed to recognise. The feminism of difference says that although men and women are equal, they are fundamentally different. The difference is not only genetic or biological; it is related to the female socialisation.²¹ According to Rendell, there are three characteristics of architectural projects based on the feminism of difference principles. First of all, they make their feminist ambitions clear from the start. Secondly, they reject the whole patriarchal discipline, and they organise their practice in

9 Frances Bradshaw, *Matrix, Making Space: Women and the Man-made Environment* (London: Pluto Press, 1984).

10 Jane Rendell (ed.), *Gender, Space, Architecture: An Interdisciplinary Introduction* (London; New York: Routledge, 2000).

11 Hilde Heynen, *Architecture and Modernity* (Cambridge; London: MIT Press, 1999).

12 Ibid.

13 Diana Agrest, *Architecture from Without: Body, Logic and Sex* (MIT Press, 1991).

14 Nancy Duncan (ed.), *Bodyspace: Destabilising Geographies of Gender and Sexuality* (London; New York: Routledge, 1994).

15 Linda Martin Alcoff, *Visible Identities: Race, Gender and the Self* (New York: Oxford University Press, 2005).

16 Rendell, *Gender*.

17 Ibid.

18 Heynen, *Architecture*.

19 Denise Scott Brown, "Room at the top? Sexism and the star System in Architecture," *Gender, Space, Architecture: An Interdisciplinary Introduction*, edited by Jane Rendell (London; New York: Routledge, 2000), 260.

20 Scott Brown, "Room," 264.

21 Heynen, *Architecture*.

a specific way that suits them. Thirdly, based on their difference principle, they 'see femaleness and femininity as encompassing a set of qualities, which are different from the maleness and the masculinity'.²² The feminism of difference aims at creating an alternative built environment to our man-made world using the feminine qualities.

Frances Bradshaw, with her team, Matrix Feminist Architectural Co-operative, adopted the three principles as the bedrock for her architectural practice. Firstly, their projects were for women; health centres, women's workshops, children's centres. In these projects, they had to communicate with a group of women as the client representatives. Secondly, with their design, they try to create a better-built environment for daily life. 'If women collectively organise, design and make buildings that suit their needs rather than having to fit into what already exists (buildings created by patriarchal culture) then the buildings are bound to look and feel different'.²³

It is fundamental to work on the project as groups and to involve the client in the design process as much as possible. Moreover, to achieve that, they had to create a strategy and develop a set of tools. Firstly, they needed to find a language to talk to people about architecture with people who are not trained for that. 'We needed to find a language accessible to everyone involved. It means starting from feelings about the spaces women know, and their everyday experiences in them, and using that information to gradually build up a picture of the new space'.²⁴ They initiate their design process from the idea that the client knows most what he wants, but doesn't have the tools to produce the design, the architect's responsibility is to help him do so. 'Matrix also ran a short course for the women who were to be particularly responsible for making design decisions'.²⁵ They do not position themselves as leaders of the project. Instead, they share their knowledge with the clients and listen to all parties involved.

This experience helped them develop tools to apply their design strategies in their practice. Instead of presenting the client a finished product, they provided them with variable, changeable models which women can modify by themselves: 'Women's experiences in different workplaces became relevant and useful, and each woman felt involved in the process'.²⁶ This way, Matrix gave women the power by emphasising each personal experience and using it in the design, and deconstructing architecture from its elitist and intellectual status. Matrix managed to set a system opposite to the usual practice of architecture, where the architect is not in leadership position taking all decisions:

'The question for us feminist architects is, how do we use these skills to further the liberation of women?'²⁷

Building practice is also another arena of the hierarchical power structure where the architect plays a leading role. The architect-builder relation is problematic, especially if the architect is a woman. Bradshaw states that the difficulties in these relations stem out of class differences, which makes them problematic. 'While the builders' skills are at least as essential as the architects', they are not valued in the same way'.²⁸ Also when a woman architect deals with builders, the relation is uncomfortable: 'Women architects are in an authoritative role, which class difference reinforce, yet as women they do not normally have authority over men'.²⁹

Matrix group found the solution in learning building skills, which helped them relate to builders and their work. They also encouraged women builders and worked with them. The primary concern at Matrix was: 'How to find a framework for working together, which is based on mutual trust to resolve these contradictions'.³⁰

So, Difference or Equality?

Feminism principles are developing with time and approaches towards gender are changing parallel with the experiences of women and their struggles. In architecture, we can see that there are various feminist approaches and each of them is valid and implemented in practice in a different way. Scott Brown argues that feminism of difference and feminism of equality cannot be attained together, to gain one, a woman has to sacrifice the other: 'When equality and difference are paired dichotomously, they structure an impossible choice. If one opts for equality, one is forced to accept the notion that difference is antithetical to it. If one opts for difference, one admits that equality is unattainable'.³¹ If we tend to compare between difference and equality, we find that neither managed to provide women with alternatives to the traditional macho practices.

Denise Scott Brown herself is an example of feminism of equality, where she established a solid career with her husband, Robert Venturi, in addition to being an educator, researcher, and writer on

22 Rendell, *Gender*.

23 Bradshaw, *Matrix*.

24 Ibid.

25 Ibid.

26 Ibid.

27 Ibid.

28 Ibid.

29 Ibid.

30 Ibid.

31 Rendell, *Gender*.

architecture. Despite being on top of her firm, she was regarded as the women architect and never as an architect. She states that even in her position: 'the discrimination continues at a rate of about one incident a day'.³² Scott Brown has contributed immensely to feminism of equality through her writings, teaching, and practice, yet somehow she was caught between the principle of equality, women and men have same capacities, and the reality that they are never regarded the same socially. Her writings on the star system in architecture are essential, and they highlight the role of the media and the critics in insisting that men and women are not equal, and that stardom is strictly a man's achievement. Architectural discourse has a history of discrimination against women and setting the male-female roles similar to the roles of the artist and his muse.

The feminism of difference emphasises the specificities of women and uses that to create new solutions. Frances Bradshaw and Matrix did set a new practice in architecture, inspired by the singularity of women and the feminism of difference. The feminism of difference argues that women should use their singularity to create their models, instead of conforming to male models.³³ The Matrix was a successful architectural group; they built many projects, and their clients are satisfied, but their scope of work is limited to a context that they created for themselves. They are women working for women. Their projects are successful, but in the outer world everything is still the same. This does not devalue their work, yet it raises questions about big scale projects. They managed to create an alternative system to the traditional macho system. However, this alternative system reveals new complications related to same-sex fields. 'The sameness constructed on each side of the binary opposition hides the multiple plays of differences and maintains their irrelevance and invisibility'.³⁴

It is critical to note that the aim of feminism is not to wipe out male values and substitute them with female ones. It is essential to develop a system where both men and women can collaborate for the good of the society, a collective system that doesn't marginalise nor single out half of the society.

Feminism principles are based on dichotomies and binaries, in both gender and architecture. And here I quote Scott Brown:

When looked at closely, in fact, the historical arguments of feminists do not usually fall into these neat compartments; they are instead attempts to reconcile theories of equal rights with cultural concepts of sexual difference, to question the validity of normative constructions of gender in the light of existence of behaviours, that contradict the rules, to point up rather resolve conditions of contradiction, to articulate a political identity for women without conforming to existing stereotypes about them.³⁵

Conclusion

The formation of architectural practice takes place in architectural education. Moreover, feminist pedagogy principles are needed to create a practice that can accommodate both men and women. Applied feminist pedagogy in architecture schools can have the transformative effect and lead to a practice released from binaries. A practice that doesn't have to choose between feminism of equality and feminism of difference. Instead, it addresses the social problems in architecture. The differences are necessary conditions of human development and collective identities; if we can incorporate differences, not opposing equality, we can develop an alternative to the macho culture. Differences are the constant changes we need to challenge to fix identities, and as Scott Brown says: 'Differences as the very meaning of equality itself'.³⁶ This will lead us to a practice that deals with differences without sacrificing equality. It would deconstruct architecture as reflective of the socially gendered binaries, and address its role as a cultural amalgam and a system to empower relations.

Feminist pedagogy applied to architectural education can bridge the gender gap, where architectural training would be gender sensitive, taking into consideration the personal experiences and the different capacities of students. Gender studies have to be introduced in the architectural curriculum, creating awareness and responsibility. They highlight the accomplishments of female architects and their contribution to architecture. Creating an environment of communication and avoiding competition. Feminist pedagogy enhances teamwork and cooperative learning in the design studio. It calls to move away from the master teacher and enabling lifelong learning. Moreover, it focusses on the learning process instead of the final design product.

Feminism efforts in architectural education and practice encourage a change of perspective on the role of women and empowering them to fulfil their positions as educators and practitioners of architecture. We hope women architects will soon be prominent in the field and they promote collaboration over competitiveness.

32 Ibid.

33 Heynen, *Architecture*.

34 Rendell, *Gender*.

35 Ibid.

36 Ibid.

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Women in the Spanish Architecture Schools, from 1929 to 2018

After three feminism waves, the first wave or 'Enlightenment feminism,' the second wave or 'liberal feminism,' and the third wave or 'contemporary feminism,' after more than 200 years of feminist struggles and vindications, after 100 years from the Spanish Royal Order of 8 March 1910 which provided the women access to universities under equal conditions, the presence of the women in the architecture classrooms is normalized, and in 2010 the number of them was bigger than the male one. The 54% of the architecture students of the state were women.

This article shows the results obtained in the Spanish architecture schools thanks to the feminist movement during the last centuries. A network of 19 Higher Technical Public Schools of Architecture far from the equal conditions and equal opportunities, and even further from the architectural feminist review of European and American architects such as Jane Jacobs, Denise Scott Brown, Daphne Spain or Dolores Hayden.

A network which perpetuates and imparts an architectural hetero-patriarchy.

The First Wave of Feminism, Far From the Architecture

The first wave or 'Enlightenment feminism,' described by Amelia Valcárcel,¹ was a period of feminism activity and thought that occurred during the Enlightenment, when the women were excluded from the freedoms, rights and legal equalities conquered by the great liberal revolutions of the eighteenth century.

¹ Amelia Valcárcel, *Feminismo en el mundo global* (Madrid: Ediciones Cátedra, 2009).

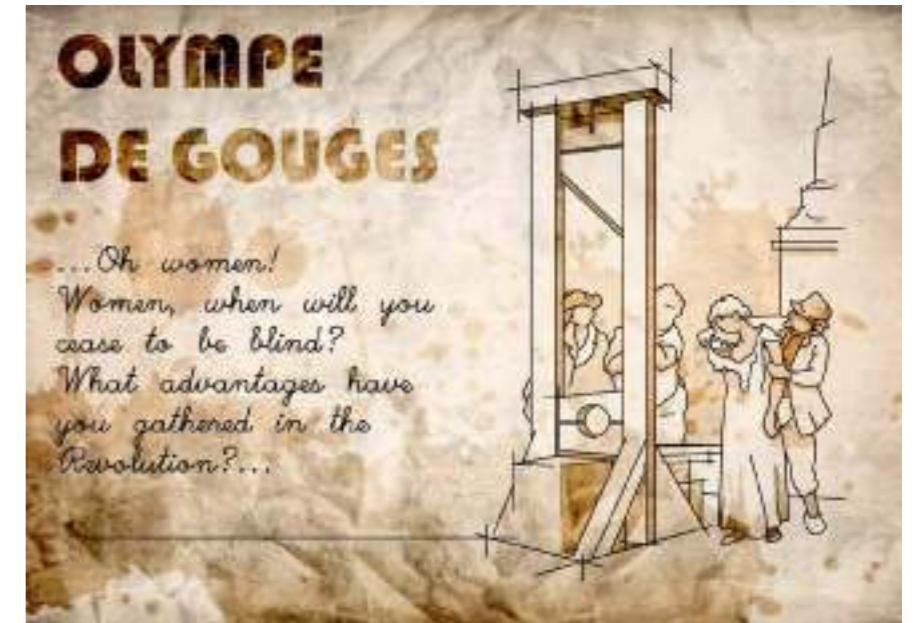


Fig. 1. Iñigo Galdeano Pérez,
The First Wave

In that century, the century of the lights, although one of the main objectives in the ideal democratic society was the equal rights for all men, the women were totally discriminated because of a conceptualization of a natural and pre-existing gender inequalities. So, they were locked up at home in a perpetual minor role, becoming daughters, mothers, and wives subjected to the male.

Therefore, without citizenship and outside the educational system, they become aware of the exclusion suffered, and between the eighteenth and nineteenth centuries, the first wave of feminism was born as a vindication for their inclusion in the Enlightenment universal principles. It was born as a vindication for the recognition of their intellectual and moral equality, as a vindication for their citizenship. Thus, the first wave was born for the abolition of the male privileges (Fig. 1).

Proof of those feminist struggles were theoretical reflections like the *Declaration of the Rights of Woman and Citizen*,² wrote by the French Olympe de Gouges in 1791 in response to the *Declaration of the Rights of Man and of Citizen*, or like the work *A Vindication of the Rights of Woman: with Strictures on Political and Moral Subjects*,³ published one year later, in 1792, by the English Mary Wollstonecraft. Both, new and valiant perspectives which contrasted with the currents misogynist and reactive ones of influential authors like Rousseau or the Jacobins. Authors who removed the women from the so-called liberal state in works such as *On the Social Contract; or, Principles of Political Rights*.⁴

² Olympe De Gouges, *Declaration of the Rights of Woman and Citizen*, 1791.

³ Mary Wollstonecraft, *A Vindication of the Rights of Woman* (Oregon: Renascence Editions, 2000).

⁴ Jean-Jacques Rousseau, *The Social Contract: or, The Principles of Political Rights* (Michigan: University of Michigan Library, 1893).

The Spanish Enlightenment, Far from the Feminism

Nevertheless, although in France, in England, and in the rest of Europe the new way of understanding the world, the existence and the society sought to break with the traditional values of the Old Regime, in the Spanish state that way of understanding did not have a great impact. Because of the ideas of the Age of Enlightenment reached Spanish state in attenuated form, and they only were spread among a minority of certain elites of strong Catholic roots; men, nobles, civil servants, bourgeois and clerics. So, the Spanish society perpetuated the traditional and religious values.

Summarizing, the earliest feminist activists, focused in the vindication for their citizenship, argued that in a society based on reason women as well as men should be treated as rational beings. Consequently, not only in the Spanish state, but also in Europe, that first wave did not address the architectural discipline or any surrounding guilds, and the professionals perpetuated the architectural patriarchy designing and building a world by men and for men. But despite being far from soaking the architecture, that wave built the foundations of the coming ones.

The Second Wave, the First Woman Architect

The second wave or 'liberal feminism,' described by Amelia Valcárcel,⁵ was a second period of feminism activity and thought that occurred after Enlightenment, from the middle of the nineteenth century until the middle of the twentieth century throughout the Western world, during the socio-economic and politic reality of the interwar period.

The first wave finally concluded without significant changes in the political, legal and economic status of women. So, as previously, the new society, industrial and liberal, perpetuated the multiples and daily patriarchal oppressions creating a dichotomy of separate spheres for men and women in which men were to occupy the public sphere, the space of wage labour and politics, and women the private one, the space of home and children.

However, during the First World War women entered that masculine labour market in unprecedented numbers, often in new sectors, discovering and becoming social aware of the value of their work.

That circumstance boosted growth that second wave, and the feminism added to the enlightened vindications for being treated as rational beings, the struggles for the rights to the universal suffrage, to the higher education, to the access to all professions or positions, or to the equal labour and matrimonial rights and duties.

⁵ Amelia Valcárcel, *Feminismo en el mundo global* (Madrid: Ediciones Cátedra, 2009).



Fig. 2. Iñigo Galdeano Pérez, *The Second Wave*

In that second period, were published numerous theoretical reflections like *The Subjection of Women*⁶ wrote by the Englishes John Stuart Mill and Harriet Taylor in 1869. But unlike in the first period, in the second one because of the power gained, there were took place many landmarks and mobilizations of international relevance, like the Seneca Falls Convention, which was the first women's convention to discuss the social, civil, and religious condition and rights of woman. Or struggles for the women's suffrage like the English one, which was impelled by the Women's Social and Political Union tightly controlled by Emmeline Pankhurst (Fig. 2).

The Spanish Pre-War Period, the Right to Education

Despite the growing number of European and American feminists, in the Spanish State the number of that did not experience such growth. Therefore, the second wave did not have a great impact. Moreover, before the First World War, the Spanish new movement focused only on social demands leaving aside the political ones. That is, the movement focused on education left aside the suffrage. This practice resulted in a Spanish state which persisted unchallenged in its traditional and religious values, which perpetuated the oppression of women, exercising a heavy social control over them through a domestic role.

The *Penal Code* of 1870, the *Commercial Code* of 1885 and the *Civil Code* of 1889 are some examples of those types of discrimination. Even among the most progressive figures was extended

⁶ John Stuart Mill and Harriet Taylor Mill, *The Subjection of Women* (London: Longmans, Green, Reader and Dyer, 1869).

and accepted the idea of a genetic inferiority and subordination of the women. They were socially considered like incomplete beings, instruments for the reproduction whose main purpose was the perpetuation of the specie.

However, it should be remembered the great undertaking of activists like Dolores Monserdá who wrote books like *Feminist Studies* in 1909 or *Social Tasks* in 1916, Teresa Claramunt a revolutionary feminist anarcho-syndicalist, or María Echarri a Spanish catholic propagandist and columnist, advocate of feminist causes.

Focused on social demands, such as the right to education, Concepcion Arenal studied at the Law School from 1841–46, and Maria Elena Maseras and Dolores Aleu studied at the Medicine School from 1872–79.

Finally, although the Spanish Royal Order of the 11 June 1888 provided access to studies at institutes of higher education as private students under the authorization of the Council of Ministers, until 1910 only 36 women completed university degrees and only eight women achieved Doctor degrees. Very late university integration compared with Paris, Zurich, United Kingdom, Belgium, Denmark, Italy or Germany.

The Spanish Post-War Period, the Step Backward

After the First World War, at the beginning of the twentieth century, the Spanish movement added to the social vindications the political vindications such as the right to vote. Good examples of this were Consuelo Gonzalez Ramos and Maria Espinosa de los Monteros, two women which founded the Spanish Women's National Association in Madrid, in 1918. An association without support from the Catholic Church or any political party, whose purpose was to work for women's rights, particularly women suffrage.

In the Spanish state, during the Miguel Primo de Rivera regime only women who were considered heads of household were allowed to vote in local elections, but there were none at that time. Women's suffrage was officially adopted during the Second Republic in 1931, with the opposition of Margarita Nelken and Victoria Kent, two feminists who argued that women in Spain at that moment lacked social and political education enough to vote responsibly because they would be unduly influenced by Catholic priests. Finally, on 19 November 1933 about 6,8m women were able to vote for first time.

Unfortunately, three years later, in 1936, with the beginning of the Spanish Civil War all the rights obtained in the Second Republic were banished and organisations like Spanish Women's National Association were dissolved. The Spanish step backward.

The First Woman Architect

As previously described, the second wave of feminism soaked the European and the Spanish architecture for the first time. In this regard, thanks to the feminist struggles for the education right the German Emilie Winkelmann got a place to study architecture as a guest student at the Technical University of Hannover between 1902–08. However, she was refused a diploma as women were not entitled to the qualification until 1909, when she became the first European woman graduated in architecture.

In that period, in the Spanish state were only two schools; the Higher Technical School of Architecture of Madrid and Higher Technical School of Architecture of Barcelona, which were established in 1844 and in 1875 respectively. Concretely without right to vote, in 1929 Matilde Ucelay, Lali Úrcula and Cristina Gonzalo joined the school of Madrid becoming the first Spanish female students of architecture.

In 1936 at the age of 24, Matilde Ucelay finished her studies, becoming the first Spanish woman graduated in architecture. Unfortunately, that year coincided with the beginning of the Spanish Civil War, so Matilde was led to a drumhead court-martial. There she was sanctioned and separated from her architecture profession and from the public life; condemned to ten years full disqualification of her career, to a permanent disqualification of a public service position and to a fine of 30,000 pesetas. From 1936 began the Spanish step backward.

The Spanish Civil War began in July 1936 and officially ended with Franco's victory in April 1939. He established a military dictatorship, and he proclaimed himself Head of State and Government. A military dictatorship of dire consequences founded upon a National Catholic Patriarchy.

Concerning the role of women in Spanish society during the Francoist era, the Women's Section of the Traditionalist Spanish Falangist Party of the Committees of the National Syndicalist Offensive was the women's official branch of the phalanx. The Women's Section was conceived as an extension of the domestic role of women to the public sphere, and its main role was instructing Spanish women in Francoist patriotic, religious and social morals. Good patriots, good wives, and good Christians. Marriage, children and housework were the main goals in life; children, kitchen, church. That Section rewrote a feminization speech to gain the women's support and to erect them like a key element of their nation construction.

In that period, women were considered in a moral and intellectual backward position, and they were subordinated to the men. At the university, they were confined at the private sphere and expelled from the university, while no phalangist women suffered from persecution and murders.

In conclusion, the Spanish Catholic National Patriarchy architecture perpetuated its masculinities designing and building a world by men and for men. Far from the European movement, that step

backward sentenced the Spanish feminist movement to go underground until the death of Francisco Franco Bahamonde.

The Third Wave, Towards an Architectural Review

The third wave or 'contemporary feminism,' described by Amelia Valcárcel,⁷ was a third period of feminism activity and thought that occurred after the Second World War and the collapse of the powers of the Axis. Whereas the second wave focused mainly on suffrage and overturning legal obstacles to gender equality, the third wave broadened the debate to include a wider range of issues such as sexuality, family, the workplace, reproductive rights, official legal inequalities, domestic violence or marital rape, among other ones.

In many European countries the second wave managed to bring to a successful attainment of the women's suffrage or of their higher education right, due to their performance during the First World War and due to the subsequent feminist struggles. Nevertheless, after the Second World War far from recognize the value of the work carried out by women, the political advertising machinery of the industrialized countries returned to the women's feminization discourse. The mass media and influential people idealized domesticity underlining the benefits of the home life and creating a new roll for the ideal woman; the housewife, the model imposed of the 1950s.

A new women model and a new city model, for example the American Suburb,⁸ denounced by feminist such as Dolores Hayden in her publications *Redesigning the American Dream: Gender, Housing, and Family Life* or *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighbourhoods, and Cities*.⁹ New group of feminist architects who were aware of the patriarchy and of its consequences and who began an architectural review since the 1960s

In other words, after the Second World War, the movement became aware of the hegemonic social structure which was causing the discriminations and inequalities, and which was drawing the hierarchies that benefited the males and oppressed the women; the hetero-patriarchy. Thus, after more than two centuries of struggles, that new conceptualization set a new stage in which the attainment of the legal equalities, the attainment of the equal opportunities and freedoms, or the attainment

7 Amelia Valcárcel, *Feminismo en el mundo global* (Madrid: Ediciones Cátedra, 2009).

8 Dolores Hayden, *Redesigning the American Dream: The Future of Housing, Work and Family Life* (New York: W. W. Norton, 1984).

9 Dolores Hayden, *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighbourhoods, and Cities* (Cambridge; London: MIT Press, 1981).

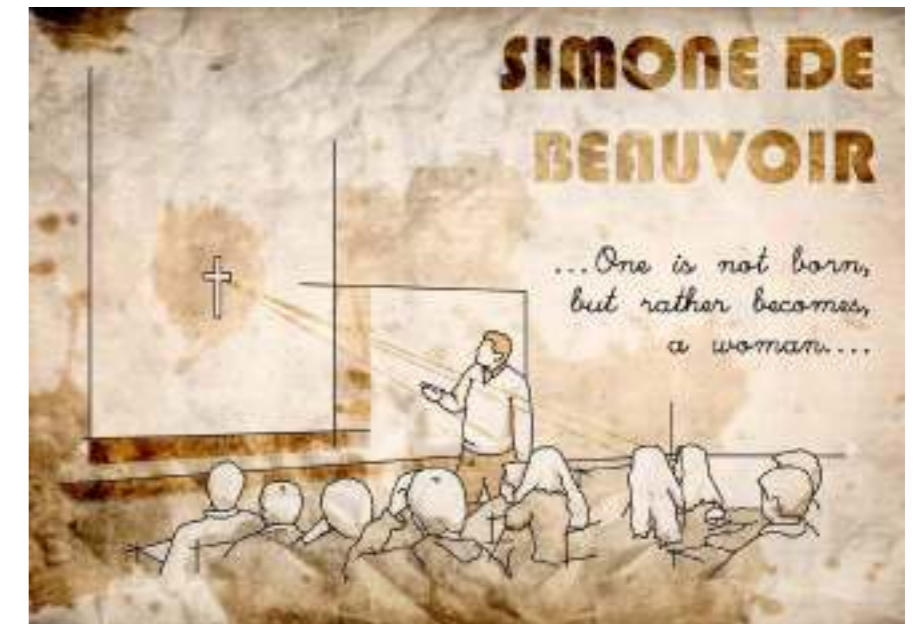


Fig. 3. Iñigo Galdeano Pérez, *The Third Wave*

of the equal political rights would not lead the liberation of women. Locating the feminism debate within the questioning of the false universal model; exclusively male, liberal, and western, a false model behind which the system was hiding its multiple oppressions. In that way, the movement added a vindication for a change of values, a vindication for the abolition of the hetero-patriarchy.

Evidences of that new vindication were publications like *The Second Sex*¹⁰ wrote in 1949 by the French Simone de Beauvoir, *The Feminine Mystique*¹¹ wrote in 1963 by the American Betty Friedan, or *Sexual Politics*¹² and *The Dialectic of Sex*¹³ wrote in 1970 by the North Americans Kate Millet and Sulamit Firestone respectively (Fig. 3).

The Spanish Transition, Hiding the Francoism

After the revolutions of the sixties, despite the architectural feminist review of architects such as Jane Jacobs, Denise Scott Brown, Daphne Spain or Dolores Hayden, in that third wave in the Spanish state, as previously, the movement had to face the Spanish unchanging traditional and

10 Simone de Beauvoir, *Le Deuxième Sexe* (Paris: Galimard, 1949).

11 Betty Friedan, *The Feminine Mystique* (New York: W. W. Norton, 1963).

12 Kate Millet, *Sexual Politics* (New York: Doubledayand Co., 1970).

13 Sulamit Firestone, *The Dialectic of Sex* (New York: William Morrow and Company, 1970).

religious values. But even when the Franco's dictatorship ran until 1975.

After the Second World War Franco tried to destroy all evidence of her cooperation with the Axis, and he had to adapt himself to the new geostrategic positions to break up with the international isolation. In that way, in 1953 he signed an alliance with the United States, the Pact of Madrid, and the Concordat with the Roman Catholic Church. Thus, between 1946–57, the Spanish dictatorship changed from the autocratic isolation to the economic developmentalism.

Talking about architecture, those cultural and technological revolution transformed the dictatorship's architecture from the phalangism to the capitalism. So, from 1957–75, the dictatorship gave rise to an architectural renewal in which were established six new schools of architecture; the school of Sevilla in 1958, the school of Valencia in 1966, the school of Valladolid in 1968, and the schools of A Coruña, of Las Palmas and of Valles in 1973.

Nevertheless, from the Second World War until the 1975, the National Catholic Patriarchy perpetuated its oppressions forbidding the women's expression and excluding them from the architecture.

After the death of Francisco Franco, on 20 November 1975, during the so called 'Spanish Transition' to the democracy the feminist movements flourished again on the leftist social movements and leftist political parties. Unfortunately, the diversity of priorities of the leftist parties, and a Spanish Transition which called itself; moderate and agreed, left out the feminist vindications. They were accused of being opposite and incompatible vindication; rather than moderate, a strident vindication. Rather than agreed, an unnegotiable vindication.

Thus, Franco restored the monarchy before his death, which made King Juan Carlos I his successor, which transformed Spain into a parliamentary democracy under a constitutional monarchy that perpetuated the Francoism institutions, leaders and its authoritarian and patriarchal culture.

In respect of the architecture schools, during that period and influenced by the property bubble, in the state were established the last 11 schools; the school of San Sebastian in 1977, the school of Alicante in 1984, the school of Reus in 1991, the school of Granada in 1995, the school of Alcalá de Henares in 1999, the schools of Gerona and of Malaga in 2005, the schools of Zaragoza and of Cartagena in 2008, the school of Toledo in 2010, and the last one in 2011 in Madrid the Higher Technical School of Architecture of the King Juan Carlos University.

A network of 19 Higher Technical Public Schools of Architecture far from the architectural feminist review of European and American architects. In conclusion, after more than two centuries of struggles and far from the third wave, today the Spanish architecture perpetuates its masculinities designing and building a world by men and for men.

The School of Madrid, a True Reflection of the Waves

Summarizing what has been discussed, during the first wave or 'Enlightenment feminism' not only in the Spanish state, but also in Europe, the feminist struggles and vindications were far from soaking the architecture.

After that, during the second wave or 'liberal feminism' the movement soaked the architecture, and thanks to the feminist struggles for the education right the German Emilie Winkelmann became the first European woman graduated in architecture in 1909. In the same way, the Spanish Royal Order of the 11 June 1888 provided access to studies at institutes of higher education as private students under the authorization of the Council of Ministers, and later the Spanish Royal Order of 8 March 1910 provided the women access to universities under equal conditions, so in 1929 Matilde Ucelay, Lali Úrcula and Cristina Gonzalo joined the school of Madrid becoming the first Spanish female students of architecture. Spanish students without right to vote.

That school, the Higher Technical School of Architecture of Madrid, established in 1844, is the most ancient school of the state. And located in the middle of the war and dictatorship zone, with the largest population in the state, is a true reflection of the process suffered by the Spanish higher education of architecture.

Although from 1936–75 the women incorporation was curbed, in 1929 Matilde Ucelay, Lali Úrcula and Cristina Gonzalo joined the school of Madrid becoming the first Spanish female students of architecture. In 1936 Matilde became the first woman graduated in architecture of the state. In 1967 Cristina became the first woman doctor in architecture of the state, and Lali did not finish her studies.¹⁴

After the death of Franco, in 1975 Alicia Crespí became the first female professor of the School of Madrid. In 1987 Teresa Muñoz became the first female director of a department affiliated to that School. And in 2000 Sandra Quirós became the first female student delegate.

Thus, little by little during the democracy after hundred years from the Spanish Royal Order of 8 March 1910 which provided the women access to universities under equal conditions, the presence of the women in the architecture classrooms was normalized, and in 2010 the number of them was bigger than the male one. The 54% of the architecture students of the state were women.

It is regrettable but, despite that marked increase of female students, today the Spanish public schools of architecture are far from the equal opportunities or equal conditions. The glass ceiling; 'the unseen and unbreakable barrier that keeps minorities and women from rising to the upper

¹⁴ "Las mujeres en la universidad, un siglo de vida," Universidad Politécnica de Madrid, http://www.upm.es/sfs/Rectorado/Gerencia/Igualdad/Documentos/Dossier_Mujer_UPM_actualizado_2015.pdf (accessed March 17, 2018).

rungs of the corporate ladder, regardless of their qualifications or achievements,¹⁵ is also reflected in the fact that nowadays in the school of Madrid the number of female teachers is only the 28% and the number of female professor is only the 4%.

Furthermore, in the surrounding guilds those discriminations and inequalities are even more evident than in the architecture. The more technical or physical guilds the more discrimination will be. For example, today although in the Spanish state from the 1,529,730 university students, the 54% are female students, from the 214,330 university students of architecture and engineering, only the 28,6% are female students.¹⁶ Even so, in some construction and industry guilds the number of female students and workers is only the 1%.

To finish off, is not hard to imagine that when the Spanish social democracy is far from achieves, understands or accepts the new political, sexual and social vindications of the third wave, the new architectural feminist review is not yet come to the schools, nor to the Spanish architecture. Jane Jacobs, Denise Scott Brown, Daphne Spain or Dolores Hayden are unknown architects to Spanish students.

Thus, as well as the Plan of 1914 which Matilde Ucelay, Lali Úrcula and Cristina Gonzalo had to face, the Plan Bologna is introduced by school's Boards composed by men, which perpetuate an architectural hetero-patriarchy.

This means that in 1929 without right to vote, during the Primo de Rivera's Dictatorship the firsts and pioneering female students of architecture, activists of the Spanish Women's National Association, had to face social and academics discriminations, even in printed articles written by their teachers and classmates. Contextualized in the second wave of feminism which in Spain was mainly focused on the overcoming of the legal obstacles, those firsts students took important steps to the incorporation of the women in that profession. But every taken steps were blamed and repressed by the Spanish society which perpetuated the traditional and religious values. Thus, the movement claiming and arguing for an access to universities under equal conditions, achieved new restrooms adapted to them. Restrooms previously non-existent.

Paradoxically, after the Franco regime and contextualized in the third wave, it is difficult for the society of the Spanish social democracy to understand that the feminist students of 2018 are claiming the suppression of those restroom in favour of the mixed one. If the Franco's society

was not prepared to understand the liberal feminism, the current Spanish society, after a false transition, is not prepared to understand the contemporary feminism, and even less to understand the influence of the hetero-patriarchy in the architecture.¹⁷

Thus, although thanks to the Montgomery Bus Boycott against the policy of racial segregation on the public transit system, that barbarity was socialized and fought, today it is not socialized the segregation which the restrooms are reproducing and perpetuating. A barbarity based on the gender binary.

Today the hetero-patriarchal architecture is teaching to students in that discrimination, in the design of those two bathrooms. A discrimination which will not be irritating to the eyes of the users and of the designers until the abolition of the hetero-patriarchy. A discrimination far from being understood by the schools. Spanish schools far from Jane Jacobs, Denise Scott Brown, Daphne Spain or Dolores Hayden. An anecdotal sign of the long way to go.

15 Federal Glass Ceiling Commission, *Good for Business: Making Full Use of the Nation's Human Capital* (Washington, D.C.: U.S. Department of Labor, 1995).

16 "Datos y Cifras del Sistema Universitario Español Curso 2015–2016," Ministerio de Educación, Cultura y Deporte, <https://www.mecd.gob.es/dms/mecd/servicios-al-ciudadano-mecd/estadisticas/educacion/universitaria/datos-cifras/datos-y-cifras-SUE-2015-16-web-.pdf> (accessed March 15, 2018).

17 Edurne Epelde Pagola, *Gure Genealogia Feministak - Euskal Herriko Mugimendu Feministaren Kronika Bat* (Bilbao: Emagin Elkarte, 2015).

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Sapienti Romane: Pioneers and Heirs at the Faculty of Architecture in Rome

In 2019, Italian architects will officially celebrate their first 100th anniversary of existence. Of course, the origin of the profession is far more ancient, but it is a fact that the law which signed the first fundamental 'milestone' in the country, on how to educate the modern architect, was the Regio Decreto *Per l'Istituzione in Roma di una Scuola Superiore di Architettura*, ratified at the end of October 1919.¹

This new institution of the capital city was the result of more than sixty years of harsh debates between the supporters of the Schools of Belle Arti, the Polytechnic schools, the School of Engineering and the Superior Schools of Applied Arts.²

In order to express the interdisciplinary nature of the profession, Gustavo Giovannoni (1873–1947) had created the term *architetto integrale*,³ which inspired the didactic programs of the first modern School of Architecture 'La Sapienza', opened in Rome in that same 1919.⁴

1 R.D.2593/1919. In 1935 the Scuola Superiore di Architettura became the Royal University of Architecture. On this first phase of the University see Giorgio Simoncini, "Gustavo Giovannoni e la Scuola Superiore di Architettura di Roma (1920–1935)," *La Facoltà di Architettura dell'Università di Roma "La Sapienza" dalle origini al duemila: Discipline, docenti, studenti*, edited by Vittorio Franchetti Pardo (Rome: Gangemi, 2001), 45–53.

2 The questions on the education of architecture started in 1859, after that the Law 'Casati' created the first 'Applied Schools for Engineers'. Specifically related to the area of Rome, is the essay: Barbara Berta, "Il dibattito sulla formazione della figura professionale dell'architetto e la nascita della Scuola Superiore di Architettura di Roma," *L'Archivio storico dell'ordine degli architetti PPC di Roma e provincia: 1926–1956* edited by Letizia Mancuso (Rome: Prospettive edizioni, 2015), 32–40.

3 For a brief explanation of the term, see the fundamental text by Gustavo Giovannoni, "L'architetto e i suoi compiti," *Gustavo Giovannoni: Dal Capitello alla città*, edited by Guido Zucconi (Milan: Jaca book, 1997), 127–150.

4 In 1920, the School was located in the Royal School of Belle Arti in Via di Ripetta, and, from 1932, it moved to the area of Valle Giulia, in a building designed by the architect and professor Enrico Del Debbio (1891–1973).

Last but not least, Giovannoni's progressive program was open also to women since its first year, though consistently later if compared to the European panorama.⁵

In this sense, this short essay is a first attempt to present a general outline of different female generations graduated at the Roman Faculty, from the 'pioneers' to the modern 'heirs', these last ones heard through their own words, thanks to a series of direct interviews.⁶

A short outline of the Pioneers at the Faculty of Architecture in Rome (1920s – 1960s)

Already in 1920,⁷ the first woman to enrol the Italian Faculty of Architecture in Rome was Elena Luzzatto Valentini (1900–1983),⁸ followed few years later by Anna Gabrielli (1903–1980),⁹ both included in the Milan V *Triennale* in 1933, respectively with a project of housing and a social center.¹⁰

In the 1930s, relevant graduated females were Maria Emma Calandra (1912–2004) in 1934,¹¹ Valeria Caravacci (1915)¹² –one of the first Olivetti's designers– in 1937, and in 1939 a young Achillina Bo (1914–1992), later internationally known as Lina Bo Bardi. (Tab.1)

5 The first European woman architect is considered to be Signe Hornborg (1862–1916), graduated in Helsinki in 1890 as an extra-student, decades before the first Italian female architect, Elena Luzzatto Valentini, in 1925. See Caterina Franchini, "Women Pioneers in Civil Engineering and Architecture in Italy: Emma Strada and Ada Bursi," *Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot et al. (Ljubljana: ZRC Publishing House, 2017), 84, <https://omp.zrc-sazu.si/zalozba-zrc/catalog/view/2/1/63-1> (accessed June 7, 2018).

6 The architects and teachers, graduated at the Faculty of Architecture in Rome, which had given kindly their contributions to this essay, are: Maristella Casciato (b. 1950), Giovanna De Sanctis Ricciardone (b. 1939), Maria Grazia Filetici (b. 1956), Gaia Remiddi (b. 1938), Margherita Guccione (b. 1953), Guendalina Salimei (b. 1962) and Laura Thermes (b. 1943).

7 Before the opening of the Faculty we should mention the role of –at least– other three names: Plautilla Bricci (1616–1696), Attilia Vaglieri (1891–1969) and Maria Teresa Parpagliolo (1903–1974). Plautilla worked in the seventeenth century for the Barberini family as both painter and architect; Attilia had a degree in Belle Arti and she worked for most of her life behind the name of her husband Umberto. Last but not least, Maria Teresa Parpagliolo can be considered the first Italian woman landscape architect, who had a brilliant career in Italy as well as in England.

8 Monica Prencipe, "Elena Luzzatto Valentini, the First Italian Woman Architect: Towards a Biography," *Women Designers, Architects and Engineers between 1946 and 1968*, edited by Helena Seražin et al., (Ljubljana: ZRC Publishing House, 2017), forthcoming.

9 Luigi Vagnetti and Graziella Dall'Osteria, *La Facoltà di Architettura di Roma nel suo trentacinquesimo anno di vita: Anno accademico 1954–55* (Rome: Facoltà di Architettura, 1955), 204.

10 *Triennale di Milano: Catalogo Ufficiale 1933* (Milan: Triennale, 1933), 234, 236.

11 Maria Calandra, among other experiences, became general secretary of the APAO founded in 1945. Maristella Casciato, "Chi semina ricordi raccoglie storie," *Controspazio 2* (March-April 2001), 24–31; Paola Barbera and Maria Giuffrè, *Archivi di architetti e ingegneri in Sicilia 1915–1945* (Palermo: Caracol, 2011), 78–9.

12 Augusta Lupinacci, Maria Letizia Mancuso and Tiziana Silvani, *50 anni di professione 1940–1990* (Rome: Kappa, 1992), 15–18, 72.

However, if the private practice seems to be a lonely and extremely difficult ground for women architects, peculiar 'fields' for female emancipation in Rome were certainly the progressive journals: for example the brief polemic publication *A Cultura della vita* (1945–46), leaded between Rome and Milan by Bruno Zevi and Lina Bo, was suddenly closed due to the publication of the first Italian article on female contraception.¹³

In 1945, it was founded the magazine *Metron*, in close contact with the member of the APAO (Associazione per l'Architettura Organica) and with the aim to take the Italian architectural debate on an international level. Since the beginning, *Metron's* secretary was Margherita Roesler Franz (1915–1974), graduated in architecture in 1940 and married to the Italian architect Cino Calcaprina. In 1952, *Metron* published another young graduated female: Marinella Ottolenghi, with a reportage of her trip in the United States, with masterpieces by Mies Van der Rohe and Frank Lloyd Wright.¹⁴

Even inside the university, in 1950 the percentage of graduated women passed from less than 4% to 14%, with names like Uga De Plaisant (1917–2004), Diambra De Sanctis (1921–2008) and Vittoria Calzolari (1924–2017), who will all become the first female teachers of the Faculty, after the harsh demonstrations of the 1960s. (Tab.2)

The 1960s represented in fact a radical turning point: after the 1963 American students' revolution, also the Roman ones asked for a new openness to modernity, with a series of strikes and occupations of the faculty.

The students not only criticized conservative methods of older teachers like Vincenzo Fasolo and Saverio Muratori, but also politically contested them: even a master like Adalberto Libera (1903–1963) was dismissed because of his regime affiliation, overshadowing the certain value of his works. In this sense, the first nominees of new professors like Bruno Zevi, Ludovico Quaroni and Luigi Piccinato aimed to settle down the students' contestations, which, on the other hand, did not end at all.

Instead, the fights reached their climax in 1968, with the famous 'Battle of Valle Giulia' on March 1: an harsh clash between the police and the Students of Architecture. This event could be considered

not only the most violent moment of the history of the Faculty, but it also sealed the beginning of the 1968 revolutions throughout Italy.¹⁵

In this sense, the Roman Faculty was certainly, between the 1950s and the 1970s, the Italian cradle of the most advanced cultural motions, including women's movements. In fact, already in 1968, the female teacher Diambra De Sanctis (1921–2008), was the first woman called to teach "Caratteri distributivi degli edifici," then moved to a "Design Course" in 1972 with her younger colleagues Luisa Anversa (b.1926)¹⁶ and Paola Coppola d'Anna (1927–2009).¹⁷ They were soon followed by other relevant names (Tab.5), almost completely unknown by Italian historiography, like Vittoria Calzolari (1924–2017)¹⁸ in the field of Landscape and Urban Planning, and Hilda Selem who, after a training period in Sweden with Sven Markelius,¹⁹ came back to Rome and she taught 'Interior design' for almost twenty years.

Modern Heirs at the Faculty (1960s – 1990s) (Tab.3)

Among the students of the early 1960s, we have the testimony of Giovanna De Sanctis Ricciardone

¹⁵ After the faculty had been the site of numerous political initiatives in February 1968 (resolved with its student's occupation), on February 29 the building had been evacuated and guarded by the police. On March 1, about 4,000 people gathered in Piazza di Spagna, directed to Valle Giulia with the intention of resuming the occupation of the faculty. When they arrived there, the students found an imposing police cordon, and during the confrontation that followed, the violence increased in a sort of short 'civil war', leaving almost 330 people injured, raising the involvement of intellectuals like Pierpaolo Pasolini and Paolo Pietrangeli. See also Fernanda De Maio, "Il Sessantotto è cominciato a Valle Giulia," *Comunità Italia Architettura-Città-Paesaggio 1945–2000*, edited by Alberto Ferlenga and Marco Biraghi (Milan: SilvanaEditoriale, 2015), 87–90.

¹⁶ Elisabetta Reale, Daniela Pesce and Margherita Guccione (eds.), *Guida agli archivi di architettura a Roma e nel Lazio* (Rome: Gangemi editore, 2008), 113; Vittorio Franchetti Pardo (ed.), *La Facoltà di Architettura dell'Università di Roma*, 587. Short biographies on both Diambra De Sanctis and Luisa Anversa are included in Maria Letizia Mancuson and Gruppo CESARCH (eds.), *50 anni di professione*, Vol. 3 (Formello: Edigraf, 2004).

¹⁷ She wrote a small retrospective of her educational role within the Roman Faculty in Paola Coppola Pignatelli, "La sfida dipartimentale. Identità e contribute del Dipartimento di Progettazione Architettonica e Urbana (1980–1990)," in Franchetti pardo (ed.), *La Facoltà di Architettura*, 543–562.

¹⁸ In 2012, a special selection of Calzolari's writings was published in: Alfonso, Alvarez Mora (ed.), *Paesistica/Paisaje* (Valladolid: Universidad de Valladolid, 2012). After a visiting fellowship at the Harvard University, she was among the Italian protagonist of the debate on the city and the territory as a 'living space'. A brief biography was presented in: Cristina Renzoni, "Verde per la città. Vittoria Calzolari e la via italiana all'urban design" (paper presented at the VII Congresso della Società Italiana delle storiche, Pisa, Italy, February 2–4, 2017).

¹⁹ Monica Prencipe, "Building Exchanges (1895–1953): International Exhibitions and Swedish Resonances in Italian Modern Architecture" (PhD dissertation, UNIVPM, 2018), 250.

¹³ Il Biologo, "Introduzione di un'etica sessuale per il controllo delle nascite," *A Cultura della vita* 9 (June 1946). Another reason for the sudden closure was of course the low number of sales. Roberto Dulio, *Introduzione a Bruno Zevi* (Bari: Laterza, 2008), 63.

¹⁴ Marinella Ottolenghi, "Istantanee da un viaggio negli U.S.A.," *Metron* 47 (1952), 15–21.

(b. 1939)²⁰ and Laura Thermes (b. 1943),²¹ who represent two different architectural education experiences and, once graduated, different professional choices and careers.

The first –the only female member of the 1963 post-revolution courses– was a militant feminist who denounced women subaltern condition in the ‘architectural duo’²² as unacceptable; the second one was not politically active and she did not join any feminist associations due to her catholic conservative background.

They had decided for their independence in two opposite ways: Giovanna De Sanctis Ricciardone left the ‘art of building’ definitively, while Laura Thermes divided her career between teaching and professional experiences, often in partnership with her mate Franco Purini, in which she distinguished her creative contribution in order to preserve her own theoretical identity.²³

She affirmed:

among my students, women were the most affected by existential problems, like getting married or having a family, leaving behind studying or working. ... Perhaps because of my strong personality, I felt less the gender gap while working with my husband, whom I appreciate the architectural thought above all and with which I would have worked the same even if we were not married.²⁴

20 In 1974 Giovanna De Sanctis Ricciardone became part of the self-managed cultural association *Il Politecnico*, thanks to this experience, she became involved with feminists and artists, leaving Architecture for good. She consolidated her role of archi-artist by dedicating herself to the urban art, above all sculpture and installations. Remarkable are *Fossils*, via delle Chiese Rome 1998; *Ophelia*, via Sabatini, Rome 1999; *Source*, Piazza San Francesco, Terni 2000; *Nike*, installation in Piazza della Memoria near the New Palace of Justice, Palermo 2001; *Stele*, via Trionfale, Rome 2004.

21 In 1966 Laura Thermes settled her own studio with her life-partner Franco Purini, in which she continues to work until today, building architectures whose dimensions and urban-iconic importance turns them into landmarks, as the *Eurosky Tower* and the *Metro Station Jonio* in Rome

22 The ‘architectural duo’ was an established socio-professional device in which, within the group, the ‘creative part’ was considered to be the man, while the female figure was often considered a simple ‘collaborator’. For this reason, in some of them, the need for women’s professional and intellectual independence manifested itself through not always trade-offs choices. Anna Riciputo, “Beyond Architecture: Politics, Feminism and Art as a Way of Life: The Work of Giovanna de Sanctis Ricciardone” (paper presented at the 3rd MoMoWo International Conference-Workshop Women Designers, Architects and Engineers between 1969 and 1989, Oviedo, Spain, October 2–4, 2017).

23 Laura Thermes after teaching in Rome, has been professor of Architectural Composition at the Faculty of Architecture in Reggio Calabria since 1989, where she started a research focused on the restoration of the Mediterranean landscape. She also briefly became a teacher at Valle Giulia in 1992 and in 2009 she became a member of the Accademia di San Luca. The partnership between Laura Thermes and Franco Purini started in 1966 with the setting up of the Purini Thermes Office, marked by an intense experimental activity on urban planning, on the relationship between architecture and landscape, about the fertile and inescapable relation between architecture and drawing. Their approach has its roots in the Roman school of Arts and Architecture, while their observation fields spans across the whole world, leading them to design some of the most interesting projects since the 1970s. Margherita Guccione (ed.), *MAXXI Architettura: Catalogue of Collections* (Rome; Macerata: Quodlibet, 2017), 118.

24 Laura Thermes, Interview with Serena Belotti and Anna Riciputo (Rome, February 3, 2018).

In the same direction, it was the work of another famous Roman ‘couple’: Gaia Remiddi (b. 1938)²⁵ and Paolo Angeletti. In her interview, she recalled the example of one of the most important duo in the modern history of architecture:

Many were my masters, but my architectural “father” was Alvar Aalto, although I soon discovered how good was his wife Aino Marsio, and later was my example in the research of architecture and behavior. She was the rational one, while Alvar was more formalist...²⁶

After the 1968 demonstrations, the situation inside the faculty changed, even for women.

Maristella Casciato (b. 1950),²⁷ Getty Research Institute’s Senior Curator of Architectural Collections from 2016, enrolled in the Faculty in that same 1968, living the general ‘climate change’:

Among the students the political collectives were strongly operative ... contributing to make the gender gap less pronounced than in the previous years. There were also few female teachers, sensitively involved in the political debate, who represented a significant presence in the Faculty.²⁸

In the same way, Maria Grazia Filetici (b. 1956),²⁹ enrolled in the Faculty in 1976 and awarded in 2017 by Europa Nostra, also noted a gender balance within the university.

At the same time, she recalled the role of students associations in the organization of international conferences with exceptional women, such as Che Guevara’s sister on the New Urban development

25 Gaia Remiddi graduated in 1967 and she was one of the founders of the Metamorph group in Rome. After this experience, she mainly worked in collaboration with her husband in their Studio architetti Paolo Angeletti & Gaia Remiddi. Besides their researches on Nordic Architecture, they have also realized important buildings, like the *Aquino Town Hall* (1981), the *Picasso Museum* in Guernica (1981), the restoration of the Finnish Embassy in Italy (1989–91) and the *Law Faculty* in Camerino (1986–2016).

26 Gaia Remiddi, Interview with Monica Prencepe (Rome, February 2, 2018).

27 Maristella Casciato, architectural historian, graduated with Ludovico Quaroni in 1974. She was awarded a Fulbright Fellowship (1992), and a Visiting Professorship at the Institut national d’histoire d’art in Paris (2004). She has been Visiting Lecturer at Harvard University’s Graduate School of Design, at the MIT Department of Architecture (from 1988 to 1995), and at Cornell University’s Rome Program. From 2011 to 2016, she has been the former associate director of research at the Canadian Centre for Architecture.

28 Maristella Casciato, Interview with Monica Prencepe (Ancona, Los Angeles, January 27, 2018). Female names in the Faculty were the mentioned Luisa Anversa, Diambra De Sanctis, Paola Coppola D’Anna, Hilda Selem and Vittoria Calzolari. In her early construction of a ‘women’s debate’, she particularly underlined the role of female ‘collectives’ (which in Italy were first founded in Rome) like the theatre experimental group ‘La Maddalena’.

29 Maria Grazia Filetici graduated in Architectural Composition cum laude in 1985, and she is currently an architect of MiBACT (Ministry of Cultural Heritage). From 2013 to 2016 she was president of ARCo, and she was Professor of Restoration in Italian and foreign universities. Methodological, experimental and innovative rigor characterize her numerous projects. Her approach is based on a strong holistic method, in which the traditional construction is understood through the structural re-reading of the building, combining with modern improvement interventions. In the restoration of ancient heritage, she is curating themes like ‘structural anastylosis’, gap integration, new projects addition in ancient contexts, new ways of intervention for overcoming architectural barriers. She had won the Europa Nostra Award 2017 and the Italian Heritage Award 2013; she obtained three World Monuments Fund nominations for three Roman sites: the Temple of Hercules, the Temple of Portuno and the Arch of Janus.

in Cuba,³⁰ as a testimony of the growing attention to women's views in the academic world.

Finally overcoming the phenomenon of the 'architectural duo', both Filetici and Casciato reclaimed that women's approach to Architecture is (or should in some ways) be different from his male counterpart: it is usually more inclusive and open to eventual 'doubts'. As a matter of fact, another contemporary issue is no longer the need to define an identity within the couple, but rather to find richness in the mutual differences.

Differences also explained by the MAXXI director Margherita Guccione (b. 1953),³¹ when she talked about the masters that she had met during her career. She said:

During my professional career, I have recognized many teachers, for example Zaha Hadid (1950–2016), with whom I had an ongoing confrontation during the MAXXI project and I was very impressed by her determination, by her firmness and by the way she was able to carry on her ideas with coherence and integrity, without ever giving up Then I have met figures like Lina Bo Bardi, or Cini Boeri (b. 1924), from Milan, and, for these two architects, their female characters seemed to be an added value, an ability to look simultaneously at both scales, the highest and also the closest. Therefore, I think that feminine sensitivity can be considered an additional sense, thanks to the all- female ability to hold together all the different parts of the world.

From the 1980s, the need for professional affirmation and to become a significant factor in the advancement of the discipline, has led to the Roman University a continuously increasing number of students and, consequently, women who have chosen a career inside the University as a parallel, if not preferential, path to the profession.

For example Guendalina Salimei,³² a young researcher and an uprising name in the profession, said:

I attended the faculty in Rome during the 1980s and 1990s. I may affirm that there was no great discrimination against women. I come from a family where my mother played an important role, feminist and convinced supporter of the role of women, she instilled us the idea of equality between roles, and I have always remained it.

This also coincided with the presence of some female professors in the Faculty of Architecture: I think about Luisa Anversa, Rossana Battistacci, Marta Calzolaretti, Paola Coppola Pignatelli, Gaia Remiddi, Laura Thermes, even the oldest who would soon be retired: Laura Borroni. ... I then had the opportunity to do the thesis with Luisa Anversa. I must say that the discrimination and the difficulty for women to undertake this profession, purely masculine, were revealed to me much later, when I began to think and to pay attention to the problem. Little by little, I was seeing less and less women at the work tables, women were often absent from meetings.

It is only during some of these situations that I began to focus on the problem and to understand that the figure of the woman architect was quite rare and that often, in the so-called the "architectural couple," it is always the man to be the spokesman and the one recognized as such.³³

Some Conclusions

After 1920 and until the beginning of the Second World War, graduated female at the Faculty of Architecture in Rome can be essentially considered isolated cases, and only in 1950 their percentage arrived close to 24%. As average, between 1921 and 1954, every one hundred graduated architects only five were female, and, to them, any position within the faculty seemed to be definitely precluded, in favour to subaltern positions within public institutions, magazines or, more frequently, within an architectural 'duo'.

30 Maria Grazia Filetici, Interview with Serena Belotti (Rome, January 13, 2018).

31 The architect Margherita Guccione is the director of MAXXI (Museum of Modern and Contemporary Architecture). From 2000, she supervised, on behalf of the Ministry of Cultural Heritage, the design and realisation of the MAXXI building designed by Zaha Hadid and she was the scientific head of the new-born Museum of Architecture, during which she hosted several exhibitions on female architects like Lina Bo Bardi (2014–5) and Zaha Hadid (2017). She has undertaken intensive institutional and research activities, regarding the conservation and valorisation of the ancient and contemporary architectural heritage. She is a MiBACT member of the technical-scientific national committee for 'Architectural and Urban Quality' and for 'Contemporary Arts' and of the Committee for the valorisation of the work of Carlo Scarpa. She has directed the DARC contemporary architecture service (2002–9) and she was also nominated Superintendent of Caserta and Benevento (2000–1).

32 Guendalina Salimei (1962) graduated in 1990 at the Faculty of Architecture 'La Sapienza', and in 1992 she founded the 'T studio' together with Roberto Grio, Giancarlo Fantilli, Giovanni Pogliani and Mariagusta Mainiero. She is a researcher at the Department of Architecture and Project (DiAP) of the Faculty of Architecture 'Sapienza' in Rome, where she teaches architectural and urban planning. The research and the professional activity, always strongly linked, have found a specific field of interest in the investigation of the complex relationships established between the design process and the possible intervention, both in the built and natural environment. She places emphasis on the criteria of sustainability and on the control of the urban and extra-urban landscape, even in conditions of extreme risk or discomfort, producing in-depth studies mainly aimed at investigating connections, and developments in the urban project and the strategic role they have, some abandoned and degraded areas, in the urban context.

33 Guendalina Salimei, Interview with Anna Riciputo (Rome, March 7, 2018).

In the two decades that followed the 1968 re-organization of the Faculty, the number of female students rapidly increased and its board started to include few important women, who had found in education a profitable field of activity, without completely abandoning the profession. These key figures, represented important examples for the following generations like Maria Grazia Filetici and Guendalina Salimei, and, after 2000, the trend of female graduated students, compared to his male counterpart, was definitely inverted. (Tab. 4)

Although the access to the Faculty of Architecture had finally reached equality, evident issues –as reported by Laura Thermes and Guendalina Salimei– are still the female access to the profession and the struggles for women (but even better for the society) to find a balance between the private and the public sphere.

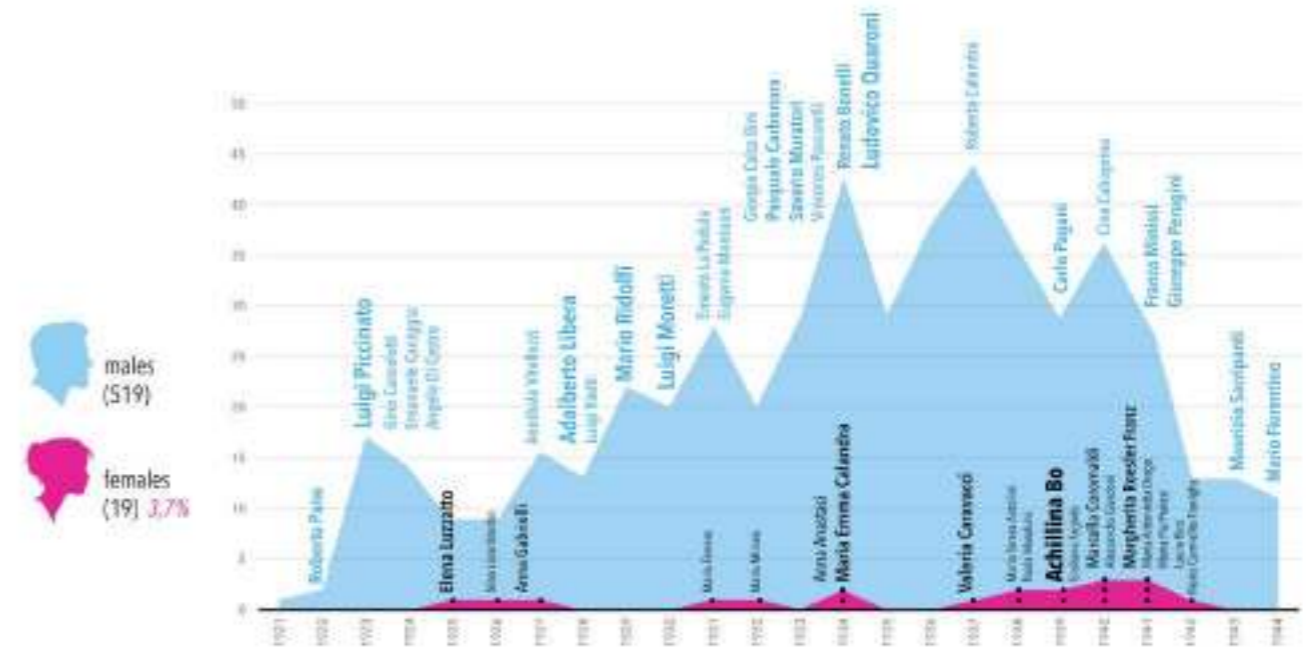
Moreover, if we look back to the 'histories' of Modern Architecture written since the beginning of the twentieth century, we can easily verify that women had made their entrance in the 'official' manuals only in the last decades, or they are still largely excluded.

However, as recently affirmed by Maristella Casciato in the volume dedicated to another Roman female architect,³⁴ the question should not be merely related to a generic (and maybe politically-correct) need to include more women into our histories, but instead their inclusion could be a critic chance to question the mental structure –the 'canon'– of official historiography. This one in fact, is not only (for the most part) written by men, but it is also written according to 'masculine principles', including only icons, monument and highly significant buildings, often created in close cooperation with a dedicated propaganda (through the work national institutions, magazines, exhibitions, etc.), through channels from which women have often been excluded in the past.

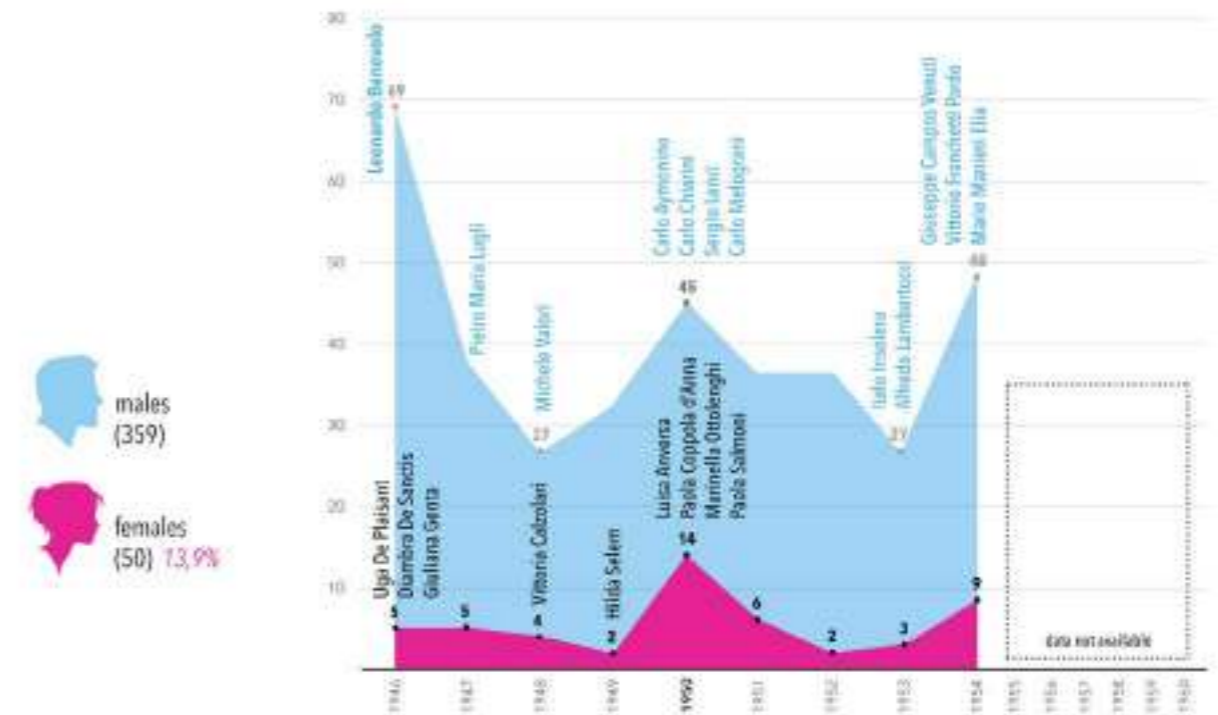
In this sense, to 'nominate, to find a genealogy and to trace less known portraits'³⁵ of women in Architecture, it is not only a chance to enrich female consciousness, but it could also be a way to overcome some of the limits of Western criticism, hopefully from a new and original point of view.

34 Maristella Casciato, "Una storia tira l'altra," *L'architettura necessaria di Laura Gallucci*, edited by Irene de Guttry and Liquori Cristina (Macerata: Quodlibet, 2015), 15–24.

35 Claudia Mattogno, "Declinare femminismo e architettura," *L'architettura necessaria*, 169.



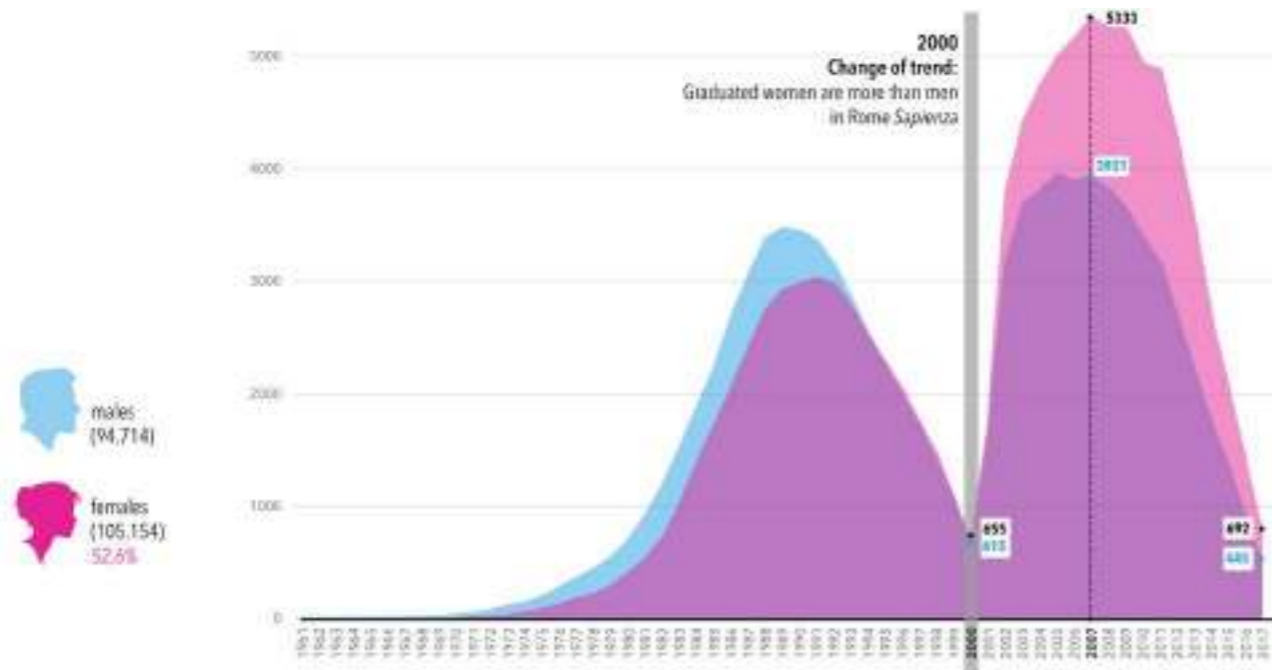
Tab.1. Number of graduated students by gender at the Faculty of Architecture in Rome (1921–1944)
Source: Luigi Vagnetti and Graziella Dall'Osteria, *La Facoltà di Architettura di Roma nel suo trentacinquesimo anno di vita: anno accademico 1954-55* (Rome: Facoltà di Architettura, 1955).



Tab.2. Number of graduated students by gender at the Faculty of Architecture in Rome (1946–1954)
Source: Luigi Vagnetti and Graziella Dall'Osteria, *La Facoltà di Architettura di Roma nel suo trentacinquesimo anno di vita: anno accademico 1954-55* (Rome: Facoltà di Architettura, 1955).



Tab.3. Number of graduated students by gender at the Faculty of Architecture in Rome (1961–1999)
Source: Centro InfoSapienza



Tab.4. Number of graduated students by gender at the Faculty of Architecture in Rome (1961–2017)
Source: Centro InfoSapienza

Name	Course	Year
Diambra Gatti de Sanctis	Caratteri distributivi	1968/69/70
	Elementi di Architettura II	1970/71/72
	Composizione III	1972-73/74/75; 1976-77; 1980/81
	Composizione I	1978/76; 1977/78
	Composizione V	1978/79
	Composizione IV	1980/81/82/83/84/85
	Progettazione I	1985/86/87
Luisa Anversa Ferretti	Progettazione II	1987/88/90/91
	Composizione III	1972/73/74; 1976/77
Paola Coppola D'Anna Pignatelli	Composizione IV	1974/75; 1980/81
	Composizione I	1975/76; 1977/78
	Composizione V	1978/79/80 81/82/83/84/85
	Progettazione III	1985/86/87
	Progettazione g. strutturale	1987/88/89/90/91
	Progettazione II	1992/93/94/95
Hilda Selem Arangio Ruiz	Composizione II	1972/73/74/75; 79/80
	Composizione I	1975/76/77
	Composizione III	1978/79 81/82/83/84/85
	Progettazione I	1985/86/87/88/89/90
Marta Calzolari	Progettazione II	1990/91/92/93/94/95
	Arredamento	1974/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/91/93/94/95
Gaia Remiddi	Composizione II	1986/87/88/89/90/91; 1992/93
	Progettazione I	1994/95
Laura Thermes	Composizione I	1991/92
	Progettazione II	1993/94
Barbara Cacciapuoti	Progettazione I	1992/93/94
	Progettazione II	1994/95
Maria Pia Arredi	Progettazione II	1993/94/95
	Caratteri distributivi	1993/94/95
Franca Bossalino	Caratteri distributivi	1993/94/95
	Arredamento	1994/95
Adelaide Regazzoni Caniggia	Arredamento	1994/95
	Composizione II	1994/95
Rosanna Battistacci	Composizione II	1994/95
	Progettazione I	1994/95
M. Beatrice Remiddi	Progettazione I	1994/95
	Progettazione I	1994/95
Carla Tagliaferri	Progettazione I	1994/95
	Progettazione I	1994/95

Tab.5. List of the female teachers for the composition courses (1920-21/1994-95)
Source: Vittorio Franchetti Pardo (ed.), La Facoltà di Architettura dell'Università di Roma "La Sapienza" dalle origini al duemila: discipline, docenti, studenti (Rome: Gangemi, 2001), 586–594.

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History of Women's Education and Training in Nepal

Nepal is a small country between China and India with a population of approximately 27 million, of which some 12 million are men and 13 million are women.¹ This chapter examines Nepal's gradual steps for the development of women, from the time of Chandra Lekha Kayastha² (Fig. 1). Women's education began before 1950, and despite the challenges facing the country³ quickly developed unlike India, where the education system was already rooted much earlier due to colonisation. Still, the development in education does not show much gap between India and Nepal due to many similarities of culture and religion. Perin Jamshetjee Mistri was the first woman to be recognized as an architect in India, in 1937.⁴ Since then development in women's higher education has attained

- 1 Sushan Acharya, *Democracy, Gender Equality and Women's Literacy: Experience from Nepal* (Kathmandu: UNESCO, 2004) 20, <http://unesdoc.unesco.org/images/0013/001386/138638e.pdf> (accessed June 7, 2018).
- 2 Chandra Lekha Kayastha was born on 4 May 1951 in Kathmandu. She completed her school studies in 1965 at KanyaMandir High School. She graduated (Bachelor of Science) from Tri Chandra Campus with highest ranks at Tribhuvan University in 1969. Uncommon for a Nepali woman, she became a pioneer in technical studies. After completing her Architecture program, Kayastha, along with her husband, started working part-time and teaching at the Institute of Engineering. Later she was recognised by the ARCASIA forum to be one of the first of two female architects. She explained her experience as being fortunate to be born into a family in which all siblings were provided equal benefits.
- 3 Nepal is a landlocked country surrounded by two growing Asian superpowers, India and China. The country has remained sovereign since coming into existence. During the twentieth century about 98% of the population was illiterate with just 300 graduates in the entire country. Nepal depended heavily on agriculture as families did not have access to any sort of business and industry, however there were no markets in which to sell excess production. All family members, young and old, were occupied with subsistence agricultural duties. There was no time for them to go to school as their survival depended on growing crops. Anjana Singh, "Women in Science and Technology: Nepal's Experience" (presentation at the Second Summit of the South Asian Science Academics and INSA-AASSA Joint Workshop on Women in Science, Education and Research, New Delhi, September 24–27, 2013), https://www.ias.ac.in/public/Resources/Initiatives/Women_in_Science/Anjana_Singh.pdf.
- 4 "Women Architects of India," CIVIL247.com (posted March 9, 2016), <https://blog.civil247.com/2016/03/09/993/> (accessed April 2018).



Fig. 1. Ar. Chandra Lekha Kayastha in front of her own residence, Chandralaya designed by herself. Photo by Suraj Khanal.

reasonably good standards so far. At present, Nepal has progressed tremendously on women's empowerment and education. The current president of Nepal is female and, the recent (immediate-past) chief justice and speaker of the house, were all women. Kayastha grew up in the very culturally strict ethnic 'Newar'⁵ community following her birth just after a year of democratic revolution.⁶ Along with another lady Jyoti Sherchan,⁷ she received a scholarship to study abroad at MS University, Baroda, India, in 1975. Kayastha remembers that Mrs Shanti Malla,⁸ the first civil engineer of Nepal was her contemporary and a senior professional, who also completed her engineering at an Indian university. Similarly, records indicate that the first female civil engineer in India was just twenty six years earlier than that of Nepal. In 1940, Lalitha became first woman engineer of India, and the first woman to graduate from the oldest Indian technical institution, my Alma mater, the College of Engineering, Guindy (CEG), University of Madras.⁹

- 5 "Newar people," *Encyclopaedia Britannica*, <https://www.britannica.com/topic/Newar> (accessed April 2018).
- 6 The Nepalese Civil War was an armed conflict between the Communist Party of Nepal (CPN) and the government of Nepal, fought from 1996 to 2006. The rebellion was launched by the CPN on 13 February 1996 with the main aim of overthrowing the Nepalese monarchy and establishing a People's Republic. It ended with the Comprehensive Peace Accord signed on 21 November 2006. Chaitanya Mishra, *What Led to the 2006 Democratic Revolution in Nepal?* (Kathmandu: Himal Books, 2015).
- 7 Jyoti Sherchan was the same intake as mate (Kayastha's reference) and graduated along with Kayastha, but she is not working in the profession anymore.
- 8 Mrs. Shanti Malla is the first woman engineer from Jadavpur University, India. In fact, she was the only woman among 124 students in her intake in 1966.
- 9 "Shantha Mohan," LinkedIn (posted May 22, 2017), <https://www.linkedin.com/in/shanthamohan/> (accessed April 2018).



Fig. 2. Chandralaya built in 1984. Courtesy of Ar. Kayastha.

Kayastha, currently president of the Rotary Club of Patan, served as Vice-president of SONA¹⁰ from 2014–16. She is quite happy to remark that the recent enrolment of women in the faculties of architecture and engineering is growing very well. Previous female graduates are all employed inside or outside the country in various government and non-government organizations or as freelancers and many more are entrepreneurs.

Kayastha herself is involved with her own firm¹¹ having so many projects to her credit. The projects she did were of various types like residential, commercial and hotels/resorts. Her husband, only

son and elder daughters, are all architects, and the youngest daughter is an interior designer. She is a successful business women who has done dozens of projects and was also an academic during her early career. She designed her own residence, which is very much architecturally remarkable in terms of external form and interiors. (Fig. 2)

The Issues and Challenges

Kayastha says, several factors in Nepal from her earliest days kept women backwards. Before her birth, as a first positive step for change, the sati system had been abolished on 28 June 1920.¹² Nepal, for centuries, had witnessed different forms of monarchy, and oligarchy. The culture then developed a gender based patriarchal social construct. Conflict between the pro-culturist and pro-transformative forces throughout the generations resisted many efforts of social balance.¹³ The 1950 revolution removed the Rana oligarchy and in 1989 a second revolution removed the 'party less panchayat' and finally the monarchy was removed after May 2008. Consequently, Nepal suffered from consistent political instability and frequent changes in government. Even though, it was said to be democratic change, continuing political instability constantly affected development in any sectors. However, slowly, progressive development was happening.

Despite many challenges women's education made some progress. The female population is 90% Hindu and hundreds of castes and cultures, and women faced problems of poverty, social, cultural and psychological issues, and they were marginalised in various educational activities.¹⁴

Nepal is famous for the diverse indigenous¹⁵ population within its territory. They have some similar cultures and some customs which affect the status of their women. For example, polyandry¹⁶ is still

¹² Anil Chitrakar, "Sati," ECS Nepal (posted July 19, 2010), <http://ecs.com.np/heritage-tale/sati> (accessed April 2018).

¹³ Simran Shrestha, "Female Education in Nepal."

¹⁴ Min Bista, *Review of Research Literature on Girls' Education in Nepal* (Kathmandu: UNESCO, 2004), <http://unesdoc.unesco.org/images/0013/001386/138640e.pdf> (accessed April 2018).

¹⁵ Multi-lingual, multi-caste, multi-cultural environment. Nepal is a country of four castes, 36 sub-castes and 59 ethnic groups as well as 125 languages community. The caste system classified peoples according to the work they did and lifestyle they lived

¹⁶ In polyandry a woman marries simultaneously more than one legal husband in her life or more than one men share a woman as wife. This is one of the marriage system adopted in the Nepalese society mostly in Himalayan region.

prevalent in Himalayan region.¹⁷ Likewise in the mid-western and far-western regions, the *deuki*¹⁸ system and *dalit*¹⁹ custom are in practice. In the Chepang ethnic group, during childbirth, there's a custom of going to jungle.²⁰ The lower castes were held in various forms of a slavery system.²¹ The poor and marginalised lower caste women and girls had been restricted from public spaces, temples, well or water sources, so getting access to school was next to impossible for them. This system continued for more than three decades after the 1950 revolution. Although this problem exists it is declining gradually. Their way to primary schools or education was hindered by various social classifications and culture of belief. This was not only among the poor and marginalised but also among middle-class families and even the wealthy rich class.

Another custom that prevailed was child marriage.²² Even the new family was accustomed to treat the girls like machines for work. Child marriage and other similar problems were still common in society thus the exploitation of females was extreme. Menstruation customs were another factor that restricted girls or women from going to school/college regularly for long time. There is a

17 Juddha Bahadur Gurung, "Rapid Cultural Change: A Case Study of Polyandry Marriage System among the Gurung Community from Upper Mustang, Nepal," *Dhaulagiri Journal of Sociology and Anthropology* 6 (2012), 75–106, <https://www.nepjol.info/index.php/DSAJ/article/download/8480/6882> (accessed April 2018).

18 The Deuki tradition, which was abolished several decades ago, commonly forced women into prostitution as local lore suggested men would be cleansed of their sins after having sex with a Deuki. In the years since the abolition, many younger Deuki women have been rehabilitated thanks to several local programs. Anju Gautam Yogi, "Women Sacrificed to Gods Struggle to Rehabilitate, Deuki Tradition Wanes in Nepal," *Global Press Journal*, September 10, 2012, <https://globalpressjournal.com/asia/nepal/women-sacrificed-to-gods-struggle-to-rehabilitate-deuki-tradition-wanes-in-nepal/> (accessed April 2018).

19 Nepal retains its centuries-old caste system. Dalits, the discriminated people under this system, suffer from restriction on the use public amenities, deprivation of economic opportunities, and general neglect by the state and society. More than twenty Dalit caste groups exist in the country at present. In view of the still unsettled system of classifying Dalit caste groups, estimating the Dalit population is difficult. One estimate puts the number of Dalit people at 13.09 % out of the total population of 23,151,423. This means that the total Dalit population is 3,030,067, with Kami the largest group with 29.57% and Halkhar the smallest group with 0.12 %. Dalit women comprise 51% of the total Dalit population. Simran Shrestha, "Female Education in Nepal."

20 Dilli R. Prasai, "Issues of Reservation and Affirmative Actions For Minorities in Nepal," *Himalayan Journal of Sociology & Anthropology* 7 (2016), 1–12, <https://www.nepjol.info/index.php/HJSA/article/download/17148/13969> (accessed April 2018).

21 Most of the poor people (mostly lower caste) did not have land to grow crops. Hence they worked in others land to earn their living. They sent their children and women to work at the wealthy neighbourhoods as slaves. So the women were deprived of education due to their work. Mostly women were kept there for their entire lives. Even if they were married, both husband and wife were kept in the same house as slaves. Mid-western Nepal and even in rich houses at cities had this tradition of keeping the women (termed *kamlari*) as slaves. Later, during late 1990s many enslaved women and girls got chance to study at primary school, but they rarely got secondary education.

22 Another custom that prevailed till the 1970s was child marriage. Kalidas once wrote 'aabigansakuntalam', translated by Sambhu Prasad Dhungel as 'Daughters are goods to be given to others, known as the mortgage'; parents felt relieved after giving away their daughter. This was another cultural practice in rural parts of Nepal that distinctly hindered possibilities of getting girls in the school. Shanti Bhushal, "Educational and Socio-Cultural Status of Nepali Women," *Himalayan Journal of Sociology & Anthropology* 3 (2008), 139–147, <http://dx.doi.org/10.3126/hjsa.v3i0.1501> (accessed April 2018).

conservative and contemporary Hindu belief that says women/girls become impure during their menstrual periods and must be segregated from daily routines which also means they cannot go to school/college. The far western region of Nepal is still campaigning to end this practice called *chhaupadi*, although it is almost nullified in other rural areas in Nepal. During menstruation and pregnancy women are considered untouchable but the baby is considered touchable according to perspective of Hindu religion. Finally, the custom of neglecting the entrance in water taps, wells and temples that is still prevailing in our society contributes to the low status of women.²³

The Development

The first school was initiated in 1853. Surprisingly, the school was introduced during the autocratic regime of Ranas. The school was only for privileged, royal families.²⁴ For normal citizens, school was out of reach and expectations. The commoner women saw their way to school after some decades only.

Although girls school started around 1952, higher education for women was of the lowest priority. Unsurprisingly, it was not because of any other factors but social and cultural belief. In 1960, the literacy rate was recorded at 8.9%.²⁵ This reflects the social status of women in urban areas. Even most of the engineering students came from wealthy families where subsistence was not a big priority. Only after the mid-1990s did women's enrolment in the engineering sector increase, mostly in architecture. Very few women considered architecture because they believed architectural works are done indoors, and fewer women chose civil engineering as it was believed to be about tedious site jobs. But the scenario has changed in a positive direction now. Women are very eager to make their presence felt in every faculty, not just in engineering and architecture but in all the other professions as well.

Due to cultural practice, women in higher education was unthinkable. Even men could not pursue higher studies, because looking after their farm and animals was their main task and they ate what they grew. Families with no land worked on the someone else's land to earn food and goods to

23 Pragma Lamsal, "In Nepal, women are still banished to 'menstrual huts' during their periods: It's time to end this dangerous tradition," *Independent*, May 24, 2017, <https://www.independent.co.uk/voices/world-menstrual-hygiene-day-first-hand-account-nepal-menstrual-huts-death-confinement-a7752951.html> (accessed April 2018).

24 Deepak Raj Parajuli and Tapash Das, "Performance of Community Schools In Nepal: A Macro Level Analysis," *International Journal Of Scientific & Technology Research* 2, no. 7 (July 2013), 148–154, <http://www.ijstr.org/final-print/july2013/Performance-Of-Community-Schools-In-Nepal-A-Macro-Level-Analysis.pdf> (accessed April 2018).

25 Singh, "Women in Science and Technology."

survive. It was mostly lower caste or class families were the ones working on wealthy high class family's land.

Higher Education

In 1960 the parliamentary democracy was taken over by the Panchayat system. This political change was a setback to the uprising people's interest and their political awareness.²⁶ However, in this period the education reform continued since adult literacy was still viewed as a vehicle to nation building in rural areas. The drive was thus to enable the citizens to fully function in and adapt to the changed political system, and the development efforts guided by modernism. The All Round National Education Committee 1961 also recommended an improved version of literacy programs for cities and villages by the name of Society Education or the Non-formal education.²⁷ The Committee recommended an improved adult literacy program in order to retain the literacy skills and to develop qualified and able citizens. In this context, women's literacy also enabled women to better perform their traditional roles as homemakers and child caretakers.

From 1970 and onwards, women in higher education were recorded in higher numbers, mostly in general faculty and few in technical faculty. The policy to promote women's participation in development appeared for the first time in the Sixth National Plan (1980–85) of the country.²⁸

The new era (1980–90) saw further development in women's involvement in the engineering and medical sectors. This was the beginning of a flourishing women's education. The girls in the cities and semi-rural areas began to realise the importance of women's education at primary and secondary level. Higher education saw much more participation of women, and the theme of women's education and empowerment began to flow all over Nepal. The political system changed and the Panchayat System was transferred to multiparty democracy with a new constitution.²⁹ But the ratio of woman in higher education was still considerably less than that of men at colleges.

Women in Nepal tend to receive fewer degrees in engineering, math, physical science, computer and information sciences. In contrast, women continue to earn the highest degree at all levels in the fields they have traditionally dominated such as health professions like nursing, physical

therapy, health administrations. While at the government level, women in development had been accepted since the 6th plan as a National Policy. After the restoration of multiparty system in 1989, policymakers gave due importance to uplift the status of women. A separate ministry³⁰ to look after the welfare of women has been established. The Division was placed under the Ministry of Women, Children and Social Welfare in 1999 and reorganised as a department afterwards thus the issue of women's empowerment had been brought into limelight.³¹

The new constitution of 1990 had again a much more positive approach to develop women's education and empowerment including opportunities reserved for women. It guarantees fundamental rights to all citizens without discrimination on the basis of ethnicity, caste, religion or sex.³² The interim constitution from 1951 had made the provision of including 33% female participants in political parties and the parliament as well, but it was not achieved in the country for long period of time. However, at least that ensured participation of women in leadership.³³ It was now for the women to realise how far they could achieve the new changed system and various international organizations and social activists were invited into the mission to develop women's education. The policy on education was reformed which prioritised women's education in all sectors. Primary school was made available in all zones and districts of Nepal and co-education was prioritized. Formal and informal education systems were introduced to involve those women and girls who had missed their primary education.³⁴

The late 1990s saw tremendous development in women's education. Primary and secondary schools with co-education enhanced the level of women literacy, which was still less than 45% then. Similarly, the initiation of government through the formation of Ministry of Women, Children and Social Welfare was another huge step taken to educate and empower women in the society. This made education and employment accessible to all kinds of women and children (girls). The co-education helped women to realise that women can certainly aim high like the men. So the aim of pursuing higher education for women slowly began to grow in the Nepalese society. 23.34% of enrolment of women students was recorded in 1990/91. More private engineering and other faculties were established after the government decided to privatise the education sector.³⁵

30 Ministry of Women, Children and Social Welfare in 1999 after the World Women Conference held in Beijing in 1995. This was a huge step by Nepalese society for women's education. In the meantime, in 1990, the Women Development Section was elevated to the level of a division – the Women Development Division. Singh, "Women in Science and Technology."

31 Singh, "Women in Science and Technology."

32 Acharya, *Democracy*, 20.

33 Singh, "Women in Science and Technology."

34 National Education Commission, *Report*, 257.

35 Bista, *Review of Research Literature*.

26 Prasai, "Issues of Reservation."

27 National Education Commission, *Report of the National Education Commission* (Kathmandu: National education commission, 1992), 257.

28 Acharya, *Democracy*, 20.

29 Prasai, "Issues of Reservation."

By the end of the millennium and in the early twenty-first century, women got more access to school at primary level. Still, traces of socio-cultural barriers were to be sorted at rural areas. So women supported from all sectors inside the country and abroad leaped ahead by taking on the mission to abolish menstruation customs, slavery and child marriage, and gender-caste discrimination at rural areas. Women slowly began to step forward to various business and technical jobs in place of agriculture and household work. Women also stepped up as political leaders and became involved in various technical³⁶ and general³⁷ professions.

Architecture and Other Faculties

Women with post graduate degrees and doctorates in the public sector were found to be 11.6%, the teaching and business professions included 16.4% and 16.7% women. Other private and non-profit organizations have 33.5% of graduate and post graduate women.³⁸

According to recent reports, the Nepal Living Standards Survey 2010–11 (NLSS - III) has found that Nepal has an adult literacy rate of 56.6% with a huge variation between men and women. While male literacy rate is 71.6%, it is only 44.5% for women. This shows that there is still a belief among Nepalese people that schooling of girls is not important. Women receive only about 16% of undergraduate and 11% of doctorate degrees in engineering; less than 22% of doctorate degrees in math and physical sciences; 28% of undergraduate and 15% of doctorate degrees in computer and information sciences. By contrast, women continue to earn the largest proportion of degrees at all levels (associate through doctoral degrees) in the fields they have traditionally dominated, such as health professions which include nursing, physical therapy and health administration 83% and education 77%.³⁹

Bachelor of Architecture was introduced during early 1980, which has produced 1822 registered architects and 1222 registered civil engineers who were members of the Nepal Engineering Council (NEC) from (1998–2016), out of which 982 are women (53% of total architects). The female student

intake in engineering at present shows: Tribhuvan University Institute of Engineering⁴⁰ has 108 intakes for civil engineering and 48 intakes for architecture. Its constituent campuses⁴¹ at eastern and western regions together take 625 civil engineering students and 175 architecture students per year. The Institute of Engineering began master level courses from 1996 and commenced a doctoral program from 2003.⁴²

Conclusion

Now, as this paper is being prepared, the state has adopted federalism, with strong acts and regulations in the latest constitution. As mentioned earlier, there are quotas for women at all levels of parliament, and all women belonging to this ethnically diverse population have fundamental rights.⁴³ Some traces of Chhaupadi are still to be nullified at some geographically remote areas at far west and some parts of the extreme south need some more efforts to be carried out to educate women regarding various socio-cultural issues. Besides that, in most of urban and sub-urban areas women

40 Engineering education started during Rana period. Formal technical education started in 1930 after the establishment of technical school in Kumari Chowk, Kathmandu. At the beginning, this school began the trade course on textile skill. In 1942, an engineering section was introduced, offering a two year sub-overseer course for SLC graduates. This school was shifted to Tri-chandra campus in 1945 and renamed as engineering school in 1950. It was in 1958 that this school was accepted as a formal institution to deliver engineering education and once again renamed as Nepal Engineering Institute and it was shifted to Nepal Administrative Training Council complex, Jawalakhel at the beginning of 1958. By the end of same year 1958, it was taken to Ananda Niketan, Pulchowk. According to the history of Institute of Engineering IOE, it offered overseer course in civil engineering and later on in 1971 offered electrical overseer course. In 1963, technical training institute was established in Thapathali under the assistance of German Government offering overseer course in mechanical and electrical engineering. In 1972 both merged to become Institute of Engineering. "History of IOE," Tribhuvan University, Institute of Engineering (IOE), <https://ioe.edu.np/history/> (accessed April 2018).

41 After 1998, many private engineering and architecture institutions were established with affiliation of various universities. The other Universities besides Tribhuvan University were brought into existence. Kathmandu University established in 1985 have 60 civil engineering intakes and, Pokhara University established in 1997 have 1100 civil engineering intakes and 96 architecture intakes. Purbanchal (eastern) University established in 1993 have 1116 civil engineering intakes and 148 architecture intakes, far western University have 96 civil engineering intakes and other non-affiliated universities together have 192 intakes in civil engineering. The percentage of women intakes and graduate at the bachelor's level in all faculties is 12.69% according to Nepal Engineering Council. The percentage of civil and architecture graduates among the whole faculty is 3.5% and 2.81% respectively. "Background," Nepal Engineering Council (NEC), <http://nec.gov.np/page/background>.

42 "Background," Nepal Engineering Council.

43 Government of Nepal, *The Constitution of Nepal*, 2015, <http://www.inseconline.org/linkedfile/Bill%20of%20Constitution%202015%20Sept.pdf>.

36 Medical, engineering, law etc.

37 Other professions like government job, teaching, business, etc.

38 Singh, "Women in Science and Technology."

39 Sagar Aryal, "Women and the Education System in Nepal," Iversity (posted January 21, 2014), <https://iversity.org/blog/women-education-system-nepal/> (accessed April 2018).

are actively involved in various fields of trade and commerce,⁴⁴ government services, education and tourism etc. More than 60% of the population of architects are women in Nepal according to a recent review⁴⁵ and 10–15% of students are about to graduate as architects. Many of those women architects have gone to much higher studies like urban planning, project management, and landscape architecture. Some of them are in politics like Hisila Yami⁴⁶ and Dr. Sumitra Amatya⁴⁷. Some prominent architects are pursuing professional practice in Nepal like Poonam Shah⁴⁸ who is one of the established professionals and AnjuMalla Pradhan⁴⁹ who is also current Vice-president SONA. Shailita Joshi⁵⁰ and Dr. Sudha Shrestha⁵¹ are famous names involved in academia. They are leading architects who continue the legacy of women's contribution to architecture.⁵²

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Anna Maria Fundarós 'Design for Development'

44 Bhawani Rana, current president of FNCCI. "Spotlight on Leading Women of Nepal – Bhawani Rana," Daughters of Himalaya (posted March 25, 2015), <https://daughtersofthehimalayas.wordpress.com/?s=Bhawani+Rana> (accessed April 2018).

45 "Society of Nepalese Architects," Facebook, (2017), <https://www.facebook.com/societyofnepalesearchitects/>. Male and female members of SONA page.

46 Yami was one of the most high-profile women leaders in the protests. She was also the General Secretary of All India Nepalese Students' Association, 1981–1982. She was a lecturer at Institute of Engineering, Pulchowk Campus from 1983 to 1996. In 1995 she became the President of the All Nepal Women's Association (Revolutionary) and served a two-year term. "Hisila Yami," Wikipedia, https://en.wikipedia.org/wiki/Hisila_Yami (accessed April 2018).

47 "Faculty," Institute of Crisis Management Studies (ICMS), http://www.tuicms.edu.np/index.php?page=faculty_detail&sid=286. A dynamic figure in the Engineering / Environment / and Planning field, Dr. Sumitra has the inspiring record of becoming the first woman Ph.D. holder in the field of architecture, which she did from Moscow Institute of Architecture, Russia in 2001. She commands the outstanding experience and performance while she was an ED of Solid Waste Management Technical support Centre/ Government of Nepal. People close to her in working, influenced by her performance, used to regard her as 'Garbage Management Queen'. She played key role managing disaster waste during Earth quake 2015 in Nepal and prepared the Disaster Waste management Policy / Strategy for Nepal Government.

48 "Poonam Shah," LinkedIn, <https://np.linkedin.com/in/poonam-shah-40a03830>, owner of Shah consult (p) limited

49 "Current Executive Committee," SONA, <http://sona.org.np/posts/committee/current-executive-committee/detail>.

50 Vice principal of engineering college. "Faculties," Kathmandu Engineering College, <http://www.keckist.edu.np/keckist/category/faculty/faculties>.

51 "HOD, Department of Architecture," Tribhuvan University, Institute of Engineering (IOE), <https://ioe.edu.np/?s=Department+of+Architecture> (accessed April 2018).

52 Kayastha, 2018.

Anna Maria Fundarò (1936–1999) was the first woman receiving a tenure appointment as full professor of Industrial Design in Italy. She started her career in 1962 at Università degli studi di Palermo in the South of Italy. She approached the discipline at its nascent state,¹ developing between 1970s and 1990s a significant contribution to understand the role of design in relation to the context of application, in the specific case of Sicily.

Reading her texts and analysing her diverse activities through the documents filed in the Damiani-Fundarò archive-house, allowed us to retrace her original vision about the role of design in a specific context. She developed the 'Design for development' approach, according to her vision of design as a 'total social phenomenon', i.e. a phenomenon that can only be analysed in relation to other phenomena like socio-cultural conditions, techno-productive relationships, territorial policies, etc., with which it constitutes a whole system.² She disseminated her vision to different types of audience, and not only the specialised ones, besides her foresight and ability to gradually build

1 Starting from 1950s a generation of design professionals started to spread out in Italy, budding from the profession of Architecture. The first academic course about design was established in 1955 at the Università degli studi di Firenze, but only during the decades 1960s-1970s-1980s the themes characterizing the discipline were finally developed. University Design courses followed a different path, as stated by Anty Pansera, *La formazione del design in Italia: Una storia lunga un secolo* (Venezia: Marsilio Editori, 2015).

2 Cf. Tomàs Maldonado, *Diseño Industriale: Un riesame* (Milano: Feltrinelli, 1976).

a strategy for her academic mission. This paper aims to reconsider this woman as one of the protagonists of Italian design culture,³ and to link her vision to some peculiar elements stated by Piera Nobili, and also recalled by Serena Simoni, as significant constants of women designers' work since modern times, such as: project concreteness; the ability to combine design thinking with political action; the concept of 'participated spatiality' that escapes a traditional vision and a normative aesthetic code, and rather goes towards a shared and aware vision of differences.⁴

In line with a perspective of historiographical approach this paper intends:

- Contributing to map women's work in the design field and discourse throughout Italy and Europe.⁵
- Giving rise to unveil women's work in the mediation of design culture research and teaching practices, as well as communication channels, like publications and conferences about design, activities in which, since late nineteenth century, especially in Italy, women have been engaged more than as proper professional designers, highlighting how this kind of involvement started to take place also in Southern Italy only in the late 1960s.
- To present A. M. Fundarò's contribution in a historical-geographical perspective with the peculiarity of the ever-active tension between regional differentiation and national uniqueness.⁶ As attention has been paid to not to confine A.M. Fundarò in a regional/local discourse, but rather linking her reflexion on relationships to other protagonists of design and other culture in a wider Italian, Mediterranean and cosmopolitan dimension.

3 The state of research on Anna Maria Fundarò is still at its very beginning. Indeed, only two studies have been published so far, such as: Marinella Ferrara, "Anna Maria Fundarò: Protagonista della didattica per lo sviluppo dei contesti meridionali e mediterranei (1970–1990)," *Angelica e Bradamante le donne del design*, edited by Raimonda Riccini (Padova: Il Poligrafo, 2017), 127–148, and Marinella Ferrara, "The critical writings of Anna Maria Fundarò: The roots and identity of industrial design in Sicily," *AIS/Design: Storia e Ricerche*, no. 6 (2015). In this essay, Fundarò's biographical facts are mainly based on these two previous publications, as well as on archive's documents and on the several texts she wrote.

4 Cfr. Piera Nobili, "Spazialità partecipata," *Da sapere, a sapere: Donne in relazione*, edited by Paola Patuelli and Piera Nobili, (Ravenna: Angelo Longo Editore, 2001), 45–57; Serena Simoni, "Didattica della storia, dell'arte e prospettiva di genere," *Insegnare la storia dell'arte*, edited by Angela Ghirardi et al. (Bologna: Clueb, 2009), 123–166.

5 For the advancement of knowledge on women work in design field in Italy see: Anty Pansera and Tiziana Occeppo (eds.), *Dal merletto alla motocicletta: Artigiane/Artiste e Designer nell'Italia del Novecento* (Cinisello Balsamo: Silvana editoriale, 2002); Catherine Rossi, "Furniture, Feminism and the Feminine: Women Designers in Post-war Italy, 1945 to 1970," *Journal of Design History* 22–23 (2009), 243–257; Raimonda Riccini (ed.), *Angelica e Bradamante le donne del design* (Padova: Il Poligrafo, 2017).

6 The attention paid to reconstructing history in relation to spatial and geographical connotations, as well as temporal, finds support in many studies about the regional history, and also in the orientations of phenomenology. Fredric Jameson, *Postmodernism or the Cultural Logic of Late Capitalism* (New York: Duke University Press, 1991), wrote that the social and cultural history, exposed in the contemporary to the short-circuit globalization-fragmentation, requires more than in the past to be studied using a 'cognitive cartography', i.e. a system of knowledge that implies representation, spatial representation and the concept of 'map'.

The Sicilian Context and the Industrial Design at Its Beginning

First of all, a briefly zooming on the socio-economic and cultural conditions of Sicily can help to seize some of the insights and main trends of the 1960s, that helped shaping and defining mindset, carrier, and objectives of A. M. Fundarò.

Despite a productive proto-industrial era during the Kingdom of the Two Sicilies, chronologically corresponding to the Industrial Revolution of Northern European countries (conventionally dated to the period 1780–1830), in the post-Second World War times, Sicilian society was in poverty conditions, cultural backwardness, not to mention the non-existence of social thrusts and feminine emancipation. Its traditional and patriarchal reality was supported by agricultural activity, a strong religious feeling and was afflicted by political clash and *Mafia*.⁷ Economic development and emancipation began to take shape in the 1960s with the investment incentive policy in Southern Italy and the construction of three petrochemical poles. Unfortunately, this industrial policy was not able to compensate the lack of a structured and diversified production, needed for an organic and balanced economic development. So large masses of population moved from the agricultural areas to the administrative and industrial centres, with effects of evolution from agricultural to urban-entrepreneurial economy, tertiarization of activities and increased consumption. Meanwhile, the mafia put into action 'the Rape of Palermo'. The construction business ensures an easy enrichment. Palermo literally changed its face, passing from 350 to 665 thousand inhabitants in 7 years.⁸ Thus, with the industrial development increased by consumption, which was followed in the 1970s by a very low economic growth and a significant economic crisis.

In the mid-1960s Anna Maria Fundarò, coming from a bourgeois family, enrolled at the Faculty of Architecture of the Università degli studi di Palermo, where she found a stimulating and emancipatory environment that had no equal in the region. Professors coming from other realities worked in the Faculty bringing new ideas. In 1960, Fundarò graduated with Gino Levi Montalcini, one of the major exponents of the 'Italian Rationalism' coming from Turin. Fundarò learned the methods of the project declined at different scales of intervention, from the city to the furnishings.

The Protest of 1968, strengthen by the Marxist ideologies, burst at the University of Palermo, bringing up emancipatory movements. In the same year, a disastrous earthquake took place in a provincial area, the Belice. This led the region to a terrible social unease and a new wave of

7 Hohn Paul Russo, "The Sicilian Latifundia," *Italian Americana* 17, no. 1 (March 1999), 40–57.

8 Michele Pantaleone, *Antimafia: Occasione mancata* (Turin: Einaudi, 1969).

migration towards the North. Several towns and villages were abandoned and the population moved to neighbourhoods in kind of dormitories contexts.

Together with her colleagues, Fundarò started to be engaged in a criticism on the social and economic development. There was indeed a critical debate on design as the generator and supporter of the ideology of capitalist domination, following up to the explicitly commercial nature of the products. With her close colleagues Benedetto Colajanni (1927–2009), Margherita De Simone (1932–1990), Tommaso Giura Longo, Roberto Collovà, Tilde Marra and Teresa Cannarozzo, all involved in the architecture and urbanism discourse, she was then engaged to prove that university could positively act towards society, working for structuring a design approach based on a new model of economy and sociality, combining projects and participation, as well as for defining an experimental teaching method fostering design themes that are syntonetic to the problems of modernity. In 1969 Vittorio Gregotti⁹, architect, professor and editor-in-chief of the magazine *Casabella*, arrived to the University of Palermo spreading out the concept of architecture by her master Ernesto Nathan Rogers (1909–1969),¹⁰ consequently inspiring young colleagues with trust in the rational values of design and production processes, in the interpretation of technologies as tools for understanding and systemically planning the territory in response to variable social needs.¹¹

In 1971, in the climate of reform for a new order of the faculties of architecture, as promoted by Vittorio Gregotti, the Faculty Council decided to establish the course of Industrial Design, which was entrusted to Anna Maria Fundarò.¹² She was able to conquer a role in the industrial design discipline that was ultimately not attractive to her colleagues. From that moment on, she put her thoughts in action on the social dimensions with extreme realism, starting a debate on the role of industrial design in the South of Italy.

Design and Real Problems

In 1970s the industrial design courses had recently been established within the Architecture Degree

9 Vittorio Gregotti (b. 1927) is one of the most renowned Italian Rationalist architects with a relevant architecture production, also in terms of theory development. He started his carrier working first for *Casabella*, while the editor in chief was Ernesto Nathan Rogers, opening a debate on the role played by design. Subsequently he was appointed himself editor in chief of the same magazine.

10 Ernesto N. Rogers, architect and professor at Politecnico di Milano, co-founder of BBPR studio, was one of the most important international architecture scholars of the Italian Rationalism movement. He was editor in chief of two of the most important international architecture magazines: *Domus* (from January 1946 to December 1947) and *Casabella* (from 1953 to 1965). Through his editorials, Rogers defined an original theoretical framework about architecture, strongly influenced by contemporary studies on phenomenology. He formed a group of young architects including Aldo Rossi, Vittorio Gregotti, Giorgio Grassi, Gae Aulenti, Giotto Stoppino, Guido Canella and Giancarlo De Carlo, due to deeply influence European architectural culture.

11 Anna Maria Fundarò, "Il Disegno Industriale," *Per una scuola della Facoltà di Architettura di Palermo*, edited by Cesare Ajroldi (Roma: Officina edizioni, 2007), 277–295.

12 Ibid.

Program, but the discipline was not yet codified. It was applied as an integrated method in a broader education, developing skills to intervene from the territorial scale to the objects.

Anna Maria Fundarò approached design continually bringing back to the specific problems of the context in which she operated. She was looking for 'problem areas' caused by a bad architectural policy, i.e., places and themes to explore, to obtain effective results caring of territory productive systems activities and society. Some of the topics in the educational activities were the 'soft' qualities of the interiors, the design of the furnishings for social housing, and 'objects of collective use', connected to external spaces as well as to the system of public transport, to replace pragmatically urban squalor with new qualities.¹³ The primary objective of her didactic was to form a class of professionals attentive to political distortions, experts in the project at different scales of intervention and able to critically use different approaches, tools, and skills.

Her reflection focused on the 'why' of his role as a professor of industrial design in a context, where there were no industries, no job for designers, no laboratory and basic resources in the university. She wrote:

Teaching ... implies making choices about what to teach. If I'm not a designer, in the most current meaning, ... I cannot ... pass on, as it used to be within an ancient studio, that complex set of hierarchies and selections I express through my language ... I have to move this relationship on a different level ... I can do design ... building up the foundations for university to become the ... core of exchanges among various design professionals But to what can be set just as a large organizational service ... university must support a widespread, concentrated lab to be seen; a place ... in which to build, even just through design larvae as many design mock-ups as possible ... expressing ... an ethical tension of reconstruction ... the attention to a rational use of resources ... responding to a need while being useful to society ... and recognising areas and priorities of the need itself.¹⁴

In 1977, when the decay of the historical centre of Palermo followed the rapid development of the suburbs, Fundarò, with better confidence in her new role as full professor, decided to advance her strategy. She launched a methodical survey of the micro activities located in the historical centre of city, characterized by an intricate system on which the identity of the city itself was found: mixed production, residences and consumption. The study aimed at the knowledge of the productive, social and architectural resources that could contrast the abandonment and tertiarization of the historic centre as well as the ghettoization of the poorest social classes that lived in it. The survey

13 Cfr. Anna Maria Fundarò, "L'abitazione a basso costo: Progetto e Bisogno" (Dispensa del Corso di Disegno industriale, Palermo, Academic year 1973–74); Benedetto Colajanni, Anna Maria Fundarò et al., *Un'esperienza didattica* (Palermo: ISIA Edizioni d'Arte nuovo Sud, 1973).

14 Anna Maria Fundarò, "Quattro anni di progetti con gli studenti della facoltà di Architettura di Palermo," *ADS: Design per lo sviluppo* 1 (1982), 212–218.

included the analysis of the relationship between production techniques and work ecosystems, and between this and housing, taking as reference the *Encyclopédie* by Diderot and D'Alambert for the study of environments, products, tools, and techniques of work, method of interviews for the documentation of craftsman' activities and productive relationships.¹⁵

In such a great project she involved her team of assistants as tutors and groups of students. Each group was entrusted with the study of a craftsman. In this way, relational processes could be triggered between the design students and the artisans capable of regenerating the productive reality, contributing a new mixture of intellectual processing and the practice of doing. She was convinced that one could start from the technical skills of local artisans to train young designers, and from the creative proposals of the students to enhance new quality of crafts and places. The historic centre would become a public laboratory for industrial design students in which they could experiment improving possibilities of a virtuous re-appropriation of the urban spaces.

At this point, the question moved on the innovation of language. As Pierluigi Spadolini (1922–2000)¹⁶ had been experimented a few years earlier, working at Università degli studi di Firenze before to move to ISIA, the Istituto per le industrie artistiche, Fundarò chose to focus on modularity and standardization of industrial techniques to simplify typical artisanal products, rationalizing production. This approach would have allowed increasing in rationality and speeding up production, innovating forms and details with that formal simplification required by standardization, while keeping the traditional typologies recognizable. The projects derived by the study-with-the-artisans approach were then turned into prototypes. In 1979, the exhibition *Cultura materiale e Centro storico di Palermo: Un contributo di analisi dal Corso di Disegno Industriale della Facoltà di architettura di Palermo* (Material Culture and Palermo Historic Centre: an Analysis and a Contribution from University of Palermo Industrial Design Degree), promoted by the Chamber of Commerce showed the studies, projects and prototypes. Fundarò defined the exhibition 'poor' and 'socially usable', as a 'symptom of vitality' and 'possibility of change' representing a new relationship between university and communities of the territory.¹⁷

History of Design Research

History of design research represented for A.M. Fundarò the cognitive basis of the past, which was essential for understanding the present of the 'anomalous' Sicilian context, between development and underdevelopment, while looking for founding elements of material culture.¹⁸

Her historiographical approach integrated elements of museography, semiotic and anthropological research, on which the influences of her acquaintances with anthropologist, politician and friend Antonino Buttitta (1933–2017), dean of the Faculty of Humanities and Philosophy of the University of Palermo, and president of the master's degree of Cultural Anthropology and Ethnology were pretty evident. Thanks to the stimuli coming from her friend's studies, Fundarò enriched her researches on the Sicilian material culture, focusing on issues related to production and consumption, as well as to the relationship among art-ideology-society. Fundarò was interested in analysing successful stories while investigating the reasons of the failure of entrepreneurial activities during Sicilian proto-industrialism times. She derived from the successful cases the best practices for the regeneration of production activities. The theory by the art historian Ferdinando Bologna, on the historian process from Minor Arts to Industrial Design¹⁹ significantly influenced Fundarò's vision. Referring to an 'ideological forgery', Bologna started analysing the historical separation between major and minor arts, in which it was identified the rupture between the system of craftsmanship and the applied arts on one hand, and industrial design on the other. The gap between the intellectual moment based on ideation and the operative one, focusing on execution, was threatening and pioneering in such a context of complicated socio-political implications, transitioning to modern age and the booming of industrial design. Thus the division of labour, in those times, became the main point of observation for Fundarò.

In the 1990s she took the opportunity to found the Ph.D. course in 'Industrial Design, Figurative and Applied Arts' in collaboration with Maria Concetta Di Natale, professor at the Literature and Philosophy Faculty of the Università degli studi di Palermo. Within the Ph.D. program, historical documentary research on industrial design and production was carried on starting from nineteenth century up to the first decades of the twentieth century, relating on different sources: direct

15 Anna Maria Fundarò, "Palermo: Le attività artigianali nel centro storico," *Il lavoro artigiano nel centro storico di Palermo*, edited by Anna Maria Fundarò (Palermo: Laboratorio universitario di design, 1981).

16 Pierluigi Spadolini (1922–2000) was one of the leading experts of modularity and standardization of architecture, attempting to achieve an integration between the moment of design and that of production. He worked in the field of the industrial building production with architectural panels.

17 See Fundarò, "L'abitazione a basso costo."

18 Below we offer a short bibliography of the texts of Anna Maria Fundarò on Italian design history: Anna Maria Fundarò, "Cultura del design: Manufatti e produzione a Palermo 1860–1910," *Per una storia del design in Sicilia: Reperti e testimonianze di archeologia industriale e cultura materiale a Palermo*, edited by Antonio Bertolino, Anna Maria Fundarò et al. (Palermo: Vittorietti editore, 1980), 7–15; A. M. Fundarò, "Design e cultura materiale: La produzione industriale del palermitano tra la fine dell'Ottocento e i primi del Novecento," *Quaderni del Circolo Semiologico Siciliano* 12/13 (1980); Vittorio Fagone, Anna Maria Fundarò et al. *Ceramica Florio* (Palermo: Edizioni Novecento, 1985); Anna Maria Fundarò, "La Wiener Werkstätte e la scuola di Disegno Industriale di Palermo: La provocazione di un confronto," *Attualità della Wiener Werkstätte: Una esperienza didattica*, edited by Anna Cottone (Palermo: Ila Palma e Istituto di Disegno Industriale, 1988) 7–8.

19 Ferdinando Bologna, *Dalle arti minori al design industriale: Storia di un'ideologia* (Bari: La Terza 1972).

experiences, archival documents, communicative tools (sales catalogues and advertisement) and of course texts. Sticking to the term 'industrial archaeology', which happened to be the one currently used in those years, she wanted to re-construct a concrete vision of the industrialism in Palermo, specifically in terms of creative and executive knowledge. Finding a first objective in the registration of data that were disappearing, due to demolitions or re-functionalization of manufacturing sites, Fundarò listed all the old industrial productions that were waiting to be studied: from Florio fishing industry, to Marsala wine and food; from Solei Hebert and Ducrot furniture to iron and copper beds manufacture; from skin tanneries to coach works; from 'Albergo dei Poveri's' fabric manufacture in Palermo, to cloth factory at Palazzo Adriano; from the majolica and porcelain productions by 'Ceramica Florio', to glassworks, etc.

As a reference for this program, she developed a connection with other Italian projects, such as the one by the art critic and historian Eugenio Battisti (1924–1989) for the Centro di documentazione e di ricerca sull'Archeologia Industriale.²⁰ Her will was not to disperse documents of history in which it was possible to trace the role of design, so as not to perpetuate the distinction between arts, and to recognize (in line with the theory by the art historian, archaeologist and politician Ranuccio Bianchi Bandinelli (1900–1975)) that art in contemporary times had to be considered immersed in the concrete conditions of places and social situations, so as to determine a reciprocal exchange of impulses.

Relations with the Protagonists of Italian Design

In 1981, Fundarò founded the Istituto di Disegno Industriale e Produzione edilizia (Institute of Industrial Design and Construction Production). To offer her students and collaborators 'unexpected enrichments and highly stimulating situations' she started a series of activities to promote the design culture. Although these events took place locally, in few years they achieved a full national resonance.

In 1982, taking advantage from the opportunity offered by the Italian law DPR n. 382 for the appointment of not tenured professors, she decided, in total agreement with her collaborators, to assign design courses to high-level design professionals. She chose Ettore Sottsass junior (1917–2007) (Fig. 1), architect and design professional for companies like Olivetti, who had founded in 1981 the group Memphis, and Andrea Branzi, design professional, and critic, member of the

²⁰ For more information on the Research and Documentation Centre for Industrial Archaeology, see: Aldo Castellano, "A che punto eravamo rimasti?" *Archeologia industriale: Architettura, lavoro, tecnologia, economia e la vera rivoluzione industriale*, edited by Eugenio Battisti and Francesco Maria Battisti (Milan: Jaca Book, 2001), 325–338.



Fig. 1. Anna Maria Fundarò, with Ettore Sottsass at the Institute of Design, Università degli studi di Palermo. Courtesy of Damiani-Fundarò Archive.

Archizoom group. At international level, they are considered two among the greatest exponents of post-modernism in design. In 1983, Fundarò invited also Ugo La Pietra, artist, architect and designer, well known for his intense experimental activity on public, private and in-between spaces between public and private realms, on modes of appropriation, theatricality, psychology and social dynamics. Fundarò assigned him a new course *Progettazione ambientale* (Environmental Design). The didactic activities of these courses are documented in three books, promoted by the Istituto di Design Industriale (Institute for Industrial Design): *Storie e Progetti di un Designer Italiano: Quattro lezioni di Ettore Sottsass Jr*²¹ based on Sottsass' lessons and the projects realised by the students; *Merce e metropoli: Esperienze del nuovo design Italiano* by Andrea Branzi;²² and *La Conversazione Elettronica*.²³ With Ettore Sottsass, Andrea Branzi and Ugo La Pietra, students could explore the most advanced applicable design approach and methods, and Fundarò had an great empathy with these colleagues, in terms of strategy and action to apply in order to revitalize crafting and industrial production and guarantee a future for her students.

Then in 1983 the organization of a series of conferences allowed Fundarò to clarify her strategy and spread her vision about the role of design in Sicily with the slogan 'Design for the development'. It is a crucial concept for a more balanced development of contexts, which thickens the profound meaning of Fundarò's work. The series of conferences was addressed not only to the architecture students, but also to engineering students and professionals.

²¹ Antonio Martorana (ed.), *Storie e Progetti di un Designer Italiano: Quattro lezioni di Ettore Sottsass Jr* (Florence: Alinea & Università degli studi di Palermo, 1983).

²² Andrea Branzi, *Merce e metropoli: Esperienze del nuovo design Italiano* (Palermo: Epos & Università degli studi di Palermo, 1983).

²³ Ugo La Pietra, *La Conversazione Elettronica: Modificazione dello spazio abitativo e dei suoi rituali attraverso l'uso di strumenti telematici* (Florence: Alinea & Università degli studi di Palermo, 1985).

Many of the main figures of the twentieth century Italian cultural scene, especially the most relevant ones, were invited in Palermo to contribute to Fundarò's project. Among which: Filippo Alison (1930–2015), professor of interior design at the University of Naples 'Federico II', with a strong expertise in furniture designed by Modern Movement masters, such as Wright, Le Corbusier, Asplund, Rietveld, Mackintosh, whose works he turned into new best sellers thanks to a clever process of reproduction, in partnership with the Italian design company Cassina, turning unique pieces of modern architecture finally accessible to everyone; Giuseppe Ciribini (1913–1990), engineer and professor of architecture technology at Politecnico di Torino, expert in building standardization and industrialization, modular coordination of complex processes, and problems in the built environment; Angelo Mangiarotti (1921–2012), Alessandro Mendini, Enzo Mari and Michele De Lucchi masters of Italian design; Vittore Fagone (1933–2018), art critic; Roberto Mango (1950–68) designer and professor at University Federico II of Naples; Anty Pansera, Italian art and design historian, professor at ISIA; and many others. All the contributions to Fundarò's strategy were documented and published in the first issue of the *Annuario Design Sicilia (ADS)* annual publication edited by Fundarò and published by Alinea Editrice. *ADS* was a cultural information tool about design activity and studies in Sicily published since 1994.

All these relations, external to her usual entourage, were crucial for Fundarò's vision and career. They contribute to create a dimension of national accordance, distant from her daily circle of colleagues of the Palermo faculty that had often tried to obstruct her projects, and not recognise her outstanding work. Various articles and reviews concerning design teaching methodologies in Palermo were published in specialized magazines such as *Domus*, *Modo*, and *Ottagono*. Many publications were edited by Fundarò and her collaborators through the Istituto di Disegno Industriale to present the promoted design activities.¹⁰ In just over 15 years, Fundarò became one of the most exciting figures of design education in Italy: incessant scholar, project developer, conferences chair, seminars and competitions organizers, and curator of several exhibitions centred on the theme of *Design for the development*.

Fundarò enters into a relationship with a series of interlocutors of different background and approaches who contribute to enlarging the field of influence of his thought. As in the case of Ludovico Corrao (1927–2002), the politician who rebuilt Gibellina after the Belice earthquake, integrating the specially created works of many artists and architect. He founded the Orestiadi di Gibellina and the Museo delle Trame Mediterranee, with the specific intention of opening a dialogue among the different Mediterranean cultures. Together with Corrao, Fundarò became an active contributor to the Corrao's project, well expressed in the book *Il sogno Mediterraneo*,²⁴ where the

24 Ludovico Corrao and Baldo Carollo, *Il Sogno Mediterraneo* (Alcamo: Ernesto di Lorenzo editore, 2010).



Fig. 2. Anna Maria Fundarò visiting Alcatel for research purposes. Courtesy of Damiani-Fundarò Archive.

contemporary history of Sicily in arts and literature is described as a tight relationship with different Mediterranean cultures, outside of any opposed fundamentalism.

At the same time, Fundarò entertained interesting relations with local institutions, such as Camera di Commercio, la Fiera del Mediterraneo, the City of Palermo, the Assessorato Regionale ai Beni Culturali e Ambientali della Sicilia (Regional Councilorship for Cultural and Environmental Heritage of Sicily), the Fondazione Curella - Centro di studi economici (Curella Foundation - Center for Economic Studies), and various municipal administrations and craft associations, that had financed the culture activities of the Istituto of Industrial Design. She entertains relations also with national realities and institutions like ADI, Abitare il tempo, Fiera di Verona, Italtel, and many others (Fig. 2). She wrote for the magazine *Nuove Effemeridi* and she collaborated for events and exhibitions by international artists and designers, such as those on Borek Sipek²⁵ and Jacques Toussaint²⁶, with the *Agora Gallery*.

Conclusion

This paper brings to light Anna Maria Fundarò, a Sicilian woman and a protagonist of the mediation of design culture in Italy. Her career started at the Università degli studi di Palermo, during the years

25 Anna Maria Fundarò, *Portrait Borek Sipek Designer* (Palermo Agorà, 1989).

26 Anna Maria Fundarò, *Un'intervista via fax: Jacques Toussaint* (Palermo: Agorà, 1990).

of the youth protest that characterized the end of the 1960s in Italy. This period of emancipation allowed her to achieve positions of great relevance that she managed to maintain with her determination, long-sightedness, and wit. Year after year, she sharpened intents and methods of her work, defining with awareness and coherence her research itinerary. Thanks to the multiplicity of actions carried out, the relationships built, and the critical questioning, her project for the community became increasingly clear and precise.

Despite her distance from the main centres of the debate on contemporary project visions, she became the interpreter of the national movement of revaluation of the role of craftsmanship, that was spreading along with 'Radical Design', but finding in it an instrument for the reactivation of productive and residential qualities of the urban centres in Sicily. Fundarò put at the core of her teaching, without excluding craftsmanship, the development of a design culture capable of improving interior spaces, as well as the external spaces of the city in a systemic vision of the project; to enhance the typical productive activities with the innovation of techniques and the search for expressive languages; to enhance cultural heritage through new uses and functional practices. Her discourse was based on strong critical responses and supported by a robust ethical tension. In the tense national debate, her voice as a Sicilian woman, living and working far from the centres of the debate on design, anyhow and remotely made her name, finding in her writing activity and in the care for editing and publications her authoritative space, as well as the precise characterization of her intent in the Sicilian context, still exerting a powerful influence on the Sicilian Academic context. Although very little has been written about Fundarò, her design discourse remains a significant contribution not only at the local level.

In the 1980s the Fundarò defined her Design for development.

In 2005, year of the foundation of the Master Degree Course in Design for Mediterranean at the Università degli studi di Palermo, Vanni Pasca, the Design History and Theory scholar that strongly contribute to this foundation, explained:

This is a definition that arises from the need to define a concept capable of structuring teaching and research in a context like Sicily, characterized by insufficient economic development, and by an incomplete modernization process, because it is partly passive, that is in part immediately and pursued by the ruling classes and by civil society in general. With the word modernization, we mean here the process of displacement and consumption from traditional forms to evolved forms, with a relevant process of social transformation, marked by the prevalence of urban life models, by the transformation of the family structure, the role of women and so on. 'Design for development' therefore expresses the will and attempt to contribute, with the design of physical or visual quality artefacts, to regional socio-economic growth, with reference not only to local or national markets but also to international ones; and together to participate, with the diffusion of a culture linked to the modern project, to the affirmation of a culture of

contemporaneity ... to give just an example, the ability of Sicilian wine producers to merge traditions and new technologies, achieving a first essential improvement of the quality of local products, and to affirm them on the international markets, with a strategy that goes from the presence to the fairs to the integrated communication, is at the base of one of the important and modern achievements of Sicilian production ... But it should be emphasized that Sicily is a land of great perspectives for tourism in general and the cultural one in particular, with its landscape, archaeological, museum and artistic wealth; here arises the need for the development of equipment, which is still insufficient or backward, in the hospitality, spa and port sectors ... around these issues, it may be useful, indeed necessary, to assume a role of Sicilian design in the Mediterranean countries, both as regards its northern band, more industrially evolved, and as regards the band of countries that define the southern shore of this mythical sea.²⁷

Acknowledgment

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²⁷ Vanni Pasca, "Università degli studi di Palermo: Corso di laurea in disegno industriale," in Rossella Bertolazzi, *Il futuro della città Slow Fast: La luce* (Bologna: Editrice compositore, 2005), 108–109.

Christiane Post

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Lyubov' Zaleskaya:
Landscape Architect and Professor
at the Moscow Architectural Instituteand equal pay for equal work followed in the aftermath.⁶

Access to universities was now open to women. In prerevolutionary Russia, architecture studies –unlike art education– had mostly remained closed to them.⁷ However, ‘since the early 1900s, “higher female architectural courses” existed in St. Petersburg and Moscow, providing an education that was practically’ equivalent ‘to the one at an architectural institute’ but did not grant their graduates professional degrees.⁸ After the Revolution female students entered the Free Art Studios (GSKhM), such as the First and Second GSKhM in Moscow, which in 1920 became the Higher Art and Technical Studios (VKhUTEMAS).⁹

Among these first female students, who studied architecture after the Revolution, was Lyubov' Zaleskaya (1906–1979).¹⁰ Born in Moscow as a daughter of an architect,¹¹ she enrolled into the VKhUTEMAS in 1923. There she studied at the Architecture Faculty, in the studio of the famous avant-garde architect Nikolai Ladovsky,¹² who had introduced the so-called psychoanalytic method, based on psychophysics, as an architectural approach.¹³ During her studies, she also joined the

Gender relations in Russia changed greatly due to the revolutions of 1917. After the February Revolution, women in Russia gained the right to vote and to run for elective office.¹ This was preceded by the struggle of international women's rights activists for gender equality and supported by the Russian Women's Movement, which had been standing up for their rights since the nineteenth century.² Under the Provisional Government, ‘freedoms of assembly, press and speech were granted. Legal restrictions of religion, class and race were removed’.³ After the October Revolution, women's suffrage was enacted in the Constitution of the Russian Socialist Federative Soviet Republic (RSFSR) of 10 July 1918.⁴ Numerous legislative measures, such as the legalisation of divorce and abortion,⁵ a simplified marriage law, state maternity protection, equality between men and women

6 Cf. Carmen Scheide and Natali Stegmann, “Frauen- und Geschlechtergeschichte,” *Digitales Handbuch zur Geschichte und Kultur Russlands und Osteuropas*, edited by Abteilung für Geschichte Ost- und Südosteuropas des Historiums der LMU München, Institut für Slavische Philologie der LMU München (München: LMU, 2003), 8, <https://epub.uni-muenchen.de> (accessed January 1, 2018).

7 Cf. Selim O. Khan-Magomedov, *Pervye vypuski molodykh storonnikov arkhitekturnogo avangarda: MPI – MIGI (1920–1924 gg.)* (Moskva: Architectura, 1997); Ada Raev, *Russische Künstlerinnen der Moderne (1870–1930): Historische Studien – Kunstkonzepte – Weiblichkeitsentwürfe* (München: Fink, 2002), 86–113.

8 Alla G. Vronskaya, “Urbanist Landscape. Militsa Prokhorova, Liubov' Zaleskaia, and the emergence of Soviet landscape architecture,” in Sonja Dümpelmann and John Beardsley, *Women, Modernity, and Landscape Architecture* (London: Routledge, 2015), 61.

9 At the GSKhM/VKhUTEMAS women artists of the avant-garde belonged to the faculty, e.g. Aleksandra A. Ekster, Anna S. Golubkina, Vera I. Mukhina, Lyubov' S. Popova, Varvara F. Stepanova, and Nadezhda A. Udaltsova. Cf. Selim O. Khan-Magomedov, *VKhUTEMAS 1920–1930*, Vol. 1 (Moskva: Lad'ja, 1995).

10 Cf. Valentin I. Ivanov, “Zaleskaya Lyubov' Sergeevna,” Gardener.ru, <http://gardener.ru> (accessed January 1, 2018); Vronskaya, “Urbanist Landscape”; Christiane Post, “Milica I. Prochorova und Ljubov' S. Zaleskaja: Theoretikerinnen des sowjetischen Parks für Kultur und Erholung,” *Theoretikerinnen des Städtebaus: Texte und Projekte für die Stadt*, edited by Katia Frey and Eliana Perotti (Berlin: Reimer, 2015), 187–220; Archives: MARKhI, MUAR, and RGALI, Moscow.

11 Cf. “Zaleskii, Sergei Borisovich (1867 – ?),” *Zodchie Moskvyy vremeni eklektiki, moderna i neoklassitsizma (1830-e – 1917 gody)*, edited by Vladimir A. Rezvin et al. (Moskva: Firma KRABiK, 1998), 106–7; Mariya V. Nashchokina, *Arkhitektory moskovskogo moderna* (Moskva: Zhiraf, 2005), 195–6.

12 Cf. Selim O. Khan-Magomedov, *Nikolai Ladovsky* (Moskva: Gordeev, 2011); Selim O. Khan-Magomedov, *Ratsionalizm – „formalizm“* (Moskva: Architectura-S, 2007).

13 Cf. Selim O. Khan-Magomedov, *Psikhoanaliticheskiy metod N. Ladovskogo vo VKhUTEMASe – VKhUTEINe. Ob'edinennyye levyye masterskie, psikhotehnicheskaya laboratoriya* (Moskva: Architectura, 1993); Selim O. Khan-Magomedov, *Razvitie psikhoanaliticheskogo metoda N. Ladovskogo na osnovnom otdelenii VKhUTEMASa – VKhUTEINa* (Moskva: Architectura, 1995).

1 Cf. Rochelle Goldberg Ruthchild, *Equality & Revolution: Women's Rights in the Russian Empire, 1905–1917* (Pittsburgh: University of Pittsburgh Press, 2010).

2 Cf. Nikolai G. Chernyshevsky, *Chto delat'?* (Vevey: Benda, 1867); Richard Stites, *The Women's Liberation Movement in Russia: Feminism, Nihilism, and Bolshevism, 1860–1930* (Princeton: Princeton University Press, 1978); Linda Harriet Edmondson, *Feminism in Russia, 1900–1917* (London: Heinemann, 1984); Karen Offen, *European Feminisms, 1700–1950: A Political History* (Stanford: Stanford University Press, 2000).

3 Orlando Figes, *A People's Tragedy: The Russian Revolution 1891–1924* (London: Cape, 1996), 358, and (München: Goldmann, 2001), 382.

4 Cf. “Grundgesetz (Verfassung) der Rußländischen Sozialistischen Föderativen Sowjetrepublik, 10. Juli 1918,” 100(0) Schlüsseldokumente zur russischen und sowjetischen Geschichte, <http://1000dokumente.de> (accessed January 1, 2018).

5 Cf. “Dekret über die Auflösung der Ehe, 16. (29.) Dezember 1917,” 100(0) Schlüsseldokumente, <http://1000dokumente.de> (accessed January 1, 2018); Gail Warshofsky Lapidus, *Women in Soviet Society: Equality, Development, and Social Change* (Berkeley: University of California Press, 1978); Wendy Z. Goldman, *Women, the State and Revolution: Soviet Family Policy and Social Life, 1917–1936* (Cambridge: Cambridge University Press, 1993).

'rationalist' Association of New Architects (ASNOVA), which was co-founded by Ladovsky.¹⁴ At the VKhUTEMAS, which in 1927 was renamed the Higher Art and Technical Institute (VKhUTEIN), she designed between 1926 and 1928 a cinema and an office building, new housing units and an urban settlement.¹⁵

In 1929, Zalesskaya defended her diploma thesis on the Park of Culture and Leisure (PKiO) in Moscow. Her noteworthy project, which she had developed under Ladovsky at the VKhUTEIN, was published in El Lissitzky's famous book *Russia: The Reconstruction of Architecture in the Soviet Union*¹⁶ and in the Russian journal *Stroitel'stvo Moskvyy*.¹⁷

Like her, in the late 1920s and early 1930s, a 'larger' group of female architecture students graduated from Moscow's universities.¹⁸ These included, in particular, female graduates of the Higher Art and Technical Institute (VKhUTEIN) and the Moscow Higher Technical College (MVTU).¹⁹ Highly qualified through their education by well-known avant-garde architects²⁰ at famous schools of art and architecture,²¹ and trained by participating in competitions during their studies, the results of which were partly awarded and partly published in the specialised press, the female graduate architects mostly worked in the municipal and state urban planning offices. In 'brigades',²² which consisted mostly of two or three young architects, and with the assistance of experts and specialists,

they realized various architectural and urban planning projects, which they then documented in architectural journals.²³

Architectural Competitions and Debates

This is reflected in Zalesskaya's diploma project for the Park of Culture and Leisure (PKiO) in Moscow. The PKiO was founded in 1928 on the decision of the Executive Committee of the Moscow City Council (Mossovet).²⁴ It referred to a proposal made by Sergei Shestakov in his 'Greater Moscow Plan' to reorganize the peripheral park and forest areas and to connect them with the city.²⁵ A competition for the first Park of Culture and Leisure was run in 1928, in which –in addition to professional architects– students of the Architecture Faculty of the VKhUTEIN took part.²⁶ In their competition/diploma projects –created in the studios of Nikolai Ladovsky and Aleksandr Vesnin– they formulated conceptual ideas for the Park of Culture and Leisure and developed various 'rationalist' and constructivist inspired conceptions that initiated a lively debate on the PKiO.²⁷

In Zalesskaya's diploma project (Fig. 1), the centre of the park layout was marked by contrasting two large complexes, located in the lowest (sports zone in Luzhniki) and in the highest part of the park (club zone in the Lenin Hills). In her design, Zalesskaya drew an impressive picture from the perspective of the plateau of the club zone in the Lenin Hills, where the wire ropes of a cable car cross, creating an ensemble of the central sports stadium, the gathering



Fig. 1. Lyubov' Zalesskaya, VKhUTEIN Final Diploma project for the Park of Culture and Leisure in Moscow, 1929. From: *Stroitel'stvo Moskvyy* 10 (1929), 16.

14 Cf. Vigdariia E. Khazanova, *Iz istorii sovetskoi arkhitektury 1926–1932 gg.: Dokumenty i materialy: Tvorcheskie ob'edineniya* (Moskva: Nauka, 1970). As Alla G. Vroskaya with reference to Vladimir F. Krinsky noted: 'Five of the thirteen student members of ASNOVA were female.' Among them were Nadezhda A. Bykova, Mariya G. Kruglova, Militsa I. Prokhorova, Irina N. Tikhomirova, and Lyubov' S. Zalesskaya. Cf. Vronskaya, "Urbanist Landscape," 61; Vladimir F. Krinsky, "Vozniknovenie i zhizn' Assotsiatsii Novykh Arkhitektorov – ASNOVA," *Sovetskaya arkhitektura* 18 (1969), 27.

15 Cf. Selim O. Khan-Magomedov, *Arkhitektura sovetskogo avangarda* (Moskva: Stroiizdat, 1996 and 2001), 2 Vols.; Selim O. Khan-Magomedov, *VKhUTEMAS 1920–1930*, Vol. 2. (Moskva: Lad'ja, 2000).

16 Cf. El Lissitzky, *Rußland: Die Rekonstruktion der Architektur in der Sowjetunion* (Wien: Anton Schroll & Co., 1930), 100.

17 Cf. Vitalii A. Lavrov, "Park kul'tury i otdykha v Moskve po proektam diplomnikov VKhUTEIN'a," *Stroitel'stvo Moskvyy* 10 (1929), 14–6.

18 Cf. Khan-Magomedov, *Pervye vypuski molodykh storonnikov arkhitekturnogo avangarda; VKhUTEMAS – VKhUTEIN. Moskva – Leningrad. 1920–1930: Vypuskniki. Spravochnik*, edited by Larisa I. Ivanova-Veen (Moskva: ARTCOM Media, 2010).

19 References should be made, among others, to Fanya Ya. Belostotskaya (1904–1980), Esfir' Z. Cherikover (1904–1978), Pavla K. Didenko (1893–1975), Ol'ga A. Ivanova (1907–2000), Lidiya K. Komarova (1902–2002), Mariya G. Kruglova (1902–1981), Sof'ya N. Palentreer (1900–1981), and Militsa I. Prokhorova (1907–1959).

20 Cf. Selim O. Khan-Magomedov, *Pioneers of Soviet Architecture: The Search for New Solutions in the 1920s and 1930s* (London: Thames and Hudson, 1987); Catherine Cooke, *Russian Avant-Garde: Theories of Art, Architecture and the City* (London: Academy Editions, 1995); Khan-Magomedov, *Arkhitektura sovetskogo avangarda*, Vol. 1.

21 Cf. Khan-Magomedov, *VKhUTEMAS 1920–1930; Ot VKhUTEMASa k MARKhI. 1920–1936: From VKhUTEMAS to MARKhI. 1920–1936*, edited by Larisa I. Ivanova-Veen (Moskva: A-Fond, 2005).

22 Cf. the architectural and planning competitions of the early 1930s, e.g. the competition for the Central Park of Culture and Leisure in Moscow with the participating brigades ARU, ASI, ASNOVA, TsPKiO, NTO stroitelei, and VOPRA. Cf. Mikhail P. Korzhev and Leonid B. Lunts, "Kakim budet tsentral'nyi park kul'tury i otdykha: Konkurs na proekt genplana PKO," *Stroitel'stvo Moskvyy* 12 (1931), 9–17.

23 Cf. the numerous publications in various Russian periodicals such as *Arkhitektura SSSR*, *Planirovka i stroitel'stvo gorodov*, *Sovetskaya arkhitektura*, *Sovremennaya arkhitektura*, and *Stroitel'stvo Moskvyy* of the late 1920s and 1930s.

24 Cf. Katharina Kucher, *Der Gorki-Park: Freizeitkultur im Stalinismus 1928–1941* (Köln: Böhlau, 2007), 78.

25 Cf. Sergei S. Shestakov, *Bol'shaya Moskva* (Moskva: MKKh, 1925).

26 Cf. Lavrov, "Park kul'tury i otdykha," 13–8.

27 Cf. *ibid.*; Mikhail S. Zhiron, "Park kul'tury i otdykha," *Sovremennaya arkhitektura* 5 (1929), 172–5; *Städtebau im Schatten Stalins: Die internationale Suche nach der sozialistischen Stadt in der Sowjetunion 1929–1935*, edited by Harald Bodenschatz and Christiane Post (Berlin: Braun, 2003), 74–8 and (Sankt-Peterburg: Braun/SCIO Media, 2015), 78–82.

place for mass events and demonstrations with their grandstands, the parks behind them, and the surrounding Lenin Hills. Central facilities were placed along the banks of a bend in the Moskva River. A special feature there was the public swimming area with its adjacent long beach.²⁸

After her diploma, Lyubov' Zaleskaya joined the Office of Design and Planning of the Park of Culture and Leisure (PKiO) in Moscow, where, under the direction of the avant-garde architects Konstantin Mel'nikov and El Lissitzky,²⁹ she worked together with other graduates of the VKhUTEMAS/VKhUTEIN, such as Militisa Prokhorova³⁰ and Mikhail Korzhev³¹. Between 1929 and 1930, they were primarily concerned with classifying the natural landscapes of the park area, dividing the park into different sectors, redesigning the existing parterre, and drafting individual buildings.³²

At the same time, they participated in a series of architectural competitions. As the ASNOVA Brigade, they designed together in various collaborations the House of Industry in Moscow, the Academy of Sciences in Minsk, the Theatre of Massed Musical Activities in Kharkov, the Synthetic Theatre in Sverdlovsk, and the Far Eastern Institute of Fishery in Vladivostok.³³

In 1930, Lyubov' Zaleskaya married the composer Lev Knipper.³⁴ A year later, her son Andrei was born.³⁵ In the year of her marriage, the 'woman question' had been resolved in the Soviet Union, by a declaration 'that women were already equal in Soviet society'.³⁶

Then, in 1930–31, a large-scale competition was initiated to draw up a master plan for the Central Park of Culture and Leisure (TsPKiO) in Moscow.³⁷ Architects from Moscow universities, architectural

associations, and design and planning departments were invited to the competition, among them the TsPKiO Brigade with Lyubov' Zaleskaya, Militisa Prokhorova, and Innokentii Kychakov.³⁸ Basic aspects of Zaleskaya's diploma project were adopted in a modified form for this concept, and blueprints were published in books and journals.³⁹

In the reviews of the competition for the TsPKiO, the critique centred on the 'formalist' approaches and the 'disurbanist attitudes, condemned by the party'.⁴⁰ They included a reference to the speech, held by Lazar' Kaganovich,⁴¹ First Secretary of the Moscow City and Regional Party Committee and member of the Politburo and Central Committee, at the June Plenum of the CK of the VKP (b) in 1931, that contained a condemnation of disurbanism and initiated a change in Soviet urban planning, that 'emphasized not only the historically grown city, but also the tradition of garden culture'.⁴² With the commissioning of Aleksandr Vlasov for the planning of the Central Gor'ky Park of Culture and Leisure⁴³ 'the urban turn was also enforced in the landscape architectural design'. Vlasov's master plan,⁴⁴ 'based on simple neoclassical principles', 'was the first park plan to signify a critical appropriation of traditional design phases of garden culture'.⁴⁵

Landscape Architecture and Academia

Beginning in 1932, Zaleskaya worked together with Militisa Prokhorova and Mikhail Korzhev in the State Trust for Green Areas (Goszelenstroj),⁴⁶ which was amongst others involved in the planning of Union-wide Parks of Culture and Leisure (PKiO), as well as in the Project Trust of the Moscow Region (Mosoblproekttrest).⁴⁷ Between 1932 and 1935, Zaleskaya, together with Prokhorova, Korzhev

28 See figures in El Lissitzky, *Rußland*, 100.

29 Cf. Mikhail P. Korzhev, "Iz istorii planirovki pervogo sovet'skogo parka," *Park i otdykh*, edited by Ministerstvo kul'tury RSFSR, NII kul'tury (Moskva: NIIK, 1977), 287–8; Kucher, *Gorki-Park*, 189–90.

30 Cf. Valentin I. Ivanov, "Prokhorova Militisa Ivanovna," Gardener.ru, <http://gardener.ru> (accessed January 1, 2018); Alla Vronskaya, "Ot rationalistskogo urbanizma k landshaftnoi arkhitekture: parki kul'tury i otdykha v proektach M. I. Prokhorovoi konca 1920-ch – nachala 1930-ch godov," *Pervye Khan-Magomedovskie chteniya* (Moskva: Kolo, 2015), 233–44; Vronskaya, "Urbanist Landscape"; Post, "Theoretikerinnen."

31 Cf. Selim O. Khan-Magomedov, *Mikhail Korzhev* (Moskva: Russkii avangard, 2009); Valentin I. Ivanov, "Korzhev Mikhail Petrovich," Gardener.ru, <http://gardener.ru> (accessed January 1, 2018).

32 Cf. Korzhev, "Iz istorii planirovki pervogo sovet'skogo parka," 288; Kucher, *Gorki-Park*, 190.

33 Cf. Khan-Magomedov, *Arkhitektura sovet'skogo avangarda*, Vol. 1, 322–32; Khan-Magomedov, *Mikhail Korzhev*, 91–117.

34 Cf. Tat'iana A. Gaidamovich, *Lev Knipper: Vospominaniya, dnevniki, zametki* (Moskva: Sovetskii kompozitor, 1980); Tat'iana A. Gaidamovich, *Lev Knipper: Gody zhizni* (Moskva: Kompozitor, 2005). The marriage with Lev K. Knipper (1898–1974) was divorced. Later she married the conductor Nikolai P. Anosov (1900–1962). Her son Pavel N. Anosov was born in 1944. Cf. Nikolai P. Anosov, *Literaturnoe nasledie. Perepiska: Vospominaniya sovremennikov* (Moskva: Sovetskii kompozitor, 1978).

35 Cf. "Knipper, Andrei Lvovich (1931–2010)," Wikipedia, <https://ru.wikipedia.org> (accessed January 1, 2018).

36 Susan E. Reid, "The New Soviet Woman and the Leader Cult in Soviet Art," in Melanie Ilić, *Women in the Stalin Era* (New York: Palgrave, 2001), 195; Christina Kiaer, "The Short Life of the Equal Woman," *Tate Etc.* 15 (2009), 78–85.

37 Cf. Korzhev, Lunts, "Konkurs PKO," 9; Korzhev, "Iz istorii planirovki pervogo sovet'skogo parka," 290; Kucher, *Gorki-Park*, 194–5; Vronskaya, "Urbanist Landscape," 65–71; Post "Theoretikerinnen," 191–3.

38 Ibid.

39 Cf. Korzhev, Lunts, "Konkurs PKO," 16; Leonid B. Lunts, "Perspektivy stroitel'stva Tsentral'nogo parka kul'tury i otdykha," *Sovetskaya arkhitektura* 1 (1932), 46–9; Betti N. Glan, *Za sotsialisticheskii park* (Moskva: Izd-vo Mosoblispolkoma, 1932), 24.

40 Cf. Korzhev, Lunts, "Konkurs PKO," 9–17.

41 Cf. Lazar' M. Kaganovich, *The Socialist Reconstruction of Moscow and other Cities in the U.S.S.R.* (London: Martin Lawrence, 1931).

42 Bodenschatz and Post, *Städtebau im Schatten Stalins*, 165.

43 Aleksandr V. Vlasov succeeded to El Lissitzky, who had to give up the management of the Office of Design and Planning of the TsPKiO/Gor'ky Park in 1932 'for health reasons'. Cf. Kucher, *Gorki-Park*, 198. In 1932 the TsPKiO was named after the writer Maxim Gor'ky (1868–1936).

44 Cf. Aleksandr V. Vlasov, "Tsentral'nyi park kul'tury i otdykha im Gor'kogo," *Arkhitektura SSSR* 7 (1934), 44–9.

45 Bodenschatz and Post, *Städtebau im Schatten Stalins*, 166.

46 Cf. Korzhev, "Iz istorii planirovki pervogo sovet'skogo parka," 295; Igor' A. Kazus', *Sovetskaya arkhitektura 1920-kh godov: Organizatsiia proektirovaniia* (Moskva: Progress-Traditsiia, 2009), 226–7.

47 *Vsya Moskva: Adresno-spravochnaya kniga. 1936 god* (Moskva: Moskovskii sovet r. k. i k. d., 1936), 158.

and other architects, designed, in different collaborations, the Parks of Culture and Leisure in Chardzhou, Chelyabinsk, Egor'evsk, Gor'ky, Magnitogorsk, Minsk, Stalingorsk, and other cities, as well as parts of the PKiO in Leningrad and Stalingrad.⁴⁸ In 1935–6, she was involved in the reconstruction of the Dzerzhinsky Prospect in Kislovodsk⁴⁹ and designed, together with Konstantin Shevchenko, the impressive Cascade Stairs as the entrance to the local PKiO.⁵⁰



Fig. 2. Photographic portrait of Lyubov' Zaleskaya, n. d. From: *Arkhitektura SSSR* 3 (1968), 43.

In the second half of the 1930s, Zaleskaya became a doctoral student (Fig. 2) of the architect Evgenii Shervinsky⁵¹ at the Moscow Architectural Institute (MAI).⁵² The focus of her activities shifted from the Park of Culture and Leisure to the urban green space. As a co-author, she published articles on the greening of housing areas in the new socialist towns (*sotsgorods*) and on the greening of courtyards and public spaces in residential areas.⁵³

During the Second World War, she was evacuated to Tashkent, where her designs for the greening of Central Asian cities emerged. This research formed the theme of her dissertation, which was published in 1949 under the title *Greening the Cities of Central Asia*.⁵⁴ Other female graduates – such as Militsa Prokhorova – also received a doctorate in the 1940s and 1950s.⁵⁵

After defending her doctor's thesis, Zaleskaya became a lecturer at the Moscow Architectural Institute

(MAI). At the Faculty of Urban Planning she gave lectures such as 'History of Gardens and Parks'.⁵⁶

In 1953, Zaleskaya's monograph *The Greening of the Capital*, based on a public lecture, was published.⁵⁷ In this book, she discussed, using the example of Moscow's urban development, the fundamental changes in landscape architecture since the October Revolution of 1917. She described the greening of the Soviet cities as 'an essential factor in improving the everyday and social-hygienic living conditions of the urban population and, at the same time, as an important instrument of urban development (*blagoustroistvo*)'.⁵⁸ She also emphasized that the reconstruction of the Soviet cities under the changed political and social conditions would have led for the first time to a 'scientific theory of greening of the cities'⁵⁹ in the Soviet Union. With reference to the General Plan for the Reconstruction of Moscow and, within that, the differentiated green area system, which ranged from the large forest parks on the periphery and the Parks of Culture and Leisure to the inner city green areas and green residential districts, the 'realization of the grandiose program of greening Moscow'⁶⁰ was illustrated by individual themes.⁶¹

In the late 1950s and early 1960s, Lyubov' Zaleskaya, together with the architect Vera Aleksandrova, published a two-volume handbook entitled *The Greening of the Cities*.⁶² In the early 1960s, Zaleskaya was appointed as professor at the Moscow Architectural Institute (MAI). At the same time, she taught at the Moscow Forest Technical Institute (MLTI). In the mid-1960s, her textbook for architectural institutes *Introduction to Landscape Architecture* was published.⁶³ At the turn of the 1960s and 1970s, she established the Faculty of Landscape Architecture as a new field of study at the Moscow Architectural Institute (MARKhi). She held this chair until her death in 1979.

56 Cf. Ivanov, "Zaleskaya."

57 Cf. Lyubov' S. Zaleskaya, *Ozelenenie stolicy* (Moskva: Gos. izd-vo literatury po stroitel'stvu i arkhitekture, 1953).

58 Ibid, 8. Cf. Alexandra Köhring, "Die ‚Begrünung‘ Moskaus in der Nachkriegszeit und der Sportpark in Lužniki," *Landschaftlichkeit zwischen Kunst, Architektur und Theorie*, edited by Irene Nierhaus et al. (Berlin: Reimer, 2010), 103–12.

59 Ibid. Cf. Post, "Theoretikerinnen," 187–220.

60 Zaleskaya, *Ozelenenie stolicy*, 40.

61 For example, the Park of Culture and Leisure, the urban green space and the boulevards, as well as selected individual examples such as – with recourse to the 'critical appropriation of historical heritage' – the masterpieces of garden design and the Central Gor'ky Park of Culture and Leisure. Cf. Ibid, 12–20.

62 Lyubov' S. Zaleskaya and Vera D. Aleksandrova, *Ozelenenie gorodov* (Moskva: Gos. izd-vo literatury po stroitel'stvu i arkhitekture, 1957), Vol. 3.1, and (Moskva: Gos. izd-vo literatury po stroitel'stvu, arkhitekture i stroitel'nym materialam, 1960), Vol. 3.2. This handbook, which mainly addressed architects and urban planning engineers, included 'material for designing layouts for planning and greening of Parks of Culture and Leisure, city parks, boulevards and green areas'. Cf. Ibid, 4.

63 Lyubov' S. Zaleskaya, *Kurs landshaftnoi arkhitekтуры* (Moskva: Stroizdat, 1964). In the late 1970s, in collaboration with Elena Mikulina, her textbook appeared in print in a second edition under the title *Landscape Architecture*. Cf. Lyubov' S. Zaleskaya and Elena M. Mikulina, *Landshaftnaya arkhitektura* (Moskva: Stroizdat, 1979).

48 Cf. Leonid B. Lunts, *Parki kul'tury i otdykha: Parcs de Culture et du Repos: Parks of Culture and Rest* (Moskva, Leningrad: Gosstroizdat, 1934).

49 Cf. Lyubov' S. Zaleskaya, "Rekonstruktsiya prospekta im. Dzerzhinskogo v Kislovodske," *Planirovka i stroitel'stvo gorodov* 10 (1935) 20–3.

50 *Arkhitektura parkov SSSR*, edited by Mikhail P. Korzhev and Militsa I. Prokhorova (Moskva: Gos. arkhitekturnoe izd-vo Akademii Arkhitekтуры SSSR, 1940), s.p., fig. 173.

51 Cf. Evgenii Vasil'evich Shervinsky (1878–1942), Wikipedia, <https://ru.wikipedia.org> (accessed January 1, 2018).

52 Cf. "Lyubov' Sergeevna Zaleskaya," *Arkhitektura SSSR* 3 (1968) 43.

53 Cf. Lyubov' S. Zaleskaya and S. V. Cherepnin, "Ozelenenie novostroek," *Problemy sadovo-parkovoi arkhitekтуры*, edited by Mikhail P. Korzhev et al. (Moskva: Vses. Akademii Arkhitekтуры, 1936), 25–44; Lyubov' S. Zaleskaya and S. V. Cherepnin, "Planirovka i ozelenenie dvora," *Arkhitektura SSSR* 9 (1937), 57–9.

54 Cf. Lyubov' S. Zaleskaya, *Ozelenenie gorodov Srednei Azii* (Moskva: Izd-vo Akademii Arkhitekтуры SSSR, 1949).

55 Cf. Militsa I. Prokhorova, *Skvery i bul'vary g. Moskvy: Planirovka i kompozitsiya* (Moskva: Akademiia Arkhitekтуры SSSR, 1956).

Conclusion

Lyubov' Zaleskaya was an important theorist of landscape architecture, whose practical activities in the period of the First Five-Year Plan, which was marked by rapid industrialization and the forced collectivization of agriculture, began with designs for the Park for Culture and Leisure as a new Soviet type of park, flourished during the Second Five-Year Plan, then led to a large number of park designs in the 1930s, and resulted in a professorship in 1963 at the Moscow Architectural Institute. She was one of the 'founders of the schools of landscape architecture'⁶⁴ in the Soviet Union.

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Women Architects during the First Years after the Russian Revolution: The Education, Early Work and Scientific Approach of Lydia Komarova

Introduction

Lydia Komarova (1902–2002) was a Russian architect and an adherent to Constructivism, one of the most important pioneer movements in the Soviet Union during the 1920s. She draws our attention due to the originality and quality of her diploma project, but also for having co-signed, with Nikolai Krasil'nikov, one of the most radical and singular texts in *Sovremennaiia Arkhitektura* (Contemporary Architecture), the review of the Constructivists at the end of the 1920s.

The Constructivist architects, also known as the Union of Contemporary Architects (OSA), promoted architecture as a discipline that should primarily take into account the social changes brought about by the October Revolution and make possible a new way of life in sync with the principles of the communist ideals. According to the Constructivist architects' doctrine, the utilitarian aspect was more important than the formal aspect; functionalism, productivity and industrialization were at the core of their program. They constituted thus one of the most radical leftist movements in the artistic landscape of Russia during the twenties and were very active inside the VKhUTEMAS, the higher school of architecture, arts and industrial design in Moscow.

The objective of the present research is twofold: along with pointing out the particularities of the early work of Lydia Komarova, during and just after her studies, it will question the place of women in the Russian avant-garde movements immediately following the revolution and in the educational system in this context. The research is primarily based on the original issues of the Constructivists' review, on historical studies about Constructivism and the VKhUTEMAS as well as on recently published autobiographical texts by Komarova.

⁶⁴ Vera A. Frolova and Valentina A. Leonova, "Traditsii kafedry landshaftnoi arkhitektury i sadovo-parkovogo stroitel'stva Moskovskogo leso-tekhnicheskogo instituta v oblasti issledovaniya ozeleneniya naseleennykh punktov," *Ekosistemy* 6 (2016) 3.

The education of Lydia Komarova

Lydia Komarova studied architecture in the VKhUTEMAS (Higher State Artistic and Technical Studios) after having studied painting in the SVOMAS (Free State Art Studios) with teachers Abram Arkhipov, Petr Konchalovsky, Nadejda Oudaltsova, Alexander Drevine and Liubov Popova. This trajectory provided a path from realistic painting towards abstract forms and ultimately volume and spatial compositions.¹

During her first years in the VKhUTEMAS, Komarova had studied in Ladovski's department: the OBMAS (United Workshops). We can see her in a photo of Ladovski's workshop with the tutors and other students, notably N. Krasil'nikov, and another female student, L. Zaleskaia.² Komarova obtained her diploma in 1929 from that school (renamed VKhUTEIN, Higher Artistic and Technical Institute). Ladovski's method, developed with Dokutchaev and Krinski, was focused on the basic aesthetic and formal properties of architectural forms, space and structure, questioning notions like mass, volume, colour, proportions etc. Later Komarova moved to the Constructivists' camp, in Aleksandr Vesnin's studio. Komarova praises, in an autobiographical article on the VKhUTEMAS, the fascinating personality and the inspiring teaching of A. Vesnin, who encouraged students' creativity without oppressing the expression of their individuality.³ Her diploma project reflects much more the Constructivists' influence than Ladovski and Dokutchaev's point of view, and it was published in *Sovremennaja Arkhitektura* (SA) no. 4 the same year.⁴

Komarova, in her text on the VKhUTEMAS, describes the ambience and the everyday life in the school: the intense political activity, most students being part of militant communist groups; the simple and collective way of living; the extreme austerity, opposed to everything that could have been considered as 'bourgeois' habits (simple clothing, no alcohol or dancing...); an important feeling of fraternity and eagerness for collaborative practices. Women dressed as simply as possible and had short hair, as suited combative youth. Komarova relates an anecdote about a female student

who dared to dress with pants and was harshly teased for doing so.⁵ However, the publication of women's projects and their close collaborations with their male classmates suggest that there was probably no major gender discrimination at the VKhUTEMAS.

Komarova had also been a postgraduate student of the IA, the Postgraduate Institute at the Academy of Architecture.⁶ In a late text, she surprisingly praises the quality of Zholtovski's teachings at the Academy of Architecture, in spite of Zholtovski having been the main representative of the traditionalists at the VKhUTEMAS, and she justifies the turn towards classicism after 1933 even if she condemns the excessive monumentality in architectural practices of the Stalinist period.⁷

The VKhUTEMAS and the INKhUK

The VKhUTEMAS comprised one of the three architectural schools in Moscow during the 1920s. It also contained artistic faculties, such as painting and sculpture, and technical ones, such as the metalwork and woodwork studios, oriented towards industrial design. The educational approach in the VKhUTEMAS was rather heterogeneous at a disciplinary level as well as at an ideological level: the evolution of the school was characterized by the conflicts between the faculties and also between the different trends and movements.

The conflicts between the faculties had to do with the relative failure of the industrial design studios. At the ideological level, the most important controversy was between the traditionalists and the innovators: in art, the figurative tendencies were confronted with the abstract style; in architecture, neoclassical architecture and modernist approaches were rivals. But inside the innovators' camp itself, controversies were intense as well: the rationalists (Ladovski, Dokutchaev, Krinski) were defending a formalist approach, whereas constructivists advocated the utilitarian point of view. Even if both movements had the same artistic-political background (the LEF, the Leftist Art Front) and even if in terms of architectural imagery the two tendencies were close, the ideological gap between them was important. However, in spite of the competition between the rationalists and the constructivists in the VKhUTEMAS, most of the conflicts between them would take place outside the school.⁸

1 Lidija Komarova, *Il VChUTEMAS e il suo tempo: Testimonianze e progetti della Scuola costruttivista a Mosca* (Roma: Edizioni Kappa, 1996), 119.

2 Selim O. Khan-Magomedov, *Vhutemas: Moscou 1920–1930*, Vol. 1 (Paris: Editions du Regard, 1990), 297.

3 Komarova, *Il VChUTEMAS e il suo tempo*.

4 In a publication by the Moscow Architectural Institute and the Museum of the History of the Moscow School of Architecture entitled *From VKhUTEMAS to MARKhI: 1920–1936, Architectural projects from the collection of the MARKhI Museum* (Moscow: A-Fond Publishers, 2005), Komarova's diploma project is attributed to Dokutchaev's workshop, whereas according to most publications and to her own writings she had been Vesnin's student during the last years of her studies. See: *VChUTEMAS: Ein russisches Labor der Moderne Architekturentwürfe 1920–1930* (Berlin: Martin-Gropius-Bau; Moskau: Schtschussew Museum für Architektur, 2014); Komarova, *Il VChUTEMAS e il suo tempo*, 119.

5 Moscow, *From VKhUTEMAS to MARKhI*; Lydia Komarova, "Untitled article," in Alessandra Latour, *Birth of a Metropolis Moscow 1930–1955: Recollections and images* (Moscow: Iskusstvo – XXI Vek, 2002).

6 Komarova in Latour, *Birth of a Metropolis*.

7 Komarova, *Il VChUTEMAS e il suo tempo*, 116.

8 Khan-Magomedov, *Vhutemas*.

The INKhUK, 'Institute of Artistic Culture', presented by Khan Magomedov as the cradle of Constructivism,⁹ intervened in favour of a restructuring of the VKhUTEMAS in order to balance the artistic and technical disciplines, as well as the different movements. A conflict around 1923 emerges between the Constructivists and the Rationalists of the INKhUK, some of them being teachers in the VKhUTEMAS, and also between the direction of the latter and the signatories of a report by the INKhUK suggesting the reorganisation of the VKhUTEMAS. In fact, the program in the VKhUTEMAS and the organisation of its departments evolved significantly during the short life of the school (until 1930). The situation at the school was then a very rich, but often explosive condition, with controversies leading to tensions.

Women in the INKhUK and in the VKhUTEMAS

Nadejda Oudaltsova, Lioubov Popova, Varvara Stepanova, all teachers at the VKhUTEMAS, along with other women artists such as Varvara Boubnova, played an important role inside the INKhUK. The INKhUK existed from 1920 until 1924 and was the place of numerous debates and artistic research. Oudaltsova, Popova, Stepanova and Boubnova participated in the discussions and sometimes presided over the sessions addressing the renewal of artistic practices, at first inside the working group for objective analysis; each one of them made specific propositions, prepared the plan for the work of the group, the reports or the conclusions, and participated in most of the meetings. Together with A. Vesnin, Rodchenko, Drevin, Ladovski and others they addressed questions such as the distinction between composition and construction or between engineering constructions and the organisation of the elements in an artwork, and tried to define objective criteria for the analysis and evaluation of pieces of art, each one of them developing also a personal point of view on painting, composition, material, colour, space. Oudaltsova, the president of the group of the objective analysis (the Objectivists), was a prolific author as well.

As Kahn Magomedov shows, it is in big part from those works that emerged Constructivism: after the Objectivists, whose activity slowed down by the end of 1921, the group of the Constructivists was created – Stepanova was one of the first members, along with Rodtchenko and Aleksei Gan. Popova and A. Vesnin followed. Oudaltsova ceased her activity inside the pioneer groups in the following years.¹⁰

Women also had an active role inside the discussions for the reorganisation of the VKhUTEMAS. Popova and Stepanova were amongst the signatories of the text produced by the INKhUK in 1923 for the re-structuring of the School, mentioned above.¹¹

From a purely quantitative point of view, we can note that Khan-Magomedov in 57 biographies of the most important teachers in the VKhUTEMAS includes seven women (A. A. Exter, A. S. Goloubkina, V. I. Moukhina, N. A. Oudaltsova, O. T. Pavlenko, L. S. Popova, V. F. Stepanova). All of them were artists – no woman architect is mentioned in that list, which contains 15 architects. Concerning the global statistics, the situation is a little more disproportional: in a list of all the teachers in 1929, we find 12 women out of 154 names; amongst them, only one woman is professor, four are assistant professors and one is lecturer, the other six being assistants. There is no female teacher in the architecture department.¹²

We can question whether, in spite of this disequilibrium, some women could have held rather important roles in the educational program; Lioubov Popova, who was responsible for the inter-department fundamental course 'Colour' (later, together with A. Vesnin), can be seen either as an example or as an exception.

Female students were a minority in the VKhUTEMAS: we can see women in class photos but in general men are much more important in number.¹³ However, female students took part in the debates: in 1921, Golizovskaya, Raïskaïa, Belaïeva, Tcheremissova, Ouklonskaïa were some of the VKhUTEMAS students who approached the Objectivists' group of the INKhUK.¹⁴ In the reports of the reunions of the INKhUK, there are names of female students of the VKhUTEMAS who participated in the Constructivists' group: L. Sanina, G. Tchitchagova and O. Tchitchagova.¹⁵

Female students would also take part in the conflicts: the controversy that emerged inside the INKhUK and the VKhUTEMAS for the restructuring of the School was triggered by the publication in the LEF journal no. 4 (1923) of an article entitled "The metaphysics of the left," signed by 'A student of the Vhutemas'. The article stood against the abstraction of Ladovski's educational program and argued in the favour of real construction and industrialisation in architecture. The signatory was indeed one of Ladovski's students, E. Semenova, who, with another female student, E. Lavinskaïa, and other students, were opposed to the 'metaphysics' of Ladovski's formalism and were defending

¹¹ Khan-Magomedov, *Vhutemas*, 82–83.

¹² Ibid.

¹³ Ibid, 17, 640.

¹⁴ Khan-Magomedov, *L'InKhouk*, 138.

¹⁵ Ibid, 85.

⁹ Selim O. Khan Magomedov, *L'InKhouk: Naissance du constructivisme* (Gollion: Infolio, 2013).

¹⁰ Khan-Magomedov, *L'InKhouk*.

the functionalist positions of the constructivists inside Ladovski's studio, from which Semenova, Lavinskaia and another student were finally excluded.¹⁶

In 1924, Komarova joined Semenova, Lavinskaia and other students of the VKhUTEMAS (notably, N. Krasil'nikov) at the first meeting for the creation of the Architectural Group of the INKhUK-LEF, which brought together the most important constructivist teachers, including the principal figure A. Vesnin. At the same time, a group of students was also created inside the INKhUK aiming to promote the scientific study of architectural problems.

The review *Sovremennaia Arkhitektura*

Women names rarely appear in the Constructivists' review *SA*, the only architectural review published regularly in Russia in the 1920s. In *SA* no. 1, 1927, in the list of editors and collaborators, amongst almost 45 names, we find only one woman, A. T. Kapustina, among the collaborators (not the editors). Women appear mostly as authors of architectural projects, and in most cases as team members of collective projects: L. Slavina and N. Vorotyntseva (with A. Pasternak and V. Vladimirov for a project of the central commission building, published in *SA* no. 2, 1929); L. Komarova (with L. Shirov, M. Sinyavskii, N. Krasil'nikov, F. Yalovkin, for the project *Autostructure*, in *SA* no. 3, 1930); M. Latsheva (with G. Vegman, for an urban planning project, in *SA* no. 3, 1930). In *SA* no. 4-5, 1927, we come across the publication of a project by only two women, Nina Vorotyntseva and Raissa Polyak: it is for a competition by OSA on housing for a new type of workers. With the publication of her diploma project in *SA* no. 4 of 1929 Lydia Komarova is probably the only woman architect to have an individual article in *SA*.

Theoretical articles were generally written by the constructivist leaders of the movement – Moisei Ginsburg, Aleksei Gan, etc., all men. Lydia Komarova, a woman, having co-signed a theoretical article in *SA* is certainly an exception. In *SA* no. 1 of 1927 we find an external contribution by another woman: it is the response by O. D. Kameneva to an enquiry of *SA* about the type of housing corresponding to a new way of life of the working class. Kameneva answers based on her personal experience as well as on her interpretation of the actual situation and of the future needs of workers and evokes the possibility of a better situation for women.¹⁷

A New Way of Life

As we already mentioned, a new way of life, based on collectivism and equal rights for men and women, was the background of the activities of the Constructivists, but also explicitly one of the main issues in their architectural program. This new way of life would abolish the idea of family as it existed at the time, seen as a bourgeois 'remain' to be destroyed. Women should be workers and not housewives; they shouldn't depend upon men; they should be liberated from the tasks related to the kitchen or children. According to the Constructivists, this new way of life required new building types. The Constructivists' positions on this subject echoed the ideas brought by the feminists of that period such as Alexandra Kollontai, who was advocating for free human relationships, the end of marriage, the legalisation of abortion etc., even if the Constructivists didn't refer to Kollontai in their main texts treating the new way of living.¹⁸

The Work of Lydia Komarova during the 1920s

Three student projects by Komarova are found in different editions on the VKhUTEMAS.¹⁹ The first one, dated from 1922, is an abstract exercise on mass and volume, typical of Ladovski's educational approach. The second one, from 1923, is an exercise for the definition of the geometric properties of a form; it is for a little guard house. The third one is her diploma project from 1929: it is an ambitious architectural proposition for the Comintern building. The project aims to articulate in a unique composition the spaces of the building with the public square in front of it. The invention of Komarova is a circular design with round balconies and galleries around the main auditoria, with each level exceeding the previous one and thus each volume being partly suspended over the piazza. The description of the project in *SA* no. 4 (1929) by Komarova insists on the spatial organisation of the different parts of the program in accordance with its functions and its social character and purpose, and in spite of the incontestable singularity of the building from a formal point of view, it refutes the monumentality that could be associated to such a project.

We can observe that, though an important ideological shift took place in Komarova's architectural activity (she joined the architectural group of the INKhUK that was opposed to Ladovski), from a purely formal perspective there is a continuity in her work from her exercise on mass and volume and that of the little guard house through to the diploma project, with the persistent use of circle geometries and the exploration of the spiral theme in the 1923 and 1929 sketches. Circular forms

¹⁶ Khan-Magomedov, *Vhutemas*, 84–85.

¹⁷ See also Anatole Kopp, *Architecture et mode de vie: Textes des années 20 en U.R.S.S.* (Grenoble: Presses universitaires de Grenoble, 1979), 139.

¹⁸ See Anatole Kopp, *Ville et révolution: Architecture et urbanisme soviétiques des années vingt* (Paris: Anthropos, 1967).

¹⁹ Moscow, *From VKhUTEMAS*; Khan-Magomedov, *Vhutemas*; Komarova, *Il VChUTEMAS e il suo tempo*.

are also found in her later architectural works, but they have a more decorative role, whereas in her student works the circle geometry was constitutive of the entire spatial organisation.

Many have noted the similarities between Komarova's project for the Comintern and Frank Lloyd Wright's Guggenheim Museum in New York.²⁰ It is difficult to establish whether Komarova's project had been known in the West before 1956, when Wright conceived the Guggenheim Museum. For example, it doesn't appear in *L'architecture d'aujourd'hui* in the thirties, even if this review frequently published articles on Soviet architecture. Naturally, reviews were mainly interested in constructed projects or in competitions, not in student projects. However, the possibility exists that Wright had seen Komarova's project, since he knew the OSA review, as his own work had been published in SA in 1927.

The article "A method of investigating the generation of building form," published in SA no. 5 in 1929, co-signed by Lydia Komarova and Nikolai Krasil'nikov, exacerbates the functionalist point of view of the Constructivists, putting forth an highly scientific approach and aiming to define ultimately the architectural form as the optimal solution for a specifically enunciated problem, and even as a solution of a problem described in a mathematical language: not only form follows function, but form results from a function, in the mathematical sense of the word. Krasil'nikov had already worked more specifically on the idea of a scientific, mathematical definition of architectural forms in his own diploma project in the VKhUTEMAS (published in SA no. 6, 1928), where he put those ideas into practice with graphs and calculations. Even if the importance of the scientific approach was put forward very early in the INKhUK²¹ and is promoted by SA in general, Komarova and Krasil'nikov's article went undoubtedly a step further and was thus unique in its genre. However, it seems that Krasil'nikov continued to work on those questions,²² whereas Komarova returned to more mainstream approaches.

The student works of Lydia Komarova are reproduced in a large number of later publications treating the Russian avant-garde of the early twentieth century. On the contrary, references to the theoretical article written by Komarova and Krasil'nikov are rare.²³ If Komarova's diploma project was

innovative from an architectural point view, the article she wrote with Krasil'nikov anticipates even more profound evolutions in architecture, which would have to wait until the end of the twentieth century to prove their pertinence.

Conclusion

Komarova worked as an architect and was characterized as one of the 'amazons' of the Russian avant-garde. An exhibition and a conference were organized in the Museum of Architecture of Moscow for her 100th anniversary. However, her built projects, constrained by the imperial style imposed by Stalin, didn't match the freshness and quality of her student works.

As we have seen, women teachers and students were a minority in the VKhUTEMAS in the immediate post-1917 era. Nevertheless, in comparison, the *École des Beaux-Arts* of Paris had no female professor before the sixties, and the female students had separate courses until the twenties.²⁴ The Bauhaus, to which the VKhUTEMAS is often compared, had a rather large proportion of female students (one third), but had only one female teacher in Weimar, and seven when it moved to Dessau – most of them in the weaving workshop.²⁵ Researchers have shown that behind the egalitarian 'façade' of the Bauhaus there was an important segregation and female teachers but also students were not really recognized as equal to men.²⁶ From this point of view, the context of the Soviet avant-garde of the twenties inside the INKhUK and the VKhUTEMAS, which allowed some women to play a significant role and to collaborate on equal terms with their male colleagues, was somehow exceptional. Furthermore, if women's publications were rare in SA, we should note that in the first issues in the 1930s of *L'architecture d'aujourd'hui* women's names are far more sporadic. It is also significant that in the publication of Komarova and Krasil'nikov's article, Komarova's name appears first, even if the main ideas were undoubtedly coming from Krasil'nikov; probably, it was the alphabetical order that was respected.

A small homage to Nina Vorotyntseva, who died aged thirty in 1930, including a text and a large photograph, fills half of the last page of the SA n. 3 issue that year, and this posthumous recognition of a young woman who was an architect shows in the most touching way the attention of the editors of SA towards their female colleagues.

20 Komarova in Latour, *Birth of a Metropolis*.

21 Khan Magomedov, *L'InKhouk*, 152.

22 Selim O. Khan-Magomedov, *Arkhitektura sovetskogo avangarda*, Vol.1 (Moscou: Stroyizdat, 1996), http://www.alyoshin.ru/Files/publika/_archi/_archi_1_089.html (accessed June 7, 2018).

23 Leda Dimitriadi, "Méthodes mathématiques de conception des formes et industrialisation chez les architectes constructivistes," *Les temps de la construction: Processus, acteurs, matériaux*, edited by François Fleury et al. (Paris: Picard, 2016); Catherine Cooke, "Form is a Function x: The development of the Constructivist Architects' Design Method," *Architectural Design*, no. 5-6 (1983); Frédéric Pousin, "Typisation' et rendement," *Amphion: Etudes d'histoire des techniques*, Vol. 2: *L'officine du fonctionnalisme*, edited by Jacques Guillerme, (Paris: Picard, 1987); *Amphion: Etudes d'histoire des techniques*, Vol. 1: *Le droguier du fonctionnalisme*, edited by Jacques Guillerme, (Paris: Picard, 1987); *SA Sovremennaja Arkhitektura 1926-1930*, edited by Guido Canella and Maurizio Meriggi (Bari: Dedalo, 2007).

24 Monique Segré, *L'école des Beaux-arts XIXe-XXe siècles* (Paris: L'Harmattan, 1998); Annie Jacques, *Les Beaux-Arts et l'Académie aux Quat'z'arts* (Paris: École nationale supérieure des beaux-arts, 2001).

25 Rainer K. Wick, *Teaching at the Bauhaus* (Ostfildern-Ruit: Hatje Cantz Verlag, 2000).

26 Anja Baumhoff, *The Gender World of Bauhaus: The Politics of Power at the Weimar Republic's Premier Art Institute, 1919-1932* (Frankfurt am Main: Peter Lang, 2001).

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Alternative Education Environments: Working with the Socio-Physical Conditions

Introduction

Education cannot be limited with a space or with a structured method. Alternative education methods, non-formal and informal environments became part of international discourse in the mid-1960s. Alternative learning methods and environments can be related with 'lifelong learning processes'. Fordham suggests that in the 1970s, four characteristics can be associated with non-formal education:¹ Relevance to the needs of disadvantaged groups; concern with specific categories of person; a focus on clearly defined purposes; flexibility in organization and methods.

As it is explained by Fordham, socio-physical empowerment and transformation starts with these topics. This paper traces the women pioneers that have worked on empowerment of socio-physical atmospheres and education levels in order to enhance the life standards of people.

Community education, community learning, informal education and social pedagogy are important topics that can lead to social transformation, empowerment of the habitants and also on pedagogical level, cultivating more aware designers about nature and society. Women pioneers such as; Yameen Lari, Liz Ogbu, Odile Deck Anna Heringer and Anupama Kundoo have worked on these societal issues with alternative educative visions.

During this paper, their works, methods and visions will be traced to interpret the learning environments that they created and how architecture can re-build communities. Yasmeen Lari took this interactive educating role to a more interacting environment. She taught the local people –who

needed the basic housing services– how to design with the basics and with local materials. Odile Decq created a new institute –Confluence Institute– a new atmosphere for students to criticize and interpret the building methods. Liz Ogbu tries to unveil the societal layers of environment and enhances the social side of the physical environment with her designs. Anupama Kundoo and Anna Heringer blend sustainable solutions with empowerment while designing alternative solutions for people with necessities and bringing new awareness and lifestyles for a better society.

For the 'good practice' it is important to learn from each other to develop and sustain balanced environments and well-being of the society. Their programs, structures, insights and projects will give a light to our present time on socio-cultural empowerment. This paper can be qualified as an anthology, bringing four pioneer women architects who works not only with physical environments but also focus on the social, economic, ecologic and cultural side and blends new solutions from bottom-up with grassroots strategies by understanding the local qualities and necessities of habitants and environment. Also developing solutions such as architectural projects or a university environment that enhances the life qualities of earth and aims to bring new solutions, point of views and understandings to physical and social environments.

The main reason that this paper focuses on to four mentioned women pioneers, is the reason of their transformational power on socio-physical environments and their ability to create and apply their solutions on real world's vis-à-vis basis. For sure there are many women architects searching for better conditions for the society, but Decq, Lari, Heringer and Ogbu find ways to apply their solutions in to the real world by finding paths to empower and cure the real conditions. Also, in their works there is a teaching, sharing attitude that gives society a new skill to construct their lives with better and more sustainable conditions.

In design history, there are more examples in worldwide. Architecture for Humanity, Francis Kéré, Shigeru Ban, Kunle Adeyemi, Ricardo de Oliveira and Alejandro Aravena are the worldwide pioneers who work with socio-physical conditions and sustainable solutions as well. When it is tried to be compared; the mentioned women pioneers, in worldwide scale, the same essence of 'empowerment will' is noticed in all architects – both of them try to find solutions for the local necessities with the codes of that local knowledge.

Alternative Education and Its Reflections

Formal education is defined as the hierarchically structured, chronologically graded 'education system', running from primary school through the university and including, in addition to general academic studies, a variety of specialized programs and institutions for full-time technical and professional

¹ Paul Fordham, "Informal, Non-formal and Formal Education Programs," in YMCA George Williams College ICE301, *Lifelong Learning Unit 2: Approaching lifelong learning* (London: YMCA George Williams College, 1993), <http://infed.org/mobi/informal-non-formal-and-formal-education-programmes/> (accessed April 2018)

training. Informal education: the truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment – from family and neighbours, from work and play, from the market place, the library and the mass media. Non-formal education: any organized educational activity outside the established formal system – whether operating separately or as an important feature of some broader activity– that is intended to serve identifiable learning clienteles and learning objectives.²

Informal and non-formal education methods can be a solution for enhancing the knowledge of people also empowering the life standards in developing and undeveloped countries. The paper discusses the women architects that worked with informal and non-formal ways of touching people's life with design. The role of design and architecture covers not only the physical atmospheres but also training the knowledge of the people on education, health, environment, sustainability etc.

The distinction between these education types made is largely administrative. Schools, courses and training institutions are linked with formal education; non-formal is mostly linked with community groups and other organizations; informal education covers what is left, e.g. interactions with friends, family and work colleagues. But the lines can blur rapidly between informal and non-formal types, as Fordham comments, these definitions do not imply hard and fast categories.³ There may well be some overlap (and confusion) between the informal and the non-formal.

As Graham-Brown says, dividing formal education from out of school education or so-called non-formal education is artificial in many ways.⁴ But in some countries, this division reflects the gulf between government provision through the school system, on the one hand, and the needs and interests of marginal populations who are most alienated from the system on the other.

Non-formal education styles can include literacy and basic education for adults and young people, pre-school education for young children, political and trade union education and various kinds of educational work linked with development initiatives including agricultural issues, environmental awareness raising, training programs and health education.

In mid-1960s search for new techniques and alternative education systems were therefore on. Especially northern countries started to discuss concepts such as 'the learning society'. After Ivan Illich, deschooling movements have raised.

In *Deschooling Society* as Illich expresses; a good education system should have three purposes: to provide all that want to learn with access to resources at any time in their lives; make it possible

for all who want to share knowledge etc. to find those who want to learn it from them; and to create opportunities for those who want to present an issue to the public to make their arguments known.⁵ These learning exchanges could facilitate an alternative and productive sharing atmosphere, as he calls educational or learning webs.

A radical alternative to a schooled society requires not only new formal mechanisms for the formal acquisition of skills and their educational use. A de-schooled society implies a new approach to incidental or informal education. We must find more ways to learn and teach: the educational qualities of all institutions must increase again.⁶

Architecture and architecture education can find ways to create alternative atmospheres that people can interchange and enhance their conditions by these design atmospheres. As Illich expresses we can find new ways to learn and teach, we can re-define his sentence and give women architects' works and visions that will be discussed in following sections. They simply found new ways and created new atmospheres for people to learn, share, live and interact.

While western countries were arguing about these concepts, number of socialist countries also initiated several important programs focusing on changing the consciousness, skills and organizations of their populations. They trained special educators for to be send to local villages and run programs for empowerment and awareness raising. By the mid-1970s many countries began to turn to mass non-formal education and aimed to change people's thinking as much as socio-economic status.

Yasmeen Lari: Socio-physical Empowerment

Yasmeen Lari (b. 1941, Pakistan) is the first woman architect of her country. After receiving her architectural degree from Oxford Brookes University in 1963, she aimed to create solutions for Pakistan's socio-physical conditions. She was operating in a place that is industrially less-developed, with poverty, booming urban centres also, with major disasters. These conditions were making her work more challenging. She established Lari Associates, Architects and Urban Designers in 1964 and took on the challenges as an architect dealing with issues in an industrially less developed country – from mud buildings, low income housing and improvements in spontaneous settlements to state of the art buildings. She worked there until 2000, designing many state-of-the-art buildings for the upper class while simultaneously working to create low-income housing and vernacular

2 Mark K. Smith, "What is non-formal education?" *The Encyclopedia of Informal Education* (2010), <http://infed.org/mobi/what-is-non-formal-education/> (accessed January 31 2018).

3 Fordham, "Informal, Non-formal and Formal Education Programs."

4 Sarah Graham-Brown, *Education in the Developing World* (Harlow: Longman, 1991), 64.

5 Ivan Illich, *Deschooling Society* (Harmondsworth: Penguin, 1973), 78.

6 Illich, *Deschooling*, 29–30.

technologies for lower classes. She was elected Member of Royal Institute of British Architects (RIBA) in 1969, as President of Institute of Architects Pakistan (IAP) and first chairperson of Pakistan Council of Architects and Town Planners.

Earlier we studied books that the British gave us. Now we've written some of our own books. We need to write a lot more of our own books. Because our interpretation will be different. We've a lot to do, if we want our architecture to relate to our reality.⁷

As Lari expresses, local solutions can only grow from focusing on to local conditions, as much as western knowledge helps, we need to blend the local knowledge for to find sustainable solutions that helps empowerment.

We can call her a humanitarian designer who helped communities for empowerment, after the disasters such as floods and earthquakes; she helped people to re-build their own houses. Between 2005 to 2012, she designed low-cost and innovative solutions for disaster victims in Pakistan.

After the 2005 earthquake, for the areas that have been affected, Lari created a bamboo shelter system that is cheap to build and has a low-carbon footprint. They were built with adobe and mud walls with strong cross bracing bamboo structures that all materials are available locally. During



Fig. 1. Yasmeen Lari shows students and locals how to use bamboo in the construction of the housing units. Source: Rakesh Ramchurn, "Rebel Architect # 2: Yasmeen Lari and Traditional Architecture," *The Architects' Journal* (posted August 28, 2014), <https://www.architectsjournal.co.uk/culture/rebel-architect-2-yasmeen-lari-and-traditional-architecture/8668930.fullarticle> (accessed June 7, 2018).

2005–06 over 1150 units were built. In 2010 floods that affected 20 million people in Pakistan, she built more than 36,000 safe waterproof houses for the victims of flood and earthquake. While working with Architecture for Humanity, Nokia and the Swiss Pakistan Society, she has built sustainable shelter units; she aims to promote green design in Pakistan. In 2013 floods it has been proved that her designs stayed after the disaster (Fig. 1).

The structures and solutions that she used were easy to build that way she taught people how to build in a faster and stronger way with low costs while promoting green architecture with zero carbon emissions. With this vision, she is a pioneer on local empowerment by using non-formal methods such as teaching people how to build, training people on green construction and sustainability, involving people to building process and

teaching them how to survive with the disasters. The methodologies that she tried and applied show that; if good technical advice can be provided, through a participatory mechanism, shelter construction can take place at a rapid pace. This is true not only in disaster-affected areas but all over the country. All her projects are characterized by an emphasis on true collaboration with the community. Rather than simply providing new homes and facilities, she supplies the technical knowledge and training to help people help themselves –and their neighbours– using local materials and labour. Her works express 'bottom up' strategies rather than 'top down' ones. She engages with the communities they are trying to help to really understand how they work and what they need. Lari also encourages architectural students to come to learn the necessary design principles and hands-on building skills for to spread the local knowledge and for the 'anti-architecture'.

Anupama Kundoo: Working with Sustainable Transformation

Kundoo (b. 1967, Pune) is an Indian architect practicing since 1990. Her practice expresses a clear focus on materials and sustainable architecture that are socio-economically beneficial. She practiced a wide range of projects over a hundred built ones range from urban planning and urban design to architecture and detail product design of the building systems.

She studied at the Sir J. J. College of Architecture in Mumbai. A year after graduating, she travelled to Auroville, an experimental eco-village in southern India founded by the spiritualist Mirra Alfassa. Kundoo became involved in the town's architecture and urban planning and ended up staying there for almost 17 years. Since leaving in 2006, she has completed a doctorate at Berlin Technical University and worked as both an architect and an academic around the world. Kundoo has been working, researching and teaching at various renowned institutes including TU Berlin, AA School of Architecture London, Parsons New School of Design New York, University of Queensland Brisbane, IUAV Venice and ETSAB Barcelona. She is currently a Professor at UCJC Madrid where she is Chair of 'Affordable Habitat'. She is also a Visiting Critic at Cornell University.

As Kundoo expresses that people often mistake her work and call them as vernacular architecture, but she disagrees and tells that her approach is not about traditional building methods but finding solutions for simply-built affordable housing systems, creating low cost homes that residents can build themselves. Kundoo focuses on use of 'poor' materials and methods with a close attention to the social functions of the architecture. Her works underlines non-formal education ways, showing that architecture can re-design the social structure and life styles especially in emerging countries.

The reconstruction of her house made from bricks and recycled materials at the Venice 2012 Architecture Biennale with the project called *Wall* has been hand-built, home's arched roof made

⁷ "Aljazeera. Yameen Lari," rebel architecture (posted August 12, 2014), <https://www.aljazeera.com/programmes/rebelarchitecture/2014/08/yasmeen-lari-road-self-reliance-20148511850548381.html> (accessed June 7, 2018).



Fig. 2. Anupama Kundoo and one of her works for Homeless Children. Source: Anupama Kundoo, "The Architect is Present," acetsam, https://acetsam.files.wordpress.com/2014/04/etsam_kundoo.jpg (accessed June 7, 2018).

of nested wine bottles was a much-discussed highlight of the home project's affordably built structure. In the project the terracotta cones and glass bottles juxtaposed to form arches as supports for the roof of the Wall House. She built this project first in Auroville, India in 2000 then she won a prize by its replica in Venice Biennale in 2012.

In the project for Volontariat Homes for Homeless Children in Pondicherry (India) between 2008–10, Kundoo uses very basic materials such as; sun-dried mud bricks as baking a mud house in-situ, after constructing it which she

builds small units for the children as homes (Fig. 2). These homes are planned to accommodate 15 children and five foster parents. This technology involves almost only labour, with very little spent of 'purchased' materials. Thus, the money spent remains in the local economy and it enriches it. The house becomes a producer of sustainable building materials instead of being a consumer and it takes three-four days to burn. A social project with cost as a major aspect that informed design, the project uses many unconventional materials as well as absorbs urban waste. Bicycles wheel frames were used as formwork for windows and later as window grills. Glass bottles were used as structural units for masonry in toilet areas. Glass chai cups were used to finish the openings at the top of the dome. This highly experimental project is an example of radical thinking that is being explored to approach the problem of affordability of housing for all, and more over integrally sustainable in all its aspects.

Urban Eco-Community in Auroville built between 2001–03, she experiments on using many unconventional materials in ways appropriate to the context, as well as efforts at recycling. A prototype for collective living promoting community and sharing, the project was planned as one of five housing clusters for around 360 deliberately diverse residents. Realized as an example for an independently managed cluster accommodating 50–60 persons, residents shared common facilities at cluster-level and have some facilities for use by the larger community. A variety of

social and economic backgrounds were integrated to make it a relevant prototype for sustainable community housing in an urban low-density context. Aiming to be much more than an arrangement of residences by creating a neighbourhood, public spaces are distributed for different scales of groupings with a gentle hierarchy that included intimacy. Streets created on the upper levels facilitate communication.

In response to the growing homelessness and concerns about affordability, not only in economic but also in environmental terms, Full Fill Homes are envisioned as speedy and affordable housing units that have low environmental impact, using a combination of sophisticated and low-tech.

As to say; Indian architect Anupama Kundoo designs easy-to-assemble homes intended to teach occupants construction skills. Kundoo experiences the places, their social necessities and dynamics which are an important key for social-emerging architecture. By this process an alternative education environment is being created, a social transformation also happens. An architect can be a social transformer at the same time while solving physical necessities of environments.

Anna Heringer: Architecture for a Better Life

Architecture is a tool to improve lives. The vision behind, and motivation for my work is to explore and use architecture as a medium to strengthen cultural and individual confidence, to support local economies and to foster the ecological balance. Joyful living is a creative and active process and I am deeply interested in the sustainable development of our society and our built environment. For me, sustainability is a synonym for beauty: a building that is harmonious in its design, structure, technique and use of materials, as well as with the location, the environment, the user, the socio-cultural context. This, for me, is what defines its sustainable and aesthetic value.⁸

Anna Heringer (b. 1977, Laufen) is an Austrian architect at the age of 19 she lived in Bangladesh for almost a year, where she had the chance to experience and learn from a non-governmental organization Dipshikha about sustainable development work which is a Bangladeshi organization that focus on socio-economic development activities among the emerging places. It is a people-based learning organization. Participation in real sense of the grass root people in development effort is one of the key issues for the organization.

As she states; the main lesson was the experience that the most successful development strategy is to trust in existing, readily available resources and to make the best out of it instead

⁸ "Profile," Anna Heringer, <http://www.anna-heringer.com/> (accessed June 7, 2018).

of getting depended on external systems. Heringer tries to adapt this philosophy into the field of architecture.

Together with Eike Roswag and a team of Bangladeshi and German craftsmen, she realized the Meti School in Rudrapur, Bangladesh, that she has designed in 2004 as diploma project at the University of Arts in Linz and built in 2007.

The project is planned in a very poor community in the Gulf of Bengal, with a very high population. Project aims it is particularly important to improve the quality of living in the rural areas to counteract the continuing population migration to the cities. The primary potential for developing building in the rural areas is the low cost of labour and locally available resources such as earth and bamboo. The main strategy is to communicate and develop knowledge and skills within the local population so that they can make the best possible use of their available resources. Historic building techniques are developed and improved, and the skills passed on to local tradesmen transforming in the process the image of the building techniques. School aims to promote individual abilities and interests taking into the account the different learning speeds of the school children and trainees in a free and open form of learning. It offers an alternative to the typical frontal approach to lessons. The architecture of the new school reflects this principle and provides different kinds of spaces and uses to support this approach to teaching and learning. On the ground floor with its thick earth walls, three classrooms are located each with their own access opening to an organically shaped system of 'caves' to the rear of the classroom. The soft interiors of these spaces are for touching, for nestling up against, for retreating into for exploration or concentration, on one's own or in a group. On-site labour using and training the local workforce is another issue that has been focused on. The masonry foundation of the building was constructed by a local company, the earth building works and bamboo construction was undertaken by local labourers. The building techniques were implemented and developed on the job together with architects and tradesmen from Germany and Austria. 25 local tradesmen from the vicinity were trained during the building works creating new jobs and providing professional 'help for self-help'.

Furthermore, building aims to be an example for the future building developments, with earth and bamboo using simple methods is thought to be an example for being a local material using rural building tradition. Modern education and training institute enables children and young people to join workshops for trade-oriented professions. The idea is to provide the rural population an access to holistic education. The children and young people are encouraged to develop into responsible, motivated and creative personalities and to use their skills to improve and develop their immediate rural environment. Reading, writing and arithmetic as well as languages are offered in a free environment and through open forms of learning. Meditation, dance and creative writing are part of everyday learning at the Meti School as are discussions, learning as part of a group and self-critical and social behaviour.

Heringer's works demonstrates a strong focus on social structure of the areas; she connects with a place and societal sensibility to the places and creates projects that works for empowerment, social transformation and physical rehabilitation with sustainable and innovative solutions.

Odile Decq – Confluence Institute: Creating a New Pedagogical Atmosphere

Odile Decq (b. 1955, Laval) is a French architect and urban planner, earned a diploma in Architecture from the *École d'Architecture de Paris-La Villette UP6* (School of Architecture of Paris-La Villette UP6, 1978) and a Diploma in Urbanism and Planning from Institut d'Études Politiques de Paris (Institute of Political Studies in Paris, 1979). Apart from practicing in Paris, since 1992, Decq has maintained a relationship with *École Spéciale d'Architecture* (Special School of Architecture) in Paris as a teacher and director.

In 2014, Decq was not intimidated to launch a new school of architecture that is called Confluence Institute for Innovation and Creative Strategies in Architecture and located in Lyon, France. The architecture program is built around the intersection of five thematic fields: neurosciences, new technologies, social action, visual art, and physics. Classes are taught in transversal and non-hierarchical ways, structured around contemporary questions that respond to social concerns; students are given the autonomy to construct their own research programs based upon their interests/preoccupations. Physically, the institute, a space for 'training, creation and research,' will reflect this methodology of synergy and hybridization: It is organized as a superposition of open and flexible floors: teaching spaces, ateliers, social spaces, and laboratories for virtual and material experimentation. With Confluence she wants to underline: open, alternative, international, collaborative and innovative; an approach to learning for architecture in the twenty-first century. With its emphasis on making, the school offers a radical alternative to conventional architectural education. The institute's building is housed in a former market building that has been converted by Decq. The Confluence program aims to meld old and new topics of study with a modern curriculum, can be called as an informal and alternative learning and experiencing environment. The Institute brings together architects, critics, artists, thinkers, philosophers, film-makers, scientists, engineers and manufacturers to form an architecture that develops ideas unconstrained by 'stylistic prejudice or ideology'.

2016 recipient of the Jane Drew Prize architect Decq explains that after her time as the director of the *École Spéciale d'Architecture* in Paris, she has advanced ideas about architectural pedagogy that were blocked by a strict institutional system of education ill-adapted to change. As she declares, it is necessary to change not only the philosophy but also the methodology of teaching and research. Confluence integrates new visions of and about society and new methods and tools

linked to creation, production and communication allowing students to be adapted to the world of tomorrow in which they will act. As Decq states; architecture must not be reduced to a professional or specialized instruction: it is a discipline that opens to the world. It is a vision and a capacity to act. Today it needs to return to its more humanist ambitions. These opinions open a space for architecture to form socio-spatial parts and more than physical appearance, it focuses on reasons, interchanges, social and interdisciplinary dynamics. As she underlines, 'The world has changed: Today an architect needs to be able to manage, create, and apply his learning to many fields, and not only to the architecture world. If you think about it, architects need to assess multiple constraints and synthesize a complex program to propose one solution. Architecture today is about creative strategies,' and she continues: 'I think "architecture thinking" will replace "design thinking" as the world grows more and more complex. I wanted to create a school to support and explore this frame of thinking. Architects are tomorrow's problem solvers.' The Confluence is a new institution for architectural education and research based on an evolving and radical understanding of research, experimentation and trans-disciplinarity. Open, alternative, collaborative and innovative ways of designing is taught and experienced by students, in order to develop and solve the societal and emerging conditions of today's environments.

Conclusion

Poverty, scarcity, lack of education, high population have been the major problems in many parts of the world through the history especially after industrialization. Architecture has been dealing with the physical conditions due to neo-liberal economies and developments. But the world conditions are being changed rapidly and new understandings, new approaches and necessities are emerging.

This paper focuses on to visions of four women architects as an anthology, focusing on alternative education environments connected with architectural production.

These women pioneers underline the architecture has a social design role as much as physical transformation. Sustainability and social design can be blended for the emerging architectures of future conditions. The paper and the methods of these women architects show that architecture can stimulate technical inventiveness and community participation and show a way for the basis for a responsible architecture where the vocation of service does not exclude beauty and emotion. These architects have built social housing, rural schools or community centres and new learning atmospheres with an extraordinary economy of means, admirable adaptation to collective needs and exemplary material execution, showing us an inspiring route.

Charlotte van Wijk

Delft Technical University, Architecture Department | The Netherlands

Women's Studies at the Architecture Department of Delft Technical University

This paper discusses the section for Women's Studies at the Department of Architecture in Delft. I began this research wondering how it was possible that such a section came to exist at all. Also, I was interested to know what the impact of this section has been.

Methods

An important source for the research is the archive of Women's Studies section, donated by former staff member Anna Vos to the Chair of History of Architecture and Urban Planning of the faculty of Architecture and Build Environment (A&BE). The archive contains publications by staff members of the section and others, reports of meetings, lecture and seminar notes and slides. Other sources are interviews with former staff members of the section, i.e. Anna Vos and Irene Cieraad.

Last academic year, two events lead to the inclusion of the theme of women practitioners and academics at our faculty in a thesis course. The first was the donation of the Women's Studies Section archive, the second was the travelling MoMoWo exhibition, presented in Delft in June of 2017. In the spring semester of 2017 a group of students researched Dutch female architects and planners. The research by Vita Teunissen, Vera van Maaren and Sophie Dikmans formed the basis for an addition to the MoMoWo exhibition, which was curated by Teunissen. Another group member, Veerle Alkemade, focussed on the Women's Studies Section, and contributed sources to this paper.

Introduction

The societal changes of the 1960s laid the groundwork for the emergence of the section for Women's Studies at the Department of Architecture. The second wave of feminism in the Netherlands started in the late 1960s.¹ Its influence reached Dutch universities around 1974, when students, of social and historical sciences mainly, initiated sections for Women's Studies at their faculties.² And from the late 1970s onward, women active in the academic field of Women's Studies, or involved in the women's movement, showed increasing interest in the subjects of architecture and urban planning.³

Another important change was the increasing influence students had on the curriculum. After the Second World War the student population at Dutch universities and colleges increased in numbers very rapidly. The student population also became more diverse in its socio-economical make-up, since more children of middle class families pursued higher education. During the 1960s these students felt the need to organise themselves to promote their economic and professional interests.⁴

During this period of student revolt and strife for democratisation at Dutch universities, the Department of Architecture at Delft Technical College appears to have been at the forefront of developments.⁵ Perhaps this was a reaction to the large influence that the individual professors had, with the power to block a student's educational progress entirely, based on their subjective aesthetic judgement. Besides, these professors were of an older generation and the students thought they had lost touch with the rapid changes in post-war Dutch society. The students wished that the content of their courses would have greater societal relevance, and that the curriculum be more adequately adapted to the demands of a changing professional field.⁶ During a departmental meeting in 1969 the students managed to convince the board members to cede their mandate. A general assembly of students and staff was to take all decisions at the Department of Architecture from then on. Thus students and junior staff members gained direct influence on the appointment

of new staff members, and the curriculum.⁷ However, the process of democratisation at the department did not mean that women gained influence immediately, because they were greatly outnumbered by male students.⁸ In 1970 8 % of architecture students were female, this went up to over 10 % in 1978, to 21 % in 1985, and to almost 35 % in 1990.⁹

The Women's Studies Section

By the late 1970s, the feminist activism female students encountered outside of the Department of Architecture inspired a similar attitude in their educational institute. A group of female students started to meet regularly to discuss their professional and personal concerns. One of the issues they addressed was a lack of female teaching staff at the department, which caused the female perspective on the field of architecture and urban planning to be absent in the curriculum. The women's group decided to propose organising a seminar course to provide such a female perspective.¹⁰

The reception their proposal got at a meeting of the Departmental Education Committee illustrates how the more conservative staff members felt about women at the Department of Architecture. The dean, P.K.A. Pennink, condescendingly suggested that the final result of such a seminar might be a cake, or the time might be spent knitting.¹¹ In response the female students published an image of the dean in the guise of Saint Sebastian, shot by knitting needles instead of arrows (Fig. 1).¹² The affair led to some controversy within the department, but many of the reactions to the publication showed little understanding for the frustration the dean's remarks had caused the female students.¹³

- 1 The publication of an article on the position of women signals the starting of the second wave of feminism in the Netherlands: Joke Kool-Smit, "Het Onbehagen Bij De Vrouw," *De Gids* 130, no. 9/10 (1967).
- 2 Margo Brouns, *Veertien Jaar Vrouwenstudies in Nederland Een Overzicht* (Groningen: Rion, 1988), 7-8.
- 3 Lisl Edhoffer, Heide de Mare, and Anna Vos, *Vrouwen En De Stad, Deel 1, Vol. 1* (Delft: Technische Hogeschool Delft, Afdeling der Bouwkunde, Vakgroep 1 Geschiedenis Media en Theorie i o, Sectie Vrouwenstudies, 1986), 5. Initially this resulted in criticism of the sexism inherent in common theories or concepts at the time. An example for the field of urban planning is the denomination of the new suburbs as *slaapsteden* (dormitory towns or bedroom communities), because for many women in fact these were the areas they spent not just the night, but also their working life. Brouns, *Veertien Jaar*, 9.
- 4 Frits Toben, "AAG En Democrativering," *Mag Het 'N Beetje Scherper Alstublieft?: Beelden Van Bouwkunde Delft*, edited by Herman Albers (Delft: Technische Universiteit Delft, 1991), 177-78.
- 5 The name was changed to Delft Technical University in 1986.
- 6 *Ibid*, 177-82.

- 7 Henri Baudet and J. H. Makkink, *De Lange Weg Naar De Technische Universiteit Delft Dl. I, Dl. I* (Den Haag: Sdu Uitgeverij Koninginnegracht, 1992), 488.
- 8 Delft Polytechnic admitted the first three female students in 1904. The first woman graduated in 1917, in which year the number of female students was 13 on a total number of 70, or 19 %. This number went down during the economic crisis, in 1930 9 % of Architecture students were female, a number which had dropped to 6 % by 1956. Source: Erica Smeets-Klokgieters, "Vrouw in De Bouw: De Eerste Vrouwelijke Afgestudeerde Architecten in Nederland," *KNOB Bull. KNOB Bulletin* 116, no. 1 (2017), 46.
- 9 Henri Baudet and Herman Johan Arie Duparc, *De Lange Weg Naar De Technische Universiteit Delft II* (Den Haag: Sdu Uitgeverij Koninginnegracht, 1993), 770; "Els. Over Vrouwen En Politie mannen," *B-nieuws: Mededelingen van de Afdeling der Bouwkunde* 12, no. 10 (1978). 193.
- 10 Loes Verhaart and Anneriek Vos, *Een Jaar Vrouwenstudies* (Delft: Technische Hogeschool Delft, 1979), 4.
- 11 Umberto Barbieri et al., "Excuses," *B-nieuws: mededelingen van de Afdeling der Bouwkunde* 12, no. 9 (1978), 169; "Wie Wordt Er Nou Eigenlijk Beledigd?!", *B-nieuws: mededelingen van de Afdeling der Bouwkunde* 12, no. 9 (1978)..
- 12 "Vrouwen," *B-nieuws : mededelingen van de Afdeling der Bouwkunde* 12, no. 7 (1978), 122.
- 13 Centrumgroep Bouwkunde, "Over De Grenzen Van De Vrijheid," *B-nieuws: mededelingen van de Afdeling der Bouwkunde*, 12, no. 10 (1978), 193.

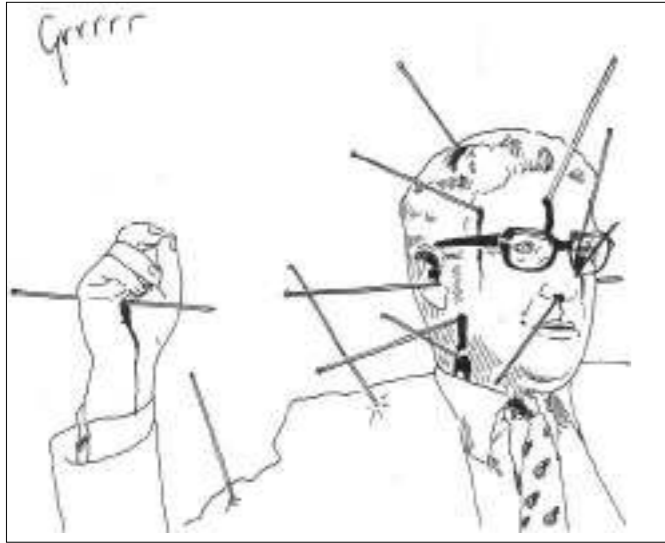


Fig. 1. Drawing showing P.K.A. Pennink pierced by knitting needles, 1978. Source: *B-nieuws* 12, no. 7 (1978), 122.

But Anneriek Vos,¹⁴ who was employed as a student assistant with professor Max Risselada, had already gotten the opportunity to reform an existing seminar course on text and plan analysis.¹⁵ This

first seminar ran in 1978 and it continued until 1981, when the approach of the section changed, as will be described later.

In order to ensure the continuation and expansion of the subject at the department, Vos wrote a policy document in 1980, recommending employing a permanent staff member in a dedicated section of Women's Studies.¹⁶ This proposal gradually got the support it needed, also because of a new policy at Delft Technical

College to stimulate women to pursue degrees in technical subjects. This led to backing and even an additional funding of fl. 10,000 annually from the central board of the college.¹⁷ Starting in 1984 art historian Heidi de Mare and Anna Vos shared a full time assistant professorship.¹⁸

The first seminars were firmly rooted in feminist activism, and their stated object was to 'gain knowledge to help create the conditions to end the oppression of women'.¹⁹ At the time numerous publications had appeared stating that existing housing and urban planning practise affected women's societal position by isolating them in dormitory towns and in dwellings that did not provide a space for work or study.²⁰ During the seminar students discussed these and analysed the possible role Dutch public housing policies had and continued to have on the socio-economic position of women, and the family.²¹

Around 1980 the contents and purpose of the field of Women's Studies in the Netherlands started to shift. There was a move away from the desired applicability of research results in feminist activism, which had been the breeding ground for Women's Studies, and towards the scientific distance and objectivity typical of an academic field.²² The themes of the Women's Studies section of Architecture evolved in line with these developments.²³ The more positive subject of 'the construction of the feminine', or 'the construction of gender difference' came to replace 'the oppression of women'.²⁴

For the Women's Studies section in the Department of Architecture a complete move away from applicability of their research was complicated by the fact that most students were more interested in design than in science. Feminist groups such as 'Vrouwen Bouwen Wonen' had been promoting 'building change' and students came to the section of Women's Studies looking for the ways to do this. The underlying assumption was that architecture, urban planning and public housing could have direct beneficial influence on the position of women. The section of Women's Studies felt this approach did not acknowledge the complexity of the relation between the built environment and society. To start with, the diversity in society meant that there was no such thing as 'the woman'. And the relation between men and women had turned out to be more nuanced and diverse than 'oppression'. Gender became the object of study, rather than women.²⁵

These developments explain the contents of the course reader published by the section in 1986. De Mare presented a sociocultural approach based on sources such as Levi-Strauss, Foucault and Rossi, in which gender and architecture are questioned as cultural phenomena.²⁶ Vos published her research into the history of public housing; by describing the actors, their objectives, the objects, and in what terms these were discussed Vos offered a new perspective on the historical developments of the architectural task of public housing.²⁷

The continued interest in applicable research in the section is clear from a research report on building norms, commissioned by the ministry responsible for housing and spatial planning in preparation for a new building code.²⁸ The ministry had sought the advice of the section for Women's

14 Later known as Anna Vos.

15 Charlotte van Wijk, Interview with Anna Vos (by phone, January 30, 2018).

16 Anna Vos, *Beleidsnota* (Delft, 1980).

17 Brouns, *Veertien Jaar*, ii.

18 Verhaart and Vos, *Een Jaar Vrouwenstudies*, 5.

19 The authors of the first publications with a feminist perspective on the built environment in the Netherlands were urban planners, educated at the Architecture department of Delft Technical College. Henriette van Eys and Hedy d'Ancona, "Het Is Altijd Rustig in Een Nieuwbouwwijk," *Opzij*, no. 11 (1977); Nellien de Ruiter, "Bouwen Op Vrouwen: Letterlijk En Figuurlijk," *Futura* 12, no. 5 (1977).

20 Verhaart and Vos, *Een Jaar Vrouwenstudies*, 16.

21 Brouns, *Veertien Jaar*, 231.

22 Edhoffer, Mare, and Vos, *Vrouwen En De Stad*, Vol. 1, 1, 31.

23 Ibid, 37.

24 Ibid, 42.

25 Heidi de Mare and Anna Vos, "Urban Rituals in Italy and the Netherlands," *Urban Rituals in Italy and the Netherlands: Historical Contrasts in the Use of Public Space, Architecture and the Urban Environment*, edited by Heidi de Mare and Anna Vos (Assen: Van Gorcum, 1992), 7.

26 Anna Vos, "Van Woning Tot Architectuur: Van Stedebouw Tot Stad.," *Vrouwen En De Stad*, Vol. 1, edited by Lisl Edhoffer, Heide de Mare, and Anna Vos (Delft: Technische Hogeschool Delft, Afdeling der Bouwkunde, Vakgroep 1 Geschiedenis Media en Theorie i o, Sectie Vrouwenstudies, 1986).

27 Jenneke ter Horst et al., *Normering in De Woningbouw in Relatie Tot Veranderende Woon- En Leefvormen* (s'-Gravenhage: VROM, 1987), 11.

28 Edhoffer, Mare, and Vos, *Vrouwen En De Stad*, Vol. 1, 1, 41.

Studies of the Department of Architecture in response to the persistent complaints about the built environment made by feminists. Previously, the section had criticised the assumption that changes in architecture or urban planning could influence society directly.²⁹ But here was the opportunity to influence the practise of social housing, which in the Netherlands constitutes a large proportion of the built environment. To support their recommendations for a new approach to housing norms, the section needed to investigate the indirect relationship between plan and societal effect. They approached this by analysing the relation between the form and performance of historical social housing projects and the norms that these originated from. In addition, the report used the research by Vos into the historical background of public housing, by paying particular attention to the role the initiators of social housing schemes had reserved for female occupants.³⁰

Finally, the proposed solution was to suggest norms that would be able to accommodate unforeseen changes in society, such as new forms of cohabitation. Therefore, the authors based their recommendations for norms on the spatial requirements of individuals, rather than on nuclear families as had been done before.³¹ And by providing each individual with a room of his or her own, the norms no longer forced married couples to share one, which had historically left the housewife without her own individual space in the dwelling.³²

Promoting the Visibility of Female Designers

The present generation of female students has taken an active interest in the subject of the position of women in the professional field and in academia.³³ The recent activism is inspired by concerns about the persistent gender gap in the field of architecture and urban planning in the Netherlands. In 2016, the Dutch student population of the Faculty of Architecture and the Built Environment (A&BE) in Delft was 45 % female.³⁴ However, these numbers dwindle after graduation; 23 % of architects, and 32 % of urban planners registered in the Dutch Register of Architects are women.³⁵

The gender-gap in the field of architecture and urbanism in the Netherlands also received attention from students, professionals, academics and organisations during the 1980s and 1990s.³⁶ The Women's Studies section addressed this issue by organising lectures by female architects, titled "A Prologue to Visibility," in December 1987 and January 1988. The invited lecturers were Anna Bofill, Adele Santos, Laura Thermes, Zaha Hadid, and Beth Gali. The speakers also acted as visiting critics in a design studio, in an effort to get younger, female design tutors in Delft architectural education. At the time half of the first year students were female, but the large majority of design tutors were still male. The year after a second edition of this project introduced Madeleine Steigenga, Sabine de Kleijn, Vera Yanovshtchinsky and Marian van der Waals.³⁷

Ritual Space – a Culture-Historical Approach

An international workshop titled "Ritual Spaces" held in 1989 shows a definitive step away from the activism of 'building change', and the simplistic assumption about the relation between building and society this entails. The section of Women's Studies introduced a culture-historical methodology, connecting the thinking about gender and building.³⁸ Object of study were the multi-layered form of both the city and the human existence.³⁹ The reader composed by the section according to this approach collects 22 architectural, anthropological and historical studies, each discussing, from their different perspectives, how built space is used.⁴⁰ Several editions of this reader served education in seminars for students in the joint Architecture and Social Housing Chairs throughout the 1990s.⁴¹

By the late 1990s the second wave of feminism had lost momentum, and many of the Women's Studies sections at other universities in the Netherlands had been disbanded. The Women's Studies section at the Architecture Faculty also lost its support and came to an end. The remaining staff member,

29 Vos, "Van Woning Tot Architectuur."

30 *Voorschriften En Wenken: Voorschriften Nieuwe Woningen En Woongebouwen 1976* ('s-Gravenhage: Staatsuitgeverij, 1976), 13.

31 Horst et al., *Normering in De Woningbouw*, 12. *Voorschriften En Wenken*, 131–32.

32 "Inclusion and fair representation in the way we convey history to the presence of role models on the work floor are essential," TU Delft Feminists website, <https://tudelftfeminists.wordpress.com/about/> (accessed November 24, 2017).

33 "Population Shown by Gender," Delft University of Technology, <https://www.tudelft.nl/en/about-tu-delft/facts-andfigures/education/student-population/> (accessed January 19, 2018).

34 *Jaarverslag 2016* (Den Haag: Bureau Architectenregister, 2016), <https://www.architectenregister.nl/media/1048/definitieve-versie-jaarverslag-2016.pdf> (accessed June 7, 2018).

35 D. Samwel and G. Keijzers, "Het Glazen Plafond: Vrouwen in De Architectuur," *BladNA*, no. 3 (1999).

36 For instance the *Bouwnetwerk* (Building Network), founded in 1984 to offer women architects and building engineers an alternative to the existing old-boys-networks of the building trade. This network is still active and published reports on the gender gap in the building professions in the last decade. *Bouwen Op Hakken, Vrouwen in De Bouw* (Huizen: Bouwnetwerk, 2010); *Getallen Op Tafel: Een Genderprofiel Van De Bouw: Verkenningen Naar De Positie En Doorstroming Van Vrouwen Op Kaderfuncties in De Bouwbranche* (Bouwnetwerk, 2006). Anna Vos et al., *Proloog Tot Zichtbaarheid II* (Delft: TU Delft, Faculteit der Bouwkunde, 1988), 5.

37 Heidi de Mare and Anna Vos, *Ruimtelijke Rituelen: Het Huis Als Plaats Der Gewoonten* (Delft: TU Delft, Faculteit der Bouwkunde, Vakgroep GMT, Sector Vrouwenstudies, 1992), 7.

38 "Urban Rituals in Italy and the Netherlands," 20.

39 *Ruimtelijke Rituelen*.

40 *Studiegids Bouwkunde 1997–1998* (Delft: Faculteit Architectuur, TU Delft, 1997).

41 Anna Vos left the section in 1997, and Heide de Mare in 2001.

Irene Cieraad, moved to Chair of Interiors.⁴² There she continues the cultural history approach to the built environment in research projects, and introduces students to the users' perspective of residents of different ages, cultural backgrounds and gender during research seminars.

Conclusion

I began this research wondering how it was possible that a section for Women's Studies came to exist at the Architecture faculty in Delft. Also, I was interested to know what the impact of this section for Women's Studies at the faculty had been.

Through its research and education, the section for Women's Studies was successful in introducing a more inclusive view on architecture and urbanism to generations of students at the department, which is still present in education today. But it seems that the work of the section was not quite finished when it was disbanded, as is testified by the gender gap still existing in academia and the profession.

The current activism among students, that has been inspired by this persistent gender gap in the field of architecture and urban planning, creates a context that is somehow recalls the 1970s. Back then, a context of feminist activism and democratisation at the university, and the rising percentage of female students, gave women the chance to gain foothold in academia at the Department of Architecture in Delft. However, this did not happen until external funding and support from the Ministry of Social Affairs & Employment, and the central board of the Technical University had become available. A similar external impulse might be required to enable the next push towards equality to be realised in the near future.

Ruben Larramendi

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Rosa Barba and the Barcelona School of Architecture (1992-2000): Landscape as a New Agency for Female Architects

Introduction: Female Architects in Catalonia

In Spain, the inclusion of women to the architectural profession has been directly influenced by the national political panorama. After the death of Francisco Franco, in 1975, and thanks to the democratic government, new laws were approved which marked a turning point for Spanish women rights.¹ The incorporation of women into high studies grew constantly along the 1980s and the 1990s; however, it has been slower compared to other European countries.

During the Regime, women were relegated to a secondary position in the public sphere. Few women were accessing higher education. However, in most cases, they came from privileged social class. Inés Sánchez de Madariaga's research pointed out that women with a degree in architecture in the sixties only touched the quarantine in the set of Spanish architecture schools.² In the case of Catalonia, the first female architect was Mercedes Serra Barenys who graduated at the Barcelona School of Architecture in 1964. Ten years after, the number of women graduated went up to 73. With the consolidation of democracy in the 1980s this growth became exponential. Since then, the presence of women in Catalonian Universities' classrooms has been growing until 2007 when parity was finally reached.³ Nevertheless, this growth was not equivalent neither in the faculty of Spanish Universities nor architecture practitioners.

The same year that parity in the classrooms was achieved, the percentage of female architects

1 Lucía C. Pérez Moreno, "The 'Transition' as a turning point for a female agency in Spanish Architecture," *A Gendered Profession*, edited by James Benedict Brown et al. (London: RIBA, 2016), 108–115.

2 Inés Sánchez de Madariaga and Yolanda Agudo Arroyo, "Construyendo un lugar en la profesión: Trayectorias de las arquitectas españolas," *Feminismo/s* 17 (2011), 159.

3 Inés Sánchez de Madariaga, "Women in Architecture: The Spanish Case," *Urban Research & Practice* 3 (2010), 205–206.

42 Charlotte van Wijk, Interview with Irene Cieraad (Delft, December 21, 2017).

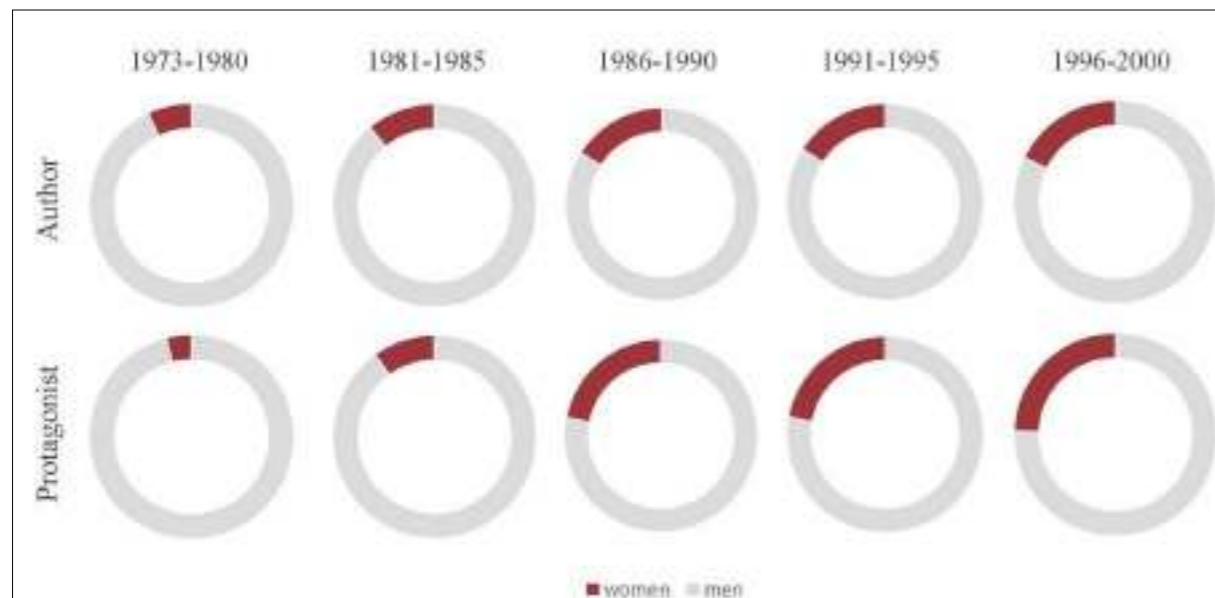


Fig. 1. Evolution of the presence of female architects in the journal *Quaderns d'arquitectura i urbanisme*, 1973–2000. Source: Rubén Larramendi, "Referentes femeninos en las revistas catalanas especializadas en arquitectura, 1990–2000: El paisajismo como oportunidad" (Bachelor thesis, Zaragoza University, 2017).

involved in academia was just the 20%. Likewise, the presence of women register as freelance to practice the profession was even lower. In addition, female architect who continued their career did not see their high quality work published in specialized magazines at the same level than male architects. For example, the appearance of female architects in diverse Spanish journals did not reach 10% until 1990.⁴ Despite the growth in the number of female architects, the dissemination of their work was not fair compare with their male colleagues. Nevertheless, the few names that appeared in journals such as *Arquitectura* (Official Association of Architects from Madrid), and *Quaderns d'arquitectura i urbanisme* (Official Association of Architects from Catalonia) were Carme Pinós, Roser Amadó, Beatriz Goller and Rosa Barba, who became female references and moles for other and younger female architects (Fig. 1). Among them, Rosa Barba stood out in relation with academia and the education of the architect. *Arquitectura* and *Quaderns d'arquitectura i urbanisme* published several articles that explained her work as lecturer at the Polytechnic University of Catalonia -where Barba was teaching architecture at undergraduate and graduate levels. She presented a new theoretical debate on the role of landscape within the architecture profession.

Rosa Barba wrote about the relevance of designing the periphery of any city, and its connections with the natural environment, among other issues. Article by article, course by course, she established

4 Penélope Santamera, "Análisis de la obra y escritos de arquitectas en las revistas especializadas españolas (1973–1990)" (Bachelor thesis, Zaragoza University, 2017), 28.

the foundations of landscape as an autonomous discipline in Spain. Carles Herrera published a book on her work in 2010 entitled *Rosa Barba Canovas 1970–2000*,⁵ which is the only monograph that recovers her legacy. Nevertheless, her memory is kept alive with the celebration of the Rosa Barba European Landscape Biennial; an international event that recognizes her as a pioneer.

Rosa Barba & Landscape as a New Agenda

Rosa Barba was born on November 6, 1948, in the neighbourhood of Gràcia in Barcelona. She was the daughter of a family of screen printers and decided to study architecture. She was enrolled in the '1962 Plan' being the nineteenth female architect graduated in Barcelona School of Architecture (ETSAB) in 1971. Likewise, she was part of a reduced group of women architects in Catalonia. Before graduation, she collaborated at the architectural office of Joan Antoni Solans and Xavier Sust, and worked in projects such as the Communications Plan of the Barcelona Region. Once graduated, she founded the office 'Rosa Barba & Ricard Pié, Arquitectes' together with her partner Ricard Pié.

In 1974, at the ETSAB, Rosa Barba began teaching as part of the Barcelona Urban Planning Laboratory (LUB). Firstly, she taught a course on Introduction to Urban Planning titled "Ten lectures on Barcelona." Three years later, she implemented the course with lectures on "Traces and Ordinances" (El tractat i l'ordenança). These experiences facilitated her to embrace a theoretical discourse whose basic ideas were explained in the text "El projecte del lloc"⁶ (1982) and developed further in her PhD. dissertation "L'abstracció del territori," defended in 1987.⁷ Rosa Barba moved towards a defence of urban planning and landscape as disciplines autonomous from architectural design.

Rosa Barba professional growth took place at the same time than the city of Barcelona was expanding and changing. In 1986, Barcelona was chosen to host the Olympic Games in 1992. Thus, the city council created a strategic plan to face this goal. The main aim was to position Barcelona globally, and to attract international interests and investments. Consequently, several architectural and urban planning designs were developed, expanding the limits of the city until the first years of

5 Carlos Herrera, *Rosa Barba Canovas 1970–2000* (Barcelona: Asflor ediciones, 2010).

6 Rosa Barba, "El projecte del lloc," *Quaderns D'arquitectura I Urbanisme* 153 (1982), 60–67, <https://www.raco.cat/index.php/QuadernsArquitecturaUrbanisme/article/view/198980/307340> (accessed April 2018).

7 Rosa Barba, "L'abstracció del territori" (PhD dissertation, Polytechnic University of Catalonia, 1987)

twenty-first century.⁸ The Olympic Games were a milestone in the history of Barcelona and marked a turning point. The organization of this international event influenced not only architecture practice but also in architecture culture. Catalanian architects were mainly interested in designing mobility systems, new infrastructures, and massive sports building.⁹ The city became a perfect laboratory for innovation. Some examples of this fruitful period were projects such as the Olympic Village (1989, Elías Torres and José Antonio Martínez Lapeña), and the new Archery Facilities (1991, Enric Miralles and Carme Pinós).

Beyond the mainstream of attention, Rosa Barba, and other professionals close to her, claimed debates on a series of challenges that were considered secondary at that moment. She defended the relevance of thinking about the peripheral areas of any city –especially Mediterranean cities as Barcelona–, the consequences of massive tourism, and the increasing alterations of the natural landscape. Barba's theoretical discourse defended the specificity of landscape as an autonomous discipline and the need for new approaches to address those issues. In the context of the Olympic Games, the new contributions made by disciplines such as ecology, geography, and hydrology, added up to the increasing concern for the environment and its management, evidenced the need for a rethinking on the role of Landscape. As Jordi Bellmut explained:

The emerge of landscape as a discipline in the Mediterranean area, which coincided with the aforementioned moment, the diversity of territorial problems, ... and the urgency of finding appropriate answers to complex problems, require[d] a disciplinary reinvention based on the transversality of knowledge.¹⁰

In this context, some journals specialized in architecture placed a key role in the dissemination of this debate. The magazine *Quaderns d'arquitectura i urbanisme*, edited by the Official Association of Catalanian Architects (Colegio de Arquitectos Catalanes), published several articles written by Barba where she explained her personal approach to landscape. Thus, this magazine published special volumes on Landscape, such as issue 194 (*Colonization*), and 195 (*Infiltration*). The Andalusian magazine *Geometría*, based in Málaga, also disseminated the ideas of Barba. Between 1991 and 1997, she published fourteen articles. Among them, issues 20 and 21 highlights because of the clarity with which her ideas were transmitted. Barba claimed:

We find the radical change not in the interest in the Project and the design of the environment, which has always existed, but rather in the ethical an epistemological relation between human being and nature ... It has changed the value that socially hands itself over to the natural environment.¹¹

The understanding of urbanism as a discipline able to work at a territorial scale, and the incipient interest in the integration of other disciplines in the urban planning was fundamental to open new theoretical approaches to landscape. In short, Rosa Barba was able to detect these new variables and to understand the importance of creating networks in the field of research and training.

The Teaching of Landscape in Spain

In Spain, the tradition of Landscape in higher education was limited compare with countries such as the United States and England that have more than 150 years of history. It is possible to find references related to Illustrate gardening in figures like Javier Winthuysen and Rubió i Tudurí. However, their discourses are difficult to link with the challenges faced in the last decades of the twentieth century. This situation makes Landscape an academic discipline with a scarce theoretical foundation. As Manuel Ribas i Piera said: 'In Barcelona the founders of this academic landscape detected, first and foremost, the lack of professionals beyond architectural training. We discovered that the practice of landscaping, except for geniuses and self-taught, required a complementary training'.¹²

In 1982, Manuel Ribas Piera and Oriol Bohigas, the director of Barcelona School of Architecture, promoted a new Master Degree in Landscape Architecture. Previously, the most relevant centres of higher education that offered courses in Landscape were the School of Parks and Gardens of the city of Barcelona, and the School of Agriculture. Among the teachers were professionals in contact with landscape such as Enric Batlle, Jordi Bellmunt, Elías Torres and Rosa Barba. At the beginning, the scope of this degree was far from the revision that Barba promoted during the

8 In 1999, The Royal Institute of British Architects awarded the city of Barcelona with the Golden Medal as a recognition, being the first time that such a recognition was given to a city.

9 Josep María Montaner, "El modelo Barcelona," *Geometría* 10 (1992), 2–4.

10 Jordi Bellmunt, "De paisaje... y de arquitectura: o como llamar las cosas por su nombre," *Paisea: Revista de paisajismo* 5 (2008), 6. Original quotation: 'La emergencia del Paisajismo como disciplina en el área mediterránea, coincidente con el momento mencionado, la diversidad de los problemas territoriales, ... y la urgencia de encontrar respuestas adecuadas a problemáticas complejas, obliga a una reinención disciplinar basada sin duda en la transversalidad de conocimientos'.

11 Rosa Barba, "Urbanismo frente a paisajismo," *El paisaje y la gestión del territorio*, edited by Rafael Mata Olmo and Alex Tarroja i Coscuella (Barcelona: Diputació de Barcelona, 2006), 675–679. Original quote: 'Lo que ha cambiado radicalmente no es tanto el interés por el proyecto y el diseño del entorno, que siempre ha existido, como la relación ética y epistemológica entre el ser humano y naturaleza ... Ha cambiado el valor que socialmente se otorga al medio natural.'

12 Manuel Ribas i Piera, "De què va, això del paisatgisme?" *Visions de l'Escola Tècnica Superior d'Arquitectura de Barcelona* 2 (2003), 72. Original quote: 'A Barcelona els fundadors d'aquest Paisatgisme acadèmic vàrem detectar, primer de tot, la carència de professionals que anessin més enllà de la formació arquitectònica. Els quals, seguidament descobrien que la pràctica del paisatgisme, excepte per als genis i els autodidactes, requeria una formació semblant però complementària.'

following years. The curriculum continued the Catalanian gardening tradition of Rubió i Tudurí, and organized around specific subjects, workshops and conferences. Nevertheless, at the time it had a remarkable success, and achieved great academic impact, mainly because it was the first Master Degree in the Polytechnic University of Catalonia.¹³

Rosa Barba's New Methodologies

Rosa Barba took office as director of the Master Degree in Landscape Architecture in 1992; subsequently, she reformulated its methodologies and objectives, updating its courses to contemporary debates in Europe,¹⁴ and fostering international relations and transversal knowledge.

Rosa Barba reorganized the degree's curriculum betting more clearly on the practice of landscape. The new organization was based on a good balance between traditional courses and new topics. Four workshops were the backbone of the curriculum: 'public space', 'vegetation', 'water' and 'landscape and tourism'. The effort was oriented to the predominance of those workshops. In this way, the landscape studio projects were solved with the contribution of each of these four main topics, and the participation of professional in practice. The students also get other activities such as informative sessions, lectures and other theoretical activities where they reported the contributions produced within the workshops.

Rosa Barba get together a heterogeneous and high-quality group of lecturers. Some professionals were Ricard Pié Ninot, Sara Bartomeus, Jordi Sardà, Manuel Ruisanchez, and the biologist Anna Zahonero, who joined as a teacher in 1994. Nevertheless, not only the faculty was transversal but also the students. The Master Degree was opened for students with backgrounds in architecture, agronomy and agriculture, civil engineering, biology, and forestry, among others. This fact made the degree a meeting place where diverse students specialized in compatible disciplines enriched the results.

The program develop[ed] the core material to get into aesthetic design, in relation with social, technical and scientific approaches. [The degree provided] knowledge that was necessary for evaluation and understanding of the environment and the logic of its transformation, based on a set of disciplines that provide specific instruments.¹⁵

¹³ Jordi Bellmunt, "El paisajismo contemporáneo se aprende en Barcelona," *Rosa Barba Casanovas 1970–2000: Obras y escritos*, edited by Carlos Herrera (Barcelona: Asflor ediciones, 2010), 104.

¹⁴ Pié i Ninot, "De la abstracción a los exteriores," *Rosa Barba Casanovas 1970–2000*, 98.

¹⁵ Jordi Bellmunt and Maria Cervera (eds.), "Theory and Workshops," *More than 30 years of Barcelona Masters in Landscape Architecture* (Barcelona: Master en Arquitectura del Paisaje, 2014), 37.

Another relevant aspect promoted by Rosa Barba was the international collaboration. Regularly, the workshops were conducted in collaboration with European Schools of Architecture. Thus, it was possible to get visiting faculty members, such as Michel Corajoud in 1992, Darko Pandakovic in 1994, Pedro Azara in 1996, and Gilles Clement and Joao Nunez in 1997.¹⁶ Year per year, the Master Degree in Landscape in Barcelona was getting international prestige; and, indeed, in 1995 the European Federation for Landscape Architecture (EFLA) recognize the degree as an approved European titled. This fact placed this degree at the same level of its European counterparts, something unusual in Spanish academia.

Exchanges with the Harvard Graduate School of Design, the École Nationale Supérieure du Paysage of Versailles, the School of Wageningen and the School of Landscape Architecture of Lisbon reinforced the international recognition of these new studies in Barcelona and helped to the creation of the Official Master's Degree in Landscape as a postgraduate course of the Polytechnic University of Catalonia (UPC), and not only of the Barcelona School of Architecture. The creation of this innovative official degree was possible thanks to the dedication of the School of Barcelona, the efforts of Rosa Barba, and her close collaborators, and the design of its rigorous curriculum. Thus, the UPC official Master Degree in Landscape began in the course 1998–1999, with important theoretical and technical courses that complemented the previous master degree. This new official Master Degree was designed with the aim of creating new knowledge in the field and training diverse professionals capable of applying their knowledge in sustainable development in public and private spaces, and who deal with natural systems, protected or degraded spaces, and territorial infrastructures.¹⁷ Since then, this degree has not lost its original values and continues as a leading example of transversal knowledge and international exchange.

Other Projects Promoted by Rosa Barba

In 1993, one year after assuming the direction of the first master degree, Rosa Barba founded a research group called Centre for Landscape Research and Projects (CRPP). This group was part of the Department of Urbanism and Urban Planning (UPC), and it was an essential platform to delve into landscape reality. Issues of great topicality were at the centre of its interest.

Her commitment to the country's current professional issues in the field drove Rosa to want to provide answers to all of those hot topics that were seeking to find their place among the

¹⁶ Ibid, 38.

¹⁷ Jordi Bellmunt, "Introduction to the Master in Landscape Architecture," *More than 30 years of Barcelona Masters in Landscape Architecture*, 3–4.

planning buzz words, but which were invalidated due to their not being used in speech, and which lacked the adequate tools, the attention.¹⁸

The work carried out in this research centre was mainly professional assignments, and investigations that explored key questions on current debates on landscape, especially related with the Mediterranean area. Most of the research results were used as a complement to the topics addresses at the Master Degree on Landscape Architecture. It is relevant to point out that many young male and female architects and other professionals from the area of Barcelona collaborated in this research group, getting specific experience and knowledge in the field of landscape.

In the 1990s, the debate on considering landscape as an autonomous discipline was increasing. Consequently, Rosa Barba promoted the creation of an European event on Landscape Architecture, with the idea of generating a specific event for communication and exchange; which, indeed, served as a disclosure tool. Thus, the first European Biennial was held in March 1999 with the name "Remaking Landscapes."¹⁹ The Association of Catalan Architects (COAC), the Barcelona School of Architecture (ETSAB), the Master of Landscape architecture, and several other administrations supported it. During this event, more than two hundred fifty people participated in a series of conferences where thirty outstanding personalities, with national and international experience, in the field of landscape shared their personal views.²⁰ Furthermore, two exhibitions were organized, with Spanish and European participants. These exhibitions collected projects from practitioners and students and sought to discover new talents and recognize the value of contemporary landscape works. The exhibition *Remaking landscapes: Professional work* had 240 projects on display and in "Visions for the landscape. Project and Research" were exposed 150 un-built projects, and 150 projects of students from 30 landscape schools.²¹ Not only a catalogue of 200 works was created but also, the first Rosa Barba Landscape Prize was organized to recognise the best project. A total of fifteen projects were selected finalists and the Duisburg Park designed by Peter Latz won the first prize. After the death of Rosa Barba in 2000, the success of this event was repeated in the second European Biennial called "Gardens in Arms" (2001). Since then the European Biennial of Landscape

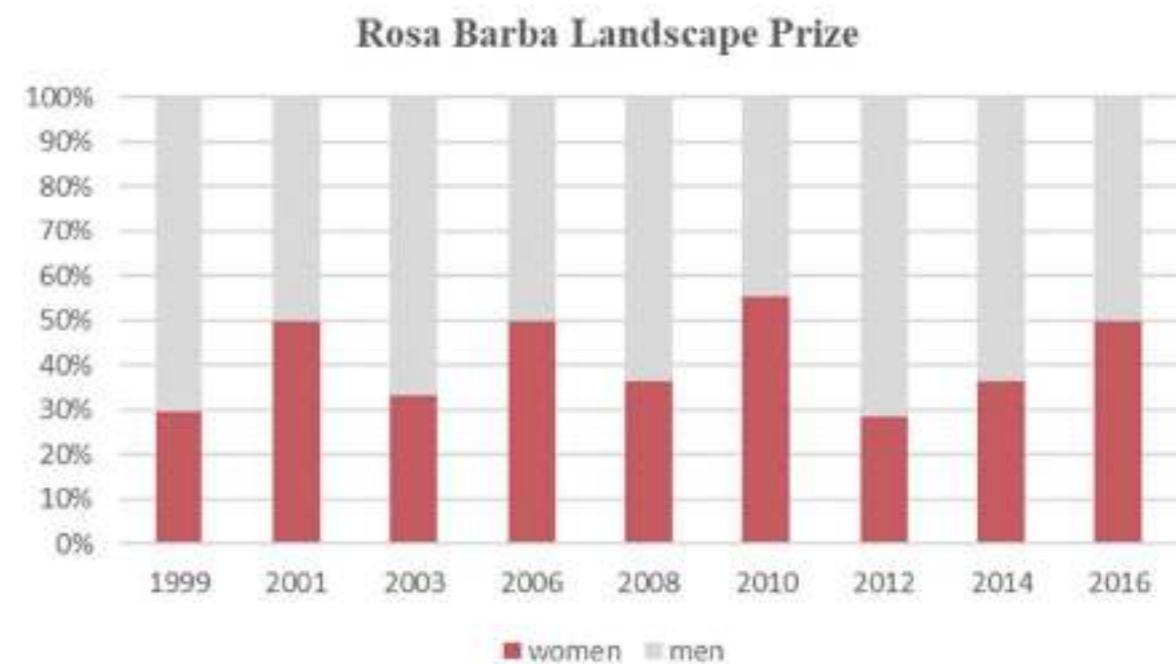


Fig. 2. Finalists in Rosa Barba Award (1999–2006). Source: Larramendi, "Referentes femeninos."

Architecture²² is a benchmark in the contribution to the contemporary debate and the Rosa Barba Prize recognizes and exports her name all over the world.

The Legacy of Rosa Barba and a New Network of Women Architects

The educational structures that Rosa Barba led continue working today with minor changes, and thirty years later, they are an evidence of the ability of this female architect to warn the necessary changes in landscape discipline before anyone.

Rosa Barba's entrepreneurial personality encouraged a significant curriculum reforms, and promoted many projects in public universities that, indeed, changed the teaching of landscape in Spain and Europe. As a result, the educational structures, research and knowledge platforms that she created positioned Barcelona as a benchmark in the landscape discipline in Europe. Nevertheless, these

¹⁸ María Goula, "El paisaje como investigación," *Rosa Barba Casanovas 1970–2000*, 92.

¹⁹ Sara Bartumeus and Jordi Bellmunt (eds.), *17 Years of European Biennial of Landscape Architecture Barcelona* (Barcelona: Bienal Europea de Paisaje, 2016), 14, https://issuu.com/masterpaisatge/docs/portada_memoria_17_a_os_bienal_ba (accessed April 2018).

²⁰ Bet Figueras, Anna Zahonero, Carme Ribas, Beth Galí, Olga Tarrasó and Martha Schwartz were some of the lecturers. In these conferences, women architects were a 27,5 %.

²¹ Jordi Bellmunt and Maria Cervera (eds.), "Landscape architecture in Barcelona," *More than 30 years of Barcelona Masters in Landscape Architecture*, 5.

²² The different editions were titled: "Remaking Landscapes" (1999), "Gardens in Arms" (2001), "Only with Nature" (2003), "Landscape: a Product / a Production" (2006), "Storm & stress" (2008), "Liquid Landscape" (2010), "Biennial versus Biennial" (2012), "A landscape for you" (2014) and "Tomorrow Landscapes" (2016).

achievements would not have been possible without the group of people who always accompanied Rosa Barba. As Barba, practitioners and scholars such as Jordi Bellmunt, María Goula and Anna Zahonero believed and defended the understanding of landscape as an autonomous discipline. Since the nineties, they were involved in Barba's new methodologies and academic projects; and, after Barba death, they have continue defended her legacy.

As Barba, many other female landscape architects have found their own place in the discipline over the past few decades. Some of the educational institutions here exposed exemplify a high presence of women even more if we compare it to other areas. For instance, the teaching teams of the first Master Degree in Landscape Architecture and the Official Master Degree in Landscape (UPC) have reached gender parity.²³ Likewise, women students account 71 percentage of the Master Degree in Landscape (UPC) in the course 2016-2017,²⁴ well above the percentage in the whole of the University. On the other hand, the women finalists for the Rosa Barba Prize along all editions are 39%, a considerable presence compared to other awards (Fig. 2). The figure of Rosa Barba has become a reference of innovative and enterprising female involvement in open new path for the architecture practice. She facilitated access to many other women landscape architects who definitely see her as a pioneer, and as female reference.

Barbara Messina

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Women and Representation: The Teaching of Drawing in the Italian Faculties of Architecture and Engineering

Introduction: Women and University

The presence of women as university professors still today represents a limited reality.¹ This situation generally affects the whole of Europe: if indeed, we exclude Finland, the only country in which there is real gender equality, in all other cases the statistical data show more or less unbalanced shares in favour of the male component. However, while in some countries –such as Norway, United Kingdom, Portugal, Sweden– the gender equality can be considered an achievable goal (data show in fact a percentage of female teaching that is around 45%), in others this target is still far away.

Italy does not distinguish positively: the statistics obtaining from the MIUR database (Ministry of Education, Universities and Research), on 31 December 2017 show that 37.40% of professors are women, corresponding to 20179 units out of a total of 53960.² Comparing these data with those observed on 2001 (at that time the presence of women corresponded to 28.86%), an increase of about 10 percentage points was registered in almost 20 years. That is, in quantitative terms, the female members have grown by about a third party: it is a significant fact, but that cannot be considered satisfactory, since in the European context we are among the last, in gender rankings related to university careers.

²³ The percentage of women professors in Master in Landscape Architecture constitutes a 46% and a 50% in the Master's Degree in Landscape.

²⁴ "Dades estadístiques i de gestió Catalunya," Polytechnic University of Catalonia (UPC) (last modified January 25, 2018), <https://gpaq.upc.edu/ldades/> (accessed April 2018).

¹ For more on this subject cf. Cesare Cundari (ed.), *Una riflessione per continuare: Contributi per il XXX Convegno dell'UID*, Vol. 3, *I riconoscimenti dell'UID* (Roma: MG Sistemi editoriali S.r.l., 2008); Benedetto Gravagnuolo (ed.), *La Facoltà di architettura dell'Ateneo fridericiano di Napoli, 1928-2008* (Napoli: Clean, 2008).

² Source: "Cerca Università: Docenti," MIUR.it, <http://cercauniversita.cineca.it/php5/docenti/cerca.php> (accessed January 31, 2018).

Area 08		Full professor	%	Associate professor	%	Academic researcher	%	Total	%
	Women	143	19,32	446	31,99	333	40,22	922	31,13
	Men	597	80,68	948	68,01	495	59,78	2040	68,87
	Total	740	100,00	1394	100,00	828	100,00	2962	100,00
Area 09		Full professor	%	Associate professor	%	Academic researcher	%	Total	%
	Women	135	9,45	367	17,71	231	23,08	733	16,29
	Men	1293	90,55	1705	82,29	770	76,92	3768	83,71
	Total	1428	100,00	2072	100,00	1001	100,00	4501	100,00

Yet, monitoring the progression of students, starting from school education and following them at the university and post-graduate level, the data would seem to lead to different results. In fact, ISTAT data referring to 2016 show that about 7 female students out of 10, at the end of secondary school, enrol in University.³ Considering all the academic courses without distinction, there is an average female presence of 56.20%. Moreover, are women 59.20% of the graduates, 51.40% of students enrolled in PhD courses and 52.4% of those who achieve the PhD title: values, the latter particularly interesting in a wider reading on a European scale.⁴ It should be noted, in this regard, that the gender percentage in the student distribution, for each training level, varies in a very significant way depending on the type of study. So, while for the 'Human Sciences' and the 'Social Sciences' the presence of women (standing at 75% and 61% respectively) is very prevalent compared to the male class, the technical-scientific areas show an inversion of tendency, reaching minimum values for the 'Engineering and Technology' field (here the average female presence is 31%). Similar data are referred to the attainment of the degree: women are 77% of graduates in the humanistic studies, and 66% of graduates in medical-health degree classes (66%) but these values are drastically reduced for engineering ones (34%). Substantially congruent are the percentages referring to the students of various PhD courses and to the achievement of the relative title.

³ Source: Istituto Nazionale di Statistica (ISTAT), www.istat.it (accessed April 2018).

⁴ In the European Union countries the percentage of women enrolled in PhD courses is in fact lower than in Italy, reaching around 45% as average value on all courses (in Italy, as said, 51.40%) and 34 % in technical-scientific PhD courses (in Italy equal to 43%). Source: Maria Teresa Morana and Simonetta Sagradora, *Focus 'Le carriere femminili nel settore universitario'*, (Roma: MIUR, 2016), 1–16, http://ustat.miur.it/media/1091/notiziario_1_2016.pdf (accessed March 13, 2018).

By shifting attention from training to academic careers, there are encouraging data referring to the presence of women at the first steps of progression in the research field: 50.6% of fellowship researchers are women. Instead, the teaching staff related to all the scientific areas highlights a gradual decrease in female presences, depending on the growth of the academic hierarchy: the women correspond to 48.44% of academic researchers, 37.59% of associate professors and 23.06% of ordinary professors.⁵ Also in this case, the data are subject to significant fluctuations which –as for the educational path– reach minimum values in the technical-engineering field. In this regard, interesting are the MIUR data referring to scientific areas so-called A08 (Civil Engineering-Architecture) and A09 (Industrial and Information Engineering).⁶

They are emblematic areas since, although both referable to an engineering context, they show considerable differences in the percentage of female presence (both with respect to the total number of professors and according to the grades of them). Comparing the data, we simply verify that while the first area is slightly below the national average, but substantially congruent with it, the second one is significantly detached from it. In fact, in the latter, the total of women is just over 16%, about half of the value recorded as the national average. The same ratio is registered in each level of the academic career. This gap depends on the inclusion, in the A08 area, of courses provided to the Architecture degree classes, or in any case of transversal courses for Engineering and Architecture. In other words, disciplines that, placing themselves between the humanistic and technical areas, bring back on average the overall class values, thus balancing those referring to the purely engineering disciplines of the area. A last consideration concerns the still not sizeable presence in top management roles for Departments, Faculties (where still existing) and Universities: for example, referring to the latter, only 7% of Rectors (6 out of 82 to date) represent the female gender.

The Italian career progression in the scientific area of Graphic Representation

Considering the scientific-disciplinary class ICAR17 / Drawing,⁷ we firstly premise that it includes a great variety of knowledge branches, all referable to the Graphic Representation in general. From

⁵ Professors under contract are excluded from calculations, as they are not included in the MIUR databases.

⁶ Source: "Cerca Università: Docenti."

⁷ The scientific-disciplinary class so-called 'ICAR17', in Italy, is related to the university teaching of Drawing, in its various forms: the acronym ICAR indicates the area in which it is placed, or 'A08-Ingegneria Civile e Architettura' (Civil Engineering and Architecture), while the numerical code refers to the specific discipline 'Drawing'. The survey focuses on this specific area not only for reasons of affiliation (the author of the paper is in fact an ICAR17 professor), but above all because this ambit is present both in Architectural and Engineering Courses. Therefore, it may be indicative of a general situation at the national level, mediating the extremes that are recorded respectively in humanistic and technological-scientific areas.

the design's drawing to the architectural survey, from the descriptive geometry to the infographic modelling, from sketches to digital drawing, from the history of representation to visual perception, and so on. These disciplines are present in various courses of Architecture, Engineering, Design, but also –albeit less frequently– of Literature or Psychology.

But how does this variety of areas influence the professors gender distribution compared to the national average? For this purpose, the data available in the MIUR digital archive were analysed, verifying the situation to date and then retracing the variation in the percentage of male and female presences from December 31, 2001 to December 31, 2017.⁸

With reference to the first question, it should be noted that, to date, out of a total of 223 ICAR17 professors, independently of the role, 37.67% are female (84 women compared to 139 men): a value therefore fully consistent with that national. By disaggregating the data, depending on the different grades, a situation emerges that can be summarized as follows:

	Full professors		Associate professors		Academic researchers	
Women	37,14%	13	38,64%	34	37,37%	37
Men	62,86%	22	61,36%	54	62,63%	62
Total	100,00%	35	100,00%	88	100,00%	99

Compared to the national trend, where the numerical growth of women is inversely proportional to the academic role, in the scientific-disciplinary area of Drawing the gender ratio is steady in all 3 teaching grades, lining up on a percentage value congruent with the overall one. However, it should be noted that over 72% of our female professors are affiliated in architectural departments; while about 27% are in engineering structures (a residual percentage come from other departments). This could influence the women percentage distribution at the various academic level since, as already noted, the female presence in Architecture courses is generally more substantial.

Another consideration emerges from the analysis of female data, distinguished by geographical area: while the academic researchers are equally distributed in Northern, Central and Southern Italy,

8 Source: "Cerca Università: Docenti."

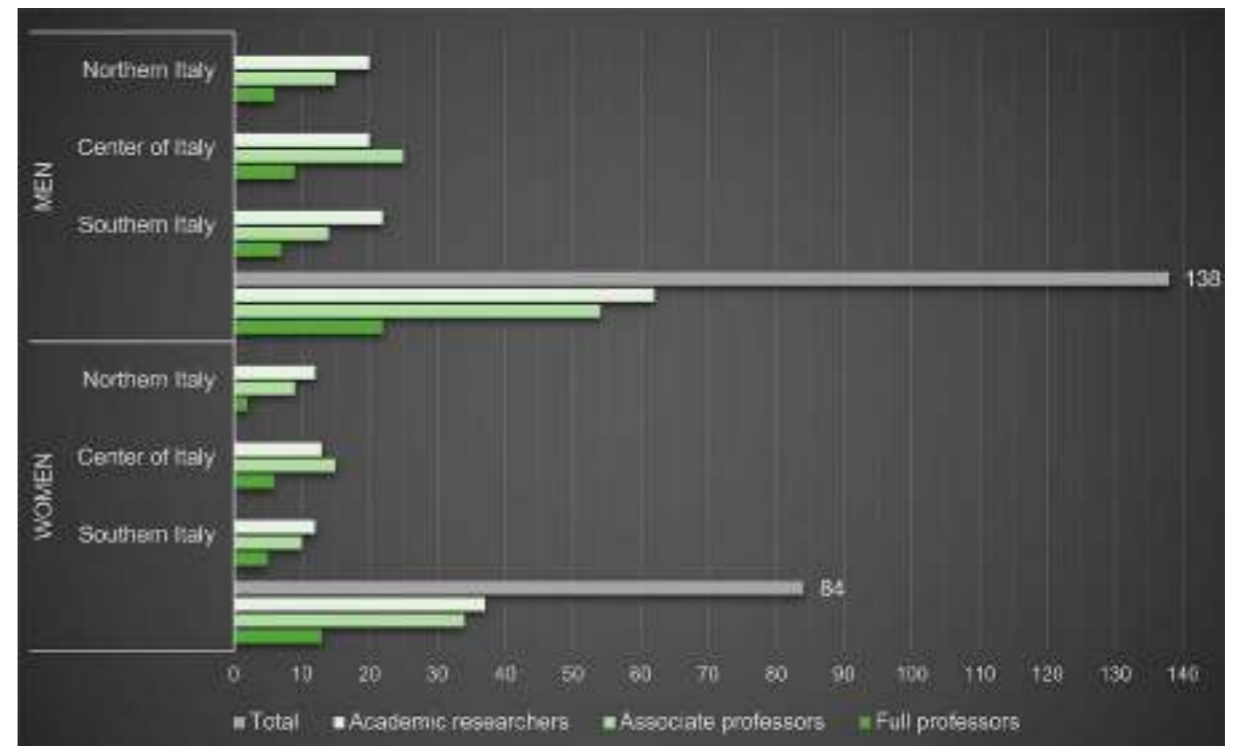


Fig. 1. Professor of scientific-disciplinary area ICAR17/Disegno, distinguished by gender, grades and geographical area. MIUR data until 31 December 2017, <http://cercauniversita.cineca.it/php5/docenti/cerca.php> (accessed January 31, 2018). Graphic elaborations by B. Messina.

the associates and the full professors are more limited in the Northern Italy (Fig. 1).

Instead, with reference to the gender distribution trend, over the years, the considered period shows encouraging data, represented in the graphs below (Fig. 2). First of all, considering the professor staff in its entirety, from 2001 (in that year the female presence corresponded to about 26% with 69 women out of 261) there is a gradual and constant convergence of the gender curves, with a minimum difference in the last 5 years. Disaggregating data in according to the academic role, the graph of full professors shows, for the women, a substantially constant trend over time. Instead, the male gender shows a very significant numerical growth between 2002 and 2005, remaining prevalent until 2011 (although in this period it continuously decreases). Only since 2012 there has been a rebalancing (15 women compared to 21 men): starting from this moment, the trend of the two curves is fluctuating but fairly in line.

With reference to the associate professors there is, instead, a very divergent starting point (17 women and 85 men), which however tends to get closer and closer in 2010. In this year, we register the minimum value in the gender difference (29 women and 50 men). For the academic researchers, lastly, the quantitative oscillations over time are reflected in always similar graphs, except obviously for the numerical units that, for the female gender, are about half of the male gender.



Fig. 2. Diachronic distribution of the professors of the scientific-disciplinary area ICAR17/Disegno, considered as a whole (top) and distinguished by teaching grades (below). MIUR data from December 31st 2001 to December 31st 2017, <http://cercauniversita.cineca.it/php5/docenti/cerca.php> (accessed January 31, 2018). Graphic elaborations by B. Messina.

Women's Institutional Roles in the Italian Drawing Scientific-disciplinary Area

Beyond the numeric data, it should be remembered that ICAR17 group is a varied and culturally stimulating disciplinary area. Several female figures have been and are still today actively engaged in graphic representation scientific researches and in the dissemination of knowledge in this field. Over time, many of them have also stand out for institutional roles and leading positions in the management of the university system, having received, for this reason, manifest recognition and career awards.

Looking back at the past, the first one is Margherita De Simone (1932–1990), professor of Drawing and Surveying of Architecture in Palermo University, involved, both in the research field and in the applicative aspects of the area disciplines. As recalled a few years ago, she was defined by her closest assistants '... Our Lady of Drawing for the passion that she put, and that she transmitted to us, in asserting the relevance of the Representation disciplines in the Academic courses for Architects'.⁹ She graduated in Architecture in 1958, and began the academic career as a volunteer assistant in 1959, and ordinary assistant in 1968. She worked –in those same years– alongside Luigi Vagnetti first and Gaspare De Fiore then.¹⁰ In 1977, she was the first woman, together with her colleague from Palermo Anna Maria Fundarò¹¹, to achieve in Italy the title of full professor in Architecture, and in 1981 she was the first woman ever to be elected dean of a Faculty of Architecture. In 1983 she obtained one of the highest awards by Unione Italiana per il Disegno (UID, Italian Union for Design), an association to which all the Italian professors of Drawing and Representation belong. In fact, she receives the UID Gold Plaque, with the following motivation: 'For the enthusiasm and for the diligent effort, lavished with skill and sensitivity, in continuing the survey of her city and enhancing the drawing, and, at the same time, for having developed with acute ability to synthesis, the identification of the relationship between drawing and project'. In 1985 she founded the Department of Representation, Knowledge, Figuration, Transformation of the built / natural environment, of which she was Director for some years.

⁹ Rosanna Pirajno, 'Le Signore dell'architettura: Margherita De Simone', in *PER 'Salvare Palermo' 32* (2012), 1, <http://www.salvarepalermo.it/per/archivio/per-n-32/item/88-le-signore-dell%E2%80%99architettura-margherita-de-simone-rosanna-pirajno> (accessed March 13, 2018).

¹⁰ Luigi Vagnetti (1915-1980) and Gaspare De Fiore (1926-2011) were important masters for the Graphic Representation area, and prominent figures for architectural culture in general, both nationally and internationally. Vagnetti was in fact a theorist of architecture and drawing, and a key figure in the Italian architectural debate between the Second World War and the end of the 20th century. De Fiore, on the other hand, was an extraordinary designer and illustrator. He was upholder of the importance of the Drawing disciplines in the educational courses for Architects and Engineers. He founded the *Unione Italiana per il Disegno*, or UID (Italian Union of Drawing), of which he remained President until his death. First full professor of Drawing, he also was the promoter of the constitution of the autonomous scientific-disciplinary grouping of Drawing (today SSD ICAR17/Disegno).

¹¹ Anna Maria Fundarò (1936-1999), colleague and friend of Margherita De Simone, was full professor of Industrial Design (scientific-disciplinary area identified as ICAR13).

Another prominent figure of the same generation is Anna Sgrosso, Neapolitan by adoption and a pivotal figure in the teaching of Descriptive Geometry, still today a cultural and scientific reference point for many researchers. She graduated in Architecture in the immediate post-war period (1950), and then she worked at the University of Naples 'Federico II' with Mario Giovanardi, one of the fathers of the Neapolitan School of Descriptive Geometry of the Faculty of Architecture. She was a volunteer assistant (until 1960), an in charge assistant (until 1966) and then an ordinary assistant (until 1980), reaching the maximum level in the academic hierarchy in 1980, when she became an ordinary professor. She has divulged this discipline, making it its own, reinterpreting it with great sensibility and a recognized originality. With her personal humanity, she has imparted in her numerous students and assistants the same passion and the scientific rigor with which she has always been able to graphically interpret the architecture. In 2005 she was awarded the UID Certificate of Magister, maximum recognition for the career, 'Because of her tireless work of discovery and reinvention of descriptive geometry, for the generous dedication to teaching, for humanity and the confidentiality of her presence in the school'. And again, in September 2017 it was awarded the UID Gold Plaque

... for the significant results achieved in research and teaching in the Representation area. She contributed to the revitalization of Descriptive Geometry, which found a new expressive and communicative impulse in the study of its projective roots and in its relations with the world of figuration and art. In particular, her proposal to organize traditional methods of representation in an unconventional way has accompanied us to an innovative interpretation of architecture, whether it is realized or in progress, of which it manages to provide the geometric structure as well as the configurative genesis of the spaces. Also engaged in important institutional roles, such as the coordination of the PhD of our Area [from 1991 to 2002, N.d.A.], it is above all in the educational field that emerges and shines the union between scientific rigor and humanity, profuse to the full. The love for the Drawing disciplines led her to teach with great profit to groups of students of the first Faculty of Architecture of Naples, which still today demonstrate their emotional bond with her. It can be said that Anna Sgrosso has reinvigorated the prestigious Neapolitan geometric school, whose pupils have become professors in many Italian universities, spreading and renewing her research methodology, teaching and her ethical approaches.¹²

During the same years, also Adriana Baculo (1936–2016) worked in Naples. Graduated in Architecture in 1960, she started her academic career in 1972 as in charge assistant and became a full professor of Drawing and Surveying in 1981. She is the head of various research centres, and from 2000 to 2006 she is Director of the Department of Architectural and Environmental Design at

the University of Naples 'Federico II'. She coordinated several scientific projects of national interest, and stood out in the field of architectural survey, contributing to the knowledge of Naples, thanks above all to the unprecedented and impressive project of *Napoli in assonometria*, published in 1992. In 1985 she was awarded the UID Silver Plaque, with the following motivation:

The UID 1985 plaque rewards the lively spirit of research in the field of representation and the survey of Campania region and the historic centre of Naples. It also wants to highlight the enthusiasm and the care lavished in the organization of university activities, carried out with serenity and competence in particular environmental conditions and characterized by feminine finesse and sensitivity.¹³

Also Emma Mandelli is involved in the architectural survey field. She graduated in 1965 and was in university career since 1972, first as an ordinary assistant, then as associate professor (1980) and finally as a full professor (1990), at Florence University. In 2006 she founded the National PhD School in Sciences of Representation and Survey (to which 7 Italian universities are involved), coordinating it as Director from 2006 to 2012. Already awarded with the Silver Plaque in 1992, in 2006 she also received the UID Gold Plaque, with the following motivation

The UID Golden Plaque to Emma Mandelli wants to be the recognition of a life dedicated to study and teaching, continually reaching out to new horizons, particularly attentive to the students and teachers training. The university career of Emma is not only studded with titles, assignments, seminars and international conferences (continuously in contact with the Universities of Spain and Poland) but also with significant initiatives, such as, lastly, the institution of the PhD School, aimed at better organizing and optimizing the training of PhD students in Italian Faculties of Architecture and Engineering. However, the Plaque also wants to be a recognition of the remarkable human qualities of Emma, of her availability and, although it may seem far-off our time, of her heart goodness, which distinguishes and makes her an admirable and ideal colleague.¹⁴

Among the professors currently teaching in the Drawing scientific-disciplinary area, Maria Linda Falcidieno –graduated in Architecture in Genoa (1980) and PhD in "Survey and Representation of the Built Heritage" (Genoa 1985)– becomes associate professor in 1999 and full professor in 2011. Since 2007, she has been Director of the Architecture Department of the Genoa Faculty of Architecture. When in 2012 the Faculty was transformed into the only Department of Science for Architecture, she took over its management until 2015. In 2006, she was awarded the UID Silver Plaque with the following reasons

¹² "Targhe d'Oro UID 1982–2007," Unione Italiana Disegno, <http://www.unioneitalianadisegno.it/old/pdf/riconoscimenti/Targhe%20d'Oro%20UID%201982-2007.pdf> (accessed April 2018).

¹³ "Targhe d'Argento UID 1982–2007, Unione Italiana Disegno, <http://www.unioneitalianadisegno.it/old/pdf/riconoscimenti/Targhe%20d'Argento%20UID%201982-2007.pdf> (accessed April 2018).

¹⁴ "Targhe d'Oro UID 1982–2007."

The UID Silver Plaque to Maria Linda Falcidieno wants to reward the competence, enthusiasm, professionalism of a professor who, starting from the solid foundations of the survey, has managed to insert itself, with original considerations, in the emerging research field of graphics and communication. It also wants to underline the personality of a researcher of clear cultural structure and methodological rigor, qualities that emerge in her studies and essays, and capable of integrating the disciplines of drawing and survey with those of graphic art, in search of a common language. The Plaque also wants to be a recognition of her continuous and constant activity as coordinator of working groups engaging in the field of research and didactics.¹⁵

Francesca Fatta –graduated in Architecture at the Palermo University in 1981 and Ph.D. (1st Cycle) in “Survey and Representation of the Built Environment” (Palermo, 1987)– she became associate professor in 1992 and full professor in 2000, holding numerous institutional positions. She also held the role of Coordinator of the Ph.D. degree in Survey and Representation of Mediterranean Architecture, part of the National School of Doctorate of the Drawing's Disciplines (2005–2011) and Dean of the Faculty of Architecture of Reggio Calabria (2007–2012). In 2007, she was awarded the UID Golden Plaque, with the following motivation

The Golden Plaque UID 2007 rewards the intelligence and commitment of the exemplary career of a scholar able to divide her activities between research and teaching with results that are always positive, interesting and innovative, full of generosity and genius. It recognizes the role and importance of her presence in the Research Doctorate in Survey and Representation of Architecture and Environment, appreciating the particular sensitivity in her relationships with the students, her refinement and willingness. It also intends to recognize the vastness of her interests, which are always centred and profound on the drawing's themes, the geometric representation of architectural space and its links with design, painting and graphics, and thus confirms that the last recognition of her commitment, with the appointment as Dean of the Faculty of Architecture of Reggio Calabria, is right and deserved.¹⁶

As a further recognition, in 2010 she received the Certificate of Magister UID, with the following motivation:

It is difficult to meet in our group of teachers, all enlightened and enthusiastic, a so rich and determined personality. Her interests move from the direct experience of drawing, to the study of geometry; from the graphic commitment to the wings of the imagination; from the ability to know and deepen the reality of our cities, to relationships with other civilizations. All this without losing anything of her intelligent femininity, refined education, strong will, and the sensible ability to put everyone at his ease. The “Certificate of

Magister” to Francesca Fatta confirms the admiration as well as the esteem of Students and Colleagues, who enthusiastically elected her as Dean for the second term.¹⁷

Finally, several teachers in the area of the Representation have directed Departments or similar structures, and coordinated PhD courses. Among these we can mention Rosa Penta, a pupil of Anna Sgrosso, and also linked to the Neapolitan school of Descriptive Geometry, which in the 2000s coordinated the Doctorate courses in “Survey and Representation of Architecture and Environment” of the Second University of Naples; Rosalia La Franca – pupil of Margherita De Simone – who was mainly involved in the field of architectural and urban survey. From 1990 to 1992 she holds the position of Director of the Representation Department of the Palermo University. And again, more recently, Laura De Carlo –engaged in research related to the Descriptive Geometry and its digital declinations– that from 2004 to 2010 coordinated the Doctorate courses in “Sciences of representation and Survey” of the Sapienza University of Rome; and Rossella Salerno, whose research is directed with particular attention to the representation of the territory and landscape, which from 2010 to 2015 coordinated the PhD in “Territory Government and Planning” of the Milan Polytechnic.

Conclusions

The present article is aimed to highlight the role that female teachers play, in Italy, in the scientific disciplines of Drawing, emphasizing –by means of statistical data and information, related to particular academic and institutional paths followed by some of them– to what extent the female presence affects this disciplinary area, in quantitative and qualitative terms, so much so that it is attested, in many cases, on values that go far beyond the national averages. A first consideration should be made with reference to the positions held by women, in the area, as Coordinators of PhD schools or Department Heads. Apart from a few exceptions, PhD schools and Departments are generally structures that include different academic disciplines: for that reason, it is certainly more difficult, but at the same time more prestigious, to reach top positions.

With specific attention instead to the positions of Dean, it is noted how much relevance the women of the ICAR17 area have had and still have. Suffice it to say that out of 6 Faculty Deans, so far

¹⁵ “Targhe d'Argento UID 1982–2007.”

¹⁶ “Targhe d'Oro UID 1982–2007.”

¹⁷ “Titolo di Magister 2005–2006,” Unione Italiana Disegno, <http://www.unioneitalianadisegno.it/old/pdf/riconoscimenti/Magister%202005-2006.pdf> (accessed April 2018).

elected in the area of Drawing, 4 of which in Architecture and 2 in Engineering,¹⁸ 2 were women. That is a third of the total number. The balance becomes obviously even more interesting if we look at Architecture alone, in which an absolute gender equality is achieved. If we then equate, to the role of Dean of Faculty, the Direction of the Departments that gradually, starting from 2010, have in fact replaced the Faculties,¹⁹ we move to a total percentage of about 43% of female presences (3 women out of a total of 7), which even reaches 60% considering only Architecture (here the balance is reversed, becoming in fact 3 women out of a total of 5). This is certainly a relevant data in the context of technical courses of study.

Finally, it should be noted that the data analysis and the investigations illustrated in the present paper are part of a more extensive research on the role of women in scientific and professional contexts (project title: *Gender and Professions: Contexts, Languages, Representations from the 14th Century to the Present*; Scientific Coordinator: Maria Rosaria Pelizzari), under development at the University of Salerno. This is in particular a research project carried out by the Interdepartmental Research Centre OGEPO of the Salerno University, which deals with equal opportunities and gender studies, promoting interdisciplinary research and comparison on studies and statistics related to the presence of women in history and in society.

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Nícia Paes Bormann and the Feminine Role in Modern Architecture of Fortaleza: Training and Teaching Activity

Introduction

The history of Western architecture is mostly based on the lives and works of geniuses and masters, usually men. The existing documentation thus relies on works of exceptional individuals. There are, however, other individuals whose work is fundamental to the collection of more complete documentation, but who are discarded from the records of history, especially women, black people, indigenous populations, etc. According to Bresciani,¹ they make up the mass of the obscure, always excluded from history.

In the case of architecture in Ceará, a state in Northeastern Brazil, Nícia Paes Bormann (b. 1941) is an example. Although gender issues may have overshadowed her name, she was one of the few architects working in Ceará when Modernism was introduced in the state. She was a leading figure in a unique moment in the local history of architecture, working as teacher, architect and urbanist, landscape artist and visual artist.

This paper² covers the beginning of her professional life, from her studies in Rio de Janeiro, in the 1960s, to the beginning of her teaching activity at Federal University of Ceará (UFC) in Fortaleza, up to the late 1980s, when Nícia moves to Brasília, starting a new professional phase at University of Brasília (UnB). It intends to analyze the role of women in the development of modern architecture, and undertakes a critical analysis of her performance. This paper thus offers a distinct view of

¹⁸ For the Faculties of Architecture, in addition to the aforementioned Margherita De Simone and Francesca Fatta, the Professors of Drawing who have held the role of Dean were Mario Docci, Sapienza University of Rome (1988–2000), and Massimo Giovannini, University 'Mediterranea' of Reggio Calabria (2002–7). Deans of the Faculties of Engineering were, instead, Fabio Basile, University of Messina (1995–2004), and Vito Cardone, University of Salerno (2001–13).

¹⁹ This is the case of the Department of Sciences for Architecture at the University of Genoa.

¹ Maria Stella Martins Bresciani, "Introduction," *Os excluídos da História: Operários, mulheres, prisioneiros*, translated by Denise Bottman (Rio de Janeiro: Paz e Terra, 1988), 7–10.

² The article is part of a larger, ongoing research on the architect's professional trajectory, which will result in the master's thesis.

the history of architecture in the state of Ceará by historically placing the role of women in local architecture, showing a particular female architect's influences, references and challenges in a context of male hegemony.

The methodology is based on data collection by interviews, documentary research on the School of Architecture and Urbanism at UFC, and a review of literature on Modernist Architecture in Ceará and the role of women in architecture.

The role of women in architecture

When architecture was implemented in Brazil, most architects were male. This scenario has changed, and the proportion of women has increased.

Durand relates the increase to the new social role played by women and to a possible male abandonment of the profession, as men opted for economically safer careers while women engaged in more financially unstable professions.³

It is well known that traditional international schools presented restrictions on the acceptance of women to the student body. At Bauhaus (1919–33), despite director Walter Gropius' avant-garde discourse on the popularization of design, a newly arrived female student was taken to weaving classes instead of being able to take courses on architecture.

The Cambridge School (1915–42) arose from a demand of women wanting to attend architectural studies, but who were denied admittance. It based its curriculum on Design, Construction and Free Design, but focused on "home architecture" (interior decoration). The graduates surprised the faculty with the high level of their final projects, far beyond expectations.

Sophia Hayden Bennett (1868–1953) was the first woman to graduate in architecture in 1890 at the age of 22 from the Massachusetts Institute of Technology. In 1893, she won the design contest of projects of the Women's Building at the exhibition promoted by Columbia University. The pressures and criticisms suffered during the process of the work led her to a nervous breakdown, which was taken as a confirmation of women's incapacity to work as architects, with the ensuing conclusion that it was best to remove them from the profession.⁴

3 Jose Carlos G. Durand, *Arte, privilégio e distinção: Artes plásticas, arquitetura e classe dirigente no Brasil, 1855/1985* (São Paulo: Perspectiva, 1989), 307.

4 Ana Gabriela Lima, "Duas Escolas de Arquitetura: Bauhaus e Escola de Cambridge" (paper presented at III Research Forum FAU Mackenzie, São Paulo, Brazil, 2007), 7.

The episode shows one of the many situations to which women are subjected to Scott discusses this theme:

In the discourse of the sexual division of labour, marked oppositions between women and work, reproduction and production, domesticity and paid work made the working woman herself a problem. This shifted the discussion of solutions from the conditions of their work, from their low wages, from the lack of social support to child rising, all of which were considered to be symptoms of a violation of the "natural" functional difference between men and women rather than as causes of the misery of salaried workers. This had the effect of establishing a single desirable objective: to remove women, as far as possible, from permanent or full-time wage labour.⁵

In this context, Nícia Bormann appears at a time when few women stood out in the field of architecture, especially in a city in Northeast Brazil. For better understanding of this, it is necessary to contextualize her live from the moment when she chose her profession.

Career Choice

In 1958, when preparing for the entrance exam, Nícia chose Engineering course, but was discouraged by her father, who believed that the construction site was not a place for women. She decided then to study Architecture and Urbanism, and in 1960 was admitted into the National Faculty of Architecture (FNA) of the University of Brazil (currently Federal University of Rio de Janeiro, UFRJ).

Nícia states that the class was made up of 126 students, being only 17 of who were women, and notes that some pursued a career, while others married'. She states not to have perceived gender discrimination, feeling respected and valued in her work, and stresses that 'the girls were overprotected'.⁶

Analysing the above reports, one can perceive the called 'mechanisms of invisibility' in the field of architecture, reflecting contradictions and arguments that show the difference of treatment, even if subtly. As reinforced by Segato when he speaks of symbolic violence:

By its subtlety, its diffuse character and omnipresence, its effectiveness is optimal in the control of subordinate social categories. In the universe of gender relations, psychological

5 Joan Scott, "A mulher trabalhadora," *História das Mulheres: O século XIX*, edited by Georges Duby and Michèle Perrot (Porto: Afrontamento, 1991), 474.

6 Nícia Bormann, Interview with Érica Martins (Fortaleza, November 1, 2017).

violence is the most mechanical and irreflexive form of violence and undoubtedly constitutes the most efficient method of subordination and intimidation.⁷

This was a period of great changes. A feminist 'wave'⁸ occurred simultaneously with the implantation of the modern architectural movement in Brazil. Women's achievements represent a time of social change due to women's struggles for equal rights and sexual liberation.

In Brazil this movement began in the 1930s, and gained more visibility in the 1950s and 1960s, especially with the construction of Brasília, when architecture became widespread throughout the country. Segawa emphasizes that readers had never been so well served with specialized publications of architecture.⁹

As someone who experienced this moment, Nícia highlights architect Affonso Eduardo Reidy and the Roberto Brothers' office. She was an intern there, and learned the importance of context in design. University education enabled her to see architecture without 'isms'¹⁰ which she sees as its greatest contribution to her professional development.

In 1964, with her degree in architecture, she quickly obtained a job in the Municipal Housing Company (COHAB, RJ). The following year, she married her former colleague, architect Gerhard Bormann, and in 1966 they moved to Fortaleza. The city seemed to be a great place to live and raise a family, offered opportunities for employment.

The Teaching Period

The Bormann couple is part of the second generation of architects in Fortaleza, made up by professionals educated mostly in Rio de Janeiro, Brasília and Recife, who returned to Fortaleza in the early 1960s.

In 1966, Nícia and Bormann (Fig. 1) began their professional activities in the Department of Construction and Projects at UFC. They were invited to join the faculty. Gerhard Bormann taught

7 Rita Laura Segato, *La Argamasa Jerárquica: Violencia moral, reproducción del mundo y la eficacia simbólica del derecho* (Buenos Aires: Universidad Nacional de Quilmes, 2003), 264.

8 Carla Gomes and Bila Sorj affirm that the most common classification of the Brazilian feminist movement follows the European pattern in waves, 'Periods more or less delimited in time and characterized by a type of political conception and practice dominant.' Carla Gomes and Bila Sorj, "Corpo, geração e identidade: A Marcha das vadias no Brasil," *Sociedade e Estado* 29, no. 2 (May – August 2014), <http://dx.doi.org/10.1590/S0102-69922014000200007> (accessed October 28, 2017).

9 Hugo Segawa, *Arquiteturas no Brasil 1900–1990* (São Paulo: Edusp, 2002), 224.

10 At this moment the architect refers to an architectural production without the need for labels or direct affiliation with stylistic movement.



Fig. 1. Nícia and Bormann at the inauguration of the Pavilion in 1967, building designed by the architects. Courtesy of Prof Neudson Braga

Experiments with Solids and Nícia Visual Communication.

In the Architecture course, Nícia was in charge of structuring the discipline of Landscaping. The young teacher was one of the first architects in the School of Architecture.

Nícia noticed women were more active in the area of History of Architecture. Women showed a preference for the fields of architecture theory, history and criticism, as writing and teaching were supposedly more acceptable activities for the feminine universe. This perception finds support in Lima, in his discussion of the evolution of women's work in architecture, specifically with regards to theory:

It was through theory that women found a way to work in architecture. ... this happened basically for three reasons: first, writing was an acceptable activity for women, since they could do it from home, alone and in private; also, women found it less difficult to work in sectors where they would not compete directly with men, who dominated the architecture practice; finally, as women were in charge of household management, they understood how houses worked, and therefore felt capable of helping in the design of better houses.¹¹

Nícia perceived a resistance in the opening of positions for women in certain areas. Today, she admits to resent the lack of opportunities to teach Architecture Project, a subject she was never offered, despite her proven experience in the area. These observations 'give voice' to her character, as they show her taking a detached and critical stance, however timidly, in a political search for

11 Ana Gabriela G. Lima, *Arquitetas e Arquitetura na América Latina no século XX* (São Paulo: Altamira, 2013), 168, https://femininoelplural.files.wordpress.com/2014/03/arquitetasalxx_final.pdf (accessed May 28, 2017).

recognition, as well as her perception of the differences in position and performance between men and women.

Neudson Braga, director of the architecture course from 1966 to 1969, acknowledges Nícia's importance as a major influence on freshmen. He comments: 'She performed this function so well that we could not see her teaching another discipline'.¹² Despite the attempted praise, it puts her in a position which prevents her from taking on other roles or subjects. Gerhard Bormann, on the other hand, taught Experiments with Solids for first-year students, and soon received the offer to teach Architecture Project.

From April 1967 to March 1968, Bormann attended the University of Stuttgart. Nícia followed her husband, attending Bauhaus professor Maximilian Debus,¹³ classes only as a guest student; in this class, she was in contact with a very peculiar and in-depth method for the study of colors, which was incorporated into the subject she taught, but left aside after she left. She stresses that she still uses this particular method in her artistic compositions.¹⁴

After returning to Brazil, the couple is dedicated to their academic careers and private projects. It was a quite common practice to carry out projects in partnership between the pioneering architects of Fortaleza. So Nícia and Bormann did some projects together, but they had separate offices. Nícia worked and collaborated with other colleagues throughout her career, such as Nearco Araújo, Hélio Duarte and Eurico Salvati.

About the Landscaping Discipline

An Urbanist Architect has as an individual challenge to be spatially literate, that is, to know how to read and understand the world that surrounds him with the fundamentals of urbanism, therefore the landscape, the actions of society, the human shelter, land occupation, the environment and the public space.¹⁵

Nícia says she realized the need to introduce Landscaping as a subject, as she did not have this experience herself as a student. Landscaping topics were included in the subjects Decorative

Architecture and Urbanism; there was no specific study on the theme, discussion on the topic was scattered. Thus, Nícia and Neudson Braga began to encourage the introduction of the subject in the course.

Neudson Braga comments that the MEC¹⁶ conducted a research to find information on the quality and quantity of architecture courses in Brazil. Braga reports that there was lack of interest in the development of the activity in the city of Fortaleza, and that the implementation of the Landscaping subject was a personal desire of the Nícia's, in agreement with the CEAU¹⁷ guidance.

Thus, in 1977, after a research on existing landscape architecture courses, Nícia created the Landscaping discipline at the UFC School of Architecture and Urbanism. She had to pursue a parallel education and attended a few complementary courses in Geography, Botany, Biology, Ecology and Geomorphology at the Federal University of Ceará, as well as three short courses offered by ABAP (Brazilian Association of Landscape Architects) then went to São Paulo, where she specialized in Landscape Architecture at FAU-USP.

She emphasizes the importance of multidisciplinary during the time when she was learning to undertake her teaching project, especially regarding the perception of terrain, topography, and what to avoid in plant arrangements. This all added to the experience in dealing with compositional issues of design, color and texture at the beginning of her teaching career. Years later, when exchanging information with landscaper Rosa Kliass, she discovered that they had both taken the same course to complement their training as landscapers.¹⁸

Some names of women landscapers deserve to be highlighted because they had a strong influence in the area: Mina Kablin Warchavchik (1896–1969), precursor of modern Brazilian landscaping, made use of native and tropical species such as mandacaru and *dracenas cacti*, valuing local species and encouraging 'Brazilianness' in modern national architecture. Despite her pioneering spirit, it was Roberto Burle Marx who received the title of great exponent of Brazilian landscaping; Nícia regards him as the great national genius.

Mina Kablin developed many gardens for houses that her husband, Gregori Warchavchik, designed. Perhaps because the projects were of a small size, it has not received the credit it deserves. The scene repeats itself; it happens like with so many other women, her presence in historiography seems to have been shadowed by her husband's fame.

The experience of Nícia in Burle Marx's office in 1962 was fundamental to her understanding of

¹² Neudson Braga, Interview with Érica Martins (Fortaleza, May 21, 2017).

¹³ Maximilian Debus (1904–1981) was a German architect, sculptor, painter and designer, having taught at several universities in Germany (Weimar).

¹⁴ Bormann, Interview.

¹⁵ Jonathas Magalhães Pereira da Silva, "A Relevância da Disciplina de Paisagismo na Formação do Arquiteto Urbanista" (paper presented at Projeta 2005 - II National Seminar on Teaching and Research in Architecture Project, Brazil, 2005).

¹⁶ Department of Education of Brazil.

¹⁷ Council of Specialists in Teaching Architecture and Urbanism (CEAU).

¹⁸ Rosa Grena Kliass is landscaping architect. Paulista, graduated by FAU-USP in 1955, President of ABAP and author of several publications in Brazil and abroad.

how to relate with external environments; she learned to work with broader scales, and with a series of typical landscaping concepts.

The experience of Nícia in Burle Marx's office in 1962 was fundamental to understanding the relationship with the external environment, learning to work with broader scales and with a series of concepts that are unique to the subject.

The discipline has undergone several changes and, because it does not have a representative that continues the work that the architect Nícia began,¹⁹ the Course of Architecture and Urbanism of the UFC does not present a great representation in this area of education. However, the discipline is still offered at the beginning of the course, as explained by Rocha, regarding the body of work of the architect:

Resuming the discipline of landscaping that she organized and implemented in the UFC, she defended its placement at the beginning of the course, as an introduction to the landscape, so that the architect's training, regardless of his performance in landscaping, surpassed the vision of the building isolated from the landscape.²⁰

The recent history of the Landscaping as an academic subject in Brazil begins in 1950, and it was only in 1993 that the first discussion forum on the subject was created, in which forum teaching methods, approach and the object of study itself are debated. Over the years, the subject has been gaining strength and value; however, it is not institutionalized as a profession, and does not have its own higher education course in Brazil. Landscaping in the Schools of Architecture and Urbanism as a subject became mandatory in December 1994; the subject follows the Architecture and Urbanism Curriculum and Minimum Content Guidelines. Silva sees this achievement as follows:

After discussion among professionals in the field, it was established that the understanding of landscape (as system and form constituted by the actions of society) is the basis for the development of a pedagogical project that incorporates the totality of landscape and environment. The study of landscape and of our environment presupposes qualifying the relationship between the actions of society and the systems of objects comprised in landscape, that is, to qualify the interaction between human beings and the environment.²¹

At the UFC, Landscaping began to be offered as an elective subject in 1978, becoming mandatory only in the 1990s. It is possible to perceive that Nícia was a pioneer, as she realized the importance and meaning of landscaping long before it became mandatory.

19 Braga, Interview.

20 Fernanda Cláudia Lacerda Rocha, *Os jardins residenciais de Roberto Burle Marx em Fortaleza: Entre descontinuidades e conexões* (São Paulo: Universidade Presbiteriana Mackenzie, 2014), 198.

21 Silva, "A Relevância da Disciplina."

Currently retired, Nícia (Fig. 2) dedicates herself to the visual arts, more specifically, to watercolor painting. She states that all her training as a student and professional has direct influence over her contemporary work

Gerhard Bormann's accident: a turning point in Nícia's career

In the late 1970s, Gerhard Bormann suffered a car accident that abruptly interrupted his career. Nícia, then a 39-year-old mother of two small daughters, faces for the first time a drastic halt in her career. This episode forces her to distance herself from the university attend to her husband's medical care. Gerhard remained in a coma for a long period, coming to die on September 12, 1980.

A few years later, Nícia married again and requested to be transferred to UnB, with the intention of accompanying her husband, starting a new phase in her life. She continues to pursue academic training: she has completed three specialization courses, and obtained her Master's degree in Urban Planning from UnB in 1986. She worked at UnB for ten years (1982–91), and dedicated herself to the study of urban planning and the relationship between the city and urban landscape.

Final Remarks

Nícia Bormann is greatly influential as an architect to the present day. When analyzing the history of architecture as a profession and academic course, male predominance is noticeable. According to Nesbitt,²² this issue has been debated and emphasized since the beginning of feminist political activism in the 1960s, but it continues a contemporary and widely discussed theme, ranging from academic books to debates on social networks. As Harding explains:

... make clear such aspects as the class to which it belongs, its race, culture, sex and sexual orientation, beliefs and behaviors. These requirements are a response to the recognition that the cultural beliefs and behaviors of feminist researchers shape the questions formulated in



Fig. 2. Nícia Paes Bormann in 2017.
Source: CAU - Council of Architects and Urbanists.

22 Kate Nesbitt, *Uma nova agenda para arquitetura: Antologia Teórica 1965 1995*, translated by Vera Pereira (São Paulo, Cosac Naify, 2008), 661.

the research and the outcome of their analyses, just as it does with sexist or androcentric researchers.²³

Despite the advancements already promoted by feminists, gender equality is still being sought. In raising this theme, Harding points out that the term 'feminist' immediately refers to a political movement in the struggle for social change.²⁴ However, this subject is still quite misinterpreted, and deserves to be more discussed and demystified, requiring a more consistent definition:

Its basic meaning is unknown to many. It is necessary to define feminism: a movement that demands equal rights for women and men alike. Like all movements, it has its peculiarities and derivation according to the ideological tendency. Feminism is not a women's exclusive struggle. A great myth caused by distortion: Being a feminist does not imply fighting against men, it implies equal opportunities.²⁵

Thus, in view of the large output on modernist (male) architects, it is necessary to highlight the production of a female exponent in Ceará architecture, granting Nícia Bormann her due place. Godinho highlights an important issue in this study:

It is important that, in this process, a departure from the "great woman syndrome" is maintained, for which only exceptional figures, heroines, so to speak, end up participating in what is expected to be the history of women in Latin American architecture. This would only result in a sort of compensatory attitude, where, in contrast to the history of the male super-architects, the history of the female super-architects would be created. While one should not deny the importance of prominent characters, it is important to bear in mind that history goes beyond the great personalities.²⁶

It is important to emphasize that Nícia's relevance stems from her contribution as an academic and from her extensive career. The shy, gentle-speaking woman shows personality, firmness and decision in her positions.

Besides gender issues, she is a pioneer in the area of landscaping, in valuing of public and private gardens of the city. The present research goes on, asking the question: How was Nícia in 1964 and how is Nícia in 2017? How did she change, under the influence of the things she experienced?

The present analysis should therefore be continued, in order to better understand the feminine representation in architecture and be able to answer questions such as: will women have a more

representative role in the field of architecture, being now the majority? Is there any progress in their representation? What measures could be taken to promote greater equality of opportunity for women in architecture?

Finally, it is a matter of positively facing the changes in this matter and of bringing to the light the debate to legitimize the achievements and the value of so many who have been invisible in this journey.

23 Sandra Harding, *Feminism & Methodology* (Indiana: Open University Press, 1987), 190; Lima, "Duas Escolas de Arquitetura," 7.

24 Ibid.

25 Verónica Rosero, "Tiempo de mujeres: Espacios para arquitectas," Metalocus (posted April 27, 2015), <https://www.metalocus.es/es/noticias/tiempo-de-mujeres-espacios-para-arquitectas> (accessed September 19, 2016).

26 Lima, *Arquitetas e Arquitetura*, 168.

Vincenza Garofalo

University of Palermo, Department of Architecture | Italy

University Commitment and Professional Experience: Ten Questions to Marcella Aprile

In this interview, which took place in Palermo, 30 January 2018, Professor Marcella Aprile (b. 1947)¹ talks about the changes of the Italian university system after 1968 and about her commitment as a teacher. An important part of the interview is dedicated to the story of her professional experience in the reconstruction of small town Gibellina after the earthquake of 1968. The conversation also investigates the role of drawing in the design process.

Vincenza Garofalo (V.G.): Our conversation will be presented at the MoMoWo Symposium 2018, an International Conference on Women's Creativity since the Modern Movement. Can you tell us about your experience on the subject?

Marcella Aprile (M.A.): I have never observed any discrimination between men and women in our work, nor at the university, obviously, nor from the point of view of professional activity, nor, above all, in the activity of planning supervisor in which any discrimination would be more evident, also because, when I started, there were no women on the construction sites. The workers have always been very kind and very attentive towards me. However, I know that in other professions, there is discrimination and it is quite evident, as for example in the medical field.

V.G.: The Faculty of Architecture of Palermo has a history of strong women like you that prompted a change and that generated a school: Margherita De Simone, Anna Maria Fundarò and then Rosalia

La Franca, to name a few. What generated this strength? Is your experience replicable today?

M.A.: I fear not, because there were cultural historical conditions that put together the generation of Margherita De Simone and Anna Maria Fundarò and mine, which also included Rosalia la Franca, who lived in a very important moment for Europe, and in particular for Italy. Anna Maria and Margherita were born between the two world wars. While Rosalia and I were born a few years after the Second World War, at a time when Europe needed to rebuild itself, the desire to give the best from us was particularly strong.

Women, in my opinion, have played a predominant role. That of Annamaria and Margherita was the first generation of women in Italy, and not only in Italy, which has achieved not only university studies, but has also shown that at the same time, it is capable of doing the university professor, the architect, and also the mother, the wife, and many other things much more than many men.

It was the first generation that showed, as we would now say, that women are able to do more things at the same time than men are. The next generation, which was mine, benefited from both, from this condition and from being trained by people who had already benefited from this condition when they were young. I think this is the reason; I do not think there are any biological or other reasons.

V.G.: From 2011 to 2015, you were the first Director of the new Department of Architecture of University of Palermo, born from the merger of five different departments. How did you experience the moment of change of the Italian University that led to the establishment of this new structure and the transition from the Faculty to the Department?

M.A.: The change of the University structure comes from far away, regardless of the Gelmini law, which then determined the disappearance of the faculties.² There have been two important phases. The first phase that dates back to the 1970s, when, after the rebellions, the occupations, the parades of 1968, access to the university was liberalised, which was previously linked to the type of school that the student had attended. Our Faculty, right away, passed from 100–150 students to 1800 enrolled only in the first year.



Fig. 1. Marcella Aprile.
Courtesy of Marcella Aprile.

¹ Marcella Aprile, architect, is a full professor of Garden Architecture and Landscape Design at the University of Palermo (Fig. 1). She coordinated the School of Specialisation 'Garden architecture and landscape'.

² The Gelmini law of 30 December 2010, no. 240, regulates the rules on the organization of universities, academic staff and recruitment.

At the same time, various other actions were taken during the 10 years between the declaration of the need to make a reform of the University until the reform was really done in 1980. In Italian universities during that interval 'cautious experimentations' – called like that by the various ministers – of didactic forms were allowed, which differed from the previous ones that had to allow a radical renewal of teaching.

However, due to the continuous postponement of the university reform there was no recruitment of new professors, and a quite unsustainable situation was created that blocked university renewal for 10 years and that we are paying for now.

The 'cautious experimentations', however, were useful because they allowed everyone to find new ways of working, especially in teaching. In research, frankly 1968 did not produce almost any kind of real change.

Another very negative thing was not to proceed in one of the battles that had been made in the 1960s, the battle for only one type of teacher. The university reform, however, introduced three teachers: full professor, associate professor and researcher. This was very negative for the Italian university system. These figures did the same thing in terms of teaching and research; the only difference was that associate professor and researcher did not have a role in the management of the university, they could not be deans or heads of departments and could not be part of the academic bodies. After the Gelmini law, it is not like that anymore. So, there was a clear ambiguity and also a form of very strong frustration and this has done nothing but increase the tensions of the university to date.

I have always taken care of the university, even when I was a student, because I think it is essential to participate, with the forms that are allowed, to the management of learning and working space. I had no institutional role as a student, I was not part of the Faculty Council, and there were no students in the Academic Senate. The students were not contemplated, but they were interested in their matter and everyone participated directly. What irritates me a lot, for a few years now, is the indifference of the students towards this aspect of the issue.

V.G.: You have been a professor in the Faculty of Architecture for 43 years. How did you see changing generations of architects you have formed?

M.A.: I graduated in 1970 and I have been teaching since 1975. Among the students of the 1980s and '90s and the students of today, that is of the 2010s and 2020s of the new century, there is a different attitude towards the school authorities that then produces a series of other characteristics that are related to this. In the 1980s and 1990s the simple concept of authority was a detestable thing on the part of the students, who were always against professors, against school, university

by definition, a priori, irrespective of whether or not it was right or wrong. This made sure that the students were, so to speak, quite autonomous, aware of their role as participants in the didactic action and not simply the recipients of it. This attitude no longer exists; indeed the students have a non-critical attitude towards the teachers. What the teacher says is gospel, even if they do not consider it, they do everything to please him, or to find the way to do exactly what he says without any critical spirit and, above all, no alternative ability. This is a very negative fact. The second important aspect is that students have lost the ability to build their knowledge, their wisdom. Despite the great means of learning that they have, compared to what I could have in the 1970s, they are not able to make the connections between things; knowledge is contained in drawers for them. Each closed drawer contains information that cannot be mixed with the information in the other drawers. Then this inability to connect, to make partial syntheses, to make intersections and influences of all kinds and all types is profoundly detrimental to the growth of people's knowledge and autonomy. This is what I see now and that makes me despair and that also makes me feel sorry, because it seems that the work I do at the end is not worth much. And if this is the result, it's frustrating for me too.

V.G.: This year marks the fiftieth anniversary of the Belice earthquake.³ You were among the architects who participated in the reconstruction after the earthquake. What did it mean to intervene in a disaster territory? Do you want to tell us about that experience?

M.A.: I started working in Belice first as an architect, because I had the good fortune to know Ludovico Corrao and his sons, when there was talk of reconstruction, and Ludovico Corrao ran for mayor of Gibellina. The inhabitants were staying in the shantytowns and in the new village there was still nobody; the reconstruction had just begun. We are talking about 1971, I was there and I was the link between the Faculty of Architecture of Palermo and Corrao.

Another person who initially played a role, even if limited, was Gianni Pirrone, always for his friendship with Ludovico Corrao. However, Gianni disappeared from this situation. Nevertheless, at the beginning he could have played an important role in this whole affair, if he wanted to.

The connection between the earthquake-stricken villages and the Faculty of Architecture lasted a long time since the earthquake, that is from 1968, until the end of the 1970s. In those years, combined initiatives were carried out between the mayors of Gibellina, Salemi and Santa Ninfa. These three personalities, physically, ideologically, politically and culturally very different from each other, worked instead together to ensure that the reconstruction of Belice directly involved again

³ In January 1968, a strong earthquake struck a large area of western Sicily, the Valle del Belice, razing 4 villages and damaging other 10.

the municipal administrations that had been removed as a consequence of Mafia infiltration. The reconstruction of the Belice originates from an untouchable principle that marked all the work of the ISES, which was the institute that dealt with the reconstruction: namely, that everything should be managed by the State, because the mafia would have corrupted whatever was locally managed. These three mayors obviously opposed to this absurd logic and tried to bring the whole reconstruction under the direct control of settled populations and even local government. So, I participated in this process that made me understand many things, not just those that could concern me as an architect in the strict sense, but also those that affected the management of the territory, in the deepest and fullest sense of the word. Not the urban management, but the way in which those who have the role of manager, to ensure that the territory is managed in a useful and profitable way for everyone, must assume the responsibilities. However, this did not prevent what was done, that is, to build large full-scale models around Sicily. When I saw for the first time these villages, let us call them, they seemed to me huge 1:1 scale models. There were all kinds of them and they were all without houses; there were only roads, street lighting poles, the electrical substations above ground. In other words, they were ghostly, monstrous, incomprehensible things, but also strangely fascinating at the end. However, they were unusual and even bizarre in terms of wastage of money, of the logic with which they were made. From a disciplinary point of view then I do not understand why the elite of Italian intelligentsia has lent itself to filling these 1:1 scale models with its works of art. I refer to Gregotti, Samonà, Quaroni, a series of people. No one has refused to put his precious architecture, or design it at least, because in reality many of these things were not realised at all.

Many people were involved immediately after the construction of these ghost settlements to try, even towards the public opinion, to make them important. As if to say, 'Have you seen? We are calling great architects to make the most important public offices of these places'.

The story of the reconstruction of the Belice demonstrates the complete inability of the Italian people to understand that certainly intelligent, capable, and talented people are necessary, who are still few, compared to the norm of all of us, but the most important thing is that things must work in synergy. Each of us must be part of a system of choices, of procedures. The sum of many geniuses does not make one thing better, but an integrated structure of normal people can make the difference. In Italy, this is a very hard concept to be understood by administrators, politicians, and also by the people.

I have the difficulty of making today's students to understand this simple thing. Systems are more important than things as such. And then Belice is the result of this way of thinking, in which things are resolved with a burst of creativity. More creative people there are, the better, everyone in his room to think bizarre things. Unfortunately, that is not how it works, so these villages in the end

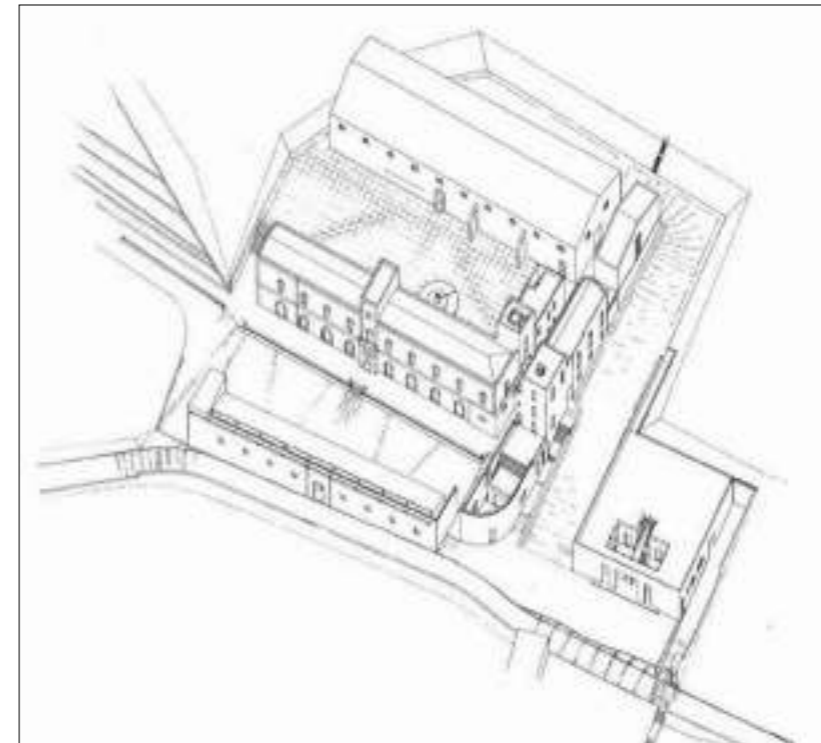


Fig. 2. Marcella Aprile, Roberto Collovà and Teresa La Rocca, Di Stefano Houses at Gibellina. Courtesy of Marcella Aprile.

are frankly ugly. They are really ugly we should not be ashamed to say it. They work badly, they are falling apart, and they are difficult to manage. How does a community of 5.000 inhabitants find resources, which must maintain an equivalent road network, in terms of square kilometres, of a city of 100.000 inhabitants? The reconstruction of the post-earthquake of Belice was a disaster of great proportions. Despite this, for some people, unfortunately few, including me, it was a field of experimentation and invaluable knowledge; but frankly, spend all these billions to train and to explain things to about twenty people, is a bit exaggerated, let us put it this way.

For example, let us talk about the Di Stefano Houses in Gibellina⁴ (Fig. 2). They are constituted by various parts. A residential area, an exhibition area, a library and a part that should be used as an atelier. In fact, the Di Stefano Houses should have been the system of all cultural activities at least in Gibellina, where, thanks to Ludovico Corrao and his personal knowledge, there is a great collection of works of art, both great works presented in the open air, and those in the museum. There is a truly terrific heritage that can only be maintained under one condition: that it yields money. If it does not yield anything, after a while there will be no more resources to maintain it.

Gibellina has received a remarkable amount of money for all of this activity. The Sicilian Region financed the theatre performances. This practice, which was also supported by money that came

⁴ The Di Stefano Houses complex was a farmhouse that, after the earthquake was designated as a museum and cultural centre. The project of the new destination is by Marcella Aprile, Roberto Collovà and Teresa La Rocca.

from various parts, had its own national and international positive feedback. Some people, as well as Inge Feltrinelli, for example, also doing a colonialist operation, came to observe this phenomenon as an entomologist looks at an ant with strange wings walking on the grass. The 'Gibellina case' was novelty. The example of the population of the South, called 'mafiosa, ignorant', but that was able to do some extraordinary things encouraged the left-wing intellectuals or pseudo-intellectuals to support Gibellina and to promote this phenomenon for a few years.

And in fact there were the results in terms of donated works of art, not only the great open-air sculptures, but also the collections that are inside the museum. After which this phenomenon has finished and Gibellina has passed into oblivion like all other things.

Di Stefano Houses are falling apart as well and, on the other hand, it takes money to maintain them. Every year the roof gutters must be cleaned; if they are not cleaned, after a while the water infiltrates because the gutters do not empty rainwater anymore. In Sicily, large quantities of water rain down, concentrating in a very short time. A building is irreparably ruined when is subjected to water infiltration; there is nothing left to do. In fact, the Belice villages collapsed because the houses were in poor repair. If they were in order, there would not have been the catastrophe that was in Gibellina, in Salaparuta, where everyone died because the roofs collapsed over their heads while they slept. In the reconstruction of Belice, billions were thrown away and badly used, not because of the Mafia, but because of the stupidity of the people, due to the ignorance of the State and local administrators. That of Belice was an experience that could have been an extraordinary opportunity to experiment and discover many interesting things. Actually, this event has thrown further discredit on this part of Sicily, because at the end the lack of development has not been blamed to a planning and management incapacity of the State *ab origine* but has been ascribed, as usual, to the mafia.

V.G.: When an architecture is realised, it lives an autonomous life, sometimes even independent of the visions of the architect. Have you always approved the use that has been made of your architectures?

M.A.: I think that the project must consist of two parts: a hard part, which is not discussed, that is and must be; a labile part, if it exists or does not exist, does not change anything, because buildings must live in time and must be able to transform. If they are able to transform themselves without losing their DNA, as happens to us, then the project is right if they have not been able, it is the fault of the architect who has not been able to do a good project. For what concerns me, since I think so, I am not at all surprised at the use that people make of the things I have designed. The only thing that always annoys me is the bad use of things, but the fact that they are transformed, absolutely not. Indeed, if I realise that something has changed over time but is still recognisable for what I had imagined, I am very happy.

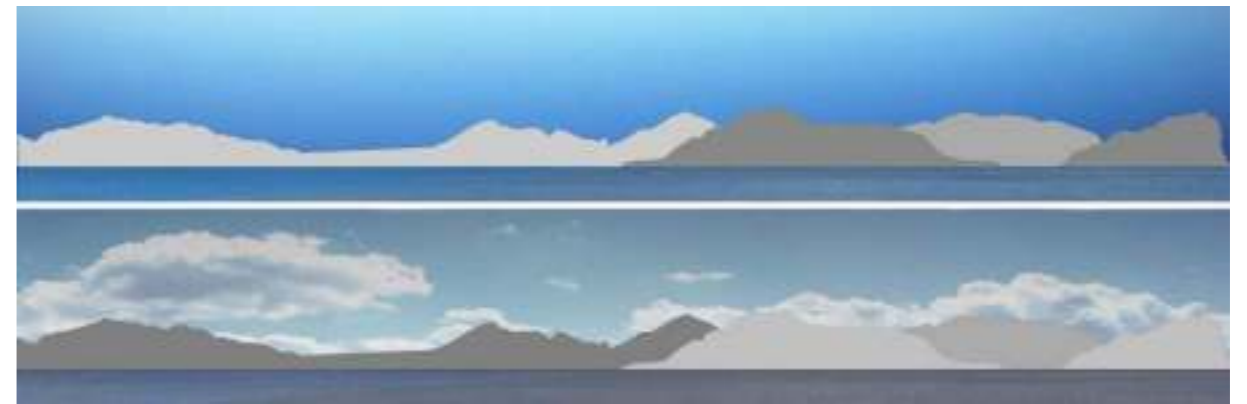


Fig. 3. Marcella Aprile, Gulf of Palermo seen from the sea at sunrise and sunset. Courtesy of Marcella Aprile.

V.G.: Which definition of architectural drawing is closer to your education and which definition would you give today to the drawing itself?

M.A.: I simply know that there are many ways to draw as architects. There is a private drawing, which should never be exhibited, which is what one does when he is starting to think about something, alone or in company, which is made up of notes, doodles. And this is a kind of extension of thought through the hand, much rougher than thought could be. Then there is another type of drawing, in which the architectural idea is represented with good motivations or because it must be illustrated to the client or because it must be used for the economic evaluation of the work. These different phases require completely different representation systems. The drawings useful to represent an architectural project must be aimed at the purpose for which they are born; otherwise, they do not mean anything. Then there is another aspect of the situation that does not concern this creative process, but instead concerns the quality of today's communication. And that is the fact that drawing has taken the place of architecture. Now it is so. None of us in his life can imagine going to see everything that has been done in the world. It is unthinkable. At this point, the representation of the thing is surpassing the real thing. This is an aspect of architectural representation mode, which I find deplorable. Because having very sophisticated tools for drawing does not allow us to be impostors.

V.G.: Alberto Sartoris said he imagined his architecture in axonometric projection. In your experience, what are the first sketches you make? How are they represented? What view, as we would say today, is privileged?

M.A.: It depends. What does it mean to think of an architecture in axonometric view, in perspective or in Monge's projection? They are methods of representation that you use because you have to transfer a certain purpose. Architecture is what it is; it is a building, neither in axonometry nor in

perspective view. It is what it is. There are times when, for example, I can find the key to the problem trying it in the plan, even in representation scales with very high denominator, because the problem is not the building itself, but a certain condition that may be far away, and so I need control over a large portion of territory that can only give me a plan, certainly not another vision. Sometimes, on the other hand, it is a particular, a specific thing, even a very small one, which activates a certain process. I have no idea, there is no rule from this point of view, but I do not believe anyone has it, even if he says otherwise.

V.G.: You wrote that, thanks to the use of increasingly sophisticated software, the renderings of the designed work and the pictures of the realised architecture are no longer distinguishable.⁵ This produces an alteration of the sense of reality favoured by renderings that are often more captivating than real architectures. In a world that leads us to be more and more virtual does it still make sense to say that architecture exists only if it is realised?

M.A.: In my opinion, yes, because, as I said before, you have the litmus test when the building is built. If it is used, transformed over time, modified, if this building holds and continues to maintain its identity, then you have done a good project and this can only be verified if the building is built. If it remains only on paper, it does not make much sense. It is also an interesting thing, a successful project but, it is well done if compared to what? Compared to an idea. Not compared to real life. So, I think the realisation makes the difference.

V.G.: Your comment on the way to do architecture today.

M.A.: Apart from the aspect related to the tools available to produce the project, not the architecture, there are no big differences compared to the past (Figs. 3 and 4). But the tools we use to represent our architectural idea condition the idea itself. The pencil is directly operated by the hand and the hand is part of our body. The production of architectural representation done with hands has a certain kind of characteristic. The pencil is not such a sophisticated tool that may influence our work beyond certain limits; the computer instead can, because it has a rather remarkable structural complexity. It is an extraordinary tool but it is very dangerous because it can lead us to make drawings that look finished but that in reality they are not at all, they are like those that could be done by hand when a project is inconsistent. In short, the pencil corresponds to the violin: if you cannot play the violin, you produce croaks and strange noises. The computer is like the piano:

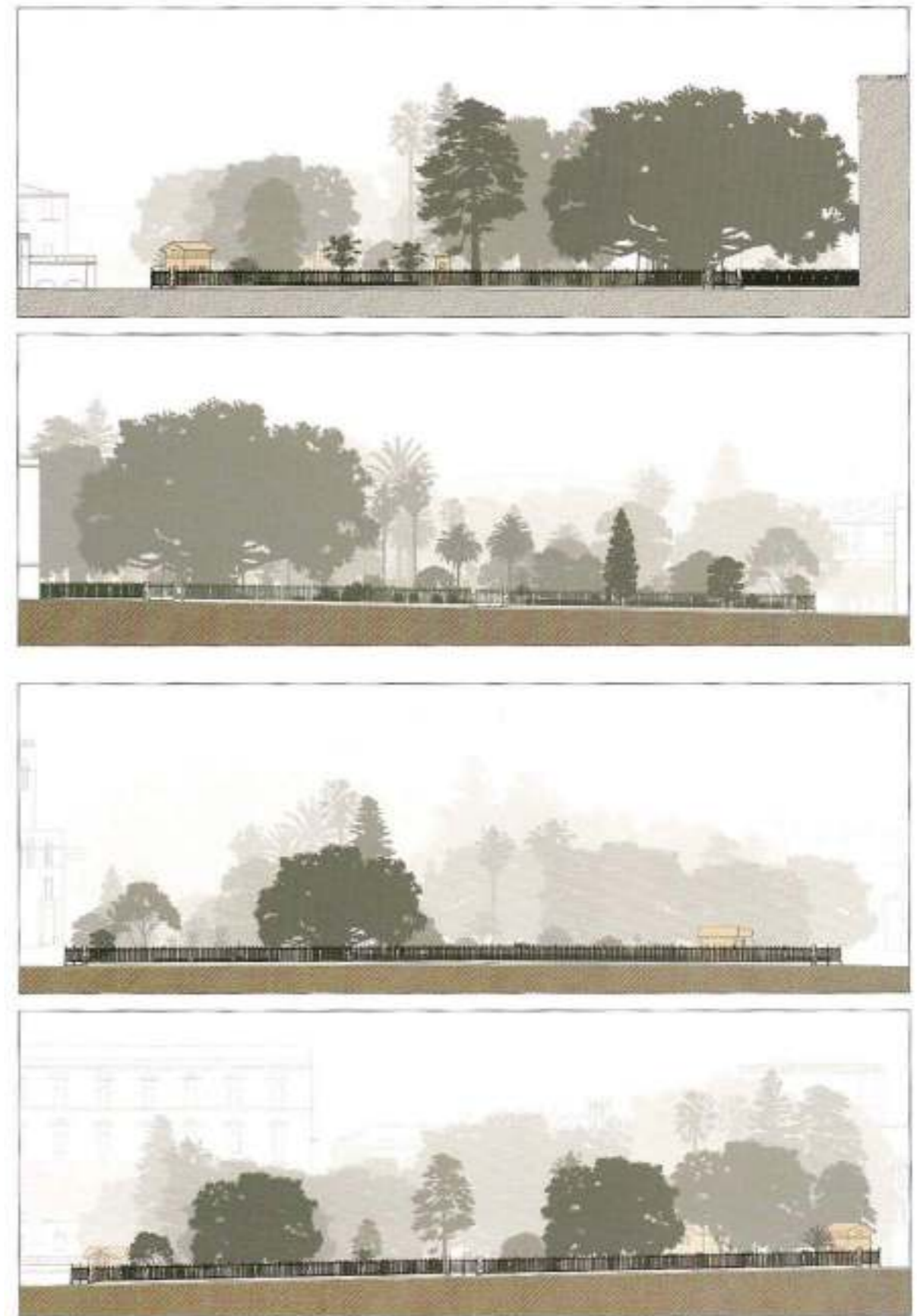


Fig. 4. Marcella Aprile, Sections of Garibaldi Garden at Palermo. Courtesy of Marcella Aprile.

⁵ Marcella Aprile, "Architettura e professione," *Per la qualità della formazione in architettura: Atti del V Forum dell'Associazione Nazionale dei Docenti di Progettazione Architettonica ICAR 14-15-16, Palermo, 13-14 novembre 2015*, edited by Vincenzo Melluso et al. (Roma: ProArch Associazione Nazionale Docenti di Progettazione Architettonica, 2016), 163.

anyone of us who presses a key produces a clear and precise note. If you have a musical ear, you can play something. With the violin it cannot be done. The structural complexity of the violin is equal to zero, but to build it and to play it takes a great capacity. The piano has a very high structural complexity, made up of many pieces; it gives an illusion that it is easy to play, which is not true, but apparently it gives you the feeling of knowing how to play, of knowing how to make music. The computer is exactly like that, it gives you the illusion that you are doing a project while in reality you are not doing anything.

Chapter B

Women's Legacy and Heritage: Protection, Restoration and Enhancement

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Modern Architecture as Cultural Heritage: Take Pictures, Describe and Demolish?

Let us open the chapter on modern architecture conservation with a bit provoking statement made by Carol Krinsky, an American historian of architecture. Back at the 2004 8th International Docomomo Conference in New York she stated, referring to the conservation of modern architecture at Manhattan, that sometimes the only alternative left is to document a monument well through pictures and description and then demolish it. By this statement, scandalous for a conservationist, yet rather acceptable for an architecture historian, she at once touched several aspects directly connected with the modern architecture heritage: research, evaluation, acceptance and conservation.

Nowadays, there are no doubts that modern architecture is part of history. Albeit historians and theorists of art and architecture still cannot reach an agreement whether Modernism can be regarded as a 'project' already completed or still unfinished, they can at least agree that works that originated during this period may be part of cultural heritage. A lively discussion on the characteristics of the Modern Movement, which may challenge e.g. the position of a work of modern architecture as a monument, is still ongoing. The Modern Movement carries in itself the potential of the original tension stemming from the approach of refusal towards the past and tradition. Modern authors designed their works with the vision of a new future and with a special emphasis on the originality of design. Thus, in particular when it comes to construction, the abstract architectonic form, change of scale and material, as well as solitaire urbanism now and then either contradicted or clashed with the traditional historical environment. This internal content 'associated with the fight between the old and the new, which always indicated a turn in the natural time flow, and which always generated the winners and the losers' is retained by the Modern Movement works even if these become part

of cultural heritage and a potential subject of conservation.¹ However, if we recognize such a work as a monument, this revolutionary content is legitimized and modern architecture no longer carries the above tension and thus perhaps loses the very essence of its modernity.

Another significant feature of the modern creation is the topicality reflecting the permanent evolution, which some theoreticians of that period interpreted as having temporary nature. Thus modern architecture was perceived as an answer to the needs of the relevant era. Both the authors and theoreticians admitted a change or even destruction of the work as possible, depending on the change of social situation. Recognizing a work of modern architecture as a monument automatically conserves a particular status and limits the possibility of its further development and change, whereby it, to a certain extent deforms its original message. A question arises: can a static monument mediate the dynamics of modern architecture that was thought of in terms of a living, changing organism? Then, can modern architecture with its inner disposition capable of contradicting the past, fulfil the role of reminding us of the past, at all? Are we entitled to regard it as a part of the history or tradition? Shouldn't we ask, similarly to Oliver Elsner in the introduction to the book *Eastmodern: [if there is] 'no past, no future'?*²

Simultaneously, one must also be reminded that Modernism has brought for the conservation a new perception of a monument as an 'aesthetic document, a testimony to the immanent art development... and an autonomous work of art'.³ It is exactly such perception of a monument as an expression of artistic creativeness that also may legitimize the conservation of works of the Modern Movement.

In the text below we will focus on the context of conservation of monuments and sites of the Modern Movement, explain the development of opinions on conserving the modern architecture monuments and attempt to identify the current trends in this area.

Modern Architecture Values

One of the founders of modern heritage conservation Alois Riegl described a monument as a 'set of values, which were ascribed to it in a particular historical moment and for particular reasons'. Generally, these values were divided to

commemorative (*Erinnerungswerte*), which consist of 'historical value' (*historischer Wert*) and 'age-value' (*Alterswert*) and the 'present-day heritage values' (*Gegenwartswerte*) that comprise 'use value' (*Gebruchswert*) and 'artistic value' (*Kunstwerk*). He also splits the artistic value into 'newness value' (*Neuheitswert*) and 'relative artistic value' (*relativer Kunstwert*).⁴

Which of these values, generally accepted until present, could be attributed to the works of modern architecture?

Similarly to the architecture of previous periods, modern architecture is a proof of historical context, a proof of certain processes and phenomena that took place in the twentieth century. Hence, its certain historical value cannot be denied. The first modern works of art appeared in the beginning of the last century and the oldest of them are now more than 100 years old. However, the youngest ones date to the 1980s and so they are just slightly over thirty. Consequently, the 'age-value' of modern architecture is not that definite. On the other hand, majority of such works still serves their original purpose and their use values are therefore incontestable. A high level of innovation and artistic ambitions of modern architecture indicate that the newness value and artistic value could particularly be the biggest strength of such architecture in their role of a monument.

Nevertheless, along with such academic specification of the modern architecture values we must not forget that any monument's character is not absolute but historically relative, as already emphasised by Alois Riegl. Monument acceptance is thus directly dependent on a particular historic and social situation. The fact that heritage conservation of modern architecture has been discussed for several years indicates that postmodern historical situation has relativized the clear message of Modernism, allowing the 'transgressions' of modern architecture towards historical milieu to be understood as part of complexity of the architectural development and not as a bad intention or wilfulness of a particular project or its author. Thus the postmodern approach and awareness of the complexity of a monument's values allowed more liberty in thinking of modern architecture as potential heritage sites.

The ongoing discussion among artists also plays an important role in the process of acceptance of modern architecture as monuments. Václav Richter an art historian from Brno, pointed out the nexus

1 Hannah Lewi used in connection with the modern architecture protection the characteristics of modernity according to Bruno Latour, *We Have Never Been Modern* (Harvester Wheatsheaf, Hemel Hempstead, 1991), 10 [first translated edition was published by Harvard University Press, Cambridge Mass. in 1993]. As cited in Hannah Lewi, "Paradoxes in the Conservation of the Modern Movement," *Back from Utopia: The Challenge of the Modern Movement*, edited by Hubert Jan Henket and Hilde Heynen (Rotterdam: 010 Publishers, 2002), 354.

2 Oliver Elsner, "Preface," *Eastmodern, Architecture and Design of the 1960s and 1970s in Slovakia*, edited by Hertha Hurnaus, Benjamin Konrad and Michael Novotny (Wien; New York: Springer, 2007), 9.

3 Ján Bakoš, *Intelektuál a pamiatka* [An intellectual and a monument] (Bratislava: Kalligram, 2004), 251.

4 Alois Riegl, *Gesammelte Aufsätze* (Augsburg: Dr. B. Filser, 1929), 144–193. As cited in Bakoš, *Intelektuál a pamiatka*, 124–125.

between such discussion and the topicality of a monument already in the 1970s.⁵ Accepting a work of architecture as a monument is thus an immediate reflection of the cognate relation between its architectonic concept and current architecture. This linkage is well illustrated by the current interest in the protection of the Late Modernistic architecture. The interest is to a great degree instigated by the contemporary architectural discussion, in which concepts of Late Modernism, such as monumentality, spatial complexity or the use of mono-materials, are frequent issues. Yet, works of Late Modernistic architecture present a source of inspiration for creative production nowadays.⁶ The criticism of Neoliberalism and a renewed interest in the social role of the state then raised interest in the mass housing production or social housing, as started up by the European avant-garde in the 1920s and was largely deployed by the post-war social states. Concepts such as minimal flat, house-commune or collective housing are not only an inspiration for architectural production of the present but also contribute to the conservation of structures built based on such concepts.

The monument's symbolic value as evidence of the past national history is directly linked to the then mood in the society. The Austrian conservationist Max Dvořák brought the perception of the heritage conservation as the expression of "patriotism" into the Central European environment already in the beginning of the twentieth century.⁷ Patriotic understanding of a monument's function was applied in the restoration of European towns after the Second World War and undoubtedly it has remained relevant since. Emphasizing the outstanding historical values and art values of the Modernism between the [two world] wars and linking it to national emancipation has been and continues to be a prerequisite for the conservation of modern architecture in successor states of the Austro-Hungarian empire, in Bohemia and Slovakia. Modernism is understood as an expression of authentic national architectonic culture also in Croatia, Slovenia or Serbia. Modern architecture may thus acquire the status of a symbol of national history.

On the other hand, however, there exist several argumentations casting doubt on the potential heritage values of modern architecture. In relation to the historical value of modern architecture one is typically reminded of social circumstances of its origin, of 'at what costs and how' it came to life.⁸ It is mentioned that the construction was often preceded by the demolition of a historical structure without any broader societal consensus, or as was willed by the political powers, which was the case of e.g. authoritarian regimes of the European Eastern Bloc. The exclusive and abstract

form, little understandable for broader public, generally considered to be 'non-communicableness' is referred to as another problematic moment in the process of recognizing heritage values in modern architecture.⁹ How could society be in accord to recognize art values in architecture which it does not understand?

Then, the newness value is also questioned. Modern architecture works, coming from the same principles of spatial layout and representation or architectonic form are called not authentic, generic, and lacking the artistic value. This reservation most frequently addresses the modern architecture of the second half of the twentieth century, mass housing or public buildings – a fruit of typified solutions and unification. Similarly, there is also tendency to marginalize the works outside the main centres of Modernism or works of marginal authors, inclusive of the works of women.

Most of such reservations are directed against the very essence of modern architecture and indicate that Modernism is still regarded as a vital, i.e. a dangerous concept. On the other hand, such reservations disclose that they alone stem from criticised modernistic positions and their justifications are based on perceiving the architectural history exclusively. They neglect the fact that it is just the peripheral deforming of central inputs and the construction approach determined by local circumstances that give such works their uniqueness and justify them as monuments. Modern architecture has never manifested as a homogeneous architectural style but as a heterogeneous design work, determined by local social, cultural and material conditions. The postmodern view of its values takes full account of this architecture's feature and besides the absolute criteria of style canon it precisely values the regional modifications, besides adoring the apogee production of centres it respects and appreciates the specifics of peripheral development and their complementarity to the development in centres. In such a context the modern architecture appears to be a unique product of locally specific situations and as such it undoubtedly deserves to be conserved.

Take Pictures, Describe... or the Role of Historians in Relation to the Architectonic Heritage of Modernism

The work of architecture historians is exceptionally important with respect to the identification and specification of modern architecture's values. Architectonic-historical research that is the above 'take pictures and describe' stands for the basis for future potential heritage conservation or, in the worst case, for the certainty that a work will not be completely forgotten but at least it will be preserved for the future in its archived documented form.

5 Bakoš, *Intelektuál a pamiatka*, 192–193.

6 Using historical examples in his book, the relationship between the current society-driven demand and the potential monuments were also pointed by Bakoš, *Intelektuál a pamiatka*.

7 Max Dvořák, *Gesammelte Aufsätze zur Kunstgeschichte* (München: R. Piper & Co., 1929), 253. As cited in Bakoš, *Intelektuál a pamiatka*, 133.

8 Alex Tahy, "Metropola verzus provincia?" [Metropolis vs. province], *Arch* 12, no. 1 (2007), 57.

9 Ibid.

As underlined by Hilde Heynen, an architecture historian from the Leuven Catholic University, in her introductory address at the 2008 Docomomo conference in Rotterdam, monuments are those buildings that politicians have designated as such, usually on the advice of committees of experts.¹⁰ These experts, however, base their advice in the work of architecture historians, because this is what brings justifications to legitimize the designation of certain buildings as monuments. Part of the job is to separate the potential monuments from standard constructions of that period. Nevertheless, works which were not subject to such architectonic-historical reflection are sometimes designated as monuments. It is mostly when other aspects prevail, e.g. their 'age-value' – the oldest house in the town, or social value, as is the case of memorial sites, for example Auschwitz. It almost definitely holds true for modern architecture that it becomes a monument only when this is confirmed by the architectonic-historical research.

As regards the reflection of modern architecture from the perspective of historiography, the first international exhibition of architecture at Biennale di Venezia *Presence of the Past* in 1980 can be considered a milestone. After two decades when Modernism was permanently exposed to strong criticism, room was opened right at the exhibition (as a paradox coming in parallel to the announced triumph of Postmodernism) to accept Modernism both as a part of cultural heritage and a still vital architectonic concept. One of the active players in this twist of ideas was undoubtedly the American historian and theorist of architecture Kenneth Frampton. Albeit he renounced the position of becoming one of the visiting exhibition curators in 1980, nevertheless, his work significantly contributed to the new historiographic thematization of modern architecture.

All the same, most countries or regions had their pioneers of historical research of modern architecture at that time. Let us mention at least Friedrich Achleitner, Austria, Jean-Luis Cohen, France, Vittorio Magnano Lampugnani, Italy, Winfried Nerdinger, Germany or Dennis Sharp from Britain. Their works were the first consistent piece of information about the top outstanding works of modern architecture. They objectively assessed Modernism as a historical period and not as a viewpoint to be defeated. It was the modern historians of architecture, who contributed to modern architecture works making it to the lists of cultural heritage sites. In majority of European countries these were listed already in the 1960s, but Modernism as cultural heritage became to be accepted on a larger scale by the architectonic environment only in the eighties. Since that moment onwards, systematic exploration in the field of modern architecture in terms of terrain and archive research, documenting and passportization of monuments of works has begun. A focused interest

of architecture historians in the Modern Movement caused that majority of countries had at least elementary literature mapping the history of the movement developed in the 1990s.

Modern Architecture in the DOCOMOMO Agenda

The request to restore or adapt the Modern Movement architecture began to appear with more frequency at the same time. Towards the close of the last century, the first outstanding works of Modernism had been in use for around seventy years and necessitated a more substantial restoration. Many no longer served its original purpose and demolition was impending. The need to confront the views on monument restoration of Modernist works in the Netherlands lead to an initiative in 1988, which resulted in the foundation of the International Committee for Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement (DOCOMOMO). Docomomo activities are officially stipulated by the Eindhoven Statement adopted at the founding conference in 1990. It outlines the basic roles of the organization, which are as follows: bring the significance of the architecture of the Modern Movement to the attention of the public, the authorities, the professionals and the educational community; identify and promote the surveying of the works of the Modern Movement; promote the conservation and (re)use of buildings and sites of the Modern Movement; oppose destruction and disfigurement of significant works; foster and disseminate the development of appropriate techniques and methods of conservation and adaptive (re)use; attract funding for documentation conservation and (re)use; explore and develop new ideas for the future of a sustainable built environment based on the past experiences of the Modern Movement. The organization and its national working groups reviewed and documented hundreds of works of the modern architecture, nowadays comprised in the Docomomo international register.¹¹

Papers and discussions at Docomomo conferences, seminars or articles in the Docomomo Journal are a valuable record of how the opinions on the twentieth century architecture and its possible heritage conservation have developed. Let us at least mention the turning point in the history associated with setting out the organization's goals: first embracing the works from the period between the wars, but expanded after 2004 to include the post-war architecture, the so-called Late Modernism;¹² or the gradual change in the perception of restoration of the works of modern architecture, which manifested around 2008 and was reflected by *The Challenge of Change*

¹⁰ Hilde Heynen, "Myth, Authenticity and Lived Practices – Introduction," *The Challenge of Change: Dealing with the Legacy of the Modern Movement: Proceedings of the 10th International DOCOMOMO Conference*, edited by Dirk van den Heuvel et al. (Amsterdam: IOS Press, 2008), 101.

¹¹ The selection of buildings, sites and tours of the Modern Movement around the world is available in frame of the Docomomo virtual exhibition – MoMove, <http://exhibition.docomomo.com/> (accessed April 9, 2018).

¹² Hubert Jan Henket and Hilde Heynen, *Back from Utopia: The Challenge of the Modern Movement* (Rotterdam: 010 Publishers, 2002).

conference.¹³ The associated discussions and articles illustrate a more liberal and differentiated dealings with the legacy of modern architecture and present various degrees of maintenance, restoration or adaptation.

However, architecture historians and architects organized in Docomomo International do not limit themselves to the research 'only', they also initiate and carry out restoration of Modernistic monuments. It is precisely members of this organization who are behind the most remarkable restorations.

Heritage Conservation of Modern Architecture and its Paradoxes

The conservation of modern architectural heritage is straight away impacted by the manner and extent of legislation protection, which directly depends on the national conservation strategies. This shows the different developments that have taken place in individual countries concerning the modern architectonic heritage. Whereas the conservation of architecture from the first half of the twentieth century is obviously part of work of European national heritage authorities, the relationship to the architecture from the second half of the twentieth century is by far that definite. The United Kingdom, the Netherlands or Germany started the documenting and conservation of sites and monuments belonging to the post-war modern architecture already at the end of the twentieth century. Hence nowadays, these countries count hundreds of works of the post-war Modernism conserved as monuments, with many of them already successfully restored. The situation in most countries of the former communist bloc is completely different; here such architecture is still associated with the ideology of the then regime, and thus rejected not only by the public but also by conservationists. In the context of the situation in the Czech Republic, a Czech architecture historian Rostislav Švácha warned before the danger of 'extinction of an entire significant line in the modern history of Czech architecture'.¹⁴

Monuments and sites are an extraordinarily heterogeneous family that requires a sensitive, differentiated approach. The decision about which of the many works is about become part of this family needs a prior broad discussion of professionals. However, at the end of the day, it is the heritage authorities that decide on the heritage site status. Those are, for many understandable reasons, reserved when it comes to extending the lists of monuments. They keep established

practices and refuse to declare monuments under pressure of an imminent danger for the sites. It is a comprehensible and acceptable approach, since it is the work's values that are decisive for it to be declared a monument and not the danger of demolition. Nonetheless, several remarkable works of modern architecture fell sacrifice to such a principled approach. Let us mention at least the former *Považská banka* building in Žilina, Slovakia (Friedrich Weinwurm – Ignác Vécsei, 1930, demolished 1996), *Expo restaurant* in Bratislava's Koliba hill, Slovakia (Stanislav Talaš – Vojtech Vilhan, 1967, demolished 2005), the *Palace of the Republic* in Berlin (Heinz Graffunder, 1976, demolished 2008), *Ještěd shopping mall* in Liberec, Czech Republic (Karel Hubáček, Miroslav Masák, 1979, demolished 2009), the '*1300 Years of Bulgaria*' memorial in Sofia (Valentin Startchev, 1981, demolished 2017), *Hall of Nations* and the four Halls of Industries in Delhi, India (Raj Rewal, 1972, demolished 2017) or the recently approved demolition of the *Notre Dame de l'Espérance church* (Pierre Genton, 1964) in Villeurbanne nearby Lyon, France or the residential complex *Robin Hood Gardens* in London, UK (Alison Smithson, Peter Smithson, 1972), whose demolition started in December 2017.

In this context, it is worthwhile to mention the fact pointed out by Rem Koolhaas in his *Cronocaos* project during the 12th international exhibition of architecture at Biennale di Venezia in 2010. According to Koolhaas, the number of heritage sites worldwide is growing so hugely that it may paralyze the development of current building production. The focus is mainly on older works, while the building heritage of the second half of the twentieth century has long been lacking attention and keeps disappearing without trace. This leads to a phenomenon that Koolhaas calls *Cronocaos* (chronological chaos).¹⁵ Definitely, winning an entry in the heritage fund's central list should not be considered the only tool for conserving the architectonic heritage.

However, being listed as a monument does not guarantee any respectable future for a modern architecture monument. The heritage site status does not mean the work may be not be dealt with, it only ensures that it should be dealt with in a way preserving the values for which it had been declared as such. The difference in opinions on what is to be preserved and how among those involved in the monument protection process has persisted for more than 100 years. The dispute between two different worlds of values, in which one defend the primacy of historical knowledge and others the right to artistic creation, is even more visibly manifested in the case of modern architecture buildings. The architects and architecture historians are well described by a situation from a conference, where both groups discussed the modern architecture conservation. Their mutual misunderstanding was reasoned by one of the historians present by saying that the relationship of architects to history is problematic because history is a discipline with a very narrow

¹³ Dirk van den Heuvel et al. (eds.), *The Challenge of Chang: Dealing with the Legacy of the Modern Movement: Proceedings of the 10th International DOCOMOMO Conference* (Rotterdam: IOS Press, 2008).

¹⁴ Rostislav Švácha, "Průkopnická rekonstrukce průkopnické stavby," [A pioneer renovation of a pioneer building] *Stavba* 10, no. 1 (2003), 50–51.

¹⁵ Rem Koolhaas et al., *Cronocaos*, http://www.oma.eu/index.php?option=com_projects&view=portal&id=1260&Itemid=10 (accessed April 9, 2018).

specialization and deep focus, while architecture is broad and shallow. The broad and shallow focus of architecture fully corresponds to a slightly carefree attitude of architects to monument restoration or further artistic make-up production of them. The overall artistic impression of the monument would probably be always more important for an architect than preserving its authenticity or historical value.

The controversy between the historical and the artistic is also demonstrated inside the heritage conservationist circles where it directly impacts the interpretation of the monument: which is once perceived as historical evidence and then as a work of art. Yet, the present refusal to recognize monuments of modern architecture reveals the preference of historical values over the artistic ones. This approach of conservationist circles is also confirmed by the imbalance between the relatively high numbers of structures from the 19th century, often of simply average art values, and a low number of works of modern architecture entered in the lists of immovable cultural heritage.

This strictly formulated opinion to prefer the historical over art values is side-lined in the process of dealing with modern monuments. With them a bigger emphasis is suddenly placed on the monument's overall 'artistic' impression than on the historical value of individual original materials or components. The overall impression of originality, often designed by some current architect, then takes its toll on the original historical concepts, details, materials or colour scheme. A modern architecture monument thus completely loses its commemorative values and becomes a mere demonstration of a current vision of Modernism. Even more peculiar situations occur where original architects actively enter the monument restoration process and try to restore it to such a condition which they were unable (for whatever reasons) to achieve at the time of its creation. So the interest in the monument competes against the conviction about the purpose of ongoing modernization and in result it may cause destruction of the monument instead of its conservation.

The opinion that the aesthetic concept is the decisive value regarding modern architecture as a monument prevailed until the end of the last century.¹⁶ In the beginning of the twenty-first century, the emphasis on the original materiality in terms of volume of the structure and its transformation in result of aging started to be gradually pushed forward in the field of modern architecture monuments restoration.¹⁷ Other equally relevant categories reflecting the social dimension of the architectural work, individual author's representation or, quite the contrary, the degree of design reproduction,

as well as its social and economic sustainability are nowadays also considered.¹⁸ It is right in this context where the exploring of such mechanisms for restoration or maintenance that would ensure a long-term sustainable and fully functional existence for a modern architecture monument while preserving its original identity, gains a special position. The sustainability questions are associated with the present examination of possibilities for permanent monitoring and subsequent maintenance of architectonic works, as the most effective tool to conserve architectonic heritage of the twentieth century, that are framed by the international initiative PRECOMOS (Preventive Conservation, Maintenance and Monitoring of Monuments and Sites) working under the UNESCO auspices.

Adaptation of Modern Architecture Monuments: from Romanticism to Science

The level and extent of knowledge about the modern architecture works, their acceptance by society and monument heritage conservation by legislation is directly reflected in the manners of their maintenance, restoration or adaptation. Let us attempt to outline certain tendencies which have manifested in this field during the last three decades. The first interventions in the sites of modern architecture that could be, with a kind of licence, regarded as monument restoration date back to the end of 1980s. These were associated with enthusiasm about re-discovering of Functionalism and free handling of the historical message, inherent to postmodern circumstances. The works of modern architecture were perceived mainly as objects embodying the artistic opinion of Functionalism. The way of restoration was corresponding to it: focusing on the restoration of the work's original visual impression, or its making-up to such impression. Motives behind such approach were often romantic, conditioned by the then admiration that architects had for functionalistic architecture. Modern architecture adaptations were often associated with the removal of a significant part of structural volume, preserving the load-bearing structures only. Such a romantic approach motivated by certain honours paid to Functionalism has step by step changed to a pragmatic replacement of the original functionalistic architecture by its modern imitation. Similar approach was applied in adaptations or restorations of several outstanding works of the Modern Movement in Europe towards the close of the last century. Let us mention the restoration of the Seeber mountain hotel in Hall, Tyrolean area (Lois Welzenbacher, 1936, restored by Dietmar Henke, Marta Schreieck, 2003), which after several restorations was in the danger of demolition at the end of 1990s. Thanks to a campaign of local architects it could finally be restored to the

16 Hermann Nägele, *Die Restaurierung der Weissenhofsiedlung 1981 – 1987* (Stuttgart: Karl Krämer, 1992); Ignasi Solà-Morales Rubio, Cristian Cirici and Fernando Ramos, *Mies Van Der Rohe: Barcelona Pavilion* (Barcelona: Gustavo Gili Publisher, 1993).

17 Thomas C. Jester, *Twentieth Century Building Materials: History and Conservation* (Washington DC: McGraw-Hill, 1995); Iveta Černá and Ivo Hammer, *Materiality* (Brno: Muzeum města Brno; Horneman Institut, 2008).

18 Teresa Patricio, Koen van Balen and Krista De Jonge, *Conservation in Changing Society: Heritage and Development* (Leuven: Raymond Lemaire International Centre for Conservation, 2006), 191–198.

shape it had shortly after its opening in 1930s. Again, what has been preserved from the original building were only the load-bearing structure and main staircase with handrails. Other components were restored based on original technical drawings and photographs. Where the present standards required other details or materials, or the original elements could not be identified, modern solutions were used. The *Park Hotel* of today can be related to the original *Seeber Hotel* mainly in appearance. In a way it is also a romantic tribute to the architect Lois Welzenbacher, who was a phenomenon unique in the context of Austrian architecture.¹⁹

A certain shift that has transpired in the course of the last two decades is characterized by a gradual overlapping interests in material substance and the use of e.g. restoration techniques also in restoring of modern architecture. Still, the tendency to modernize a building so as to cover all consequences of its previous existence, traces of age or aging, remained. Hence, one of basic dilemmas regarding the restoration of modern architecture buildings and sites has continued to manifest, as if stemming right from its ideological base. Since its very beginning, modern architecture has defined itself as new, exclusive and physically perfect. Thus, in terms of permanent evolution, which Modernism expected, it was perceived as a topical answer to the needs of the era and it was assumed it would only serve its function for a limited period of time. Monument restoration respecting the manifestations of aging of physical aspects of an architectonic work thus faces misunderstanding not only among architects but also often at the side of representatives of heritage conservation, who consider 'newness' to be an integral part of modern architecture.

Thanks to a whole array of architectural and historical reflection on the Modern Movement, a period longer than half a century from the birth of modern architecture, generally liberal moods of the postmodern society and also the ever growing popularity of the Modern Movement among laymen, in the beginning of the 21st century, the Modern Movement architecture was able to position itself as the object of interest among collectors and stand for certain representation of social status. However, the dilemma of 'refurbish' versus 'restore' has persisted.

A way out from this situation was indicated by a trend, originating in the country having perhaps the broadest experience in the conservation of modern architectural heritage, the Netherlands. It illustrates that the efforts to preserve the original, restoration techniques or even respect towards the manifestations of aging may be contained in the approach to modern architecture conservation. An excellent example of such strategy is the conservation and restoration of *Zonnestraal Sanatorium* in Hilversum (Jan Duiker, 1931, restored by Wessel de Jonge, Hubert Jan Henket, 2002) awarded the Modernism Prize, by the World Monument Fund/Knoll company in 2010) or the restoration

Van Nelle Factory in Rotterdam (Leendert van der Vlugt, 1931, restored by Wessel de Jonge, 2008), where the architect's work was recognized by a prestigious Europa Nostra Award 2008, for the first time awarded for modern architecture restoration.²⁰ Now, several trends may be observed in the restoration of the Rotterdam tobacco factory, which characterize the nowadays approach to modern architecture monuments. First of all, it is a focused search for such functional content that be in harmony with the original architecture. Wessel de Jonge already tested this procedure in the Zonnestraal Sanatorium, where they had to look for an investor with such intention for the building's use that would allow the restoration inclusive of its original subtleties. He applied the same approach to the factory, and again for the developer he successfully found such an alternative of use that enabled to preserve the object in the shape most approximating the original design. Another trend is the respect towards the elements of aging. Original factory elements were repaired, restored or even kept in their current damaged condition. Modern solutions were only applied where the function required so—such as sanitation or new office units. In the context of current trends in restoring the monuments of modern architecture we should not neglect the one exemplarily applied in recent years in the restoration of Bauhaus building complex in Dessau (Walter Gropius, 1928, restored by Hans-Otto Brambach, Ruggero Tropeano, Johannes Bausch, 2006).²¹ It respects and protects the layers the building acquired during the years of its use, including any construction intervention or work. The *Bauhaus Building* was not restored to its original shape from 1928 using a purist approach, but where required by circumstances, its adaptation from the 1970s was made anew.

One of the most discussed heritage conservation topics at present is the preservation of authenticity of the original work, its furnishings or the surrounding environment. In this context, along with questions about architectural material and technology, the influence of growing demands on energy sufficiency and overall environmental performance of buildings, their legitimacy and meaningfulness in relation to the monument restoration of modern architecture works is ever more frequently discussed. The issue of neoliberal exploitation of a town is also gaining foreground. Such exploitation not only poses a direct threat for the Modernism monuments but also enables the privatization of public spaces which are an integral part of modern urbanism. One of the founders of this organization, a British architect John Allan, also drew attention to the privatization of public spaces and commercializing of every unoccupied space at the 14th International Docomomo

²⁰ Find more on the above examples in Wessel de Jonge, "Zonnestraal: Restoration of a Transitory Architecture," *Proceedings of the Seventh International DOCOMOMO Technology Seminar* (Vyborg: docomomo international, 2003); Joris Molenaar, Frank Kauffmann and Anne Mieke Backer, *Van Nelle Monument in Progress* (Rotterdam: De Hef 2005), 287; Theodor Prudon, *Preservation of Modern Architecture* (Hoboken: Wiley, 2008), 592.

²¹ Monika Markraft, *Archaeology of Modernism: Renovation Bauhaus Dessau* (Berlin: Jovis Verlag, 2006).

¹⁹ Henrieta Moravčíková, "Jedinečné spojenie klasickej a novej modern," [A unique union of the classic and new Modernism] *Arch* 8, no. 9 (2003), 20.

Conference.²² He encouraged to protect the social dimension of *modernistic* ideas of the public and the open, to protect spaces as such. The danger of a fundamental change in the idea of a modern housing estate, from a collective one to a neoliberally individually personalized one, precisely in result of current restoration strategies was advised among others by the Danish architect Paul Sverrild, at the same event.²³

The question of dealing with the twentieth century architecture that is not subject to heritage conservation is also discussed in the context of universal requirement for sustainability in construction, as such architecture globally presents the historically most extensive tangible heritage. Coming to terms with this heritage, either through adaptation, new use or reuse, or restoration, will be making an ever larger group architects busy in the nearest future. Once again, the meaning of critical evaluation and classification of works comprised in the architectural heritage of the twentieth century comes to the forefront in this connection, as does the differentiated approach to their restoration and new use. Unprotected buildings or ensembles may likewise present the valuable potential for reuse, less demanding financially and energy-wise. A question arises: what in fact are the priorities like today as regards the conservation of the Modern Movement architecture? Is it about the conservation of the most iconic works of Modernism in their authentic shape or are we rather interested in preserving structural and spatial frameworks that will continue to carry the social significance of these works? Examples of current accomplished restorations indicate that the issue of authenticity is precisely the most exciting topic with any restoration and that the preservation of structure or materials in their original form should always have focal attention.²⁴ This principle is, however, defied by several typological categories, closely linked to the Modern Movement; mass housing being the most striking example. Most justifications defending the natural life of these structures, including the alterations and changes the life brings, come from the circles of conservation of the mass housing construction. It is rather the idea of original design in its social meaning than the work's physical substance which comes into focus in this context.

New Challenges and New Strategies

The economic crisis and a permanent decrease in both public and private investments into areas with little appeal for the power players, such as monuments, stimulated a change in the behaviour of entities operating in such a marginalized field. The traditional methods relying on institutional support from either state or local authorities turned out to be problematic, not only due to the lack of public financial sources but also due to the rigid rules represented by these institutions. Therefore, alternative strategies have appeared on the scene in the second decade of the new millennium, often generated by the environment of activism with its characteristic open hybrid methods of planning, financing and implementation of projects.

The restoration of modern architecture monuments, especially post-war modernism monuments, constitutes such a still-marginalized area, although maintaining a well-rounded layered material presupposes the integration of the architectural heritage of the last century into both universal and local strategic planning. However, to achieve that, not only the attitude of the public to the heritage but, first of all, the attitude of the representatives of the academic circles and monument conservation institutions needs to be 'updated'. The pre-requisite of the change in the attitude is a change in how this architectural heritage is perceived. A shift in this perception has occurred, from the interest in an exclusive, representative sample of the international elite culture towards peripheral, trivial phenomena that represent the old structures, abandoned or as-yet undiscovered architectural works, complexes, or even whole estates, from pre-planned comprehensive restoration approach to ad hoc solutions. It is somewhere here, in the deep natural interest in these 'non-exclusive' topics and 'non-academic' procedures, where the origins of the new approach to handling the Modern Movement can be found. However, besides the persistent effort to preserve the historical form, space, layout or materials, an equally important struggle is taking place, for preserving the social content of Modern Movement architecture. As part of the exposition *Cronocaos*, Rem Koolhaas has already called attention to the general tendency to eliminate the social aspects of Modernism projects.²⁵ Several papers presented at the 14th International Docomomo Conference also emphasized the need to preserve the social aspects of Modern architecture and urbanism.²⁶ The problem becomes prominent mainly in the adaptation of modern towns, restoration of mass housing complexes, public buildings or public spaces. Though the process of restoration accompanied with the privatization of public and commercialization of every open space might result in the preservation of the form as such but it also causes the loss of the essence of a work of architecture and thus also the loss of its (key) value as heritage. So, not only the conservation and presentation of historical forms but also the way of functioning of these historical structures gain in importance.

22 John Allan, "Joining the Past with the Future: The Rescue and Adaptive Reuse of St Peter's Seminary, Scotland," *Adaptive Reuse: The Modern Movement towards the Future: Proceeding from docomomo 14th international conference*, edited by Ana Tostões and Zara Ferreira (Lisbon: Docomomo international – Casa da Arquitectura, 2016), 356.

23 Paul Sverrild, "Brøndby Strand to Grønby Strand," *Adaptive reuse*, edited by Ana Tostões and Zara Ferreira, 383.

24 Andrea Canziani, "Between Theory and Practices in the Conservation of Modern Heritage," *Adaptive reuse*, edited by Ana Tostões and Zara Ferreira, 729.

25 Koolhaas et al., *Cronocaos*.

26 Ana Tostões and Zara Ferreira (eds.), *Adaptive reuse: The Modern Movement towards the Future: Proceeding from 14th international docomomo conference* (Lisbon: Docomomo international – Casa da Arquitectura, 2016).

New strategies for preserving the Modern architectural heritage that are somewhere in the area between activism, squatting and curatorship, offer an effective alternative to neoliberal exploitation of urbane and natural environment. Their common denominator includes lower financial requirements but a high level of personal involvement of the people involved in the restoration. Experts, such as architects, art historians or renovators are involved not only in the process of planning of the restoration, but also in creating strategies for the functioning of an architectural work, into its physical rendition and in the direct financing of the restoration. Sponsors, volunteers and other visitors play active roles not only as financiers or users, but they directly participate in the process of conservation and restoration, thus influencing the physical form of the work. The representation of the work is then born from the 'creative struggle' of these parties, as the process was named by one of its direct participants.²⁷ An architectural design and the functional programme of an object determine each other. With this characteristic of theirs, together with the intentional incompleteness or openness, the new strategies of conservation and restoration differ from the institutionalized ones. We have managed to specify three types of strategies within the current practice, that are repeated quite often in relation to the conservation, revitalization and restoration of both Modern and Industrial architecture.²⁸

The first type of strategy perceives restoration as an open project, *Opera aperta*. Although the restoration process occurs in accordance with a certain vision on which the architect, a heritage conservationist and the owner agree at the start, during its implementation the vision is adapted depending on the changing function programme, the results of the architectural, historical and renovation research conducted at the same time and also on the potential financial resources offered, such as various funds or donors, but also manufacturers or construction materials or service providers willing to participate in the restoration. It is not possible to determine the final rendering of the work or the time of completion of the restoration. A good example of such an approach is the building of *Banco Nacional Ultramarino* in Lisbon (Cristino da Silva, 1952) which has been undergoing a gradual restoration for the needs of the *MUDE* (Design and fashion museum) since 2009 by architects Ricardo Carvalho and Joana Vilhena MUDE, with the participation of the curator – director of the museum Bárbara Coutinho. The liberal method of functioning of the building is in accordance with the fact that the building has been permanently under construction. The *Neological Synagogue* in Žilina (Peter Behrens, 1931) has been undergoing a similar restoration process and since 2011, it is being adapted into an independent cultural centre New Synagogue. Although architect Martin Jančok is responsible for the architectural aspects, the director of the

centre Marek Adamov and the curator Fedor Blaščák have an equal say in the project as well. The fact that the building was open to the public long before the official opening and that the works on its restoration have not stopped even after their official completion is a typical phenomenon. The continuously changing form of the work corresponds with this 'fluid' functioning.²⁹

A certain variation of this strategy is demonstrated e.g. by the re-use of the former printing house *Mladinska knjiga* in Ljubljana (Savin Sever, 1966). The conserved structure of the industrial hall constitutes a framework for building interventions of designer studios and architectural offices that change in accordance with the current requirements regarding space. Thus, it is a free continuation in the experience from the superbly successful renovation of the Van Nelle Factory in Rotterdam that currently functions as a creative hub.

The second type of strategy stems in social activities tied to the location which influence its anarchistic architectural or urbanist development. The basis of this strategy is the illegal occupation of an endangered architectural heritage site with the objective of the site's preservation, new use and renovation. Squatting thus becomes an instrument for the protection of public interests in precedence to particular speculative construction interests. This method is most often implemented in the environment of industrial architecture suffering from long-term neglect, but there are also known cases when historical buildings or whole complexes in town centres were occupied, such as *Cinema America* in the district of Rome called Trastevere (Angelo di Castro, 1954) or Gängenviertel in the centre of Hamburg, to mention just a few. The success of this strategy depends, to a great extent, on a wider-scale social support and on the ability to transform the illegal activities into legal ones. However, the fact that is not an easy thing to do can be evidenced by dozens of unsuccessful or only temporarily successful projects such as the aforementioned theatre in Rome that the activists had to vacate in 2014, after two years of successful operation, and its fate is not clear up to the present day.³⁰ Another as-yet unsuccessful initiative is the conservation of the former canning factory *Massó* in the Spanish town of Cangas do Morrazo, which, besides the occupation of a part of the buildings included also a series of civil and cultural events, including an educational trail.³¹ However, Gängenviertel in Hamburg is a proof that anarchistic development can be successful and beneficial not only to architecture and a specific community but to the society as a whole. Nowadays, the picturesque structure is a legal vital community, successfully gradually renovating individual buildings and creating remarkable culture at the same time. The restored building of

29 Peter Szalay, "New Practice? On the Process of Preservation of Peter Behrens's Synagogue in Žilina," *Adaptive reuse*, edited by Ana Tostões and Zara Ferreira, 871–876.

30 Occupation of the American Cinema in Roma <https://americaoccupato.org/storia/> (accessed September 6, 2016).

31 Eva Maria Hierzer, "Squatting the City: An Anarchistic Urban Development for the Former Canning Factory Massó," *Adaptive reuse*, edited by Ana Tostões and Zara Ferreira, 883–889.

27 Peter Lényi (ed.), *Design Handbook for Cultural Centres* (Žilina: Stanica Záriečie, 2014).

28 Henrieta Moravčíková, "Reuse as Activism: Towards Hybrid Strategies of Curating and Preservation of Modern Architectural Heritage," *Adaptive reuse*, edited by Ana Tostões and Zara Ferreira, 868–870.

the former factory Fabrique that was opened in March 2016, is now a symbol of success of the anarchistic development and a sought-after creative centre.³²

The third type of strategy is based on communicating the architectural heritage values to the users of the heritage via interactive communication tools. Such a strategy is applied predominantly in relation to architectural heritage that is not deemed to be exclusive. Examples could be found in mass housing from the second half of the twentieth century or some iconic works of Modernism, oversized and insensitively placed in the original historical structure. In case of large mass housing complexes with a high number of inhabitants and, oftentimes, also with a problematic social situation, the communication of values is crucial. It mostly starts with the legitimization of the heritage in the eyes of the inhabitants themselves. In relation to the aforesaid, the oldest initiatives of this type can be mentioned, in the former East Germany towns (Berlin, Dresden), where the heritage of concrete buildings became an interesting topic already in the 1990s. The values of housing developments were communicated to the general public also by the Prague project with a characteristic title "Vetřelci a volavky" (Aliens and Herons) or the "Bratislava project" Expedícia Panelstory (Panel-story Expedition).³³ A continuation of this 'story-line' are for example also the current initiatives in Vilnius that combine the vertical and horizontal communication of experts and the public.³⁴ This strategy has been efficiently implemented by Slovak workgroup DOCOMOMO with respect to the hotel and department store at Kamenné námestie. Since 2007, when the owner announced for the first time the demolition of the complex of buildings, the members of the workgroup have organized excursions, discussions and lectures whose objective was to inform the public about the extraordinary values of the work. The meaningfulness of the strategy has been confirmed also by the fact that the buildings have resisted the demolition for 10 years and the number of the areas that serve their original purpose has even increased. The creation of an educational trail in the building of *Slovenský rozhlas* (Slovak Radio) can be considered to be the latest application of the strategy (Štefan Bekeš, Boris Meluš, Peter Szalay, 2016). It seems that informed and knowledgeable public can, after all, be the strongest player in the process of conservation of Modern architecture monuments.

32 Das Gänge Viertel <http://das-gaengeviertel.info/> (accessed April 9, 2018).

33 "O projektu," Vetřelci a volavky: Výtvarné umění ve veřejném prostoru 70. a 80. let v ČSSR [Aliens and herons: Plastic art in public areas in the 1970s and the 1980s in Czechoslovakia] <http://www.vetrelciavolavky.cz/> and "Dni architektúry" [Architecture days], facebook, <https://www.facebook.com/dni.architektury.bratislava/> (accessed April 9, 2018).

34 André Ruseckaitė, "Waking Up the Sleeping Districts: Excursion as the Hybrid Strategy," *Adaptive reuse*, edited by Ana Tostões and Zara Ferreira, 890–897.

... Show, Explain and Praise

Although the opinions concerning conservation and restoration of Modern architecture monuments have been developing only for a little more than two decades, even now, we can already clearly observe the shift from the initial sentimental 'rescue' of the first masterpieces towards more comprehensive arguments based on scientific research. The arguments should constitute a basis for a systematic approach to the architectural heritage. They should. However, the experience we have at present shows that the field of conservation and restoration of monuments cannot be without the personal, more or less sentimental involvement in favour of the architectural heritage. Without the active involvement of the conservationists and renovators, even the most elaborate theoretical or architectural and historical discourse remains only an academic concept. In this respect, it is necessary to repeat the original creed of the Eindhoven Statement by Docomomo from 1990 that encourages personal involvement.³⁵ In relation to the 'docomomo tasks', one of the key speakers of the 14th international Docomomo conference, Rem Koolhaas, also talked about his personal involvement in favour of communicating the values of the Modern architectural heritage.³⁶

It seems that modern architecture still constitutes an endangered part of our architectural heritage. An indispensable part of the heritage comprises the architectural, urbanist, designer or engineering works of women. It was the Modern that opened the horizons for women towards the realization of their potential and emancipation in the society. Besides the legislative protection that can be provided to Modern architecture by the declaration of its heritage status, we have several other instruments at our disposal that we can use to protect it. One of the most important instruments is gaining the support of the public. The public, as a potential fan of modern architecture, has much more power than the round stamps of heritage conservationists. And this is where a certain positive trend can be observed. Such as the dozens of enthusiastic visitors at various events dedicated to the twentieth century architecture or the great interest of the public in architectural excursions or the general popularity of documentaries on architecture. Indisputable evidence of the interest of the public in Modern architecture is also the demand for books on the twentieth century architecture or the number of Modern architecture exhibitions and the great number of their visitors. Let us remember the enormous success of the Venice architectural biennials, exhibitions such as *Modernism: Designing a new World 1914–1939* (2006) and *Cold War Modern: Design 1945–70* (2008) at Victoria and Albert Museum in London or the exhibition currently touring Europe – *Lina Bo Bardi: Enseignements partagés* (2017–18).

35 Eindhoven Statement <http://docomomo.com/eindhoven> (accessed April 9, 2018).

36 Koolhaas's participation at the conference had the form of an audio-visual recording of an interview he gave to the honorary president of docomomo, Hubert Jan Henket. Thoughts on preservation and adaptive reuse in rapidly changing world, <https://www.youtube.com/watch?v=pdjFYUTDUjU> (accessed April 9, 2018).

Another significant factor that works especially for modern architecture in the countries of the former Eastern Bloc is when it is recognized by Western architectonic historiographers and critics. Exhibitions of Bulgarian, Croatian, Romanian, Slovak or Slovenian architecture of the twentieth century, organized by Adolph Stiller in the Vienna Ringturm Gallery, gained excellent reviews and they typically travel around Europe for several years. In July 2018 an exhibition *Toward a Concrete Utopia: Architecture in Yugoslavia, 1948–1980*, will be opened in MOMA, New York, and it can be considered a huge success in relation to bringing to the fore the issue of post-war architectural heritage of Modernism. After a long period of the Western historiography's forced or unintentional disinterest in what was happening in the Eastern Europe this architecture has now been brought into focus. Hence, another phenomenon emerges by causality: a positive appraisal by the international environment impacts the position of these architectural works in the place of origin and increases their chances to a dignified treatment. It is thus obvious that one of the most important tasks in the conservation process of modern architecture remains to be as follows: show, explain and praise!

Annex

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Learning from Lina: An Architecture of Twentieth Century for Nowadays

Lina Bo Bardi is one of the most interesting architects of the twentieth century. Living in Italy and in Brazil, two countries that are geographically distant but anthropologically similar, she has mixed Tradition and Modernity, becoming the pioneer of *arquitetura pobre* (poor architecture), a simple and authentic architecture, shaped on the contexts and real living conditions of people. In order to understand the poetics of the *arquitetura pobre* and grasp its ethic and aesthetic importance, this paper analyses some experiences of her biography that were fundamental in the development of Bo Bardi's thinking before exploring the way in which her work have been rediscovered and interpreted.

Part I

1. Drawing and Writing

Among the training experiences, the publishing activity had a great importance. Lina Bo Bardi wrote as widely as she built. Since the years of her apprenticeship she participated in the debate on the house of modern times that animated Italy and Europe at the beginning of the twentieth century.

Immediately after graduating at the Royal School of Architecture in Rome in 1939, before Italy entered the war, Lina moved to Milan, the city of modern houses, exhibitions, magazines and fashion. Once in Milan, she opened the office 'Bo & Pagani' with her university friend, Carlo Pagani, and began her career with *Domus* and *Stile*, the magazines edited by Gio Ponti, an outstanding figure of Milan architecture. During three years, from 1940 to 1943, Bo & Pagani regularly published

illustrated articles of domestic architecture, representing a kind of 'atlas' of the Italian taste for the 'appearance of many different things', as Ponti wrote in the editorial of the first issue of *Stile*.

The characteristic of these articles was the variety of interior design subjects (from the aquarium at home to the setting up of gardens and terraces) that reveals a feminine look that is clearly the one of Lina. An evidence of this is represented by the replies that the young architect Lina Bo gave to the readers of her column "The house" for the weekly magazine *Grazia: A friend at your side*, that show particular attention to the needs of modern women, wives, mothers, workers and housekeepers at the same time. Through the practical approach typical of women's sensibility, Lina Bo provides suggestions and solutions, sometimes very creative, on how to furnish children's rooms, to equip kitchens or terraces, and even how to sidestep financial difficulties and create a do-it-yourself stroller with crates for fruits and vegetables.

The editorial activity, at the crossroads between theory and practice, started to make up for the lack of work caused by the war, left an indelible mark in the architectural concept of Lina: the modern house had be functional, practical, equipped, embellished with gardens, terraces and plants and flowers at the windows: a living and inhabited space. Lina Bo Bardi, who was also passionate about nature, has always paid great attention to the design of gardens and terraces, showing that she was an *ante litteram* landscape architect.

2. Photographing the Reality

Another contribution to the advancement of Bobardi's thought was the short but significant experience of *A-Actuality Architecture Housing Art*. The magazine, founded by Bruno Zevi, Carlo Pagani and Bo itself,¹ was an important tool for action. In order to 'make everyone aware of the problems of reconstruction (after the war) to allow everyone to collaborate in the reconstruction, and not only the technicians',² the founders chose of 'photographing the reality' to show the real living conditions of people and the true state of the places, instead of providing solutions and projects. A project begin from its context as Lina affirmed in an interview given just before she died about the responsibility of the architect to know the context in order to '... construct another present, this time a *real* one'.³

Lina Bo Bardi's choice of not having a design office is part of this philosophy. In line with her

nomadic spirit, Lina Bo Bardi did not use to design architecture entrenched in a studio but preferred to arrange an *escritório* at the building site, something more similar to a technical office than to a design atelier. Consequently, the project of a building did not precede construction, but was a work in progress of sketches, hand drawings and notes, all of which was done uninterruptedly, possibly at night 'when – as she said – the telephone stops ringing and silence is all around'.⁴ This process was developed at the same time as the works at the building site and daily discussed with the team of architects, engineers, technicians and workers. It prepares the foundation of the idea of architecture as a collective and shared work, which is in turn supported by the suggestions gathered during on-site inspections. During her visits to the abandoned factory in Vila Pompeia, Lina discovered a 'cheerful public of children, mothers, fathers, elders'.⁵ This world of running children, boys playing soccer, women preparing *churrasquinhos* and puppet theatres, represent a value that has to continue with the same level of gaiety'.⁶

Starting from the real context, Lina decided not to demolish the old fridge factory but to transform it. By means of interventions that nowadays would be considered as minimalist, Lina Bo Bardi carried out a 'cleaning' to restore the original condition of the industrial complex: pavilions were freed from later additions, plaster was removed to expose the concrete and brick-made structure, beams and skylights roofs were restored, external cobbled paving and stone flooring were rearranged. As Marcelo Ferraz said, it was 'a Matta Clark-style stripping process'⁷ aimed at rediscovering the tectonic essence of the old factory which Lina later integrated with the project of three concrete towers that added a modern value to the entire facility.

Mixing fragments of Brazilian archaic culture with objects from the industrial and urban world, the new SESC Pompeia factory builds a poor architecture: a simple, cozy and strongly expressive architecture, to which people come because in this 'friendly space' there is always something beautiful to do.

3. Art and Popular Culture

The poetics of 'poor architecture' that Lina Bo Bardi developed '... in the context of great disappointment with architectural production in the world as well as with the aggravation of social, economic and

1 The letters on the creation of *A* are kept in the archives of Fondazione Zevi in Rome. Most of them are between Bruno Zevi and Carlo Pagani, while there are only two letters between Lina Bo and Bruno Zevi.

2 From editorial of *A* 1 (1946).

3 Lina Bo Bardi, "The Last Lesson," *Domus* 753 (1993), 22–26.

4 Extract from documentary *Lina Bo Bardi* by Aurélio Michiles and Isa Grinspum Ferraz, Brazil, 1993.

5 Lina Bo Bardi, "A fábrica da Pompeia, 1986," André Vainer and Marcelo Ferraz (eds.), *Citadela da Liberdade* (São Paulo: Sesc ed., 2013), 31.

6 *Ibid*, 31.

7 Marcelo Ferraz, "Numa velha fábrica de tambores...," *Arquitetura conversável* (Rio de Janeiro: Azougue, 2011), 134.

political conditions in Brazil',⁸⁸ is partly the outcome of a personal search for authenticity, pursued during her entire life with restlessness and passion.

Between 1958 and 1964, Lina lived in Salvador de Bahia where was involved in educational programmes for the development of craftsmanship in the Brazilian Nordeste region. As director of the museum of Bahia, the MAMBA, Lina organised industrial design workshops -the CETA's- and in the production of new objects and clothes with waste or natural materials such as dishes and cups with Coca Cola's cans and lamps with burned bulbs or straw and bamboo garments.

This experience helped Lina to develop her vision for an architecture of daily life, already cultivated during the Italian years of her education.

In addition to the art and crafts promoted by the Ponti magazines, the Italian architects looked with great interest at the simple and ordinary architecture in the small-towns of Italy. In 1936, at the 6th Milan Triennale Giuseppe Pagano and Guarnerio Daniel presented the exhibition *Italian Rural Architecture* and Lina probably had the opportunity to visit it. For the first time, the exhibition showed another kind of Modernity: inclusive, attentive to the traditions of living and ways of building. Grouped by regional categories, the buildings photographed by Pagano illustrated a variety of typological solutions based on common figurative matrices and showed the beauty of the vernacular style as direct relationship between form and function and as constructive coherence. Without the ideological superstructures of modern discourse, the Italian ordinary architecture corresponded to the functions for which it had been built. It was a 'modest architecture' as Lionello Venturi called it, made for 'men of the contemporary era and ... linked to the conditions of the country'.⁹

In the writings of Pagano there are often words such as 'authentic', 'true', 'simple' which also appear in the vocabulary of 'poor architecture' of Lina Bo Bardi.

4. The Poetics of Poor architecture

'Poor architecture' is a poetic that Lina brought to maturity in the Eighties with the project of the SESC Pompeia, even if its elaboration began in the Sixties. In addition to the popular art of Nordeste, which allowed Lina Bo Bardi to renew her interest in craftsmanship and ordinary architecture the movements of Jerzy Grotowsky's poor theatre and 'poor art', may have been another source of inspiration. Between 1962 and 1968, Grotowsky proposed a radical simplification process of the

theatrical scenography to eliminate the division between scene and public and allow spectators to be fully involved in the opera. The scene was reduced to a deck of wooden planks and simple materials, while the actors were covered only by sheets or miserable jute or hemp clothes. In turn, the critic art Germano Celant, inspired by the poor theatre of Grotowsky, presented in Genoa the exhibition *Arte povera* which brought together artworks by young artists who worked on the reduction and simplification of signs to return to archetypal forms.

Lina Bo Bardi was in Italy, in Rome and in Genoa between 1964 and 1965 and most probably came into contact with these movements.

In the SESC Pompeia, manifesto of the 'poor architecture', Lina's experiences merge into an artistic synthesis that is both anthropological and aesthetic.

Starting from the inhabitants and their practices, the *sentido* in the Brazilian language, Lina subordinates formal choices to an act of truth to give the old factory in Vila Pompeia a new meaning and convert the closed workplace into an open place of *convivência* (coexistence). Cleaning and emptying operations were actions aimed to free spaces and to encourage the creation of situations based on the way people move, meet and decide to stay together. It is not the architect's sign that makes the project, but his disappearance.

Emblematic of this 'disappearance' is the SESC Pompeia theatre: the essentiality of the scenic space wrapped in the semi-shade and set up with wooden seats without armrests and intentionally uncomfortable (even the public of Greek-Roman theatres was used to sitting on stone stairs and was also exposed to the elements), is an explicit recall of the minimal language of the poor theatre of Grotowsky.

Similarly, in the concrete towers of the SESC Pompeia - an evocation of the fortresses of the Brazilian coast but also of the silos and chimneys of the factories - the basic shapes of the ventilation holes in the concrete wall reproduce the troglodyte windows and wooden trellises of the houses of the *seringueiros* and the ordinary architecture of the Brazilian Nordeste.

Lina Bo Bardi gives an entirely new meaning to the old factory of Pompeia by changing and adding parts and components and by creating intrusions. The result was the transformation of the closed workplaces into an architecture of all, used by people like few in the world. (Fig. 1)

This conversion encourages looking at the work of Lina Bo Bardi as something beyond the simple building. She worked along the shapes of architecture and builds a space with the aim to live it collectively, in *convivência*. It is not a casualty that her students and colleagues insisted in the political message of the poor architecture of Lina. For Lina Bo Bardi, the architect was not a superior person, in Le Corbusier's way, but simply '... a qualified worker who knows his profession not only in practice but also in theory'. This position, supported by a woman architect, recalls an ethical and social attitude and has become central in the practice of contemporary architecture of care.

8 Zeuler Lima, *Verso un'architettura semplice* (Roma: Fondazione Zevi, 2007), 105. Lina not only distances herself from Postmodernism, defined as the sign of impotence to oppose the destructive power of capitalism, but also contrasts to the sterile replica of the elements of the past, the forms of local cultures. This is a political and cultural position that today could be called 'post-colonial'.

9 Guarnerio Daniel and Giuseppe Pagano, *Architettura rurale italiana* (Firenze: Rinascimento, 1936).

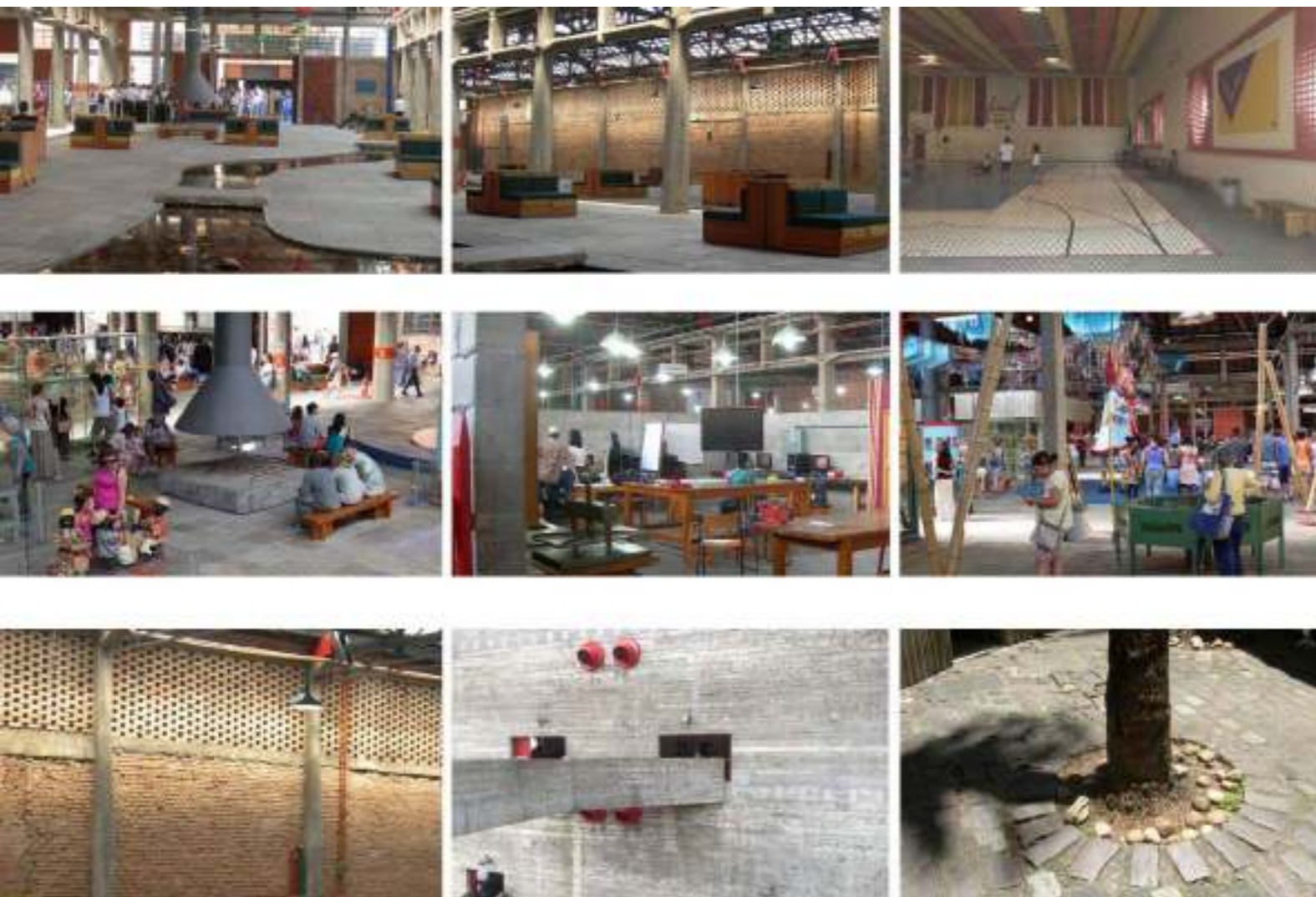


Fig. 1. *Poor Architecture Spaces People Materials*, Images of the SESC Pompeia by Lina Bo Bardi. Courtesy of the authors.

Part II

5. Recognition through Exhibition

Devoting herself entirely to her work, Lina Bo Bardi displayed no especial interest in its valorisation or diffusion. Due to this, only one exhibition took place during her lifetime, in 1989, at the Architecture Faculty of São Paulo, on the initiative of her young collaborators, Marcelo Ferraz, André Vainer, and Marcelo Suzuki. Posthumously though, no less than twenty-four exhibitions have been devoted to her work, including twenty held around her centenary in 2014. Since some of these exhibitions travelled,¹⁰ Lina Bo Bardi's work has to date been shown in 79 cities in ten countries and on four

¹⁰ Including *Lina Bo Bardi* curated by Marcelo Ferraz, from 1993 to 2001, to 46 towns.

continents. Most of these exhibitions being free entrance, their reception remains difficult to gauge. If, in her architectural practice, Lina Bo Bardi had principally been surrounded by men, women –except where her own team has been involved– have made up for it by being behind many of the efforts to raise her profile, female curators being responsible for half of all recent exhibitions. This phenomenon is far from exceptional. The two other great female figures in twentieth-century architecture, Charlotte Perriand and Eileen Grey, were presented at the Centre Georges-Pompidou by curators from the design department, Marie-Laure Gousset (2005) and Cloé Pitiot (2013) respectively, at shows attracting a significant number of visitors.¹¹ In 2013, the commitment of women in promoting female creativity culminated in the publication of the *Dictionnaire universel des femmes créatrices*.¹² It duly featured a note devoted to Lina Bo Bardi, compiled by the journalist and design historian, Ethel Léon.

The following lines are dedicated to a selection of five exhibitions organised by women –architects, artists, architecture historians, museum director– in accordance with a range of museographic approaches and personal motivations.

Lina Bo Bardi by Kazuyo Sejima

In 2010, Kazuyo Sejima was appointed to curate the Venice Biennial, under the title of *People Meet Architecture*. On this occasion she invited Anna Carboncini and Renato Anelli of the Lina Bo and Pietro Maria Bardi Institute to oversee with her an exhibition dedicated to the architect. Owing not only to the Biennial's international status that attracts vast numbers, but also to the figure of Sejima herself –a woman architect enjoying a meteoric career– it was this exhibition that, in spite of the absence of a specific catalogue, enshrined Lina Bo Bardi's international reputation. With drawings and photographs from the Institute's archives offering an overview of the wide diversity of her output, Sejima also foregrounded the SESC Pompeia, showing a large 1/50 model with a removable roof that allowed the uses of the factory building to be seen clearly. This choice seems to have been part of Sejima's own projection into Lina Bo Bardi's oeuvre, assimilated through the filter of models bearing the characteristic signature of the SANAA agency.

The high profile given the exhibition amounted to a kind of legitimization of Bardi's heritage, which Sejima was to foster more explicitly in a museum context with the reinterpretation of the easels for the MASP at the Louvre at Lens.

¹¹ 202,603 visitors for the first and 173,045 for the second.

¹² Beatrice Didier, Antoinette Fouque and Mireille Calle-Gruber (eds.), *Dictionnaire universel des femmes créatrices* (Paris: Édition des Femmes, 2013), 3 volumes.

In 2015, Sejima put on a new exhibition, *Lina Bo Bardi: Architecture for All*, at the Watari contemporary art museum in Tokyo.¹³¹³ Although this show was more monographic, showing the work from Bahia through coloured, vegetalisated models, together with furniture designs, the interpretation offered was more personal and a few historical liberties were taken. For instance, Sejima entitled a life-size reproduction of the famous window at the SESC a 'window cloud', affirming its Japanese inspiration. In spite of Lina Bo Bardi's self-confessed fondness for Japan, however, nothing in her drawings, in which this window appears sometimes round, sometimes square, seems to support such an interpretation. The definitive designs, carried out directly on site, seem instead to have been inspired by troglodyte dwellings or by marks left by shelling during the war.

Lina Bo Bardi: Together

In 2012, the British Council in London inaugurated the exhibition *Lina Bo Bardi: Together*, the fruit of collaboration between Argentine architect Noemi Blager and Dutch artist Madelon Vriesendorp, both British residents. The films were provided by director Tapio Snellman, while Assemble, a collective of young architects, designed the display. Shown from 2012 to 2016 in eleven cities and nine countries, the exhibition enjoyed a significant international reception, thanks in the main to the celebrity of Madelon Vriesendorp. Unlike the architectural exhibitions, it was the curators' intention to show Lina Bo Bardi's 'fascination with the culture of Brazil, the objects she collected, and the discoveries she made'. Her architectural achievements were shown essentially through films that placed the stress on the uses to which they are put today. The objects shown, specially manufactured for the exhibition, were displayed in concrete boxes. Madelon Vriesendorp's *Exú* – a childlike devil which plays a significant role in Candomblé celebrations – made out of cardboard tubes fitted together, became one of its iconic figures. More still than for Sejima, Lina Bo Bardi there appeared as a mirror of Vriesendorp's artistic projection, for whom the exhibition 'was a way of being impregnated with the spirit of "Lina," the aim being 'to highlight a tiny proportion of her centres of interest likely to awaken the child hidden in each participant'. The question of historical fidelity was set aside to be replaced by the affirmation of artistic freedom. In addition, Noemi Blager had called upon Arper, the Italian furniture manufacturer, to reproduce, in agreement with the Lina Bo and Pietro Maria Bardi Foundation, the Bowl Chair, made famous through photographs by Chico Albuquerque in which can be seen, coiling up in the round hull, the elegant silhouette of Lina Bo Bardi herself.

Lina Bo Bardi: 'Quello che volevo era avere Storia'

In 2015, within the framework of the commemorations for Lina Bo Bardi's centenary year, it was the turn of Margherita Guccione, architect and director of the MAXXI museum, to devote an exhibition to her oeuvre. The title of the exhibition, *Lina Bo Bardi: 'Quello che volevo era avere Storia'*, cited a quotation from her *Curriculum Literário*. If the iconic *Bowl Chair* appeared in several guises at the centre of the space, its chief object was the Italian intellectual heritage. Paying homage to Lina Bo Bardi's editorial work, the walls were lined with reproductions of covers and articles from reviews in which she had played a significant role (*Domus, Stile, A*). Archive footage offered a broad selection of memories and testimonies about her, while other themes were further explored in a brief catalogue. Exhibited in Zaha Hadid's MAXXI, this exhibition, though it is unlikely to have been its intention, set the stage for a posthumous face-to-face between these two important figures. Already very frail and with no wish to make new acquaintances, Lina Bo Bardi had in fact not agreed to meet Zaha Hadid during her passage in São Paulo.

Lina Bo Bardi: Enseignements partagés

The exhibition *Lina Bo Bardi: Enseignements partagés* that we ourselves curated and designed for the ENSA at Paris-Belleville, in 2017–18, is characterized by distinct aims and objects, and by the framework of its production.

The outcome of a collaboration between the ENSA at Paris Belleville and the DiAP at the University of Roma Sapienza, it was based on a teaching project¹⁴ and affirmed the knowledge of the work through analysis and specifically selected modes of representation. Spectacular models were constructed, each based on an hypothesis that dictated the scales and materials chosen, including one of the SESC, at 1/25, with transparent walls revealing the 'four seasons' landscapes on the floor of the gymnasium (Fig. 2) and the MASP, at 1/10, showing the miniature easels on which the collection was observed by figures lifted straight from Lina Bo Bardi's own drawings published in 1941 in *Illustrazione italiana*. The three other spaces were occupied by interpretative reproductions of the furniture for the SESC, the easels at the MASP, and the structures of the 1965 exhibition, kirigami models, graphic designs, a timeline, and photographs by Alessandro Lanzetta. While filmmaker Arnold Pasquier signed eleven films that combine meta-narratives of the exhibition with discussions between teachers and the students' gestures during construction work, visits to the places in which Lina Bo Bardi lived and worked in Rome and São Paulo, portraits and words by

¹³ Sejima also took part in 2013 in the exhibition *O interior esta no exterior/The Insides are on the Outside*, curated by Hans Ulrich Obrist at the Glass House, producing several proposals for furniture for the Institute archives and the detailed models of interiors with the furniture.

¹⁴ 28 teachers and 144 students from the two schools participated on seven teaching modules.



Fig. 2. Model of the SESC Pompeia, 1/25, produced by Vanessa Claro, Charlotte Cornu, Denis de Cazenove, Nicolas Dupont, Ali Guézi, Korantin Hurault, Adrien Perrin, Anne Prieur de la Comble, Leslie Sellem, Benoit Simonnet and Edouard Vermes, Paris, ENSAPB, 2017. Courtesy of the authors.

those who had known or studied her, and choreographies danced through the space. Accompanied by a bilingual French-Italian catalogue, the exhibition extended to an outside site.¹⁵

6. The Value of 'Convivência'

Over the last twenty-five years, Lina Bo Bardi's work has proceeded through all the usual stages for an artistic oeuvre, mirroring its criteria for recognition: its potential for experience, its capacity to produce new things, and its semantic relevance. Her work though of course possesses an additional feature peculiar to architectural works, which, 'exhibited' by the mere fact of their being built, are experienced most vividly in situ. Any architecture exhibition is freighted with the ambiguity of endeavouring to present an absent object by showing intermediate objects in its stead. Lina Bo Bardi's oeuvre is now engaged in what Nathalie Heinich has called the 'mode of singularity', which makes it possible to undertake historical work and locate her with respect to a tendency or

to other protagonists, even if this only points up her uniqueness and her counter-current quality. As for semantic relevance, this question concerns the significance of Lina Bo Bardi's output today and that of the values it might uphold. If Lina Bo Bardi founded no school, values explored in her work such as the building site as social focus, the recycling of materials, economy in construction, and durability all continue to resonate strongly with young contemporary architects, and Annette Condello and Steffen Lehmann's recent book, *Sustainable Lina*¹⁶ has presented her as a forerunner in this sense.

Still, reading through the titles of the exhibitions we have studied and the words used to describe them – 'meeting, together, for all, sharing' – it would seem that, above and beyond the forms and processes of design, the value for which she is most acclaimed remains, the end, *convivência*.

¹⁵ Alessandra Criconia and Elisabeth Essaïan, *Lina Bo Bardi: Enseignements partagés* (Paris: Archibooks, 2017), www.linabobardienseignementspartages.com (accessed May 24, 2018).

¹⁶ Anette Condello and Steffen Lehmann, *Sustainable Lina: Lina Bo Bardi's Adaptive Reuse Projects*, (Switzerland: Springer International, 2016).

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Women in Conservation Profession in Socialist Yugoslavia: Some Comparative Perspectives

Introduction

Gender studies have shed the light on the position of women in socialist Yugoslavia from a number of perspectives.¹ However, women in conservation have not yet been systematically researched. The study on women in Slovenian conservation in the 1950s and 1960s was done in the framework of the MoMoWo project as the first systematic research, which observed the topic from the gender perspective and which is, by expanding focus to the former Yugoslavia, upgraded herewith.² Since a lot of conservation experts were educated as architects, studies on women in architectural education are highly relevant, as well.³ The basic source, upon which this paper is based, is *Zbornik zaštite spomenika kulture* (Journal of the Protection of Cultural Monuments, hereafter *Zbornik*), which was published by Jugoslovenski institut za zaštitu spomenika kulture (Yugoslav Institute

for the Protection of Monuments, hereafter Institute).⁴ This paper presents, first, results of the quantitative analysis, which reveals the proportion of women in *Zbornik* in the period 1950 till 1971, second, involvement of women in the Institute's conservation projects all around Yugoslavia and, third, analysis of some case studies, which further illustrate key features of conservation doctrine in Yugoslavia and its relation to concurrent European development.

Institutional and Legal Background

Monument protection has a long tradition in Serbia, Slovenia and Croatia and the origins of systematic and organized protection service date back to the nineteenth century. The conservation profession was formally defined under the jurisdiction of the Kaiserlich-Königliche Central Commission für die Erforschung und Erhaltung der Baudenkmale (Imperial and Royal Central Commission for Researching and Preserving of Monuments) from its inception on in the 1850 and followed the principles of Alois Riegel (1858–1905), Max Dvořák (1874–1921) as well as of German art historian Georg Dehio (1850–1932) in the great part of Slovenia and Croatia.⁵ In Bosnia and Hercegovina, Monte Negro and Macedonia the institutional framework of monument protection was systematically organized after 1945. However, no relevant legislation was passed on the entire territory of Yugoslavia up until 31 July 1945, when the federal *Law on the Protection of Cultural Monuments and Natural Heritage of the Democratic Federative Yugoslavia* came into power. The law prescribed establishment of institutes for the protection of monuments in all federal units, as the former Yugoslav republics were named at that time, as well as the laws on the units' level were passed in the following years. The next important milestone in the period under observation was a new legislation in 1960s, which decentralized monument protection service in Yugoslavia what resulted in a number of new regional conservation offices.⁶

In 1950 the Institute was established with the aim to foster as well as to carry out scientific research, excavations and conservation of cultural heritage monuments. It was an umbrella professional

- 1 E. g.: Marta Verginella, *Ženska obrobja* (Ljubljana: DELTA, 2006); Aleksander Žižek (ed.), *Ženska skozi zgodovino* (Ljubljana: Zveza zgodovinskih društev Slovenije, 2004); Milica Antić Gaber (ed.), *Ženske na robovih politike* (Ljubljana: Sophia, 2011).
- 2 Barbara Vodopivec, "The Contribution of Women to Slovenian Conservation in the 1950s and 1960s: Case Studies of Journal Varstvo spomenikov and the Former Cistercian Abbey of Kostanjevica na Krki Reconstruction," MoMoWo: Women Designers, Architects and Engineers between 1946 and 1969 (Ljubljana: MoMoWo; Založba ZRC SAZU, 2018), forthcoming publication.
- 3 See: Tina Potočnik, "Female Students of Jože Plečnik between Tradition and Modernism," *Ideological Equals: Women Architects in Socialist Europe 1945–1989*, edited by Mary Pepchinski and Mariann Simon (New York: Routledge, 2017); Helena Seražin, "Women Designers, Architects and Engineers between 1946 and 1968" (paper presented at the MoMoWo 2nd Historical Conference-Workshop, Ljubljana, Slovenia, October 3–5, 2016).

- 4 "Bibliografija članaka štampanih u zborniku I–X po autorima i po materiji: Poseban dodatak zborniku," *Zbornik zaštite spomenike kulture* 10 (1959), 1–19; Nadežda Katanić, "Bibliografija članaka štampanih u zborniku od knj. XI do knj. XX/XXI po autorima i po materiji: Poseban dodatak zborniku," *Zbornik zaštite spomenike kulture* 20–21 (1970–71), 1–28. Also documents from the Archives of the Republički zavod za zaštitu spomenika kulture – Beograd (National Institute for the Protection of Monuments – Belgrade) were examined.
- 5 For an overview of Slovenian conservation, see: Sonja Ana Hoyer, "Spomeniško varstvo," *Enciklopedija Slovenije*, vol. 12, edited by Alenka Dermastia (Ljubljana: Mladinska knjiga, 1998), 214–7.
- 6 See more: "Zaštita spomenika," in *Enciklopedija Jugoslavije*, vol. 8, edited by Miroslav Krleža (Zagreb: Jugoslovenski leksikografski zavod, 1971), 606–9.

institution for the territory of Yugoslavia. Its purpose was also to coordinate institutes of all republics, to conduct international cooperation and to publish scientific and professional publications.⁷ *Zbornik*, the key source of herewith presented research, published from 1950 till 1978, was among them. In 1971, the institute was merged with the Republički zavod za zaštitu spomenika kulture – Beograd (Republic Institute for the Protection of Cultural Monuments – Belgrade) and *de facto* ceased to exist as an independent institution.⁸

However, it is important to point out that the conservation profession in Yugoslavia after the Second World War was very much associated with development of the profession at the European level and beyond. Especially pronounced was the influence from France⁹ and Italy, as well as the impact of international cooperation, which rested upon the concept of 'universal heritage', gradually developed during the eighteenth and nineteenth centuries and eventually reached a formal expression in international agreements and conventions,¹⁰ which mark the conservation profession from the beginning of the twentieth century on.¹¹ Two projects in particular, research work and conservation of the St. Sofia church in Ohrid (1951–52)¹² and cooperation of Yugoslav experts in UNESCO's action of resolution of the old Nubian monuments due to the construction of the Assuan dam (Yugoslavia was involved in the period 1961–65),¹³ prove strong international involvement of Yugoslav Institute in international streams in the first decades after the Second World War.¹⁴ The Institute also took part in research work, related to the Hilandar monastery (1954, 1961 and 1963) and in cleaning, conservation and restoration of art works, which were damaged by flood in Florence in 1966. In addition, the Ohrid project was supervised by a group of international advisers, whose member was also renowned Italian art critic, historian and specialist in the conservation-restoration theory

Cesare Brandi (1906–1988).¹⁵

The Institute with its experts was involved in conservation projects all around Yugoslavia: 26 in Croatia, 22 in Serbia and Kosovo, eight in Macedonia, five in Monte Negro and Bosnia and Hercegovina and three in Slovenia. Floor antique mosaics, castles and noble life in the Middle Ages, old stone bridges and aqueducts in Yugoslavia, Islamic architecture, preservation of ethnological heritage, medieval wall paintings and techniques, desalination and cleaning of salts, preservation of urban and village ensembles, as well as protection of cultural heritage in the event of armed conflicts, recording and documenting of heritage, restitution of cultural heritage objects, setting up and running of the cultural heritage registry, keeping a photo library and register of monuments aboard were the research topics and activities of the Institute.¹⁶

The Institute's conservation projects, which were supposed to embrace the most important monuments in Yugoslavia and were dispersed throughout the territory of the state, can also be seen as an attempt to establish a common Yugoslav cultural heritage. A more detailed study would be needed to confirm this assumption, but those projects, which were also financially supported by the federal Institute, certainly contributed to the transfer of knowledge and of new conservation approaches across the whole Yugoslavia. The protagonists of these approaches were also female conservators, as will be presented in the next section.

Women in Conservation Projects of the Institute and in *Zbornik*

The Institute carried out altogether 106 projects in the period 1950–71 and women cooperated in 66 of them (62,3%). Altogether 21 female experts took part in the Institute's project. Most often involved were: Nadežda Pešić Maksimović, who dealt with ethnological monuments, Islamic architecture and vernacular architecture, Nadežda Stojanović, who worked on architectural monuments, mosaics and painting, Branka Skakić, who was in charge of documentation, records, photo documentation, archives and files on monuments in Yugoslavia and abroad, and Milka Čanak Medić, who primarily did work on architectural and archaeological monuments. Among several times involved were also Gordana Tomašević (architectural and archaeological heritage), Anika Skovran (church and monastic architecture, painting of the Middle Ages), Olivera Nedić (monastic architecture and wall painting), Nadežda Katanić (stone bridges and aqueducts) and Srebrenka Gvozdanović, who

¹⁵ Among members were also dr. France Stele, Marjan Mušič, Đurđe Bošković, Ivan Zdravković and architect Ives Froindevaux. "Radovi Saveznog," 167.

¹⁶ "Radovi Saveznog," 165–184.

⁷ Vlado Mađarić, "Zadaci, uloga i mjesto Saveznog instituta u sistemu i organizacionoj strukturi zaštite spomenika kulutre u FNRJ," *Zbornik zaštite spomenika kulture* 4–5 (1953–54), 108.

⁸ Republički zavod za zaštitu spomenika kulture – Beograd, http://www.heritage.gov.rs/latinica/istorija_zastite_u_srbiji.php (accessed January 27, 2018).

⁹ Example: Paul Verdier, "Uprava istorijskih spomenika v Francuskoj," *Zbornik zaštite spomenika kulture* 10 (1959), 185–193.

¹⁰ Jukka Jokilehto, *A History of Architectural Conservation* (London, New York: Routledge, 2011), 281.

¹¹ The first international congress of architects took place in 1897 in Brussels and in 1902 in Madrid 1902. Jokilehto, *Conservation*, 284–85.

¹² Milorad Medić, "Radovi na konservaciji arhitekture i živopisa crkve sv. Sofije u Ohridu u leto 1954 godine," *Zbornik zaštite spomenika kulture* 6–7 (1955–56), 251–52.

¹³ 'Nacionalni komitet za sprovođenje akcije za očuvanje spomenika stare Nubije', established on 15 June 1960, was composed of experts from Croatia, Serbia, Slovenia and from the federal institutions. Vlado Mađarić, "Učešće Jugoslavije u međunarodnoj akciji za spasavanje spomenika Stare Nubije," *Zbornik zaštite spomenika kulture* 14 (1965), 24–25. Internationally, Spain, the Netherlands, United States and Italy contributed most significantly. "Victory in Nubia: The Greatest Archaeological Rescue Operation of all Time," *The UNESCO Courier* (February - March 1980).

¹⁴ "Radovi Saveznog odnosno Jugoslovenskog instituta za zaštitu spomenika kulture u toku dvadeset godina postojanja," *Zbornik zaštite spomenika kulture* 20–21 (1970–71), 184.

mostly worked with Nadežda Pešić Maksimović.¹⁷

Almost the same names are revealed through the analysis of authors in *Zbornik*. Among female authors in the first ten issues, the most frequent are Đorđina Gabričević Stojanović, Mirjana Ljubinković Čorović, Nadežda Katanić, Olivera Nedić, Anika Skovran and Gordana Cvetković. Issues in the next decade (1960–71) most often list the following female authors: Nadežda Katanić, Olivera Nedić, Nadežda Pešić Maksimović,

Anika Skovran, Milka Čanak Medić, Gordana Babić and Gordana Tomašević. Taken into account the whole period of 20 years, the ratio between male and female authors in *Zbornik* is 70,4% against 26,4% in favour of men authors (3,2% of authorships is unknown), as shown in the **Table 1**.

Quantitative analysis reveals that almost one-third of authors were women. The ratio is stronger in favour of men in the first decade (men 73,3%, women 21,5%, unknown 5,2%) than in the second (men 67,3%, women 31,7%, unknown 1%). For comparison, Slovenian leading conservation journal *Varstvo spomenikov: Revija za teorijo in prakso spomeniškega varstva* (Monument Conservation. A Periodical for Research and Practice of Monument Conservation) reveals comparable share of 76% men authors and 24% of women authors in the period 1948–75.¹⁸ Based on data available so far, the average of female authors of conservation contributions can be assessed about one-quarter.

The ratio between male and female authors in *Zbornik zaštite spomenika kulture* 1950-71 in %

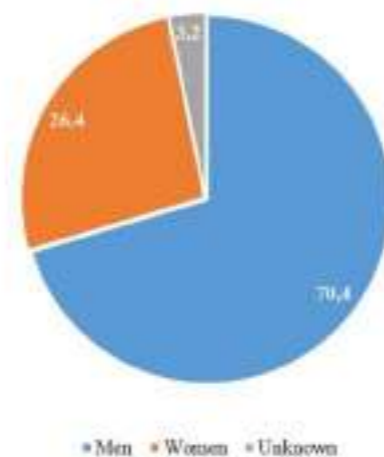


Table 1: The ratio between male and female authors in *Zbornik* in the period 1950–71 (in percentages).

Case Study: Conservation Projects of Milka Čanak Medić throughout Yugoslavia

Serbian architect and conservator Milka Čanak Medić (b. 1929)¹⁹ was engaged in a number of conservation projects around Yugoslavia, so she can most certainly be called one of the advocates of the Institute's conservation approach. Already as a student she took part in the above mentioned St. Sofia Church project in Ohrid, Macedonia, where she met a number of renowned experts from abroad, as well as from Yugoslavia. Up until 1970 she was engaged in the following projects throughout Yugoslavia: amphitheatre in the antique Salona in Croatia, antique settlements Heraclea Lynkestis in Macedonia and Gamzigrad in Serbia, Varaždin Spa in Croatia, the Patriarchate of Peć in today's Kosovo, former Cistercian monastery in Kostanjevica na Krki in Slovenia and the pre-Romanesque church of St. Michael in Stone in Croatia.²⁰

As the only women expert from Yugoslavia²¹ she was involved in old Nubia project's field team²² and worked there in 1961 and 1962 together with architect Branislav Vulović, conservator Mihailo Vunjak and painter conservator Milorad Medić,²³ who was her husband. Further on, architect Đurđe Bošković (1904–1990), who significantly contributed to Serbian monument protection development, especially with studies devoted to the architecture of the Middle Ages, and who was professor of Milka Čanak Medić and had thus importantly influenced her work, was engaged in Ohrid and old Nubia projects, as well. It can be reasonably assumed that knowledge of and involvement in both international projects significantly influenced conservation approach of Čanak Medić.

Milka Čanak Medić alone points out reconstruction of the former Cistercian monastery in Konstanjeva na Krki (**Fig. 1**) among her most important achievements,²⁴ therefore this project is a sound bases to analyze her conservation approach.

19 Milka Čanak (married Medić) was born in Zrenjanin, Serbia, in 1929. She studied architecture in Belgrade (1947–52) and continued her studies of architectural monument conservation in Paris (1956–58; *École des Beaux Arts*). Čanak Medić obtained her PhD at the architectural faculty of the University of Belgrade in 1976 (conservation and presentation of the late Antique villa in Gamzigrad) and was then employed at the *Institute*, where she retired in 1988. She also lectured at the architectural faculty of the University of Belgrade. Vodopivec, "The Contribution of Women"; Barbara Vodopivec, "Avntentičnost je bila prvi kriterij ohranjanja: Pogovor s konservatorom dr. Milko Čanak-Medić," *Umetnostna kronika* 55 (2017), 29.

20 "Radovi Saveznog," 165–184.

21 Nadežda Stojanović, employee of the institute, investigated samples of wall paintings in 1963 at the Institute. "Radovi Saveznog," 184.

22 Contribution of Yugoslavia in Old Nubia project is described by Mađarić, "Učešće Jugoslavije," 17–27.

23 Mađarić, "Učešće Jugoslavije," 25.

24 Vodopivec, "Avntentičnost," 29–37.

17 List of the Institute's projects, together with experts involved, is published in "Radovi Saveznog," 165–184.

18 Vodopivec, "The Contribution of Women."



Fig. 1. The former Cistercian Abbey St. Mary's Spring/Fons beatae virginis Mariae in Kostanjevica na Krki in 2017, Baroque reconstruction of the bell tower and free-standing façade took place in 1969 and 1970. Courtesy of Photo documentation of the Božidar Jakac Art Museum.

The project is extensively described by Čanak Medić,²⁵ as well as investigated in several studies.²⁶ Analysis of the project reveals, that Čanak Medić introduced a number of the so-called French school conservation methods. The main features of this approach are the leading role of the architect, introduction of the old masters' techniques and comprehensive reconstruction, often with reference to the stylistic renovation champion architect Viollet le Duc (1814–1879). In Kostanjevica Čanak Medić took advantage of the Ohrid conservation project experience by levelling

of the leaning south façade of the church, which was highly demanding construction project.²⁷ At the same time, her approach reveals the strong influence of the Athens charter (1931),²⁸ reflected in thorough preliminary multidisciplinary surveys, accurate documentation, use of new materials (e. g. reinforced concrete), inclusion of the object's surrounding in the plans and considerations on the object's use from the beginning of the project on.

Even though the Athens charter rejects stylistic restoration, the huge devastation, caused to a number of monuments during the Second World War in Europe raised debates on reconstruction and the way it should be done, again. Different approaches were applied, from reconstructions, such as in Warsaw and Dresden, to mere conservation of remains, such as in the case of the Coventry cathedral. Yet, a kind of compromise between le Duc and Brandi, which combined reconstructions, supported by new techniques and materials, and respect to authenticity, was often applied.²⁹ Post war reconstructions in France, where Milka Čanak Medić took part as a student (reconstruction of the Rouen cathedral, above all), strongly influenced her work, in Kostanjevica, as well. Given that art historian Vlado Madjarić, president of the federal institute, accompanied Čanak Medić in Kostanjevica and was a member of the project's expert committee,³⁰ one can reasonably assume that he was in favour of the approach,³¹ as well as that the Institute applied similar concepts to other projects around Yugoslavia.

Conclusions

The key research aim of this paper was to deepen the understanding of the position and role of women in conservation profession in former Yugoslavia. This was done by a quantitative analyses of women in conservation projects of the Institute and among authors in *Zbornik* in the period 1950–71, and by referring to same case studies, carried out by the Institute, primarily conservation of the church St. Sofia in Ohrid, Macedonia, of the UNESCO action in old Nubia and of the conser-

25 Milka Čanak, "Konsolidacija samostanske cerkve v Kostanjevici na Krki," *Varstvo spomenikov* 7 (1960), 37–48; Milka Čanak, *Projekat za adaptaciju cistercitskog samostana u Kostanjevici za savremene potrebe*, Vol. 1 (Beograd: Jugoslovenski institut za zaštitu spomenika kulture, 1970); Milka Čanak-Medić, "K preučavanju cerkve cistercijanskega samostana v Kostanjevici," *Varstvo spomenikov* 11 (1967), 34–39; Milka Čanak-Medić, *Projekat za adaptaciju samostana u Kostanjevici* (Beograd: Jugoslovenski institut za zaštitu spomenika kulture, 1970); Milka Čanak-Medić, "Pristup obnovi cistercitskog samostana u Kostanjevici, zaštiti romanske crkve Arače u Vojvodini i anastilozu arheoloških spomenika," *Zbornik za zaštitu spomenika* 26–27 (1977–78), 179–189; Milka Čanak-Medić, "Rekonstrukcija crkve cistercitskog samostana u Kostanjevici," *Zbornik zaštite spomenika kulture* 16 (1965), 184–200; Milka Čanak-Medić, "Cistercitski manastir u Kostanjevici i njegova obnova," *Zbornik za zaštitu spomenika* 22–23 (1972–73), 56–70.

26 E. g. Emilijan Cevc, "Kostanjeviški samostan," *Varstvo spomenikov* 1 (1948), 13–15; Ivan Komelj, "Cistercijanski samostan v Kostanjevici na Krki – njegova usoda in konservatorski posegi," *Varstvo spomenikov* 7 (1960), 21–36; *Kostanjevica na Krki: Samostan: Program spomeniških del* (Ljubljana: Zavod za spomeniško varstvo LRS, 1961); Magda Miklavčič Pintarič, "Kostanjevica monastery: St. Mary's Spring/Fons beatae virginis Mariae – a Phoenix of Slovenian Monument Preservation," *Virtual Exhibition Documenting Heritage Forever – Preserving our History Forever*, edited by Brigita Petek (Ljubljana: INDOK Centre, 2013); Mija Oter Gorenčič, *Deformis formositas ac formosa deformitas: Samostanska stavbna plastika 12. in 13. stoletja v Sloveniji* (Ljubljana: Založba ZRC SAZU 2009), Series Opera Instituti Artis Historiae; Marijan Zadnikar, *Kostanjeviški kloster 'Fontis S. Mariae'* (Ljubljana: Družina, 1994); Alenka Železnik, "Kostanjevica na Krki – prenova samostanskega kompleksa," *Vekov tek: Kostanjevica na Krki 1252–2002: Zbornik ob 750. obletnici prve listinske omembe mesta*, edited by Andrej Smrekar (Kostanjevica na Krki: 2003), 455–465.

27 Vodopivec, "Avtentičnost," 33. Intervention in Kostanjevica was done together with engineer Oskar Hrabovski, who also worked on the levelling of the wall, inclined from the horizontal position, on Smederevo fortress in 1957 and 1958.

28 The Athens Charter, <https://www.icomos.org/en/charters-and-texts/179-articles-en-francais/ressources/charters-and-standards/167-the-athens-charter-for-the-restoration-of-historic-monuments> (accessed January 29, 2018).

29 Jokilehto: *Conservation*, 285–87; Marjan Mušič, "Kulturna misija Viollet-le-Duca: Pokušaj kritičkog osvetljavanja velikog i značajnog dela 'Dictionnaire raisonné de l'architecture française du XIVe au XVIe siècle' povodom stogodišnjice izlaska prve knjige," *Zbornik zaštite spomenika kulture* 6–7 (1955–56), 91–98.

30 Vodopivec, "The Contribution of Women."

31 Vodopivec, "Avtentičnost," 35–36.

vation of the former Cistercian monastery in Konstanjevica na Krki, Slovenia. The topic was introduced by a short historical outline of the monument protection service development in Yugoslavia and was constantly observed from the comparative perspective of the concurrent international developments.

Women experts were involved in more than 60% of all projects, carried out by the Institute in the period 1950–71 and presented around one-quarter of authors in *Zbornik*. This allows us to conclude that not all women involved in the field work also contributed written articles. Case studies analysed confirm that Yugoslav conservation approach was influenced by international trends and was involved in European and global trends. Examination of selected projects, Kostanjevica na Krki above all, suggests some elements that could be called the Yugoslav approach, however, further studies need to be done in order to confirm this assumption. Above all, conservation practice and theory in each former Yugoslav republic should be further explored, as well as in-depth analyses of conservation projects, carried out by the most prominent female conservators, should be performed. In addition, theoretical considerations on the conservation work of the leading Yugoslav conservation experts need to be taken in account to complement the solely gender perspective; for Slovenia this certainly refers to the conservation work and theory of architect and conservator Marjan Mušič (1904–1984). Given the complexity of the topic, which was examined and discussed herewith, it is reasonable to conclude that the purpose of this paper was more than achieved if it demonstrated certain aspects of women participation in Yugoslav conservation profession and opened up some new research perspectives on the history of conservation in Yugoslavia.

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Three Women Architects in Turkey's Conservation History

Introduction

During the first decades after the Turkish republic was founded in 1923, women's revolution was a significant part of the Kemalist revolutions. The extension of suffrage to women in 1934 targeted the male-female equality underlying the democratic tendencies of the new republic. It is clear that women helped construct the project of modernity especially until 1940s. They reflected the new image of Turkey, as a westernized country. The women who were raised during these early years experienced a transformation in the society, felt they needed to be part of this to be useful for their country and although still small in numbers they started to appear in many fields as professionals which they were not part of before.¹ Architecture was one of the professions women got interested in when they were given the permission of study. In 1934, Leman Cevat Tomsu ve Münevver Belen graduated from the Architecture Department of Fine Arts Academy in Istanbul as the first women architects of the country. During 1934–50, a total of 38 women took architectural education and became architects.²

This study will introduce three of these 38 female architects, Cahide Tamer, Selma Emler and Mualla Eyüboğlu Anhegger. They studied architecture in early 1940s and after graduation passionately got involved in architectural conservation. They worked as state architects and acted as controllers of many important restoration projects alongside their male counterparts. They took active roles in

1 Yeşim Arat, "The Project of Modernity and Women in Turkey," *Rethinking Modernity and National Identity in Turkey*, edited by Sibel Bozdoğan and Reşat Kasaba (Seattle: University of Washington Press, 1997), 95–112.

2 Yekta Ozguven, "Türkiye'de İlk Kadın Mimarlar," *Mimarlık ve Kadın Kimliği*, edited by Nuray Togay (Istanbul: Boyut Yayın Grubu, 2002), 79–100.

the restoration projects of Istanbul's monumental heritage and by coincidence, all three took part in the restoration project of Rumeli Fortress, an important national landmark for Turkish history.

This essay aims to offer an evaluation of the professional works and contributions of these three women and while doing this shed a light on Turkish conservation history during 1940s - 1960s.

Cahide Aksel Tamer (1915–2005)

Cahide Tamer was one of the 3 women architects mentioned above who left her mark on the conservation field. She was born and raised in Istanbul. Her father whom she lost when she was a child was a marine engineer. She got married at the age of 17, when she was going to high school and had to give a pause to her education. When she got divorced with a child only one year after her marriage, she decided to attend the Turkish arts program in 1935 at the Fine Arts Academy in Istanbul. Being keen on traditional Turkish arts like calligraphy, paper marbling and miniature painting, she was quite successful. Later when she finished high school, she decided to study architecture and graduated as a young architect in 1943.³ She started her first career in the Office of Works of Architectural Surveys (Rölöve Bürosu) whose first director was Sedat Cetintas, a well-known architect, who had devoted his life to historic monuments. Cahide Aksel was in charge of the restoration works of Hagia Sophia in 1943 and later in 1945 of Chora Museum.⁴ She worked as an architect in the General Directorate of Ancient Monuments and Museums under Ministry of Education during 1943–1956 where she was one of the team members responsible for historic structures such as Topkapi Palace Museum.⁵ Cahide Tamer worked in and around Istanbul, focusing generally on big scale monuments. Starting from 1956, she worked in General Directorate of Pious Foundations Office of Monuments and Construction Works until the time she retired towards the end of 1970s. During 1958-1961 she controlled the restoration of Porta Aurea in Yedikule Fortress, as one of her most significant work. Her approach was particularly structural consolidation of the authentic parts of this Byzantine heritage.

Her passion for architectural conservation is reflected in her words as:

On high heels I climbed on the domes of Hagia Sophia, I wore my jump suit and worked on the masonry walls of Gebze *Çoban* Mustafa Paşa Complex. I enjoyed restoration works and what I did, I did them all with passion and love.

3 Başar Başarır, "30 Yıl Restorasyon: Cahide Tamer," İstanbul (2005), 94–95.

4 Nur Akın, "Koruma Alanının Büyük Kaybı: Cahide Tamer." *Mimarlık* 328 (2006), 10.

5 Olcay Aydemir, "Bir Kadın Vakıf Mimarı: Cahide Aksel Tamer," *Restorasyon* (2016), 37–43.

Besides her practical experience, her will to get acknowledged about the theory of conservation is worthy of mention. She conducted her studies in 1952 in Paris at the Department of Monuments Historiques. During this two months visit, she made technical observations at different restorations and made short term visits to historic sites in Italy and Spain. She stated later that she was especially influenced by the Italian approach to conservation and tried to adopt their principles on the restorations she had undertaken.⁶

Mualla Eyüboğlu Anhegger (1919–2009)

Another woman architect of the same period was Mualla E. Anhegger who was born in Sivas. Due to her father's occupation she was raised in Trabzon where her family temporarily lived. With their artistic personalities Mualla's two older brothers (painter and poet Bedri Rahmi and writer, academic and translator Sabahattin Eyüboğlu) had been her idols. As soon as she finished high school in Istanbul, she started her studies at the architecture department of Fine Arts Academy in Istanbul, where Bedri Rahmi was already among the teaching staff. Graduated in 1942 and encouraged by her brother Sabahattin, she got involved in the Village Institutes project.⁷ In 1943 she was the head of Hasanoğlan Village Institute Department of Building Skills.⁸

Village Institutes, scattered in rural parts of Anatolia was among the ideals of the young Republic government. They played a vital role in the early career of Mualla, as well. She worked willingly in different village institutes and there, met some intellectuals who taught different topics. She also got involved in their architectural designs. Özgüven states that % 60 of the first women architects in Turkey had entered at least once in an architectural competition.⁹ In the early years of her career Mualla designed the project of a village institute in Kayseri for an architectural competition with her

6 Akın, "Koruma Alanının Büyük Kaybı," 10.

7 Village Institutes, as a national development project of the early Republican era were established in 1940 to modernize the rural areas of the country. They run practical (agriculture, construction, arts and crafts etc.) and classical (mathematics, science, literature, history etc.) courses to the young people living in villages and aimed to raise school teachers for the primary schools in the rural parts of the country until the time they were closed in 1952. The topics of the education system focused on culture, arts, social sciences and economy. İsmail Hakkı Tonguç who was the head of the primary school education under the Ministry of Education, acted as the founder of Village Institutes. He was also a close friend of Sabahattin Eyüboğlu. Mualla received a call from Tonguç, inviting her to work at Village Institutes after she graduated from architecture department.

8 Erdem Yücel, "Restoratör Mimarlardan Mualla Eyüboğlu (Anhegger)," *Yapı* 276 (2004), 89–92.

9 Yekta Özgüven, "Women and Architecture from the Early Republican Years to Nowadays: The First Women Architects in Turkey," *Proceedings Design of Education in the 3rd Millenium Frontiers in Engineering Education*, vol. 1, edited by A. Öztürk, et al. (Istanbul: Yeditepe University, 2005), 439–447.

colleague Ahsen Yapaner (a male architect) and this building was later constructed.¹⁰

In 1947 when she was working in Ortaklar Village Institute, she caught malaria and had to quit working in Anatolia and return to Istanbul for her recovery. As soon as she recovered in 1948, she started her academic career as a research assistant in Fine Arts Academy (Urbanism). During the time she was working there, she used to spend the summers in Anatolia, attending the excavations at Ephesos and Yazilikaya (directed by Albert Gabriel, the French archaeologist/architect). Mualla became close friends with Halet Çambel, another important woman character of the early republican period, during Yazilikaya Excavations. From her words 'If I hadn't seen Anatolia, hadn't learnt what I had or worked with archaeologists at excavations, ... I wouldn't have been able to do what I have achieved. For I have no diploma for restoration', it is clear that these excavations had been significant experiences for her future career.

In 1951, Gabriel recommended Mualla to the recently established High Council for Historic Real Estate and Monuments and she became the first rapporteur. However, Mualla who preferred working on site rather than in an office, chose to be a state architect responsible of restoration sites of different monuments and soon quitted this job. She started her career in General Directorate of Historic Artefacts and Museums. There, she travelled long distances to control restorations around the country. Throughout her career as a conservation architect, Eyüboğlu was the controller of the restorations of many Ottoman monuments, such as the Ottoman Admiral Barbaros Pasha Tomb, Siyavuşpaşa Kiosk and Sultan Tombs in Hagia Sophia Complex. Her bold decisions taken for the restorations of Harem section in Topkapi Palace (especially those of the Twin Kiosks) in early 1960s brought her work both approvals and critiques.¹¹

Mahmude Selma Emler (1920–1992)

Selma Emler, one of the three women conservation experts was born and raised in Canakkale, where her father had worked as a doctor. She suffered from infantile paralysis at the age of ten, which inherited her a difficulty with walking through her life. Like Tamer and Eyüboğlu, she attended architecture department of Fine Arts Academy and graduated as an architect in 1944. The first generation of women architects in Turkey were either employed through public commissions, in

the private sector, or as state officers in planning departments.¹² Similarly, Selma started her career at Ministry of Education as an architect and was involved in public school building designs for 7 years. Being keen on ancient buildings, she chose to continue her career in Topkapi Palace Museum as a state architect in General Directorate of Historic Artefacts and Museums in 1951. Selma's work attracted the attention of Albert Gabriel and with the help of his recommendations and the bursary she received from Turkish Government, she went to Paris in 1957 for further studies on conservation. Emler stayed there 2.5 years and completed her master studies on the topic of historic building preservation. Ten years later in 1969 she received a scholarship from UNESCO and attended another program at the University of Rome. Selma is also known as having attended the International Venice Congress in 1964 together with Doğan Kuban. She represented Turkey at the conference with her works she had just accomplished at Topkapi Palace Museum Harem section and later opened a photography exhibition on the same topic on San Giorgio Maggiore Island.¹³

Selma primarily contributed to the preservation of different buildings in Topkapi Palace Museum. Besides these, she took part at the restorations of a small fortress in Şile/Istanbul, the Mevlevi convent in Galata/Istanbul and the tomb of Gülnuş Valide Sultan.

There is limited information on Selma Emler's personal life. Her long article she published in 1962 on the restorations she had conducted at Selim IInd's Chamber in Harem of Topkapi Palace is a valuable document to recall.

Architectural Education and Careers

The three women architects, subject to this paper studied in the Fine Arts Academy in Istanbul and graduated one after another.¹⁴ This period is the time when Bruno Taut was the head of the Department. The program was redesigned leaving the classical beaux-arts model behind. Taut respected the traditional Turkish architecture and Ottoman monuments like Sedat Hakkı Eldem who was an assistant, then. The three women must have been influenced by the two teaching figures, Celal Esad Arseven (teaching Turkish Art and Architecture) and Sedat Hakkı Eldem (organizing National Architecture Seminar) at the time they studied in the Academy during early 1940s. Part of the National Architecture Seminar the students were taken to different Anatolian cities and worked

10 Seda Çalışır Hovardaoğlu, "Pazarören Köy Enstitüsü'nün Sosyo-Mekansal Etkilerinin Değerlendirilmesi Üzerine Bir Kırsal Tarih Araştırması," *Tarih Okulu Dergisi* 19, no. 7 (september 2014), 581–599.

11 Burcu Selcen Coşkun, "Koruma Uzmanı Üç Kadın Mimar ve Türkiye Koruma Tarihindeki Yerleri," *Kültürel Miras ve Kadın*, edited by Gökçe Şimşek et al., (Aydın: Adnan Menderes University, 2017), 43–58.

12 Özlem Erdogdu Erkarlan, "Turkish Women Architects in the Late Ottoman and Early Republican Era, 1908–1950," *Women's History Review* 16, no. 4 (2007), 555–575.

13 Uğur Tanyeli, *Mimarlığın Aktörleri Türkiye 1900–2000* (İstanbul: Garanti Galerisi, 2007), 360.

14 Mualla graduated in 1942, Cahide in 1943 and Selma graduated in 1944.



Fig. 1. Cahide Tamer, on top of one of the domes of Hagia Sophia Museum during 1956 restoration. Source: Cahide Tamer Archive, 1956, Courtesy of Virtual Architecture Museum.

on architectural surveys of traditional houses, which still possessed unique features and wrote thesis on these structures.

This atmosphere at the Academy must have affected the three women architects.

Having graduated from the same university and starting their careers around the same time, the three women had some simultaneous practices in Istanbul during 1950s - 1960s. Cahide and Mualla were occupied with Hagia Sophia restorations (Fig. 1) at different periods of their careers and all three were controllers of different parts of Topkapi Palace Museum. There were only a few state institutions responsible of conservation of architectural heritage in those years and all three worked at these institutions in different periods throughout their careers. Thus, their working periods somehow intersected with each other.

Conservation Activities between 1945–1970 and the Restorations Undertaken by the Three Women

State-led heritage conservation which initially started to be institutionalized in Tanzimat Period (1839–76) in Ottoman Empire continued until 1950s in the Republican times. The general approach of these early years towards architectural conservation was the maintenance and safeguarding

of symbolic historic buildings that had been regarded as monuments. During the foundation years of the Republic, there was limited activity in the construction industry and the nation lacked enough economical sources in all fields. The few conservation activities targeted to save the lives of symbolic buildings, such as mosques, inns or caravanserais in Anatolia. Only a small group of architects and technicians were commissioned in the restoration projects of these monumental buildings, some of which were given new functions as museums or state offices. However, no matter how scarce the resources had been, there was still a continuous effort for rescuing significant buildings from demolition.¹⁵ The actors of these restorations were architects who had become experienced working long time with ancient buildings on site. In Istanbul, the Commission for the Preservation of Antiquities, founded in 1915 was still active for the decision making processes of the preservation of historic monuments.¹⁶ A central governmental body which would be dealing with historic buildings throughout the country was first going to be established in 1951 and undertake the duties of this institution.

1950s and 1960s marked the years when the state conducted big scale urban transformation projects for Istanbul which eventually caused a decay and loss in the historic urban fabric. Istanbul's historic environment was kept intact until then. During Prime Minister Menderes' urban interventions, historic structures which used to form the texture of the Ottoman city, such as small mosques, baths, madrasas, cemeteries and fountains were demolished in order to open big boulevards and widen the main roads. On the other hand, during this destruction there was also an increase in the restoration activities as part of the beautification process of the city started by the government and municipality of Istanbul. There was a hustle of restorations being conducted in the city. Istanbul's monuments were getting ready for the 500th anniversary of the Conquest of the city.

Many state-architects took part in these restorations with remarkable efforts for protecting historic buildings. Alongside their male counterparts, the three women architects also took responsibilities at these restorations and their works were always praised among the others. At Rumeli Fortress they worked simultaneously completing each other's works. After the restoration, İnan mentioned the three women and praised them in a magazine article with the title: 'Rumeli Fortress was restored by 3 Turkish ladies'.¹⁷ (Fig. 2)

15 Selcen Coşkun, "Koruma Uzmanı Üç Kadın Mimar," 43.

16 Emre Madran, *Tanzimat'tan Günümüze Cumhuriyet'e Kültür Varlıklarının Korunmasına İlişkin Tutumlar ve Düzenlemeler: 1800–1950* (Ankara: Middle East Technical University Press, 2002); Neriman Güçhan Şahin and Esra Kurul, "A History of the Development of Conservation Measures in Turkey: From the Mid-19th Century until 2004," *METU JFA*, 2 (2009) 19–44.

17 Afet İnan, "Rumelihisarı'nı 3 Türk Kızı Restore Etti," *Hayat*, October 9, 1959, 41.



Fig. 2. Afet Inan's article in *Hayat* magazine praising the work of three architects. Source: Afet Inan, "Rumelihisarını 3 Türk Kızı Restore Etti," *Hayat*, October 9, 1959, 41.

Restoration of Rumeli Fortress, 1955–1958

Located at the narrowest part of Bosphorus, Rumeli Fortress was built by the order of Mehmed II in 1452 and played a vital role in controlling the commercial and military traffic of Constantinople. As a fortress it was useful for a short period. Because Constantinople was conquered several months after its construction, the building has been associated with the conquest of Constantinople and its massive appearance has been a reminiscent of a powerful Ottoman Empire.

For the 500th anniversary in 1953, Ministry of Education and Istanbul Municipality together decided that as part of the framework of the commemorative program of the conquest, monuments of great importance should be restored, such as Anadolu Fortress, Rumeli Fortress and Fatih Complex.¹⁸ Rumeli Fortress' extensive restoration could only start in 1955. It was closely followed by Celal Bayar, the president of the period who also attended the opening ceremony.

The restoration lasted 3 years and was regarded as one of the major and most meticulous state

18 Inan, "Rumelihisarını 3 Türk Kızı," 41.

led restorations in 1950s.¹⁹ The major criticism for the restoration was for the condemnation and demolition of 23 timber houses within the walls of the fortress at the beginning of the restoration works. The houses which were dating to the end of nineteenth century almost consisted a small neighbourhood. As a result of the decision to scrape the fortress off all other layers that had reflected sub-narratives in order to maintain its appearance as a symbol of victory, the fortress was cleared off these timber houses in 1953. Cahide Tamer expressed her regret much later by stating that she would have preferred to preserve some of these timber houses which actually had a character.²⁰

As soon as High Council for Historic Real Estate and Monuments declared the principles to be followed in the restoration, Selma Emler was the first architect on the site controlling the ongoing works. She was soon followed by Cahide Tamer, who was going to lead the works until the end. Tamer acted as the chief controller of the restoration. She was responsible of the Fatih Tower; whereas Emler was responsible of Çandarlı Halil Paşa Tower.²¹

When the restoration works were done and the building was ready for public visits in 1958, Mualla Eyüboğlu got involved in the project as the controller of the environmental design inside the fortress, which was a project achieved by an architectural competition. She worked on the site for another three years controlling the realization of the environmental design project by Tekeli-Sisa-Hepgüler (Site Architects).

As for the theoretical approaches for the restoration we can gather from what the three women architects had told and written that the 'conserve as found' principle was the favoured approach. Selma Emler and Cahide Tamer declared at a newspaper interview that the restoration team didn't aim to scrape any historic layers off the fortress and what they aimed was to consolidate the building without ruining its original character. The conservation team decided to leave the towers as they were and didn't reconstruct the spires as what had previously been suggested in reconstruction drawings by Gabriel. They also tried hard to decide on different mortars for the masonry walls and tried more than 30 samples before they decided which one to use.²² Mualla Eyüboğlu talked about her own approach to the restoration later in an interview:

when you look at Rumeli Fortress today, it doesn't really look like it had been restored. We tried

19 Nur Altinyıldız, "Tarihsel Çevreyi Korumanın Türkiye'ye Özgü Koşulları (İstanbul 1923–1973)" (Phd dissertation, İstanbul Technical University, 1997) noted that the commission responsible for the celebrations of 500th anniversary of the Conquest declared that 12 monuments had been chosen which would be restored and for this task a budget of six million Turkish liras which had been spared from different ministries would be spent.

20 Altinyıldız, "Tarihsel Çevreyi Korumanın," 108.

21 Başarır, "30 Yıl Restorasyon," 95.

22 Cahide Tamer, *Rumelihisarı Restorasyonu, Belgelerle ve Anılarla, 1955–1957* (İstanbul: TTOK, 2001).

to freeze what was historic. We reproduced only the details that already existed, nothing else.²³

During Mualla Eyüboğlu's control, the public space within the fortress which had been cleared off the ruins of a small mosque, was decided to be used as a performance space. Later she defended this decision stating that they decided to freeze the parts of the original minaret which was the only architectural element that had remained from the mosque and not to restore the whole mosque, because it wouldn't be practical and suitable for the contemporary use of the fortress, because there was no more a trace of a settlement and the space was only used for concerts and plays.²⁴

Conclusion

The three women, subject to this article were born, raised and studied architecture in the early republican era, which seemingly encouraged women to be seen and recognized in the public sphere and participate in the professional life.²⁵ From their life stories and ambitious careers, it is obvious that they felt they owed their existence to Mustafa Kemal Atatürk's revolutions.²⁶

Soon after they got their diploma from the university, they started working for the state and developed their careers at the same state institutions with each other. Unlike their predecessors Tomsu and Belen, who devoted themselves to architectural design, they preferred working on conservation field and were remarkably successful in the works they had undertaken, worked on equal footing with their male counterparts.

By coincidence, all three took part in the 1955 restoration of Rumeli Fortress and later at Topkapi Palace Museum Harem section restorations at different times. All wrote long articles explaining their completed works in detail, which today shed a light on the conservation history of Turkey.

Tamer's words explain well the mutual passion of the three architects for conservation of historic buildings:

...historic preservation, in our country, is surely not an occupation that will satisfy you economically. The people who have devoted themselves for years to this profession are the ones who have fallen into its appeal.²⁷

Throughout their careers, they must have experienced conflicts, sometimes even competed with each other. However, there is no doubt; they deserve to be remembered among the leading figures of architectural conservation in Turkey.

23 Altinyıldız, "Tarihsel Çevreyi Korumanın," 109; Tamer, *Rumelihisarı Restorasyonu*, 14.

24 Tuba Candar, *Hitit Günesi Mualla Eyüboğlu Anhegger* (Istanbul: Dogan Kitap, 2003).

25 Candar, *Hitit Günesi*, 103.

26 For another perspective that challenges this idea, see Arat, "The Project of Modernity," 109.

27 Cahide Tamer, "Cumhuriyet Devrinde Eski Eser Anlayışı ve Onarım Faaliyetleri." *Rölöve Restorasyon Dergisi*, 1/1 (1974) 9–15.

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The Role of Modern Women in the American Preservation Movement: The San Antonio Conservation Society and the Women Who Saved the City's Heritage

Introduction

The beginning of the Preservation Movement in the United States (US) began late in history compared with other countries of Western Europe. Actions began to start taken few years before the Modern movement because for some time the society considered there was nothing to be worth preserving. Towards the beginning of the nineteenth-century various preservation society groups were born, such organizations were principally interested in preservation for patriotism and pride. These interests lead to the beginning of the patriotic movement known as the American Preservation Movement. In the US the importance of this period is linked to the initiatives of groups of women from the elite who wanted to protect the history of their ancestors. The role of women in this movement becomes an essential element for the creation of regulations and documents for the protection of historical monuments, where the SACS played a key role.¹ One of the organizations that marked the history of the American Preservation Movements is the San Antonio Conservation Society (SACS).

SACS is one of the oldest, most important and influential preservation organizations in the US. Created in the unique city of San Antonio, located in South Central Texas, in the southern US. This association gave a different focus to preservation compared to other previously created preservation groups, and this is what today marks the difference of our city. SACS begins its history in 1924, after a casual encounter between two well educated and travelled women, who had a common interest for art and had a desire to preserve the unique multi-cultural community of San Antonio.² The

artistic oriented leaders were Emily Edwards and Rena Maverick Green, who together recruited a group of women who shared their desire to protect their cities unique identity. The determination of these women for preserving the vibrant culture of San Antonio and their passion for art began a significant legacy that became a leading example for other organizations in the country. Emily and Rena changed the ideas of the previous associations, which were formed for personal interest and patriotism.

This group of women established their goal to save the structures that represented the history of San Antonio, architecture that represented the different countries that immigrated to our city. However, what made the real difference was the interest of this association in preserving the intangible elements, the unique culture and traditions of San Antonio, and this is when the term conservation is adopted.³ By establishing their mission to protect every aspect that made San Antonio unique and different from other US cities, the work of SACS goes beyond those of previously established preservation organizations. With the protection of both culture and architecture, this association achieves the creation of historic markers, historic neighbourhoods, and new regulations that protected San Antonio's natural, human made, and cultural resources. SACS was created during a harsh time for women in America when their ideas were barely being taken into consideration, and Modernism was starting. A few years after the founding of SACS, the US was experiencing an economic depression. That, however, did not stop the objectives of the SACS. To comprehend the history and important impact that the SACS had in San Antonio and the entire country is primordial to know the life of Emily Edwards and Rena M. Green whose original legacy continues after almost a century.

Artist and Leaders: Emily Edwards and Rena Maverick Green

San Antonio Conservation Society made the difference because of the ideology of its founders. Unlike other women whose interest was patriotic and personal, the leaders of the SACS wanted to preserve the rich culture and traditions of the city. Emily Edwards and Rena M. Green shared similar ideologies and were leaders and advocates of artistic and civic activities.⁴ Both of them were well educated, painters, sculptors, and lived in San Antonio but also in other cities around the country. These women were constantly traveling, but they will always come back to their beloved San Antonio. The passion of these women and their cultural experience allowed them to identify

¹ William J. Murtagh, *Keeping Time: The History and Theory of Preservation in America* (New Jersey: John Wiley and Sons, Inc, 2006), 27.

² Lewis F. Fisher, *Saving San Antonio: The Preservation of a Heritage* (San Antonio: Trinity University Press, 2016), 91.

³ Fisher, *Saving*, 93.

⁴ *Ibid*, 2.

the unique character of the city and led them to join together to rescue this culture. They saw in San Antonio a potential similar to the European cities, and this results in turning the city in one of the most visited cities in the country. An introduction to the life of Emily and Rena helps us to begin to understand the impact the SACS has had generation by generation.

Emily Edwards was born and raised in San Antonio. At a young age, she becomes an orphan and is forced to spend her young years in the historic Ursuline Academy, a building that later in her life SACS rescued. She studied art first in a local school of San Antonio and later with important artists in Chicago. Along with her studies, she began her career as a teacher and developed her artistic talents, also dedicating time to charitable activities. When she concluded her studies, she came back to San Antonio where she continued teaching art. Before co-founding SACS she dedicated time to the creation of puppets for dramas and lived in various cities across the country. With the economic boom of San Antonio and the beginning of modernism, Emily comes back to the city in the 1920s where, without a previous plan, she co-founded SACS and becomes the first elected president of the association. Emily was an important pioneer whose work is reflected in the rescue and beatification of the San Antonio River, and a couple of years later is the creator of the famous SACS play *The Goose with the Golden Eggs*. During her years as president of the organization, Emily continued studying art, spending summers learning from the esteemed Mexican artist Diego Rivera from whom she gained her interest and passion for folk art. She brought her knowledge to San Antonio, identifying similar art around the city and the state, leading her to receive a prestigious award from the Texas Society of Architects. They recognized her as a pioneer who contributed to the improvement in the quality of life in Texas.⁵ She spends her last years protecting the cultural heritage of her city until her death.

Mary Rowena Maverick Green, better known as Rena was born in Sedalia, Missouri but her family was originally from San Antonio. Her grandmother lived in the city and was the reason why she will visit San Antonio often. She was well known for her interest in watercolor and sculpture, and her participation in various art shows. When she was in her 20s, her family moves permanently to San Antonio, where she marries the well-known district judge Robert B. Green. From this marriage, she established a direct relationship with the city's political issues and civic activities. Rena becomes the first woman to occupy a place in the San Antonio School Board. Her participation as a major national leader in the women's right to vote movement helped her persuade city officials to appoint the first eight female officers to the San Antonio Police Department. Her participation in political and civic activities and her appreciation for art led her to become one of the most inspirational

women in San Antonio. Rena M. Green becomes the fifth president of the association where she makes it her mission to rescue each of the San Antonio's five Spanish Missions. After her time as a president, she continued her preservation work and never stopped collaborating with SACS. During the 1930s the mayor of the city gives her the commission to restore and direct the Spanish Governor's Palace. She participated in various leadership committees and managed to bring to the city the first urban planner tasked with protecting San Antonio's historic urban landscape.⁶ Rena dedicated her life to her mission of preserving the beauty and culture of San Antonio.

The experience of Rena M. Green and Emily Edwards makes them leaders of cultural character and not patriotism, making the difference between the San Antonio Conservation Society and other similar associations in the US. Despite their common interest and having lived in the same city, these women of diverse age did not know each other. It was not until the spring of 1924 when a casual encounter between Emily and Rena happens on a street in downtown San Antonio.

From the Old Market House to the *Goose with the Golden Eggs*

With the modernization of American cities, San Antonio did not want to fall back and was working to be on the same level of other big cities in the US. By the beginning of the 1920s, the city was experiencing a transformation boom where new constructions were beginning, including the creation of new roads and the widening of existing streets. Modernization was becoming a dangerous trick that was putting at risk the history and vibrant culture of the city.

The Old Market House, a unique Greek revival style building built in 1859 becomes endangered as a result of a street widening project. It is in front of this building on an afternoon in March of 1924, Rena and Emily run into each other while they were lamenting the possible loss of such a unique building.⁷ They began talking about what they could possibly do to rescue this building, and all the other structures in the same conditions. As the author L. Fisher quotes, in the conversation Green said 'well, we can just protest all we wish as individuals, and no one will pay attention to us. But if we organize they will'. From her experience, in the public and political field, she knew what they were facing. Furthermore, it is during this encounter that they decided to look for people like them, with an interest in art and culture, to put an action plan in order. At the end of March 1924, a group of thirteen women gets together electing Emily Edwards as the first president of the newly formed

5 Kendall Curlee, "Edwards, Emily," *Handbook of Texas Online*, <http://www.tshaonline.org/handbook/online/articles/fed13> (uploaded on June 12, 2010).

6 Anne Leslie Fenstermaker, "Green, Mary Rowena [Rena] Maverick," *Handbook of Texas Online* <http://www.tshaonline.org/handbook/online/articles/fgr36> (uploaded on June 15, 2010; accessed January 25, 2018).

7 Fisher, *Saving*, 93.

SACS.⁸ Such organization would concentrate in the preservation of the picturesque and unique culture of San Antonio, Texas. This group of women set as their mission the preservation of not only the physical characteristics but also other components of the traditions and culture of the city. They decided:

the object of this society is to cooperate in the preservation of the Missions, to conserve old buildings, documents, pictures, names, natural beauty, and anything admirable distinctive to San Antonio.⁹

The first intention was to save the Old Market House, an old commercial building, but the SACS lost this first battle. That becomes a motivation to rescue the vibrant culture of San Antonio.

With the attention of the city's government focusing on the construction of new buildings, creating flood control planes and other new developments, many areas of the city were in danger and being neglected. During this time of 'modernization', a proposal to fill the natural river bend was made in order to facilitate the flood plan, but this action was compromising the natural environment of the San Antonio River.¹⁰ For the SACS the heritage of the city was at risk. Therefore they decided to demonstrate to the city's commissioners the characteristics that made San Antonio unique in a very creative way. Emily Edwards utilizes her theatre background and proposes to create a history with puppets created by her, to which she named *The Goose with the Golden Eggs*. This story starred Mr. and Mrs. San Antonio and their golden eggs that represented the multi-cultural components of San Antonio: Heart of Texas, Missions, history, tourist, beauty and civic pride. Other puppets represented city commissioners.¹¹ The play was a discussion between Mr. San Antonio, who wanted to get rid of the golden eggs to have economic benefits, and Mrs. San Antonio who contradicted him to preserve the richness of the culture that those golden eggs represented. In this manner, the women of the SACS presented the play to the city's government to make them realize the challenges that this modern city was facing. Despite the irony of the show, the creative idea of Emily and Rena had generated the impact that they were looking for, and not only produced an interest in city's commissioners to save the golden eggs but also in many other members of the community. This puppet show was not the reason for the salvation of the river, but it became the iconic representation of this new organization whose determination was saving the vibrant culture of the historic San Antonio.

Preserving the Multi-cultural Heritage during Modern Times

The culture of San Antonio is one of the most unique and complex of the US. This city was influenced by various groups and countries such as the Native American Indians, Mexico, Spain, Germany, France, and Italy. This complex composition is today reflected in the different historic neighbourhoods of San Antonio and its peculiar architecture. Thanks to the work of the SACS it is possible to admire today the vibrant culture and history of central Texas. Since its foundation the mission has been to protect and recover the five Spanish Missions that are spread along the San Antonio River. From the five missions the most popular one known worldwide for the battles that took place on it and the various movies about it is Mission San Antonio de Valero, better known as the Alamo. After working with government agencies and helping to recover the land around the Alamo building, the attention goes to the other four mission to rescue little by little the land and structures of the initial missions. The work begun with Mission Jose which conditions were extremely bad since its abandonment for many years. With the growth of the city, San Jose's compound walls were destroyed, and the material was used to create a new neighbourhood around the church. This mission was the largest and most prosperous of the five constructed at the beginning of 1740, for this reason actions were taken to bring it back to its original construction.¹² The process was not simple, the recovery of the missions land begun during Emily Edwards presidency when SACS bought a door from the compound of Mission San Jose, then they acquired the granary, and a couple of years after the US begun an economical resection that slowed down the restoration of the mission. In spite of the harsh time, the ladies of the SACS managed to continue their preservation work on the mission and other areas around the city. The restoration of Mission San Jose was finalized during the presidency of Rena M. Green, and after ups and downs this landmark project of the society was celebrated with the *Indian Harvest Festival*, a festival that became a tradition celebrating the culture of the native Indians who lived and worked in the mission compound.¹³

San Antonio was growing fast and the ladies of the society were worrying about again losing the mission land and all the other properties related to the Spanish colonization. With this in mind, they began to collaborate with local and state government to find a way to rescue the missions' lands and develop regulations for their protections. While working on this they were assigned the commission to finalize the restoration of the Spanish Governors Palace located in Military Plaza, the location of the initial Spanish presidio.¹⁴ After a couple of years they rescued the properties along the river, achieving their first public win. Soon afterward they created the Witte Museum, the first

8 Ibid.

9 "Our History," San Antonio conservation Society, <https://www.saconservation.org/OurHistory/PuppetShow.aspx> (accessed January 25, 2018).

10 Fisher, *Saving*, 192.

11 "Our History."

12 Fisher, *Saving*, 3.

13 Ibid, 162.

14 Ibid, 126.

official museum in San Antonio, a Spanish revival style structure utilized for exhibitions of Texas history.¹⁵ The preservation of the Spanish revival style in the city becomes the principal objective of SACS because the majority of the historic monuments belong to it. This became a cultural-economic benefit for the city calling the attention of thousands of tourists annually. Continuing this ideology with a plan for the redesign of the Alamo lands, the restoration of Mission San Jose and the acquisition of the aqueduct of Espada, the atmosphere of San Antonio began to change and demonstrate the work of the SACS.

The San Antonio River, one of the city's most valuable natural resources, played an essential role in the history of SACS when it was in danger of being transformed as part of the city's flood control plan. City planners wanted to cover the horseshoe-shaped river bend, popularly known today as the Riverwalk. The work of SACS demonstrated to city government the potential of the river for economic and cultural development of San Antonio. It's here where the work of Robert H. Hugman, a former student of co-founder Emily Edwards, comes to San Antonio to create a design proposal for the river.¹⁶ The work of this young architect is today seen along the Riverwalk and appreciated for its architectural and artistic value.

SACS was also working on the restoration of one of the most significant zones of the city, the small Spanish village located on the riverbanks, first occupied by the Coahuiltencan Indians, and later the neighbourhood for the Spanish soldiers (Fig. 1).¹⁷ This area in the city's downtown was where the city was first originated, and occupied by multiple adobe structures with peculiar characteristics that were being destroyed with the modernization of the city. The ladies of the society began to study these buildings and established a plan to rehabilitate this zone. They bought one building at a time until they finally rescued and restored almost all the standing structures. Today this area is an icon of the city known as La Villita, and a commercial centre promoting cultural commerce.

In 1940, decades after the encounter between Rena and Emily and the founding of SACS, the completion of the river beautification and La Villita are finalized. During this year SACS decides to add the Indian Harvest Festival Parade to San Antonio Fiesta itinerary, to celebrate the success of the society. This River parade became part of the April celebrations reviving the vibrant culture and traditions of the city, and an activity to collect funds to support the work of the society.¹⁸ In 1948, after a period of success where women demonstrated their financial strength with the festival, festivities were moved to La Villita and renamed *A Night in Old San Antonio*.

15 Fisher, *Saving*, 102.

16 Ibid, 192.

17 Ibid, 198.

18 Ibid, 350.



Fig. 1. Unknown Artist, Conservation Society and Major Maury Maverick in La Villita During Restoration, May 9, 1940, Print, Photography. Courtesy of San Antonio Conservation Society Foundation.

The Success of a Night in Old San Antonio until Today

Since the foundation of the SACS, its leaders established as a mission the preservation of all features that shaped the history of San Antonio. Throughout the years and the rescue of various monuments, the strategies utilized to achieve their purpose were also transformed and improved. The determination of these women and their mission has never changed. As part of the celebration of the finalized reconstruction of Mission San Jose, an activity that marked the history of SACS, the Indian Harvest Festival emerged as it was called in 1933. Then in 1944, it becomes the River Parade; to later adopt the name of *A Night in Old San Antonio*, popularly known as NIOSA.¹⁹ This event began in 1948 and had functioned as a representation of the values and mission established by Emily and Rena, which the persons that have been involved in the SACS have unfailingly reinforced. NIOSA is the primary fundraiser preservation activity in the entire nation, worldwide known for its relation to San Antonio's Fiesta celebration.²⁰ Since its origins, people who dedicate their volunteer participation to support the ideologies of SACS have realized it.

NIOSA is a celebration of three to four days where the culture of San Antonio is celebrated. It is

19 Fisher, *Saving*, 348.

20 "History," A Night in Old San Antonio, NIOSA.org, <http://www.niosa.org/p/home/147> (accessed January 25, 2018).

formed by multiple cultural activities where visitors can learn about the city. This celebration created to support the mission of SACS is the principal resource of monetary funds that are utilized as an inversion to the preservation of San Antonio and its surroundings. Thanks to the impact of NIOSA at almost fifty years of its creation, SACS can support different areas of the community. Utilizing the funds from NIOSA, it has been possible for the SACS continuing investing in the preservation of architecture, parks, and monuments around the city.²¹ SACS has been dedicated to buying properties in danger, restore them and rehabilitate them to be utilized again. At almost hundred years of the foundation of San Antonio Conservation Society, they have been able to rescue approximately twenty-eight properties, of which fifteen are own by the society. Besides these investments, SACS has been dedicated to educating the community about history and preservation.

A Path to UNESCO World Heritage Site

Since the casual encounter between Rena and Emily, the mission of SACS has been to rescue the history and traditions that surrounded the Spanish Missions of San Antonio. Over the years such purpose has not been lost and has resulted in an increment of leaders that have work to save the city's heritage. The first commitment of the women of the SACS to rescue Mission San Jose had its ups and downs, but it did not stop the goals of the society (Fig. 2). After few decades from its foundation, they achieved the restoration of the five San Antonio Spanish Missions, and after almost fifty years of the completion celebration of Mission San Jose, the SACS accomplish to list the properties in the National Park Services in 1983.²² Today, these missions not only represent its own value and the purpose of SACS, but also they are a symbolic part of the city that is recognized worldwide.

At the beginning of the twenty-first century, San Antonio is once again in a development boom, and the SACS began to worry about the compromise this would represent for the missions. In 2006, SACS established a goal to insert in the UNESCO World Heritage Site list the San Antonio Missions Historic National Park. After many years dedicated to constant research to defend the authenticity of the missions, the course of history for SACS changes, and in summer of 2015, the designation is obtained. On this great achievement, the extraordinary leadership of this organization is reflected, achieving the first UNESCO site in Texas and the twenty-two in the US. The result of this accomplishment has resulted in an economic and cultural improvement for the city attracting

²¹ Fisher, *Saving*, 348.

²² Tommie Ethington, "On a Mission," *San Antonio Magazine* (July 2015), <http://www.sanantoniomag.com/July-2015/On-a-Mission/> (accessed May 28, 2018).



Fig. 2. Unknown Artist, Ethel Wilson Harris at Mission San Jose, 1940 Print, Photography. Courtesy of San Antonio Conservation Society Foundation.

thousands of tourists from around the world. San Antonio becomes a world-class destination and represents the hard work that SACS had done throughout the years. This milestone is added to the achievements of the SACS and works as a leading example of perseverance and teamwork for many organizations in the country.

The San Antonio Conservation Society Today

The history of the SACS has not been easy, but perseverance was always their virtue. Starting as an organization of only thirteen women is today of almost two thousand members both female and male. The impact of SACS has been exceptional, and their mission to preserve the culture of the city is a leading example for others. SACS has never changed their purpose, and the vision of Rena and Emily is always present.

Despite being a non-governmental association, the opinion of SACS is always considered and is an advisory tool for concerning topics affecting the heritage of the city. SACS is a society of action

that has not lost sight of their goals, and has continued working with other leading associations and government agencies to preserve those elements that make our city unlike any other. Throughout the years they have developed educational programs and tours dedicated to heritage, survey groups for abandoned spaces, and provided resources to support historic homeowners. Today SACS has a series of committees devoted to surveying multiple areas of study such as modernism, art, car culture, and intangible heritage. SACS has been the example for other associations in the same field and has made unprecedented contributions to saving historic monuments and cultural heritage in San Antonio; all these following the vision of the founding women.

Today San Antonio is experiencing an era of new development, but it has not lost its historical characteristics founded in its multi-cultural environment. With certainty, it is possible to say the city has conserved its traditions and uniqueness not found in any other part of the country thanks to the interest of Rena M. Green and Emily Edwards, who joined to create a one of a kind: the San Antonio Conservation Society. Their example of leadership and desire to protect the vibrant culture of the city is still present in San Antonio and will always be.

Acknowledgments

I want to mention Sue Ann Pemberton, FAIA, a leader and pioneer of the SACS for many years. I thank her for introducing me to the work of this exceptional group, for motivating me to pursue my goals and being a mentor, and facilitate me the resources to write this paper. She becomes the first president of the society with an architectural background in 2013, giving a new perception to the society. Her experience was a key to achieving the goals of the SACS during her presidency. She provided new opportunities and her passion for helping the community is today an influence for many. Thanks Ms P.

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Romanian Women Architects in Preserving the Cultural Heritage

This paper presents the journey of these restoration pioneers both from a practical point of view, by exploring their actual accomplishments, and a theoretical point of view, by presenting their contribution to the finalisation and implementation of the legal framework which is vital in the process of restoring the build heritage. The presented group is in fact a young elite, open minded to the experience of the West and from which the female architects distinguished themselves and had an important role in the rediscovery and salvation of the traditional values, but mostly in their preservation and conservation as absolute witnesses of an exceptional past.

We could say that because of the general and particular context given by Romania's political and economic particularities, a women's history is attested beginning with the first decades of the twentieth century, although more or less pertinent attempts were made much sooner. An important reference of these attempts was the 1848 Revolution after which the feminist current grew, the equality between men and women was requested and the Romanian women emancipated by equal right to education: Maria Rosetti, Sevastița Bălăceanu etc.¹

At the beginning of the twentieth century, once the necessary educational and operational framework for architecture as a profession was finalized (Department of Architecture was founded in 1919) Virginia Andreescu Haret (1894–1962) graduates the Superior School of Architecture and becomes the first woman to have a degree in architecture. Also considered one of the pioneers of international

¹ Raluca Livia Niculae, "General Considerations on Women Architects' Visibility in Romania," *Architecture* (2017), 109, published in Romanian.

architecture, she leaves behind a technical and scientific portfolio which directly contributed to the development of the specific Romanian architecture and opened a door for women in this domain.

When discussing the general aspects of the journey of female architects, the crucial moments in the history of their activities in this domain can be summed up as follows:²

1913 – Herieta Delavrancea (1894–1987) was accepted to the Superior School of Architecture, becoming fellows with Virginia Andreescu, Mărioara Ioanovici and Horia Creangă.

1915 – Lucia Dumbrăveanu (1895–1956), Henrieta's cousin, was accepted to the Superior School of Architecture.

1919 – Virginia Andreescu Haret graduated from the Superior School of Architecture. She continued her studies in Rome.

1920 – Lucia Dumbrăveanu and Horia Creangă were accepted, after two failed attempts, at *École des Beaux Arts* in Paris.

1921 – H. Delavrancea-Gibory designed her (possibly) first work, the German House at Nehoiu.

1926 – H. Delavrancea-Gibory graduated from the Superior School of Architecture in Bucharest.

1928 – Eugenia Greceanu was born. She specialized in the field of conservation and restoration of the national built heritage and the study of historical monuments.

1932 – H. Delavrancea-Gibory won, by defeating the team led by Horia Creangă, the first important architecture competition for the headquarters of the Institute of Public Hygiene and Health in Bucharest.

1946 – Elena Voinescu received a Diploma of Architecture from the Polytechnic Institute, Faculty of Architecture.

1947 – Paraschiva Iubu received a Diploma in Architecture. In 1954 she was awarded the Order of Merit for Labour, by Petru Groza (for the works at the Opera Theatre in Bucharest). Solange d'Herbez de la Tour, born in Romania, received a Diploma of Architecture from the Polytechnic Institute, Faculty of Architecture. She left the country in 1945 and moved to France where she became the founding member of two women's organizations and was awarded several distinctions. Ioana Grigorescu received a Diploma of Architecture. She was one of the main contributors for defining a direction in Romanian restoration.

² Raluca Livia Niculae, "Architecture, a Career Option for Women? Romanian Case," *Review of Applied Socio-Economic Research* 4, no 2. (2012), https://www.researchgate.net/publication/258509820_Architecture_a_career_option_for_women_Romania_case (accessed May 24, 2018).

1948 – All architecture practices were closed down, the architecture profession lost its liberal character.

1963 – Solange d'Herbez de la Tour set up the International Union of Women Architects (UIFA, Union Internationale des Femmes Architectes).

1967–70 – The extension of the Commercial Academy Palace in Bucharest was built (architect Cleopatra Alifanti).

1972 – The third UIFA Congress took place in Bucharest: 'Idees et collaboration des Femmes Architectes pour l'humanisation des espaces urbains nouveaux'.

1977 – Herieta Delavrancea-Gibory opposed, with no positive outcome, to the demolition of several monuments in Bucharest (Văcărești Monastery, Mihai Vodă Monastery, Antim Monastery, St. Vineri Church).

1982 – Architect Anca Petrescu (28 years old) was appointed Chief Architect and was in charge of the communist regime's masterpiece: the Political and Administrative Center of Bucharest.

1990–2000 – In the wake of overthrowing Ceaușescu's dictatorship and installing the democratic regime, the feminist movement in Romania entered a new stage in its evolution.

1992 – The Constantin Joja Prize for Architecture was awarded to architect Silvia Păun.

1993–2000 – Architect Eugenia Greceanu was appointed President of ICOMOS; she was also a member in the National Commission for Historical Monuments between the years 1970–73 and 1990–96.

Subordinated to the local social, economic and cultural context and, more or less, to gender segregation, in Romania architecture as a profession seems to not only have accepted but also encouraged the feminine presence since its very beginnings of being consolidated and organized as a commonality, as it can be observed by the enumeration of historical moments presented above.

In restoration, when a more complex approach was required, the female architects have excelled by showing not only a good knowledge of methods, techniques, construction materials and restoration technologies, but a particular fine and careful inclination to the monument, a historical, social, physical and artistic mastery and a symbiotic understanding of the existent problems and solutions particular to that monument.

The following examples will explain this statement and will prove the importance that women architects have given to restoring, preserving the architectural history and saving the Romanian monuments, in any political context.

Eugenia Greceanu (Fig.1)

'It is our obligation to show what people were [sic.] able to make while being discriminated against'.³

Eugenia Greceanu worked in restoration from June 1954 within the Historical Monuments Department, institute led by architects Ștefan Balș and Radu Udroi. In 1960 she became a referent of the Historical Monuments Direction (DMI) for Brașov, Mureș and Hunedoara regions, and after 1968 for Brașov, Sibiu, Covasna and Harghita counties.

As a DMI referent she initiated the process of declaring architectural reservations by obtaining the approval of the local administration for 12 urban perimeters, including Roman, Botoșani and Pitești, and between 1961 and 1970 she participated in the revision and completion of the List of historic monuments created by DMI. In this period she also wrote her PhD thesis entitled "The Architecture of Romanian Wall Churches from the XIIIth and XIXth Centuries," guided by professor Grigore Ionescu and finalized in 1974 but only presented in 1977.⁴

One of the biggest restoration challenges for Eugenia Greceanu was bringing monuments as close to their initial form as possible. One example is Casa Negoțului (The House of Trade) built in 1557 by Apollonia Hirscher, which had storage units at the cellar and ground levels, some work rooms and shops and a floor design opened to the exterior with arches, the building presenting itself as two bars tied together by three transversal units.

In the ninetieth century the monument suffered some changes to the exterior openings and the free arches on the long side were built up or even destroyed. The roof was affected by a fire. The initial restoration made by architect Eugenia Greceanu brought all the openings to their initial form, the ground floor arched gallery was reconstructed using steel concrete, the framework of

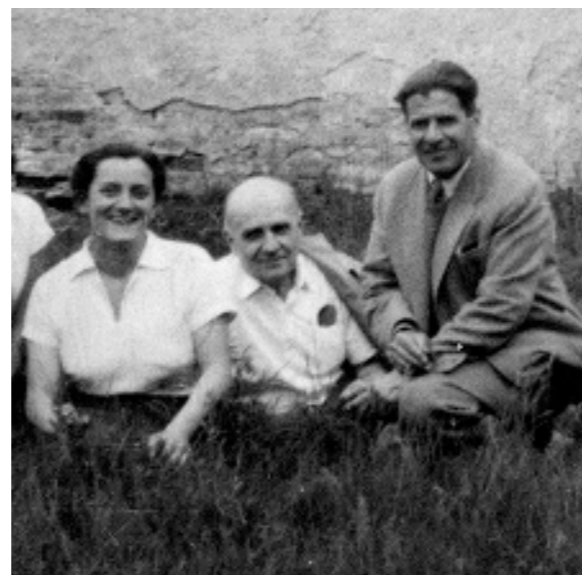


Fig. 1. Picture showing Eugenia Greceanu, Paul Emil Miculescu, Ștefan Balș, the restorers and defenders of historical monuments in Potlogi, 1955. Source: *Arhitectura*, <http://arhitectura-1906.ro/2015/01/cu-un-pas-inaintea-demolarilor-interviu-cu-eugenia-greceanu/> (accessed January 2017).

the transversal unit was redone using wood and the longitudinal units were covered with a steel concrete framework visible from the inside.⁵

Rodica Mănciulescu

She is the architect who placed monuments and restoring on the highest level of personal values. The text could be illustrated only with two figures. The captions should be inserted below the text. Please follow the guidelines. The great restorer Ștefan Balș referred to Rodica Mănciulescu with great recognition, saying:

apart from the priceless help that she provided in our long collaboration, she designed restoration with a rare sobriety and discretion, a special capacity for hard work, in a style that I always considered to be the fairest.⁶

In the over two decades of activity in the Historical Monuments Direction, she contributed to the restoration of several important monuments, out of which we can mention: *Adormirea Maicii Domnului* Royal Church and Saint Vineri Church from Târgoviște; Saint Mihail Roman-catholic Church and Matia Reformed Church in Cluj-Napoca; Cozia Monastery, Râșca Monastery, Mărcuța Monastery in Bucharest; Cuțui Kula from Broșteni; Strehaia Monastery,

Cluj-Napoca; Saint Mihail Cathedral-Church (1349–1450), designed as a basilica, but later transformed, during the edification process, in a hall-type church. The neo-gothic tower added to the northern facade (1836–62), seems to have enlarged a previously created exterior flare on the walls near the loft. It can be presumed that for this reason, during the eighteenth century, the gothic arches of the loft were replaced with a compact brick arch.

The restoration performed by architect Rodica Mănciulescu in the 1960s took apart this arch and replaced it with a traditional system of fins (the disposition of which was indicated by the remains of the old gothic arch still visible on the walls) embodied in steel concrete fins and suspended by a network of barks placed at the superior level of the wall, thus enhancing the vertical pressure components and stabilizing the edifice.⁷

3 Horia Medelanu, "Eugenia Greceanu: 'The great lady' has left," *Historic Monuments Magazine* 81, no. 1–2 (2015–16), 138, published in Romanian.

4 "Eugenia Greceanu 1928–2016," UAR, <https://www.uniuneaarhitectilor.ro/eugenia-greceanu> (accessed January 15, 2017).

5 Gheorghe Curinschi Verona, "Architecture: Urbanism. Restoration: Speech on the History, Theory and Practice of Historical Monuments and Sites' Restoration," (Bucharest: Tehnical Publishing, 1996.), 300, published in Romanian.

6 Ștefan Balș, "The Monuments That Wouldn't Leave Me," *Architecture* no. 1. (1984), 24–27, published in Romanian.

7 Curinschi Verona, "Architecture," 280.

Ioana Grigorescu (Fig.2)

In 1984 the architect who was involved in the restoration and salvation of the highest number of historical monuments in Romania, Ștefan Balș, had this opinion of the activity of Ioana Grigorescu:

... although I couldn't agree with her understanding of restoration work, I highly appreciated her exigent execution and the passion she put into restoration. Unfortunately, she also provided a personal touch which often downsized the traditional expression of the monument, in her commendable but also ambitious wish to treat her works in the spirit of today's architecture.⁸

However, the restoration work of Ioana Grigorescu was marked by honesty and authenticity, as she herself said: '...like putting together a clay bowl using a contrasting material. Looking at it, one is content to know which portion is truly original and which has been repaired'.⁹

A list of the restoration works performed by Ioana Grigorescu cannot be completed as she was involved in very many projects. We can mention Dealu, Sucevița and Dragomirna (in collaboration with Nicolae Diaconu), Slatina, Secu, Sihăstria Secului and Putna Monasteries (the latter in personal registry) and others.¹⁰

Sucevița Monastery. Învierea Domnului Church, founded by Gheorghe and Eremia Movilă in 1583–86 and painted in 1601 by Ieremia Movilă. The restoration performed between 1960 and 1970 by architects Ioana Grigorescu and Nicolae Diaconu eliminated the time-worn cover, which covered the base of the church tower and rebuilt it in a traditional Moldavian form, as can be observed in the votive painting.¹¹

The royal chambers of Sucevița Monastery (XVIth century), today priorship and living cells, surrounded by two built bodies: on the southern side an Austrian construction and on the northern side a contemporary style one. The restoration brought back the old openings of the houses and replaced the neo-Romanian pavilions with modern structures which suggest traditional forms. Innovative elements were used in the reconstruction in exposed concrete of the spatial solution of an arched room, after removing the structure which replaced it, and also in the treatment applied to the layers of the doors, to the prop pillar of the main balk in the museum room and to the yard pavement.¹²

8 Balș, "The Monuments," 24–27.

9 Ioana Grigorescu, "Points of View on the Restoration at Sucevița," *Architecture*, no. 4 (1973), 43, published in Romanian.

10 "Paul Constantin," *Universal Dictionary for Architects* (Bucharest: Scientific and Encyclopaedic Publishing, 1986), 245, published in Romanian.

11 Curinschi Verona, "Architecture," 222.

12 Curinschi Verona, "Architecture," 223.

The gallery of architect women who crucially influenced the assertion of a very high peak in the protection, conservation and restoration activities for historical monuments during the period between 1950 and 1970 can be completed with names such as Mariana Anghelescu, Liana Bilciurescu, Olga Bâzu, Micaela Adrian, Sanda Voiculescu and not only, all forming a highly competent school in the monument restoration area of expertise.¹³

The knowledge of the principles and methods as a constancy in monument restoration, the recognition and the use of creative and non-invasive architectural methods, the model defined by quality, durability and efficiency, these are the current directions which can insure the survival of the contemporary architectural patrimony.

The modern restoration is defined by two tendencies: the initial intervention over constructions/ the transformation and traditional and empirical preservation as a life philosophy and the conservation based on the interest of the community and that of new architecture.

The creativity and quality of the current restoration works is also reflected by the methods and techniques learnt from the previous generations, by improving these methods and implementing them into new projects, as keepers and perpetuators of the values of their predecessors (mentioned above), by architects Georgeta Gabrea, Iulia Stanciu, Adina Dinescu and Sonia Chira.

Georgeta Gabrea

Architect Georgeta Gabrea was the head of the consolidation, restoration and functional reconversion project for the building located on 55 Lipscani Street, and succeeded in showing the value of the building's past, while also protecting and rejuvenating this monument which now functions as a library. The consolidation principle was the creation of a box which frees the interior columns and keeps the initial architecture of the building. When the facade was peeled, the real form of the original ornaments and empty spaces of the old facade was discovered. The sheet metal cover was replaced with glass, with a view over Lipscani Street. The interior ornaments were either restored or redone,

13 Alexandru Panaitescu, "Ioana Grigorescu: Tradition and Modernism," *Architecture*, no. 2–3 (2017), 154–163, published in Romanian.



Fig. 2. Ioana Grigorescu, Self-portrait. Courtesy of Archive of Romanian Architects' Union.

NAPAČNA SLIKA!!!

and are painted white for the effect of a dynamic game of lights, at different times of the day.

... I was consistent in my position regarding these wonderful buildings, namely that they must be given back to the natural circuit of life, while preserving their identity and authenticity, so that they also can live and respond to the functional and technological exigencies for at least the following generation. In this way, the memory and identity of the place will be maintained and the building will continue to exist in a natural way.¹⁴

Iulia Stanciu

The identity of the city is however given by the weight of its historic structure, amongst others by the value of its heritage, and not just by the successive overlays. And this is where the need to protect that heritage appears from. The architectural objects themselves are not the only value, but the identity given by the whole group of such monuments. Any missing piece in this assembly is a loss of urban identity

said architect Iulia Stanciu in an interview given to *Architecture* magazine.¹⁵

When restoring the building on 55 Budişteanu Street she chose a consolidation solution which leaves no visible marks and doesn't affect the decorations by opening and remake. The adopted system is a mixt one which doesn't touch the decor, the reed ceilings and only has a network of metallic balks in between the wooden balks, which sit directly on the bearing walls. This system allowed for an elevated attic which is very little visible for the exterior.

...I have learnt so much by observing old houses, which sum up a knowingly use of materials and mastery of whole from a detail level... The most difficult task when working on old buildings is to make them live in the contemporary time, to adapt them for current needs of comfort. An update, a refunctioning, and, of course, restoration.¹⁶

Adina Dinescu

To dwell on the past is actually to perform the detailed and dedicated work of a historian who rediscovers lost materials, gestures and meanings, but it also means 'to innovate' using those

means that the modern technologies can provide. The attempt to combine the cultural identity and the historic heritage of architectural monuments in a contemporary destiny is a mission for the restoring architect and also for the community

said Adina Dinescu for this article.

Gradisteanu Ghica House, built around 190, is an edifice with highly decorated facades, with renaissance elements in baroque, all combined –as it was the case of many aristocratic houses in that time- with some effects specific to the French academism.

The main concern of the architect, before starting the restoration works, was to perform a lengthy historic research, which allows for a correct reconstruction of the image of this significant construction in the architectonic cityscape of last century Bucharest.

A special care was given to the restoration of wooden French-type decoration elements which gave the interiors a special warmth and light. The most challenging space for the architect was the basement. Its architectonic and volumetric value, with numerous arches and arcades, had to be highlighted but it was previously used for household purposes. By maintaining some light effects and moving other parts in different places of the house, the architect succeeded in providing the basement with a different functionality.

Sonia Chira

When restoring the building on 21st Iorga Street, the architect Sonia Chira chose a consolidation option by containment of some walls, and using reinforced concrete plates for the ceilings. The installations were completely redone and modernised.

I think I had the great chance to be an architect in Bucharest in a time when valuable architectonic buildings were given back to their previous owners. These buildings were now, in majority, in the ownership of those who wanted to take care of them and restore their original aspect. It should be mentioned that these works were possible due to the financial efforts of the owners. These are 'the lucky buildings' which, after having been modified in the interior and vandalised by their users, were reborn by restoration

declared the architect.

14 Georgeta Gabrea, "The Consolidation, Restoring and Functional Reconversion of the Building on no 10 Caimatei Street," *Anuala de arhitectura* (2017), 57, <https://www.anuala.ro/proiecte/2016/158/> (accessed May 24, 2018), published in Romanian.

15 Interview with architect Iulia Stanciu, article in *Architecture*, no. 7 (2013).

16 Ibid.

Conclusion

In this current time, the basic survival of the historic monument by conservation is not enough and it is necessary for that monument to be valued, highlighted, discovered and developed in order to coherently integrate in the current context, but also in the existent built cultural heritage.

New restoration methods reflect, in essence, the architect's vision of the needs and possibilities of the historic monument to be given at least to the following generation, by going through the essential steps, from the initial drawing and concept, to choosing the best possible methods together with a whole team of specialists and collaborators, as shown by the analysis of the monuments' existent situation, to the end result represented by the reborn monument, after the works are finalized.

Paradoxically, the understanding for the need of using new restoration methods comes from the past, when the buildings had a purpose, a functional value as well as an aesthetic and ideological one. The modern restoration is defined by two tendencies: the initial intervention over constructions/ the transformation and traditional and empirical preservation as a life philosophy and the conservation based on the interest of the community and that of new architecture.

The existent historic monuments must be preserved but also prepared for the future by using restoration methods which can insure their survival and their place in the contemporary architectural patrimony, as a built architectonic space, a valuable genius loci to be protected in the problematic current context, and it is in this kind of intervention where the women's natural inclination to beauty, patience and consistency lead to the rebirth of valuable historic monuments.

Zrinka Barišić Marenić

University of Zagreb, Faculty of Architecture | Croatia

Contribution to Research of Industrial Archaeology in Croatia

Industrial Archaeology

The process of deindustrialization occurring in Europe in recent decades has led to the abandonment of a wide range of buildings and complexes that form part of industrial and technical heritage. Since the 1960s, an interdisciplinary study of industrial archaeology has developed as a reaction to numerous demolitions of this specific type of heritage in western European countries. The main goal of industrial archaeology is research, documentation and re-evaluation of this long neglected type of architecture and the protection and regeneration of the most significant buildings. Actions that determine the status of individual buildings range from demolition to *status quo* to adaptation and regeneration for new uses.

Industrialization and deindustrialization in Croatia

Croatia, the youngest member of the European Union, gained its independence in 1990 and in 2013 joined the European Union. In the nineteenth century, the majority of the territory belonged to the Austro-Hungarian Monarchy while the southern parts were under the rule of the Republic of Venice. Therefore, it was difficult to unite the entire Croatian area by a railway network, which was obviously an important precondition for industrial development. The industrial development started rather late when compared to the Austro-Hungarian Monarchy, and especially to England and Western European countries.

Like other Western countries where deindustrialisation has typically taken place in the recent decades, Croatia has also been considerably affected by the same processes. Ever since the 1990s, the country has been struggling with perilous effects of the Croatian War of Independence, the loss of former Yugoslavian market and the process of privatization.¹ As a result, numerous industrial complexes have been left derelict.

Regenerations vs. Devastations of Industrial Heritage in Croatia in the Twentieth Century

Vacant complexes of distinctive morphological value, situated in the wider areas of historic city centres have been seen as huge potential that might be converted to new uses. Although many production facilities in Croatia were demolished, the potential of abandoned industrial complexes was recognized rather early in the twentieth century.

The number of good examples of architectural regeneration in Croatia has been increasing. The first two notable examples include an avant-garde conversion of the former Great Arsenal in Dubrovnik into the City Cafe and Theatre (by architects Mladen Kauzlarić and Stjepan Gomboš, 1931–3) and the regeneration of the derelict tannery complex in Zagreb that houses today the Glyptothèque of the Croatian Academy of Sciences and Arts (1938–45). More of significant examples ensued after 1986, when architect Nenad Fabijanić designed the conversion a former salt storehouse to the V Magazin nightclub on the island of Pag. The years after 2000 saw similar trends and accomplishments. Many of those accomplished regeneration projects were designed by female architects who have been presented with the highest professional awards for their achievements.

In contrast to the above-mentioned examples, which show sensitivity for the potential of abandoned technical heritage, there are numerous cases witnessing devastation or long periods of disregard for the condition of industrial complexes. Having lost their original function the industrial complexes have been exposed to dilapidation caused by weather, neglect and decay.

Female Protagonists of Industrial Archaeology in Croatia in Recent Two Decades

However, a growing awareness of the identity and potential of industrial complexes have resulted in numerous attempts to prevent the neglect of this type of heritage. They include various activities organised by artists, institutions, subcultural groups, universities, museums etc.

A significant contribution to university education has been made by the introduction of courses that deal with industrial archaeology. An interdisciplinary interest in this field is attested by a number of courses, all of them thought by female professors at the universities in Zagreb, Rijeka and Osijek, at the faculties of architecture, civil engineering and humanities and social sciences. In 2000, lecturer Ljiljana Šepić introduced an elective course in Industrial Archaeology into the study programme of the Faculty of Architecture, University of Zagreb. After her retirement, the course has been taught by the author of this paper, Professor Zrinka Barišić Marenčić.² Professor Nana Palinić has been teaching this topic within the course in Industrial Heritage at the Faculty of Civil Engineering of the University of Rijeka. At the same university, Professor Julija Lozzi Barković has been teaching the course in Industrial Architectural Heritage at the Department of Art History of the Faculty of Philosophy. The same topic is taught by Professor Sanja Lončar-Vicković at the Faculty of Civil Engineering of the Josip Juraj Strossmayer University in Osijek. Students' interest in this kind of research and intervention has been on the rise in recent decades. The topic has been the focus of numerous architectural design projects, urban regeneration projects and plans, diploma projects and PhD theses.

In terms of the protection of former industrial and technical complexes, an increasing number of monuments pertaining to the field of industrial archaeology have been registered by numerous female architects active in Croatian institutions specifically dealing with these issues (Zagreb's Institute for the Protection of Cultural and Natural Monuments and the Conservation Departments of the Croatian Ministry of Culture). Since the turn of the millennium, there has been an increasing number of listed buildings of technical heritage, and the contribution of architect Zrinka Paladino in the context of these activities in Zagreb is significant.³

As a pioneer in this field, architect Mirjana Goršić deserves special attention. She initiated the first conference in Croatia dedicated to industrial heritage that was held in Karlovac in 20–21 June 2000. She edited the conference proceedings *A Town for the Twenty First Century*, collected papers, published in Karlovac in 2001 as part of the Biblioteka Psefizma series. Her pioneering role within this field in Croatia is very significant, though it has not been stressed enough. Another person who also played a pioneering role is the aforementioned architect Ljiljana Šepić, whose master's thesis under the title "The Beginnings of Industrial Architecture Development in Zagreb" was defended at the Faculty of Humanities and Social Sciences, University of Zagreb in 1991. Based on her research

¹ The socialist political system was transformed into a capitalist system.

² The course has also been taught in English for foreign students studying at the University of Zagreb within the Erasmus+ program.

³ Zrinka Paladino, "Zaštita zagrebačke industrijske baštine izradbom konzervatorskih elaborata Gradskega zavoda za zaštitu spomenika kulture i prirode u Zagrebu," *Godišnjak zaštite spomenika kulture Hrvatske* 33–34 (2009–2010), 147–172.

the first elective course dedicated to industrial archaeology in Croatia was instituted in 2000.

'Pro Torpedo', the Association for Protection and Promotion of Industrial Heritage was established in Rijeka. Torpedo factory was founded in Rijeka after Ivan Lupis Vukić had invented the prototype of self-propelled torpedo (in cooperation with Robert Whitehead). Triggered by the 150th anniversary of the factory, citizens of Rijeka established 'Pro Torpedo' with the aim of preventing demolition and decay and of regenerating impressive technical and industrial heritage of this port city. The first international conference 'Pro Torpedo' was organized in 2003. Since then, seven conferences dedicated to industrial heritage have been held in Rijeka. It is interesting that the majority of this association's interdisciplinary team are women: Daina Glavočić, Julija Lozzi-Barković, Nana Palinić and Jasna Rotim Malvić, who are supported by their male colleagues Velid Đekić and Miljenko Smokvina. Their enthusiastic and significant work and enormous intensity of collaboration with numerous other people contributed to the selection of the City of Rijeka for the European Capital of Culture in 2020.

In addition to different institutions, citizens and sub-cultural groups actively try to raise the awareness of professionals and the wider public. A good example of this is the initiative of 'Pulska grupa' (with Iva Marčetić as its member), a group that has been fighting against privatization of the former military barracks and areas in Pula (situated on the shores of the Adriatic Sea) and their conversion into exclusive tourist resorts that probably would not be open to the public. The initiative of 'Pulska grupa' was part of the Croatian programme at the 2012 Venice Biennale whose theme was Common Ground. At the Arsenal in Venice, the Croatian pavilion, curated by Tomislav Pavelić, displayed the installation 'Unmediated democracy demands unmediated space – Croatia Pavilion' which included the work of 'Pulska grupa'. According to the Italian *Domus* magazine it was chosen as one of 'ten things not to miss', at the 13th International Architecture Exhibition in Venice.⁴⁴

It is interesting to notice that among texts on industrial archaeology and technical heritage a rather large number have been written by women. Researches on industrial architecture include Ljiljana Šepić, Mirjana Goršić, Snješka Knežević, Tamara Rogić, Zrinka Paladino, Nana Palinić, Daina Glavočić, Julia Lozzi Barković, Sanja Lončar Vicković, Pia Sopta, Zrinka Barišić Marenčić and others.

Through learning about industrial archaeology, many students became interested in this topic and consequently focused on regeneration of derelict industrial sites in their architectural design projects and plans. Many of them wrote their bachelor's and master's theses on this topic, while some of them have published their research (for example Natalija Šarlija), and even proceed with their scientific research focusing on industrial archaeology (Lucija Lončar, and Ivan Vukojević).

44 "Domus picks: Venice Biennale," *Domus*, <http://www.domusweb.it/en/news/2012/09/04/domus-picks-venice-biennale.html> (accessed May 28, 2018).

Regarding popularisation of science, that is, industrial archaeology, the Zagreb Architects Society traditionally organises Days of Zagreb Architecture. The 2016 edition, the Programme Committee of which was composed of Luka Korlaet and Zrinka Barišić Marenčić, focused on potentials of industrial heritage in Zagreb. Lectures were held by Željka Pavlinović, Helena Knifić Schaps, Zrinka Barišić Marenčić etc. The 2016 Days were considerably covered by the media, which resulted in many TV and radio shows, newspaper articles and interviews presenting this timely and interesting topic.

Architectural Regeneration Projects Designed by Female Architects in the Twenty-first Century

Specific regeneration projects of vacant industrial and technical complexes carried out in recent period present highly and increasingly significant contribution of female architects who have been awarded by highest architecture awards for their accomplishments.

Lauba – House for People and Art in Zagreb found its home in the building regenerated by architects Alenka Gačić-Pojatina, Branka Petković and Ana Krstulović whose renovation was part of the invited architectural design competition in 2007 (Fig. 1). The building was originally a military riding hall that was later transformed into a warehouse of the Zagreb Textile Factory. According to the newly assigned purpose determined by the renovation project, the main body of the original riding hall was turned into a gallery space for the contemporary art collection of the Philip Trade Company. Offices were inserted into the space in a form a tract raised from the main level and its interior and exterior was designed by Morana Vlahović. The spacious interior of the former riding hall is dominated by a rough brick surface of the load bearing walls of the main hall. Standing in contrast to the brick wall is the inserted first-floor office tract articulated by concrete and black glass. The modular grid of Lauba's interior space allows flexible organizations of exhibitions and various venues (Fig. 2). The Croatian Architects' Association (CAA) awarded the project with the Bernardo Bernardi Award for being 'the most successful realization in architectural and interior design in 2011'.



Fig. 1. Photograph of Lauba (exterior), Zagreb. Photo by Zrinka Barišić Marenčić.



Fig. 2. Photograph of Lauba (interior), Zagreb. Photo by Zrinka Barišić Marenčić.

The tobacco factory in Zagreb was left completely desolate after the production facilities had moved to Kanfanar in Istria in 2007. Adris Group, as the factory's new owner, reached an agreement with the Ministry of Culture according to which they would sign over the land of property of the old factory to the Croatian History Museum and build a new office building in the courtyard. The new building was built according to the design, a competition entry, of architects Ivica Plavec, Žanet Zdenković Gold & Ivan Zdenković. However, the economic crisis and redesign of the project stopped the construction works from achieving the conversion of the old factory into spaces suitable for museum use.

The recent conversion of the Marble Hall in the mining complex in Labin into a public library (2007–13) was the first phase of the regeneration project for the coalmine's central building headed by young female architects Ivana Žalac and Margita Grubiša, with Igor Presečan and Damir Gamulin.⁵ Previous uses of the abandoned complex by the subcultural group Labin Art Express (LAE) and the local community were a good argument in convincing the Croatian Ministry of Culture to launch an architectural design competition with a prescribed future use of the complex. The main concept of the interior design within the proposed renovation project was based on the original character of the coalmine's central building. The light and spacious Marble Hall⁶, where miners received their wages, is today housing the public library. Contrary to the illuminated interior, ancillary spaces with a multifunctional auditorium and an internet-cafe reflect the characteristic darkness of underground mines. This first phase of this architectural regeneration of the former coalmine's building in Labin gained the highest architecture awards in Croatia. They included the 2014 Vladimir Nazor Award given by the Republic of Croatia for architecture and town planning and the Bernardo Bernardi Award

5 "Public Library In Labin / Ivana Žalac, Margita Grubiša, Igor Presečan and [sic.] Damir Gamulin," Arch Daily, <http://www.archdaily.com/514135/public-library-in-labin-skroz/> (accessed May 28, 2018). Competition Entry Team: Damir Gamulin, Margita Grubiša, Marin Jelčić, Zvonimir Kralj, Igor Presečan and Ivana Žalac.

6 With rich zenital lighting.

for the most successful realization in design and interior design given by the Croatian Architects' Association (CAA).

Another positive example is the continuous use of the former Jedinstvo Factory building on the banks of the Sava River in Zagreb. Supported by European funding and based on the 2015 revitalization project by Dinko Peračić and Miranda Valjačić, the building is supposed to be renovated and turned into a multi-use complex. These examples show how spontaneous reactions of citizens and professionals can initiate positive effects and changes. Under the slogan 'We Need It - We Do It', Dinko Peračić, Miranda Valjačić and Slaven Tolj presented Croatia at the 2016 Venice Biennale with this and another conversion project in Rijeka for the transformation of the former Rikard Benčić factory into the Museum of Contemporary Art, which opened in late 2017. Both interventions show that persistent activities and creative design, even in the midst of economic crisis can result in sound spatial regeneration schemes in the contemporary city.

The conversion of a former dry-cleaners shop, located in the courtyard of a building block in Ilica Street in Zagreb, into the Swanky Hostel presents a small-scale regeneration intervention. A female architectural duo, Ana Bilan and Irena Vojnović, designed this regeneration project. Its exterior clearly shows the influence of Lauba's black façade. Rough brick walls, original furnishings of the dry cleaners shop, second hand furniture, or cheap materials form different layers in the interior of this popular hostel in Zagreb (which is a blooming Croatian tourist destination).

Young architects Tea Lisak and Barbara Adela Šečković from the Bouarchitects Studio designed La Grma restaurant on the western slopes of Medvednica Mountain, close to Zagreb's wider city centre. The regeneration of the former feather-processing factory in the Grmošćica Forest Park forms today a romantic place for various events, dinners and unconventional weddings in a natural environment. Rough brick walls and columns dominate the interior, while black plaster characterises the exterior (Lauba's influence is obvious). The outdoor natural environment of the Medvednica Forest Park is a pleasant environment for visitors.

In the south-eastern industrial peripheral zone of Zagreb, a former mechanical production building was converted into a microbrewery. British investor Nick Colgan, a former music producer of the UB40 band, decided to live and work in Croatia. After organising the Garden Festival near Zadar, he moved his NASA aluminium camping trailer to Žitnjak, the eastern part of Zagreb, where he invested in the craft brewery. Designed by female team of architects, Željka Palinović and Valentina Jakobović, the brewery merges the industrial layer of twentieth century brick-concrete building with rough materials necessary for the formation of a contemporary bar and restaurant for a public use. On the other hand, the brewery technological and production plant is set deeply in the interior space and is partly visible to the visitors. This specific and frequently visited place in the former industrial area (today accommodating various companies including those of the IT sector) is formed by layers

of the original industrial building and layers of the modern structure that used cheap industrial materials.

Located closer to Zagreb's city centre, the former cork factory (Tvornica Pluto) was converted into the Ferdinand Budicki Automobile Museum. Apart from the 1922 Ford Model T, the Ferdinand Budicki Museum featured many other valuable cars of different makes and types including Mini Morris, Triumph Spitfire, Porsche 911, Volkswagen Karmann Ghia, Mercedes, Opel Olympia convertible, Tatra, Jeep Willys, Fiat 500, Citroen DS, Citroen 2CV, Volkswagen Beetle, Volkswagen Kubelwagen⁷ etc. Based on a temporary-use agreement between the City of Zagreb, Citroen Club Croatia and Ferdinand Budicki Old-timer Club, architects Helena Knifić Schaps⁸ and Domagoj Ivanković designed the project of adaptation and conversion of the factory into a museum building (2012–13). Minimal intervention included the repair of the building, display design of old-timers and the recycling of traffic and transportation related artefacts into functional elements of the museum.

The former Biserka doll factory near Zagreb was converted by architect Morana Vlahović into FIVE, an IT firm. Her experience with designing the office spaces at Lauba is reflected in this renovation project. The interior, formed as an open workspace for programmers, is characterized by a black floor and visible white painted concrete skeletal structure and installations bellow the ceiling. Privacy for internet conferences and communication is provided within glass boxes, which isolate the sound but not the visual integration within the open space.⁹

Conclusion

Regeneration campaigns of derelict buildings that belong to industrial and technical heritage in Croatia date back to the early twentieth century, much earlier than the development of industrial archaeology in the 1960s in western European countries. Within this specific interdisciplinary field, female architects have been playing a significant role in Croatia since 2000.¹⁰

Their contribution is visible in the work of conservation departments, activities related to the protection of most significant buildings and architectural complexes that form the corpus of national monuments, in university education, scientific research and publication and participation in civic associations dealing with industrial heritage. These activities also include participation in conferences, organisation of exhibitions and creating programmes for the promotion and popularisation of science, or more specifically, this interdisciplinary field.

Female contribution to architectural regeneration and conversion projects is growing rapidly. This is particularly true for creative and intelligent regeneration schemes for derelict industrial sites, contemporary conversions of neglected buildings and their transformation into new urban focal points. The most prominent examples are Lauba – gallery and office spaces in the former riding hall and textile warehouse in Zagreb, and the public library in Labin (in the former coalmines' central building). Contrasts arising from the rough character of abandoned industrial complexes and the gentle touch of female designers create subtle, yet inventive solutions awarded by the highest architecture awards in Croatia. In this professional interdisciplinary niche, female architects affirmed their position rather successfully, contributing thereby to urban regeneration of the contemporary city.

7 "The first automobile museum in Croatia," Muzej automobile Ferdinand Budicki, <http://www.otk-ferdinandbudicki.hr/index.php/novosti/item/117-the-first-automobile-museum-in-croatia> (accessed May 28, 2018).

8 Helena Knifić Schaps was the president of Croatian Chamber of Architects.

9 Text is based upon authors archive, research and lectures of Industrial Archaeology at the University of Zagreb, Faculty of Architecture.

10 Within the field of interior design, female architects affirmed themselves primarily in recent decades, which can clearly be seen in the frequency by which female architects have been presented with the Bernardo Bernardi Award for interior design by the Croatian Architects' Association (CAA). Their contribution to conversion designs, or more broadly, regeneration projects on former industrial sites is significant.

Federica Ribera

Pasquale Cucco

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Combining New and Ancient: The Design Experiences of Liliana Grassi (1923-1984) and Gae Aulenti (1927-2012) between Recovery and Innovation

Twentieth Century: The Season of 'Knowledge' and 'Enterprise'

The 1900 Paris *Exposition Universelle* marked the beginning of a new path characterised by technological and scientific progress, by industrial innovation as well as by new economic systems and hubs of power. It was the time in which steel and glass become the effective *Leitmotiv* of the emerging industrial city and fostered the invention of new structural systems. The twentieth century was also ravaged by two world wars that resulted in the tragic loss of countless lives and the total destruction of many cities. These events exerted an indubitable influence on the architecture. In particular, after the end of the Second World War, the urgent need to rebuild the devastated cities prevailed over the theoretical considerations on *how* to build, highlighting the inadequacy of restoration theory. In a few years, we witnessed a change in direction promoted by the Congress of Athens and the Congress of Venice which laid down important guide lines for contemporary restorers, albeit in two different ways. The former inaugurated the season of 'scientific' restoration, influenced by Comtean positivism and its prime exponent Gustavo Giovannoni, whose work was carried out in a climate of contemplation on urban living and with a steadfast position regarding contemporary architecture, reconstruction and the birth of post-war architecture.¹ A short while later, the Venice Charter overcame the positivist positions and paved the way for a new approach, characterised by the neo-idealist philosophy and the aesthetics of Benedetto Croce. The contemporary vision of

¹ Cf. Alessandro Curuni, "Pensieri e principi di restauro architettonico 1873-1947," *La cultura del restauro: Teorie e fondatori*, edited by Stella Casiello (Padova: Marsilio, 1996), 267-290.

restoration includes this activity in the context of critical-conservative architectural design: 'critical' because the operators must carry out critical work on the object, having chosen a system of values on which to base their decisions; 'conservative' because they are aware of the absolute ability to modify the work and are therefore oriented towards conservation, without establishing qualitative and chronological priorities.

This is the context in which the positions of Liliana Grassi and Gae Aulenti are grafted: the offspring of two different but complementary seasons of 'knowledge' and 'enterprise', both in search of an essential balance between past and present, rejecting technical and futuristic solutions but fostering the birth of a new hope and the possibility of a new beginning.

Liliana Grassi: The Culture of Continuity

In a 1959 issue of *The Architectural Review*, Banham recounts his experiences of the modern era and its points of contact with the discipline of restoration, investigating the importance of history in a reality which questioned the ethics of the Modern Movement.² Ernesto Nathan Rogers in *Casabella Continuità* 215 wrote the well-known editorial "Continuity or Crisis?," underlining the importance of continuing with the work of his predecessors.³

It was in 1960 that Liliana Grassi,⁴ a distinguished scholar renowned for the rigour with which she actively pursued female independence through research and education, published her *History and Culture of Monuments*, which included a chapter "On Tradition." This work highlights the crisis of twentieth century architecture over the importance of ancient monuments and outlining the various seasons of restoration. She regarded Boito as the pioneer of modern architecture in that he established a new approach founded on the study of history:⁵ 'Not a true pioneer, then, but an architect who has understood what a legion of contemporary architects was unable to understand or perceive'.⁶ She took up Boito's principle that restored parts of monuments should be easily recognisable but developed purposefully as part of a specific architecture project. This encapsulates her point of

² Reyner Banham, "Neoliberty: The Italian Retreat from Modern Architecture," *The Architectural Review* 125 (1959), 230-235.

³ Marco Mazzulani, "Le riviste di architettura: Costruire con le parole," *Storia dell'architettura italiana: Il secondo Novecento* edited by Francesco Dal Co (Milano: Mondadori Electa, 1997), 436.

⁴ Cf. Maria Antonietta Crippa and Emanuela Sorbo (eds.), *Liliana Grassi: Il restauro ed il recupero creativo della memoria storica* (Roma: Bonsignori, 2007).

⁵ Cf. Liliana Grassi, "L'intuizione moderna nel pensiero di Camillo Boito," *Casabella Continuità* 208 (1955), 53-56.

⁶ Gianluca Vitagliano, "Storia, restauro e progetto nell'attività di Liliana Grassi: Un'operosità teoricamente fondata," *Palladio*, 38 (July - December 2006), 103.

view: a refusal of the modern when detached from tradition and a fostering of interventions that aim to conserve historicised architecture, including all original traces, so as to ensure its reuse. It was impossible to weigh up the conservation of pre-existing elements by using only principles of economic convenience; in this sense, restoration 'is the principle of falsification itself; ... it cannot be based on socio-economic or documentary-folkloristic convenience. Consequently, what counts is to re-establish the continuity of action and thought between yesterday, today and tomorrow truncated by the industrial revolution. She writes:

Denying the separation between present and past doesn't mean that substitution building work must be carried out with recourse to a romantic revival achieved through partial integrations or total reconstructions in the same 'style', disguised as rigorous restoration.⁷

In the lessons at Milan Polytechnic, she tackles the relationship between ancient and modern architecture and stresses the need for restoration to be considered as being linked to the innovations of the time; moreover, she analyses the relationship between ancient monuments and urban contexts.⁸ She identifies the sources of the problem in the cubist and futurist experiences, i.e. in all forms of the avant-garde that exhibit a revulsion of the past and propose an artistic approach with not a single cultural reference to pre-existing styles and features. She attacks the idea of Boccioni, who claims that ancient monuments 'befoul' Italian cities and rejects each and every interpretation of the present and the future that ignores its historic roots.⁹ In such a climate, she wonders what answer the culture of conservation can give and how it may be reconciled with the idea of progress; the answer is not to be found in the positions of those who 'encapsulate the reasons for recovery simply in the sole purpose of reuse, often achieved through slipshod 'renovations'.¹⁰

In 1975 at the conference "Restoration: Cultural Requirements and Working Reality," Liliana Grassi wondered if «the only valid criterion must be the one that translates conservation into reuse ..., i.e. mere exploitation»,¹¹ stressing the relationships between conservation and reuse. Hence, there emerges the need for a compromise between progress and continuity, not to bring about an escapist revival or create a historical perspective unable to assume historical responsibilities, but to recover both the past and the present in a new reality focused on the future. It is a question of

transforming the transitory: transforming *finite* time into *infinite*, lasting and permanent time.¹² Her essays expound the entire philosophical dimension of her point of view, even though her studies always dealt with the practical aspects of architecture and restoration, eschewing all self-serving theoretical speculation.¹³ What emerges is her untiring diligence in her research and studies, which contrasted with the professional environment in Lombardy, where 'doing' rather than 'reflecting' on doing was embraced.¹⁴

In the above cited text of 1975, she focuses on the value of historic city centres and extends the definition of 'monument' from the single work to 'residential complexes', consolidating what the most recent restoration maps were highlighting.

The most advanced contribution on the conservation of historic city centres had been made by Giovannoni, for whom they deserved to be safeguarded only because they provided a 'reference frame' for the main monuments and not because they were independent monuments.¹⁵ According to her opinion, the architecture could not ignore the existing historic and environmental structures in which it was to be introduced.¹⁶

The modern age has overwhelmed our historic awareness to such an extent that the past has become a mere period of time and 'no longer yields wisdom'; we are distracted by the sheer quantity of information made available in the present, 'which levels out needs and behaviours through the widespread tendency to adopt models that somehow allude to the manners and tastes of the middle classes',¹⁷ while building speculation and some patterns of consumption blight and destroy historic city centres and the landscape.¹⁸ The answer that Grassi aims to offer is based on her hope in a 'wholesale' conservation of environments, achieved through the cooperation of town planners, sociologists and economists, starting from an a priori reflection on the 'significance' of their conservation.¹⁹ Her firm beliefs and her speculative results meet up in the construction sites

12 Cf. Maria Antonietta Crippa, "Liliana Grassi e il restauro," *Butlletí de la Reial Acadèmia catalana de Belles Arts de Sant Jordi* 11 (1997), 87.

13 Crippa, "Liliana Grassi e il restauro," 78.

14 Vitagliano, "Storia, restauro e progetto," 102.

15 Cf. Gustavo Giovannoni, *Architetture di pensiero e pensieri sull'architettura* (Roma: Apollon, 1945), 207–208.

16 'The study of and the interest in historic city centres is thus justified by the fact that the ancient is always present in life and this condition is contextualised by the historic nature of our knowledge,' Liliana Grassi, *Appunti per un dibattito aperto: Orientamenti estetici e 'significato' della conservazione dei centri storici e dei monumenti*, Typewritten Notes (1965), 7.

17 Cf. Grassi, *Appunti per un dibattito aperto*, 16.

18 Cf. Maurizio Boriani, "Alcune conferme ed alcune novità nell'archivio privato di Liliana Grassi al Politecnico di Milano," *Annali di Storia delle Università Italiane* 12 (Bologna: Ed. Clueb, 2007), http://www.cisui.unibo.it/frame_annali.htm (accessed May 24, 2018).

19 Cf. Grassi, *Appunti per un dibattito aperto*, 22.

7 Liliana Grassi, "Ideologia e memoria storica: Aspetti del rapporto passato-presente nella cultura artistica e nel restauro," *La situazione dell'uomo contemporaneo: Atti di convegno, Varese 12-13 marzo 1977* (Varese: Istituto Superiore di Studi Religiosi "Villa Cagnola," 1977), 30–31.

8 Liliana Grassi, "Problematica del restauro e le discussioni attuali," *Il restauro architettonico* (Milano: Ed. Tamburini, 1961).

9 Grassi, "Ideologia," 14–15.

10 Grassi, "Ideologia," 27.

11 Giuseppe Fiengo, "Restauro: Esigenze culturali e realtà operative," *Restauro* 21–22 (1975), 15.

in which she worked throughout her professional activity.

In particular, the *Ospedale Maggiore* in Milan, which had been seriously damaged during the war, was where she continued along the path pioneered by her mentor Annoni and where she worked in two fundamental directions: she conserved the ruined appearance of the fifteenth century courtyards and grafted new structures. The building had been modified several times in its history: in the 19th century it had been turned into a hospital and a series of maintenance operations were carried out on compromised structures of the courtyards. In 1938 the now obsolete complex was purchased by Milan City Council to provide new facilities for the University, but the bombing raids of 1943 destroyed large parts of the building and compromised its stability. Only in 1949 was the definitive design for its reuse drawn up although it wasn't until 1985 that Liliana Grassi, working alone, completed the works. In the *Icehouse Courtyard* she conserved the ruined sides of the portico and reconfigured the lost volumes in a modern key, highlighting her intention to restore the lost image in a modern interpretation of the existing structures. Outside, the ice room was enclosed in a small brick building with a sloping roof that was destroyed during bombing raids. In this case, research resulted in a solution in which the contextual reference is expressed through the completion in two volumes which excludes banal formalism; the added structure is modern, underlining the new usage of the building.²⁰ In this context, she experiments with her long researched questions on the relationship between history-restoration and the critical project of restoration,

because she does not believe she is reconstructing, albeit faithfully, what has been lost but valorising and consolidating what has remained in the most scrupulous way possible and integrating any missing parts by respecting the fresh, modern architectural language and, moreover, without restricting the overall harmony and the aesthetic requirements regarding the monument to be restored.²¹

The relationship between the project and existing structures also dominates the work on Villa Sommi Picenardi in Bembate Sopra (MI), which calls for the restoration and consolidation of a part of the nineteenth century villa as well as the creation of a new volume to be used as a chapel and the construction of a seven-storey reinforced concrete building to serve as a retirement home. This intervention highlights Grassi's interest in the juxtaposition of modern structures and historicised buildings, in the wake of her recent experience in Milan. The additions don't transform the building's façade while the new structure is suitably positioned in the area to the north of the noble residence thus avoiding direct visual interaction. The aim is to reconcile the detachment from the past through

critical and theoretical investigation and, 'as finding a common denominator means identifying the possibility for a juxtaposition of present and past', a more far-reaching examination of the restoration of monuments is nowadays particularly necessary.²²

Throughout her life, Liliana Grassi was able to combine female rigour with the search for emancipation, not as social status but as an intellectual rather than material independence. Her philosophical and academic investigations make her an extraordinarily contemporary figure who can help people of today to understand how restoration cannot be detached from architectural planning or from the history of architecture, just as it cannot be understood only through its utilitarian aspect or merely in terms of conservation proper but primarily through its aim to bequeath to future generations the historical and physical splendour of ancient building complexes.

Gae Aulenti: The Culture of Discontinuity

On 7 December 2012, Milan inaugurated Piazza Gae Aulenti, in honour of the architect who passed away in October of the same year. A significant dedication to a woman whose talent enabled her to stand out and distinguish herself at a time and in contexts traditionally dominated by men. Gae Aulenti provides magnificent proof that women can perceive, organise and design public space with a unique and powerful creative force that was born out of centuries spent taking care of private space. Her work embodies a visionary grandeur that taps the forces of nature, culture and tradition so as to exploit them in the design project.

She studied at Milan Polytechnic and worked in the offices of *Casabella*, developing a vision of architecture dedicated to the historic and cultural recovery of the past in relation to the surrounding environment. Her projects were influenced by the context in which they were located:

I believe that location is above all conceptual and cultural: indeed, in Paris, Barcellona, Milan and Rome, the cultural conditions are different. Understanding and embracing this diversity becomes a necessity for all those involved in planning ... with the tradition of a place.²³

She would soon reject the rationalistic dominion of the International Style and enter the softer atmosphere of the then emerging Neoliberty. Of the many acquaintances she made in her early career, it was Ernesto Nathan Rogers who proved fundamental in leading her to reflect on our bond with memory and the relationship between architecture and the city. She became his assistant

²⁰ Vitagliano, "Storia, restauro e progetto," 110.

²¹ Cf. Liliana Grassi, "L'antico, il vecchio e il nuovo nel restauro e nella sistemazione dell'Ospedale Maggiore a sede dell'Università di Milano," *Architettura e restauro. Esempi di restauro eseguiti nel dopoguerra*, edited by Carlo Perogalli (Milano: Gorlich, 1957), 67–89.

²² Liliana Grassi, *Storia e cultura dei monumenti: Critica e restauro* (Milano: Società Editrice Libreria, 1959), 379. Cited by Vitagliano, "Storia, restauro e progetto," 111.

²³ Gae Aulenti, "Dentro l'architettura," *Gae Aulenti*, edited by Margherita Petrenzan (Milano: Rizzoli, 1996), 13.

in the Faculty of Architecture at Milan Polytechnic until 1955 when he called her to work on the magazine *Casabella* of which he was the editor. It was in these years that she developed her view of restoration: a particular form of architectural design which acts on existing structures to transform them and alter their meaning. Her aim was not the reintegration of the appearance or the material and figurative conservation of the work,²⁴ but the incorporation, into the building, of elements, materials, languages and spatial solutions that differed from the original ones, i.e. working in discontinuity rather than in continuity. Deliberately discontinuous, restoration favoured the production of differences that must stand out for the very reason that they are different.²⁵

Gae Aulenti was born into a season of the twentieth century in which everything seems to have already been investigated, thought and produced. Her idea was to put architecture at the service of contemporary life, even if this would entail a change without which meant it would be impossible for the work to be inserted into a modern context. Transformation thus becomes one of the only possibilities to hand it down for future generations. However, the concept of discontinuity should not be mistaken for breaking with the past; she does not advocate blindly truncating our historical legacy, but rather a 'useful discontinuity' for modern contexts and, at the same time, for the exaltation of the ancient.

Among her many works, some projects are emblematic of her approach to the issue of restoration. In 1985–86, while she was concluding her project on the Gare d'Orsay in Paris, she contributed to the restoration of Palazzo Grassi in Venice. The Venetian palace had undergone a number of modifications as a result of the events in which it was involved. From the mid-nineteenth century on, ownership changed several times, which obviously impacted on how it was refurbished and transformed, up until 1983 when it was purchased by FIAT. Gae Aulenti was involved in the work with Antonio Foscari and proceeded in two directions: on the one hand, the modification of the building so as to meet the technological requirements and official regulations imposed by energy needs; and on the other, a restoration project based on respect for the site's history. The floors were strengthened to support the weight of the many visitors, the walls were insulated from the foundations to prevent rising damp, and all the doors and windows were modified to meet new security requirements. There was a constant concern about carrying out these works with respect for the palace's original structure: for instance, the building's structural integrity was reacquired thanks to a thorough restoration of the masonry by filling lesions with old bricks salvaged from

the demolition of annexes and outbuildings of no value.²⁶ In this work we can see evidence of her painstaking historical analysis conducted according to 'the place of foundation, i.e. the existing building, the intention for it to acquire the functions of a museum and the new architecture'.²⁷

Twenty years later in 2007, she was entrusted with the project for the complete restoration of 16th century Palazzo Branciforte in Palermo. Her mandate was to make the ancient building a fitting venue for cultural centre equipped with new and dynamic spaces for art and culture through the recovery and restoration of the building's most representative rooms and areas. Here too, the 'place of foundation' constant is clearly visible and she works in total respect for the original morphology and the most important architectural elements. At the same time, the 'new architecture' remains one of the main goals of the entire project: she creates a series of new rooms within important architectural spaces that had lost their original functions over the centuries, for instance the small internal road, the main courtyard and the ground-floor stables. The internal road, which had become a mere sequence of spaces, was restored by eliminating the various barriers and levels so as to ensure a clear visibility of the transformations carried out.²⁸ Gae Aulenti's project entailed the construction of an exhibition area embellished with the vaulted ceilings and the regular colonnades in the halls. The courtyard in the west wing reacquires its function as an open space and is transformed into a more intimate garden. The library comprises a single, double-height space with large bookcases and shelves as well as two orders of landings suspended around the perimeter. Here too we can clearly see the architect's imprint: endowing the work with a marked discontinuity so as to assure a new life to the building as a result of the new functions it acquires. We thus witness an inversion of roles: the historic memory becomes the backdrop and offers the opportunity for the design of a new and diverse spatial quality.²⁹ The restoration thus makes it possible to restore and enhance the spaces that had been transformed by the historic events and modifications carried out in various ages, such as structures suddenly collapsing and war-time bombing raids. The project offers a privileged opportunity for the conservation and figurative rather than material recovery of the entire building, valorising the palace's intrinsic nature and restoring a landmark of Sicilian and national culture to the city.

These projects clearly show that the architecture of Gae Aulenti is an outward-looking discipline that is sensitive to other sciences and generated by the historical context in which it is created and

26 Cf. Franco Gramaglia, "Opere di restauro conservatorio consolidamento e adeguamento di Palazzo Grassi a Venezia," *Il progetto di restauro e alcune realizzazioni*, edited by Maria Giuseppina Gimma (Roma: Associazione Nazionale tra ingegneri ed architetti specialisti per lo studio ed il restauro dei monumenti, 1987), 91–107.

27 Cf. Gae Aulenti, "Opere in-relazione," *Anfione Zeto* 1 (1995).

28 La Regina, "Il restauro," 14.

29 Ibid, 15.

24 Cf. Giovanni Carbonara, *La reintegrazione dell'immagine: Problemi di restauro dei monumenti* (Roma: Bulzoni, 1976), 27.

25 Francesco La Regina, "Il restauro come atto critic," *Politiche culturali* (2013), 13–15.

with which it becomes physically and conceptually entwined. It is able to establish a perfect blend of modern needs and past dogma in architecture and design, while constantly and steadfastly conjugating the three skills on which her architecture is based: an analytical ability to recognise a continuity with history and with places; an ability to concisely identify and select principles of architecture; and, finally, the foresight of artists, poets and inventors which is condensed into the desire to construct contemporary and personal forms in a context of cultural continuity.³⁰

Conclusions

The contributions made in the field of twentieth century architecture by two women like Liliana Grassi and Gae Aulenti encapsulate the main features of the current debate to solve the dichotomy between innovative design choices and respect for architectural heritage. Their education, life and work show how, in the now transformed panorama of contemporary culture, we need to establish a link between two apparently irreconcilable positions. Through their writings and works, these two pioneers in a still male-dominated profession continue to express the idea of a modern society aware of its sites and its history, albeit with a variety of differing attitudes towards the past, but focused on recognising the limit which can be extended in order to 'keep' the work alive, for an architecture that endures and lives,³¹ which looks to the future not in visionary terms but with the certainty that 'the infinite grandeur of the past'³² is the only fertile land on which the present and the future can be built.

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Lina Bo Bardi's MASP: Concrete Remaking, Design Restoring

'A kaleidoscopic spectacle', this was how Aldo van Eyck, a notorious admirer of Lina Bo Bardi's work, defined the fruition experience of the gallery designed by her for the São Paulo Museum of Art, MASP. At the peak moment of a military dictatorship, a pretty democratic and unique museum in the world was inaugurated in Brazil, whose premise was to make art accessible to all, even the non-intellectuals, the uninformed and the unprepared people. And that would be doing through architecture.

Pluperfect Past?

In 1968 MASP was completed. The building is located on Avenida Paulista, one of the main avenues of São Paulo, in the place where was the former Belvedere Trianon, right in front of the Parque Siqueira Campos, a privileged city spot, at the intersection of two overlapping highways: the Avenida Paulista and the Nove de Julho tunnel. Lina Bo Bardi designed a parallelepiped with its two major façades entirely glazed hung above the Avenida Paulista. The dropdown box has two levels: the main one houses the Pinacoteca, comprising the permanent collection. The other contains the temporary collection and administrative areas. Below it, there is a generous space of the terrace as an extension of the street, a large town square; the Belvedere area, along the gap, was intended to rest and contemplation. Under this big covered square, part of the program was half-buried to accommodate activities such as auditorium and temporary exhibitions, taking advantage of the gap toward Nove de Julho tunnel.

30 Cf. Aulenti, *Dentro l'architettura*, 17.

31 Cf. Jacques Derida, *Adesso l'architettura* (Milano: Scheiwiller, 2008).

32 Walt Whitman, *Una via per le Indie* 1, 511.

According to Lina's design, building and exhibition system should have the same importance level and being part of the same intellectual operation. The museum is transparent, both its envelope and content. The concrete box has its longest façades fully fenestrated, showing the collection to the city.

Inside, the tempered glass exhibitors display different works of art side by side, in a direct and simultaneous coexistence, which mix art and building, a system of exposure as dashing as the famous 70 m span of the ground floor of the building.

At the time of the museum's inauguration, in the Pinacoteca, unlike traditional museography, the paintings were not hanging on the wall, but occupied the whole place and presented themselves on a transparent easel, free in space. The display system was made of a large tempered sheet of glass, inserted into a roughly cast concrete cube with a notch turned upward, in which both glass and cube were stabilized by a wooden wedge. The final dimension of the set is similar to the human height, what makes the artwork appropriately positioned to the observer eyes. As the term easel implies, the allusion to the device used by the painter during the artwork elaboration is evident. Then, the observer experiences the painting in a very similar way to that one of the painter.

Each piece of art leaned against a white sheet of plywood trimmed to the exact proportions of the frame and bolted discreetly onto the glass. Even the frames were eliminated –when not authentic– replaced by a metal rack. Photographs and texts about each artwork were placed on the backside of the easel, compressed between the plywood and the glass, in order to inform the public about the artists and their works. All the paintings were faced toward the east, to the entrance hall, like if they were waiting for the public to come, dispersed and not arranged in any kind of classification. The lack of walls ensured not only the direct contact between artworks and public, but also between collection and building, besides referring to the situation of their conception: the picture loose in space, like it was on the artist's easel.

Lina Bo Bardi had already experienced innovative alternatives for exhibitions before, as in the first MASP headquarters, in Sete de Abril Street. The former museum was founded by herself and her husband, Pietro Maria Bardi, in October of 1947, thanks to the key participation and sponsorship of Assis Chateaubriand. Taking advantage of the offerings of European post-war art market, highly important Western artist's screens were acquired, creating an enviable collection. Not yet having its own headquarters, the museum settled on some floors of the then recently opened building of the Chateaubriand's newspapers network, the Diários Associados. The physical structure was small and restricted to one main room for the collection, another for art history didactic exposition and an auditorium for 100 people, which was also used for courses and practical activities – thanks to the folding chairs designed by Lina Bo Bardi, which facilitated its use for multiple activities.

Along with Lina, Pietro Maria Bardi is who thinks and defines conceptually the MASP. For them the

contemplative museums were very limited. Their idea was to transform the traditional museography conception, abandoning the chronological order, the closed exhibition environments and the idea of a museum as a place exclusively intended to artwork conservation. They aspired to a special and new place for art fruition.

Then, since the first MASP headquarters, exhibition design should not divide the collection into detached compartments, grouping artworks according to chronological or stylistic criteria. The project developed by Lina Bo Bardi translates this new proposal and locates in one single space paintings of various periods and schools. Her project is conceived as an educational plan, with solutions derived from experiments previously carried out in Italy –a movement known as *allestimento*, led by artists and architects such as Edoardo Persico and Franco Albini– aiming a closer relationship between public and artwork. The complete design process relied on the fundamental collaboration of the museum director, as well as on the contribution of the architect Giancarlo Pianti, who worked with Lina in the exhibition design, and the artists Roberto Sambonet Buffoni and Bramante, who did the graphic material. But in the case of the first MASP, the intervention of Lina Bo Bardi was restricted to the interior of the building.

If, at that time, the MASP Sete de Abril design exhibition already sought a rapprochement with the visitors, the public effectively takes part of the MASP Avenida Paulista. People mingle with paintings and sculptures, performing a fusion of images that symbolize the desired approximation between art and everyday life, eliminating any alleged formality or monumentality. Expanding the scope of the art gallery for the city, through the glass façades, this mixture of images also breaks the closed box. Paintings float in a unique space that includes museum and city, engendering a spatial and temporal continuity between the set of works. Transparent façades and easels are complementary resources in the effort to popularize the work of art and the museum.

The theme of transparency had previously appeared in another work of Lina Bo Bardi, but with a different program: her own house, known as Glass House (1951). The promotional photos of the house show the furniture disposal, ordinary objects and works of art, a juxtaposition of different genres and ages, backgrounded by the external landscape that appears through the glass façade. In that opportunity Lina Bo Bardi experienced the potential of simultaneous perception of building, its contents and surroundings.

After her death, in 1992, and the retirement of her husband, Pietro Maria Bardi (curator and chair of the museum since the beginning), criticism about the displays transparency gained strength. Finally, in 1996, the original exhibition system was changed. In its place, the salon was divided with plaster walls where the pictures were hung, like in many other museums. The main responsible for that was Julio Neves, the museum's chair at that time. The original large and single salon was split out into ten smaller rooms and two pairs of corridors, becoming a conventional exhibition space. The

paintings gained a neutral background, more suitable to the curators' concerns. The transparency of the façades was also lost: the shutters were permanently closed, in order to avoid excessive incidence of light in the paintings – a serious risk for the masterpieces collection; externally, giant billboards announcing the planned exhibitions.

That not everybody sympathizes equally with the way the paintings were originally presented is, however, not surprising. The presentation, being unique, is consequently also abnormal. And what is abnormal – in this case by default, due to its uniqueness – is also vulnerable in the sense that risks being changed or dismantled altogether which would be an unspeakable loss. The problem is at any rate now acute.¹

On the ground, some important changes were transforming the original appearance of open space: the water mirrors that formerly surrounded the building were reduced or covered, as well as the rough stone paving was replaced by polished granite. These material replacements made the MASP a cleaner, smoother and more conventional building, closer to common museums worldwide and farther from the space proposed by Lina Bo Bardi. All these changes have aroused a heated debate in Brazilian society and despite the efforts of São Paulo cultural sectors, at that time, it was not possible to maintain or revive the original design.

This case explains a conflict between two different –even antagonistic– concepts of museum: that of the new directors on one side and, on the other, the authors' original proposal. Even disguised as technical arguments, the issue is primarily conceptual. So much so that, at the same time (in 1996), Piers Gough admits been inspired by the MASP (by Lina, in fact) to design the exhibitors for the National Portrait Gallery renewal, for example. Regarding the building, it is true that glass façades could bring problems to a museum. However, Lina's and Pietro Bardi's idea for MASP was not to create a showroom, but a catalytic centre with a striking, modern architecture; a democratic and didactic place at the same time, that should contribute to cultural development. This concept is intimately linked to the modern ideas that took part of the post-war CIAMs debate, especially the CIAM VIII, 'The Heart of the City' (1951), when Le Corbusier and Josep Lluís Sert identified the museums as strategic buildings that would help to revive the urban centres. From this point of view, transparency to the outside makes all sense.

Besides all that, there is a huge distortion in this process – or contradiction: in order to safeguard the artwork, one modifies, without care or guilt, another masterpiece, that is the building. Or does architecture cannot aspire to a high cultural *status* and being safeguarded? Isn't the design of an exhibition a kind of work worthy to be preserved? In 1999, the Lina Bo and Pietro Maria Bardi

Institute asked for the MASP listing to Brazilian Heritage institutions. A month later, the museum direction did the same, but the request was only for the building itself, exhibition design and easels excluded. According to the 'Opinion on the museology of the exhibition space on MASP's second floor - inconvenience of declaring the site protected heritage', the pinacoteca's exhibition design presented six technical and four museological problems in the presentation of works.² The technical problems were: insufficient size of glass panels (some pieces of MASP collection were bigger than the glass sheets, so they could not be exhibited); the weight of works with a lot of wood; fragility and unpredictably of glass; deformation of wood; insolation, vibration of the glass panels. The museological issues were: educational visits (the easels distribution in the space made dangerous the circulation of visiting groups); smaller number of works on display (the easels waste space and can display approximately 20% less than a linear exhibition wall); inadequate lighting; low height to display the works.

Finally, in 2003, the IPHAN (Instituto do Patrimônio Histórico e Artístico Nacional / National Historic and Artistic Heritage Institute) listed the building and, as a strategic measure, it was decided to protect also the furniture, but not the way to expose. In this way, the easels and the building were protected and preserved; but, at the same time, the possibility of deciding when to use them was given to the museum. The original exhibition system survived as a possibility, even if abandoned for two decades. In fact, despite the intellectual community criticism, the MASP's main collection remained enclosed by ordinary plaster walls and Lina's museography could be seen only in the historiographical images and narratives concerning the museum and its author. The Lina's easels had become museum pieces themselves.

Back to the future

The year 2014 marked the centenary of Lina Bo Bardi's birth. Several exhibitions, conferences and publications celebrated the date, and have been extended to the year next. So, 2015 was the year dedicated to reflection about the transformations suffered by the MASP. An important exhibition named *MASP em Processo* (MASP in Process), divided in two steps, rediscovered the original architecture of the building and removed the partitions that had divided galleries as well as covering

1 Aldo van Eyck, "Lina Bo Bardi," Lina Bo Bardi: Sao Paulo Museum., edited by Marcelo Carvalho Ferraz (São Paulo: Editorial Blau, 1997).

2 In Adriano Pedrosa and Luiza Proença, *Concreto e cristal: O acervo do MASP nos cavaletes de Lina Bo Bardi* (São Paulo: MASP, 2015), 146–151.

the windows.³ After that, three historic Lina's exhibition designs –created by her for the institution before it was installed in the Avenida Paulista's building– were remade. More than put together again former piece of art selections, the reconstruction of these exhibitions intended to show to the public the ancestry of the abandoned crystal easels and the lineage of Lina's displaying design. Adriano Pedrosa, the artistic director of MASP at that time, said:

These exhibition designs already anticipated concerns with opening, lightness and suspension. Thus, besides revisiting the collection, the shows revealed the architect's path that led up to the design of the crystal easels – also called glass easels.⁴

All these three projects had in common the spatial fluidity, the understanding that a space should be perceived wholly, without internal limits. The exhibition panels, therefore, were suspended, and did not directly touch the ceiling either the floor, in order to maintain spatial continuity.

All these commemorative events brought renewed airs to Lina Bo Bardi's heritage, and created a favourable mood for reevaluation, which culminated in the decision to retake the original display devices - or at least the image and spatiality they provided.

Since the official claim for the abandonment of the trestles was mainly their fragility, the decision to return to the original exhibition project was accompanied by the hiring of a team that redesigned the exhibitors, so that they became more efficient and safe, and overcome the technical qualifications that determined its disuse.

Who took care of the assignment was METRO Arquitetos, which carried out the work of plastically reproducing Lina's trestles, with new materials and more efficient technology.

The original easels were composed of a cubic concrete base, with a negative for the fitting of a glass slide; the fixing of these parts was done through a wooden wedge and a screw, which allows compressing the glass, leaving it safe. A rubber blanket avoided the direct friction of the glass with the wood and the glass with the concrete (Fig. 1).

Although intended to maintain the plasticity and the same operating principle as the previous ones, the new trestles are flagrantly more sophisticated.

The main adjustments were made with the aim of strengthening the concrete cubes; adding the



Fig. 1. Detail of the base of the new easels. Photo: Ana Carolina Pellegrini and Marta Silveira Peixoto.



Fig. 2. Image of the main exhibition room after renovation. Photo: Ana Carolina Pellegrini and Marta Silveira Peixoto.

possibility of levelling the set; allowing for the full function of the wedge with a more effective and durable tightening system; standardization of the height of the drilled holes so that artworks can be switched interchangeably from one glass pane to another (in the original version, each glass pane was paired with a single artwork; with holes custom-drilled especially for it); increasing the protection of the edges of the glass panes to avoid breakage and to reduce undesirable vibrations, with the use of adequate damping.⁵

On December 11, 2015, the MASP's art gallery was reopened, resuming the exhibition project of Lina Bo Bardi (Fig. 2). The two generations who had not yet had the opportunity to get to know MASP how it had been conceived now could pass through the transparent trestles, just as Aldo van Eyck did in April 1996, shortly before the partition of the main hall.

The intervention that made possible the reconstitution of the original design of the gallery (at least with regard to the use of trestles, since the blinds remain closed) defies the most classically accepted recommendations regarding the intervention in heritage.

3 The first step occurred between December 12, 2014, and March 8, 2015, the second, between September 8 and October 18, 2015. In the first one, there was also an exhibition of the works from the collection, according to the wall text: 'A kind of prologue or transition essay, it does not configure a finished, traditional exhibition, with a predefined list of works. Instead, what will be revealed to the public, as the title implies, is precisely a process – of installation, research of the collection, and rediscovery of the architecture of the museum.' In Pedrosa and Proença, *Concreto e cristal*, 23.

4 Adriano Pedrosa in Pedrosa and Proença, *Concreto e cristal*, 22.

5 Martin Corullon in Pedrosa and Proença, *Concreto e cristal*, 33.

Paper or Stone?

According to traditional ideas about architectural preservation, the materiality of a building has been considered the main document to operations aiming its conservation as heritage. By the way, that is not very different when regarding a piece of art. However, concerning modern heritage, it can be stated that this protagonism can be shared with design or with the historiographical images and narratives about the object intended to be preserved – such as published pictures, movies, critical texts, etc.

Before a set of information registered on paper become a project, the history of architecture was engraved in stone. Conserving or restoring interventions in pre-modern architectures, therefore, should rely only on the materiality of a building as a guideline for the procedures to be adopted. The mostly known restoration theories are consequences of this conjuncture, which has influenced scholars such as Camillo Boito, Gustavo Giovannoni and Cesare Brandi.

The discourses and recommendations on how to deal with heritage can vary according to each author, but all of them have a common purpose, in which the materiality of the building is recognized as the protagonist of restore operations as well as determines its authenticity.

Becoming increasingly more complete and accurate, the information set that constitutes the design is able to be both a consultation source about a present build designed in the past and a timeless resource for a future materialization of a former idea, even allowing it to reach a 'complete state that may have never existed';⁶ in the case of MASP, a quality degree that was never achieved.

Furthermore, the properly filed design enables the reconstruction of destroyed buildings, or, in rarer –although not that exceptional– cases, the replication of architectures or its components.

It is possible to assume, therefore, that renovating, completing, reconstructing and replicating imply consider the project – and not only the building – as a heritage able of being safeguarded, once the material authenticity become a secondary issue in these operations.

Projects aiming renovation of modern buildings, in fact, seem to favour more the recovering or maintaining of both plasticity and spatiality than the concern in adopting former techniques. Moreover, replacements and reconstructions of modern icons parts are often made with newer and more efficient technologies, even when maintaining its original forms.

In re-use, restoration or reconstruction of modern heritage projects, it doesn't seem to be a serious misconduct to emulate the building's initial condition, even if using new materials. This new conduct is explained if we consider that the design (which defines the form and the spatiality of the building)

is the real heritage, and that is its excellence degree (recorded on paper, pictures, movies and so on) that justifies the interest in its preservation. The real heritage, then, is the design, not the building. Moreover: the authenticity increasingly has to do more with the correspondence between the image resulting from intervention and the one originally planned –or with the achieved degree of excellence– than with the use of former techniques and materials.

It seems to indicate that, in these cases, architecture matters more than construction and that the fear from false history is giving place to the acceptance of coexistence between both historical and newness values in the same building.

It is true that a closer look realizes the smoothness of the concrete cube, quite distant from the roughness intended by Lina. But gains are greater than losses. The restoration of the MASP original spatiality –or of the MASP original design– compensates for the glaring sophistication of the new easel, satisfying those who appreciate architecture and not just the material from which it is made.

Time is a spiral. Beauty in itself is something that doesn't really exist. It exists during a historic period, and then the fashion changes it becomes something bad. In the São Paulo Art Museum, I only tried to reassume certain positions. I didn't look for beauty, I looked for freedom. The intellectuals never liked it, but the people did: 'You know who made this? It was a woman!!...'⁷

6 Eugène Emmanuel Viollet-le-Duc, *Restauração* (Cotia: Ateliê Editorial, 2000), 74.

7 Lina Bo Bardi in Lina Bo Bardi.

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Odile Decq and the *Maison Bernard* of Antti Lovag (2015)

Introduction

In the European Year of Cultural Heritage 2018, in continuity with the objectives pursued by representatives of the Council and the European Parliament to raise awareness of the importance of European history and values and to strengthen the sense of European identity, but also to draw attention on the opportunities offered by our cultural heritage, laudable and worthy of emphasis is the approach of France to its heritage of the twentieth century while, unfortunately, in Italy an experimental architecture such as the Tree House by Giuseppe Perugini and Uga de Plaisant, still by now, pours into a state of advanced and deep abandonment in the Fregene's pinewood, after the house for Antoine Gaudet, positioned on the side of the Tourrettes Mountain, Antti Lovag's first built project as Bubble House in 18 November 1998 is included in the list of the protected Monuments Historiques (MH) *Patrimoine du XXe siècle* of Alpes-Maritimes, although there are many similarities between the two types of architecture, both experimental, *unicum* for Perugini, typological and experimental strand for Antti Lovag –from this moment on, Lovag–, both built in reinforced concrete, brutalist has been defined the work of Perugini, organic the work of Lovag. Then the case of the renovation of Lovag's *Maison Bernard* by the French architect Odile Decq – from this moment on, Decq– leads us to reflect; it is presented at this International Conference as a good practice to follow as an example, made possible, first of all, by enlightened sensitivity of the Pierre Bernard's sons, which, once inherited the house, felt the need to renew it. The Author of this

article has already dealt with villas;¹ that allows her to compare the two aesthetics, in open contrast, of Le Corbusier that enhances 'l'angle droit'(right angle) in his *Poème de l'Angle Droit* in 1955, and of Lovag who, as we see further on, refuse it expressly, because, for him

Habitat is primarily a shelter whose structure is conditioned by materials. It must respond to a custom and not to be an object of value with artistic pretension. The value to look for is in the (internal) lifestyle and not in the (external) 'style'. The human body, moving in space, inscribed round it, curved forms. The structuring by the wind, by the snow, by the erosion of our environment defines a world of curves and *contre-curves*. The real aggression on nature is the right angle.²

Therefore at the '*angle droit*' (right angle) is opposed

First of all, the spherical form. The cove has a double advantage: it is self-supporting and envelops the most rational use for a minimal surface on the ground. Cut-outs and cleavages are studied according to combinatorial possibilities. More complex elements, used in repetition, allow a grouping which constitutes the house. But the number of constituents must be moderated so that the industrialization is not excessive, while they must allow enough variants and therefore enough adaptations to various aspirations.³

Finally, fifty years have passed since 1968, when Lovag's habitologist career began, away from the 'French May protests', to which he does not actively participate, yet operating within a fertile soil matured in that climate of general breakdown of pre-established schemes linked in various ways to a patriarchal society and to freedom of expression. So in the activity of Lovag, fueled by the peremptory conviction –inherited by Jacques Couëlle– that everything is possible, we cannot fail to recognize a strong and determined character, but also a dreamer who was able to draw vital life from those so unconventional years. Lovag was clearly inscribed within the visionary architects of the sixties. Indeed, he had worked with Jacques Couëlle, one of the first to develop an organic architecture in France. He had also experimented with Pascal Häusermann and Jean-Louis Chanéac first plastic bubble houses. He was a man of absolute freedom, unconventional and provocative, and his houses are in his image and symbolize time marked by the search for pleasure.

The present paper is an unpublished work on the subject and this has allowed the Author to present a first thematic bibliography, offering itself as a continuation of attention dedicated to the French architect Decq who had previously found a voice in the occasion of the MoMoWo traveling exhibition

1 Cf. Rossella Martino, "Prototipi di ville puriste in Les quatre compositions del 1929," Antonello Boschi and Luca Lanini (eds.), *L'architettura della villa moderna: Gli anni della grande sperimentazione, 1900–1940*, Vol. 1 (Macerata: Quodlibet, 2016), 63–68.

2 Cf. Pierre Roche, *Antti Lovag - Habitologue* (Nice: France Europe Editions, 2010), 68. English translation by the Author.

3 Ibid.

MoMoWo - 100 Works in 100 Years: European Women in Architecture and Design 1918–2018, which was first presented at the University of Oviedo Historical Building, Spain, from 1st July until 31st July 2016. The exhibition's further stops were: Lisbon (September 2016), Grenoble (November 2016), Eindhoven (February - March 2017), Ljubljana (April and November 2017), Delft (June 2017), Bratislava (April – May 2018) and Turin (May - June 2018).

Antti Lovag and Pierre Bernard

In the South of France, towards Théoule-sur-Mer, between the end of the seventies and the beginning of the eighties, an architect of Hungarian-Finnish origins, Lovag, finally found the ideal client to realize his visions. Because of visions it is about, houses that are plastically inspired by nature. For Lovag, nature is not only vegetable, but also mineral, consisting of rocks and fragments of erosion. He builds his first house for Pierre Bernard, a wealthy man with a passion for architecture. Not far from Nice in an extraordinary property, Lovag and Pierre Bernard will remain together ten years to build their visions.⁴ Pierre Bernard, an industrialist of Bourg-en-Bresse engaged in automobile distribution, acquires a plot of land. His initial project is fairly classic: build a holiday home for his family of three children. Convinced by Lovag's ideas and talent, he became his patron and, also, his friend. Pierre Bernard provided Lovag the means and the opportunity to implement Lovag's ideas and develop architectures. In the absence of deadlines and without an obligation of immediate results, Lovag was able to freely experiment with materials and spatial organizations. Lovag, as opposed to Le Corbusier, not only asks Bernard what he wants, but also talks to his children. Using a simple technique (iron reinforcements that are sprayed with cement, taking the desired shapes), he builds often integrate fragments of rock, realizing unconventional drawings that are modified and enriched from time to time in contact with nature.⁵ Some of these strange drawings are now kept at the Regional Contemporary Art Fund (FRAC) in Orléans.⁶ There we find the *Maison Gaudet* or *Maison du Rouréou*, first 'Bubble House' to be started in 1968 whose drawings are kept even at the Centre Pompidou and the best known, the *Palais Bulles* started in 1988, now known as *Espace Cardin* as bought by the famous fashion designer Pierre Cardin. However, there are no autograph drawings

of the *Maison Bernard*, whose history is still to be rebuilt.⁷ During the sixties and the seventies, Lovag build two villas for Pierre Bernard, the first one known as *Maison Bernard* in the marine city of Port-la-Galère among Théoule-sur-Mer and the *Palais Bulles*, facing the bay of Cannes in the rocky Esterel's Massif, amazing home set on the heights of Théoule-sur-Mer boasts breath-taking views of the Riviera shoreline and its ochre inlets. It has been observed that Lovag designs bunches of spheres illuminated by large glazed eyes, visionary places whose inside is reversed with the external dimension, the fantastic approach is mixed with cinematographic suggestions and the space is transformed into a living material of which every cell is subject to continuous metamorphosis.⁸ The walls of Lovag are always membranes of a primordial creature that dilate while breathing; the spherical shape optimizes the space making it fluid and unitary as an organism that involves the structural elements in a 'birth-evolution' continuum. 'Bubble House' evokes archetypes, draws on lunar modules and technologies of the present to eliminate unnecessary or inaccessible corners, foster communication, protect the living space, but also becomes an expression of a rejection of the Modern Movement and rectilinear collective housing towards the liberation of the form enable by freedom of thought typical of the sixties and seventies. It is the adaptation of the gunning technique to the domestic scale that allows the appearance of the first bubble houses. In 1941, the American architect Wallace Neff invents the economical and ultra-fast air form construction process for his bubble house completed in forty-eight hours.⁹ In 1959, the Swiss architect Pascal Häusermann (1936–2011) was the first in France to build a bubble with his own hands, in Grilly, among Ain, direct inspirer of Lovag, as he himself affirmed.¹⁰

Maison Bernard

Originally designed to be a family home, *Maison Bernard* is one of the most successfully completed examples of organic architecture where Lovag was able to experiment with innovative designs for a human habitat. To meet man's needs, this architecture assembles spherical spaces which adapt to the surrounding area by integrating the natural environment and responding to the aspirations of its inhabitants – going beyond strict rational necessities. This is not the right place for a detailed

4 Cf. Massimiliano Fuksas, "Bolle tra le rocce," *L'Espresso* 43 (2007), 179.

5 Ibid.

6 About FRAC, see two recent publications, which are: Marie-Ange Brayer (ed.), *Architectures expérimentales, 1950-2012: Collection du Frac Centre* (Orléans: Éditions HYX, 2013), and *Architecture Sculpture: Collections Frac Centre et Centre Pompidou* (Orléans: Éditions HYX, 2008).

7 It has been said: 'The only drawings that the yard has known were made on the ground with chalk or on a piece of a cement bag to explain a detail. It always starts from the inside, the exterior is a result. The plans are only for building permits'.

8 Cf. Francesca Rinaldi, *Il surreale e l'architettura del novecento* (Milano: Franco-Angeli, 2004), 162–163.

9 Cf. Raphaëlle Saint-Pierre, "La parenthèse enchantée des maisons-bulles," *Tracés: Bulletin technique de la Suisse romande* 4 (2017), 10–11.

10 Ibid.

description of the *Maison Bernard*, for which we refer to the reading made by the author Pierre Roche, constituting the most detailed architectural report that can be found on the subject.¹¹ Elsewhere, they prefer to talk about the *Palais Bulles*, which also enjoys a recently published monograph and several quotes.¹² Here it will be remembered that the *Maison Bernard* is born from the meeting between Lovag and Pierre Bernard: an habitologist and a friend –and not only a patron– as Lovag will keep specifying. *Maison Bernard* will be carried out in Port-la-Galère among Théoule-sur-Mer where Bernard has a plot of land opposite to the ensemble realized by Jaques Couëlle. De facto the project has a main house and three apartments for the three children of the owner, connected by spaces and common equipment. This first house of Pierre Bernard, with its 800 m² is the first realization of bubble house completely realised by Lovag, spread in a cluster of twenty-six bubbles, punctuated with terraces, patios, ponds and gardens. Originally, there is an unique environment: the red rocks of the Esterel's Massif, the bay of Cannes and the Lerins Islands.

The chosen construction technique', says Pierre Roche, 'is triangulated reinforcement on strickles of his invention, recovered after completion for reuse then. Securely moored, they serve as a form for the metal mesh network on this support as well as scaffolding for the workers. The installation and situation of external access doors, oculus of view and sky domes is done with the greatest ease and the greatest precision since the materialization of the hull is transparent at this stage of the assembly. Everything is thus chosen according to the taste of the future user, father or children, present on the site at the moment of this important decision. The rest is business professionals so little eloquent for a candid visitor: reinforcement of the armature to the insertion lips of the spheres, to the awnings of the doors and to the tubes of oculus; first concreting of dirt by projection; laying pipes carrying the various fluids; second concreting of solidification; heat insulation treatment; last layer of concrete then superficial stratification, coloured in the various shades of the surrounding red rocks.¹³

Odile Decq and the Renovation of *Maison Bernard* (2010–2015)

Maison Bernard is, to all effects, the first Decq's renovation because of Decq had been dedicated, until now, to rehabilitation – we see, to mention the most recent, 'Confluence. Institute for innovation and creative strategies in architecture', new private school teaching architecture in Lyon: the building of

2200 m² which will host this school is, in fact, the result of the old market station's rehabilitation. The same Museum of Contemporary Art of Rome (MACRO) is the result of the conversion of an old Birra Peroni's factory, also made by new parts built, and it is defined restoration intended as a synonym of rehabilitation.¹⁴ In the case of *Maison Bernard*, first work about the type 'Bubble House', it was well expressed who spoke of revamping, modernisation and refurbishment because, following the intervention of Decq, the *Maison Bernard* has regained, literally, new life, starting from a surprising explosion of colours, in line with colours of the flower power of the seventies, but that was not expected from Decq, gothic architect who usually swears by black with touches of red only. He told Isabelle Bernard, daughter of Pierre Bernard, who when she inherited, together with his brother, the house of Port-la-Galère, among Théoule-sur-Mer, they seemed obvious to them that *Maison Bernard* should not remain a simple private holiday home; thirty years after, it needed to be renovated firstly. This project of renovation lasted five years of work (2010–15) and focused on the use of new palette of colours, entirely redesigned by Decq. The renovation of *Maison Bernard* is, actually, relegated, wrongly, to the French fashion magazines and to numerous internet sites and it arrives hardly on books, except for the new issue of Monograph it edited recently by ListLab.¹⁵ It is instead, in the opinion of the author, an experimental and original intervention that deserves some more attention. 'The concept of too much is never enough' says Decq through the web, 'has become the lead in colour.' Spherical rooms, circular portholes projected towards nature, curvilinear doors, furniture that follow the walls, integrated walkways and steep stairs are in line with the philosophy of its founder. 'I tried to do something playful, completely on the subject in the seventies' says Decq again through the web. The restoration focused primarily on a bold use of vibrant colour, which enabled each of the house's spaces to have strong identities. Most of the craftsmen who worked on the building site had already worked with Lovag, so, their particular expertise helped to resolve the many challenges which cropped up during the renovation; they are: Rachel Robinson, Mathieu Baudet, Salem Bourourou, Arnaud Chassaing, Laurent Faugère, Régis Isoardi, David Logan, Mathieu Martinot, François Rappa, Stéphane Paladini, Michel Fabre, Charlotte Dally of the Studio Odile Decq and Annarita Manera de Cactusmania.¹⁶ Decq describes her discovery of the house and her first impressions; she explains how she first had to become acclimated to Lovag's architecture before beginning work and how she used colour to structure her renovation of the house. Together with Isabelle Bernard, in close collaboration and slowly, they both took great care to preserve the house's

11 Cf. Pierre Roche, *Antti Lovag: Habitologue* (Nice: France Europe Editions, 2010), 117.

12 Cf. Jean-Pascal Hesse, *The Palais Bulles of Pierre Cardin* (New York: Assouline Publishing, 2012).

13 Cf. Pierre Roche, *Antti Lovag: Habitologue* (Nice: France Europe Editions, 2010), 117–8.

14 Cf. Maria Grazia Bellisario and Angela Tecce (eds.), *I luoghi del contemporaneo: Contemporary art venues* (Roma: Gangemi editore, 2012), 129.

15 Cf. Giuseppe Scaglione and Massimo Faiferri, *MONOGRAPH.IT: Studio Odile Decq: Architecture as a Civil Passion and Creative Power* (Trento: ListLab, 2017), 118–123.

16 Cf. "Le Fonds de dotation Maison Bernard - La Maison Bernard," Maison Bernard, <http://www.fonds-maisonbernard.com> (accessed January 31, 2018).

identity while continuing the adventure that had motivated Pierre Bernard and Lovag. Summarizing what Decq has said about it, the first stage was mainly the living room and the entryway restroom and a guest room. The following year, Decq worked on Pierre Bernard's bedroom, something iconic space. Afterwards, little by little, Decq and Isabelle Bernard adapted and chose colours; Decq proposed colours charts and Isabelle Bernard preferred pink and purple for her part of the house, so Decq used colour scales within that range. For Jean-Patrice Bernard, Decq selected orange as a more masculine colour because his room needed to be rather flashy and strong. Finally, Decq suggested to Isabelle Bernard to put all of the house's colours within final bedroom to manufacture a kind of sunrise and a sort of rainbow because this bedroom's space encompasses East and West. Thus, ultimately, with its multi-coloured collection of cushions, this room became a synthesis of the house.

Conclusion

Since 2013, *Maison Bernard* has an endowment fund addressed at rue Soufflot 21 in Paris. Open to the public, *Maison Bernard* at Port-la-Galère among Théoule-sur-Mer is open for visitors by appointment for groups of eight people maximum; each year it is also the seat of a creative workshop for an artist of all nationalities and from all areas of visual arts (video, sound, light, sculpture, land art, green art...), who can stay for six months in a studio adjacent to the house, built by Lovag to be able to follow the construction work of *Maison Bernard* in person. This studio of 90 m² is in front of the Mediterranean Sea and has been renovated in 2014. Thanks to the work of Decq and to the official website with its attractive graphical identity designed by French creative duo, Pauline Schleimer & David Després and its interesting materials, purposes of the protection and the perennity of Lovag's architectural work with Pierre Bernard is respected.

Agate Eniņa

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Bringing Latvian Architecture through International Age: Women Architectural Legacy in Latvia Since 1918-2018

Regardless of the feminist movement in the world, nowadays nobody distinguishes between the buildings designed by female and male architects in Latvia. However, the social role and life of women have changed dramatically over the past 100 years.

There is not a single study in Latvia making an analytical distinction between the creative works of female and male architects. Several publications were written about outstanding personalities.¹ Individual studies about the contribution of female architects allow seeing the general tendencies in the architecture of that time, yet they do not reveal the way how the Modern Movement evolved. Already in 1931, the publicist Lilija Brante analysed the role of women in the society,² while the philosopher Andris Rubenis looked at this issue from today's perspective.³ The context of the age, the relation between political and economic development and the construction have been analysed in several books by the architects Jānis Krastiņš and Jānis Lejnieks.⁴ Two significant studies about

1 Jānis Lejnieks, *Marta Staņa: Vienkārši, ar vērienu* (Jelgava: Jelgavas tipogrāfija, 2013), 119; Maija Rudovska, "In the Shadows of Nostalgia: Marta Staņa's legacy in Latvia" (paper presented at seminar "Showcasing Modernisms: Between Nostalgia and Criticism," Lithuania, October 25, 2013); Alīda Zigmunde et al., "The Architect Janina Jasena-Adolphi (1910–1990)," *Scientific Journal of Riga Technical University* 16 (2010), 46–9; Agate Eniņa and Jānis Krastiņš, "Creative Work of the Architect Daina Danneberga in the Context of Architectural Heritage of the Soviet Period," *Scientific Journal of Riga Technical University* 4, no. 10 (2010), 36–43.

2 Lilija Brante, *Latviešu Sieviete* (Rīga: Valters un Rapa, 1931), 234.

3 Andris Rubenis, "Sievietes stāvoklis," *20. gadsimta kultūra Eiropā* (Rīga: Zvaigzne ABC, 2004), 220–5.

4 Jānis Krastiņš, *Latvijas Republikas būvmāksla* (Rīga: Zinātne, 1992), 236; Jānis Lejnieks, *Rīga, kura nav* (Rīga: Zinātne, 1988), 399; Jānis Krastiņš, Ivars Strautmanis and Jānis Dripe, *Latvijas arhitektūra: No senatnes līdz mūsdienām* (Nav vietas: Baltika, 1998), 312.

Modernist architecture in Latvia have been performed following the research carried out by the DoCoMoMo Latvian Working Part.⁵ For the first time Latvian Modernist architecture was presented to the world in Latvia's pavilion at the 2014 Venice Biennale of Architecture.⁶

Study aims to determine the role of female architects in preservation of regional features in Latvian architecture in the context of the Modern Movement from 1918 to 2018.

The authors have applied five 'filtering layers' to this topic:

- the role of women in the society in the twentieth century, focusing on the territory of Latvia and analysing the aspects that have historically underlain the social role of women;
- the impact of the political, cultural and economic environment of the twentieth century on architecture in the regional context;
- interpretation and impact of the Modern Movement as regards the traditions of Latvian regional architecture;
- creative works of female architects, based on the surveys of buildings on site and the available visual and textual sources;
- a contemporary view on the heritage of the Modern Movement and experts' opinions.

Women in Latvian Architecture in the Context of Social, Economic and Political Aspects

At the end of the nineteenth century, it was complicated for women to obtain higher education. Secondary education in women's gymnasiums and various courses were very popular. Women even ventured to go to study to Switzerland and France.⁷ Initially, women acquired education for a sole purpose of intellectual development. Already in the nineteenth century, along with men's societies women's committees sprang up and then transformed into ideological women's societies that carried out social and cultural functions, namely, organised reading sessions and literary gatherings, charity events and even established libraries.⁸

5 DoCoMoMo Latvian Working Party for documentation and conservation of buildings, sites and neighbour-hoods of the Modern Movement, *National Register - Latvia* (Rīga: Mantojums, 1998), 68; Claes Caldenby and Ola Wederbrunn (eds.), *Living and Dying in the Urban Modernity* (Aarhus: Linde Tryk, 2010), 160.

6 Architecture office NRJA, *Unwritten* (Jelgava: Jelgavas tipogrāfija, 2014), 486, Exhibition catalogue.

7 Ilgars Grosvalds, "Latvijas sievietes izglītībā un zinātnē (1860–1944)," *Latvijas Zinātņu Akadēmijas Vēstis* 71, no. 2 (2017), http://www.lza.lv/LZA_VestisA/71_2/2_Ilgars_Grosvalds.pdf (accessed January 18, 2018).

8 Brante, *Latviešu Sieviete*, 150.

'After the war a woman's daily life had not changed much, traditional gender roles and an ideal of a housewife proved to be deeply rooted'.⁹ On 18 November 1918, the Republic of Latvia was established and citizens of both sexes were granted a political right to vote. In 1919, the University of Latvia began to admit women. Ilze Martinsone, the director of the Latvian Museum of Architecture, believes that the right to vote that women acquired allowed them to prove themselves and even motivated them to learn and obtain education.¹⁰ In 1928, the Latvian Association of Academically Educated Women was founded as 'a defender of professional interests of academically educated women'.¹¹

Between 1918 and 1949, 211 students graduated the Faculty of Architecture, 32 of them were women, including the architects Lidija Hofmane-Grīnberga (1898–1983), Elza Meldere-Ziemele (1900–1990), Emma Kalniņa (1899–1985), Alma Dunga (1900–1983), Velta Rammāne (b. 1915) and Marta Staņa (1967–1970).¹² In her interview Meldere-Ziemele's daughter Irēna Vilberga said that her mother was 'a vital personality, defender of women's rights and looked at everything with a critical eye as people from Vidzeme tend to do'.¹³ The female architects of that time were, indeed, active and creative personalities.¹⁴ Martinsone drew parallels between Hofmane-Grīnberga and her contemporary, a pioneer of the Modern Movement, the civil engineer Teodors Hermanovskis (1883–1964). 'He brought an enormous energy and innovation into Latvian architecture, though he himself may not have been so creative, but he simply was well aware of the latest tendencies in the world'.¹⁵

Until WWII only five female graduates of the Faculty of Architecture were actively practising architecture. Two of them, namely, Hofmane-Grīnberga and Meldere-Ziemele had their own architectural offices. Hofmane-Grīnberga designed more than 180 residential buildings and several multi-apartment houses.¹⁶ A family business was another model of architectural practice. Kalniņa worked together with her husband Ansis Kalniņš (1903–1945), they designed Dr Nīmanis Children's Clinic at 6 Daugavgrīvas iela, in Riga,¹⁷ a park pavilion in *Ziedoņdārzs*, in Riga, the Latvian Land

9 Rubenis, "Sievietes stāvoklis," 220–2.

10 Ilze Martinsone, Interview with Alina Beitane (Riga, December 27, 2017).

11 Brante, *Latviešu Sieviete*, 164.

12 O. Buka et al., *Latvijas arhitektūras meistari* (Rīga: Zvaigzne ABC, 1995), 286.

13 Irēna Vilberga, Interview with Alina Beitane (Riga, December 29, 2017).

14 Vilberga, Interview; Lejnieks, *Marta Staņa*, 89; Martinsone, Interview.

15 Martinsone, Interview.

16 Jānis Krastiņš, "Hofmane-Grīnberga Līdija," *Māksla un arhitektūra biogrāfijās*, Vol. 1 (Riga: Latvijas enciklopēdija, 1995), 202.

17 Anša Kalniņa arhīva lieta, images K25-8, K25-12, Latvijas Arhitektūras muzeja krājums..

Bank in Valmiera and other buildings.¹⁸ The practising architect Zaiga Gaile (1951) pointed out that 'in such unions women often became service staff for men'.¹⁹ Though the architect Jānis Lejnīeks noted in his interview that 'a model of cooperation within an extended family is characteristic of Scandinavia. Work becomes deeply intimate. It is impossible to say who was struck with an idea and who added technical refinement to the design'.²⁰ The French historian Eric Le Bourhis interviewed female architects about the effect of family life on their job.²¹ Women revealed that family and pregnancy did not interfere with their careers, on the contrary, it was even a driving force. Female architects admitted that their careers evolved slower than those of men.²²

Since 1950 the number of women admitted to the Faculty of Architecture has increased considerably. Special measures were taken and a quota system established to integrate women into the labour market in the USSR.²³ According to E. Le Bourhis, these factors had a little effect on the choice of profession when women decided to become architects, being good at arithmetic and drawing usually accounted for the choice of profession. The interest in the profession arose by viewing the work process in the family.²⁴ In the 1960s, the work culture of architects was substantially transformed as large design institutes were opened which employed mainly women. Work in an office was considered more appropriate for women than labour on a construction site. The architect Sintija Vaivade said, 'Female architects of the post-war generation worked in institutes, only now we have a choice to establish a private practice. I believe there is a huge difference between the way how female architects worked then and today. We can work independently, at least we can try, and make our own decisions – this is the influence of the post-war political regime'.²⁵ Several renowned Latvian architects, e.g. Velta Rammāne, Zane Kalinka and Ausma Skujiņa developed their own creative style and approach in one of the largest design institutes in Latvia *Pilsētprojekts (Latgiprogorstroj* in Russian).²⁶ After her husband's death, Kalniņa continued to work together with the architect Rammāne drawing standard plans for two- and three-storey residential buildings. Kalniņa became the senior architect in the institute *Pilsētprojekts* (1951–60).²⁷

Today women in Latvia can freely choose their profession and other means of self-realisation and, thus, compete with men. From 1991 to 2016, 443 or 55.2 % of all university graduates receiving diplomas in architecture were women. Though only few female graduates run their private practices and many women have chosen a different sphere of work. Referring to women's professional motivation and level of ambition, the practising architect Andra Šmite described a fairly common situation today in architectural offices run by men, where women basically do drawing tasks, saying that 'women pay attention to small details both at work and during communication. A particular dynamics develops in a mixed environment'.²⁸ At the same time, several large design offices in Latvia are run by women, e.g. Kubs by Zane Kalinka, Grafix by Ruta Krūskopa, Z. Gailes birojs by Zaiga Gaile and so on.

Synthesis of Values of the Modern Movement and Latvian Traditional Architecture

In Latvia, the Modern Movement appeared and developed on the basis of traditional architecture and rational Art Nouveau.²⁹ In Riga, the Modern Movement manifested itself in the residential districts –Teika, Pārdaugava and Mežaparks. Mežaparks is an urban construction monument of national significance.³⁰ Architects often synthesised the principles of the Modern Movement with the features of regional architecture. Three mansions designed by Hofmane-Grīnberga at Kārļa Vatsona iela 2 (1934), Meža prospekts 52 (1931) and 74 (1932) are included on the list of architectural monuments of local significance.³¹ Having combined in their architecture the stylistic approaches of the Modern Movement and Art Deco, the buildings have simple, cubic massing. The architect Alma Dunga designed buildings void of any decorative elements, e.g. the mansion in Riga, at Siguldas prospekts 15 (1934) has massive cornices and one of its avant-corps is rounded.

An image of a single-family home became an ideal of the interwar period.³² Referring to the rational thinking characteristic of Nordic peoples, including Latvians, Ilze Martinsone said: the archetypal 'shape of a threshing barn is based on rational reasons, i.e. climatic conditions. Its shape and

18 Vladimirs Eihenbaums, Interview with Agate Eniņa and Alina Beitane (Riga, January 5, 2018).

19 Zaiga Gaile, Interview with Alina Beitane (Riga, December 11, 2017).

20 Jānis Lejnīeks, Interview with Alina Beitane (Riga, December 14, 2017).

21 Eric Le Bourhis, "Avec le plan, contre le modèle: Urbanisme et changement urbain à Riga en URSS (1945–1990)" (PhD dissertation, École des Hautes Études en Sciences Sociales, 2015), 183–204.

22 Ibid.

23 Ibid.

24 Ibid.

25 Sintija Vaivade, Interview with Alina Beitane (December 5, 2017).

26 Gaile, Interview.

27 Andrejs Holcmanis, "Kalniņa Emma," *Māksla un arhitektūra biogrāfijās*, Vol. 1 (Riga: Latvijas enciklopēdija, 1995), 234.

28 Andra Šmite, Interview with Alina Beitane (Riga, December 8, 2017).

29 Krastiņš, *Latvijas Republikas būvmāksla*, 101–53.

30 Krastiņš, *Latvijas Republikas būvmāksla*, 190.

31 Jānis Krastiņš, *Pilsētībūvniecības pieminekļi Mežaparks*, 131, <http://mantojums.lv/media/uploads/dokumenti/petijumi/mezaparks.pdf> (accessed May 24, 2018).

32 Andris Klepers, *Viensētas un ainavas kvalitāte dabas daudzveidības kontekstā* (Valmiera: Vidzemes Augstskola, 2017), 133, https://ainavasruna.lv/uploads/editor/Ainavas_runa_Petijums_vienseta_ainava_ViA_2017_final.pdf (accessed January 18, 2018).

proportions seem beautiful to us.³³ A farmstead is included in the Latvian Canon of Culture as 'an archetype of simple and clear architecture'.³⁴ Most of the single-family dwellings designed in the manner of the Modern Movement have wooden building structures.³⁵ Female architects have designed a considerable number of mansions attempting to find a compromise between development and traditions in their designs. In 1940, the architect Janina Jasenas-Adolphi in her essay criticised excessively decorative and pretentious architecture created by the seekers of the folk style. She wrote about the interpretation of modern traditions, emphasising that national and educational architecture emerges from the creative succession. Jasenas-Adolphi revealed how the use of modern materials can make the nature come into human life and workplace.³⁶ The essay has not lost its significance. It is still being re-read and re-published.

In the 1920s and 1930s, the Modern Movement 'almost prevailed in the architecture of multi-storey apartment houses of the cities. In certain areas of Riga, it was the only style in the streetscape'.³⁷ Some characteristic examples are multi-storey apartment houses in the vicinity of Riga's major streets, namely, at Brīvības iela 161 (1934) and Krišjāņa Valdemāra iela 97 (1937) designed by Hofmane-Grīnberga.

Female architects also took part in designing of public buildings. For example, Meldere–Ziemele designed a number of school buildings including Glück's Six-form Primary School in Alūksne (1937).³⁸ The building has dynamic massing clearly displaying its internal functional division in its exterior. The building still functions as a school, and it has been renovated recently. Having designed it in rational forms, the architect achieved expressiveness of the massing by exposing plain wall planes. Overhangs were used as a regional feature, e.g. in the buildings at Kolkasraga iela 6 and 8, in Riga (both in 1932–5).

Less is known about the solutions used for the interiors in the 1920s and 1930s. Marta Staņa created and introduced in practice a term 'ensemble'³⁹ denoting a group of objects or pieces of furniture which complemented one another and formed a single composition. Staņa's numerous drawings illustrate the interior trends of the time.

In the 1950s, recovery after destruction of war required high efficiency of work. Collectivisation of

land and manufactured produce was introduced in the USSR. In an interview, the expert Zaiga Gaile emphasised the importance of the environment in one's life and shared her memories about her ten-year work experience on the collective farm *Soviet Latvia*:

Latvians had their own environment. They used to live in farmsteads. There was succession. Then, people were herded into collective farms and were told to live in three-storey buildings. Latvians did not use to live in villages. Russians have communities, their villages. We, Latvians, had our extended family. This was destroyed, and people simply had nothing to do, they were offered some sort of allotment gardens. The daily routine of getting up in the morning and milking the cow had perished. People who had been used to their chores were left with nothing but television and drinking. Nobody wanted to work decently any more. Work is your staple, along with land, cattle, fields, get up at daybreak, all that rhythm... but this succession was lost.⁴⁰

Collective farms as a system contradicted people's habitual lifestyle. Rammane, Staņa and other female architects took to designing summer cottages, perhaps, seeing them as an escape from confinement of a multi-apartment house and as a model of a secluded life resembling that of a farmstead.

In the 1960s works were created which combined the context of the surrounding cityscape and regional features with the principles of the Modern Movement. In 1967, the architect Daina Dannenbergā designed the building of the Union of the Fishermen's Collective Farms of the Latvian SSR at Jauniela 13, in Riga, and in 1972, in a similar urban context, the architect Silvija Pētersone (1931) drew plans for the Computation Centre of the Ministry for the Communal Economy at Pils iela 8–10. Both buildings embodied general principles of the Modern Movement and astonished with their competent conceptualism and marked a transition from the Modern Movement to Postmodernism.

In Retrospect. Challenges Facing the Preservation and Revival of the Heritage of the Modern Movement of Female Architects

The development of the style alongside re-assessment of the restoration guidelines make consistent assessment and preservation of the buildings constructed in the flourishing period of the Modern Movement difficult. The Daile Theatre in Riga (architect Marta Staņa, Imants Jēkabsons (1934–1993), 1959–1976) is one of the most prominent examples of the Modern Movement in Latvia.

⁴⁰ Gaile, Interview.

³³ Martinsone, Interview.

³⁴ "Latviešu viensēta, 16.–21. gadsimts," *Latvijas Kultūras kanons*, <https://kulturaskanons.lv/archive/latviesu-vienseta/>, (accessed January 18, 2018).

³⁵ Eihenbaums, Interview.

³⁶ Janina Jasenas, "Arhitektūras tautiskums," *Latvijas Arhitektūra* (1989), 41–2.

³⁷ Krastiņš, *Latvijas Republikas būvmāksla*, 194.

³⁸ Latvijas Arhitektūras muzeja krājums, Elzas Melderis (Ziemelis) arhīva lieta, M24-4, image.

³⁹ Zaiga Gaile, *Koka māja/ Wooden House* (Rīga: Livonia Print, 2014), 183-4.

However, Zaiga Gaile emphasised in an interview that 'the building is an architectural monument, but in order to free up space for its construction site, an entire quarter of wooden houses had to be demolished in the centre of Riga, which is unthinkable nowadays'.⁴¹ During the construction, decisions were made that seem incompetent today.

The building of the Daile Theatre has been included in the Latvian Canon of Culture. Its architecture and large expanses of glass embody 'the openness of Modernism and communication of the building with the surrounding environment'.⁴² Introduction of daylight as a value into the interior was a positive contribution that the Modern Movement brought to Latvia. The main foyer has been raised on pillars, yet it is narrow enough for daylight to illuminate the entrance area naturally in the daytime. The extensive band of glazing spanning the entire foyer was criticised by contemporaries and was covered up with curtains. It was only in 2010 when Ieva Zībārte managed to have the curtains removed for the exhibition *Behind the Curtain: Architect Marta Staņa* (architects Ieva Zībārte, Mārtiņš Pīlēns and graphic designer Edgars Zvirgzdiņš)⁴³ that the visual communication between the interior spaces and the outside world was restored. In 1976, Staņa had passed away before seeing the opening of the building, but the theatre building left no one indifferent – it was criticised and it was praised.

The society's lifestyle has changed as well as its attitude to Modernist architecture. If aesthetics prevailed in the first half of the twentieth century, then today aspects of social responsibility and environmental impact have come to the fore. The architect Andra Šmite emphasised that 'today every professional architect focuses on the functionality, aesthetics, ecology and social footprint of the building – its impact on the community'.⁴⁴ The architect Sintija Vaivade emphasised the intangible effects of architecture:

the architecture of the Modern Movement absorbed in itself the values and features of that time. And that is why it is valuable. The values starting with the shape, the narrative, the details and the interior make the entirety. This is our cultural heritage. Blocks comprising three or five buildings which we define as a valuable part of urban construction and then try to preserve.⁴⁵

Today, in the context of revival of the Modern Movement, the technical as well as maintenance quality of cultural heritage has become a challenge. All the experts underlined that although the principles of the Modern Movement were applied in the residential areas built in the interwar period, e.g. in Teika and Mežaparks, still the human scale of the environment was preserved. In contrast,



Fig. 1. Marta Staņa, The residential building at Brīvības iela 313, Riga, 1967–70. Courtesy of Archive of Latvian Museum of Architecture.



Fig. 2. Architect Zaiga Gaile next to the vacation home on 'Easter Island', 2010. Courtesy of Zaiga Gailes Birojs.

the large-scale residential districts built after the Second World War were not fully implemented. Although the apartment blocks were built, the necessary infrastructure is still poorly developed. The expert concluded that nowadays the large-scale estates are used only for sleeping over, but the living environment there is mostly of poor quality and rundown. The architect admitted that the materials used in the construction of residential districts and finish of the buildings (small glass blocks, tiny tiles, etc.) were nice, yet the overall quality of construction was low. Nowadays the problems with ownership emerged in the post-war modern environment – 'the revitalisation of the public space cannot be realised at the moment due to fragmentary ownership'.⁴⁶ This problem has also prevented reconstruction of the residential building at Brīvības iela 313, in Riga, which was designed by Marta Staņa (Fig. 1). Its facade was decorated with stemalite panels⁴⁷ (tempered, coloured glass with dulling effect made using special technology), which are no longer produced today, but the ownership issue complicates the restoration process of the building.

During her creative work, Zaiga Gaile first appreciates the building, finds out its history and analyses what 'is appealing today, what needs to be accentuated and highlighted and how people can live in this building today'. A good example is the pump station in Kaltene which the architect renovated and rebuilt turning it into the vacation home on 'Easter Island' (Fig. 2). 'Gaile is like a revolutionary, because she has initiated and maintains her line with her adaptive style, adapting buildings to a

41 Gaile, Interview.

42 Martinsone, Interview.

43 Lejnīks, *Marta Staņa*, 100.

44 Šmite, Interview.

45 Vaivade, Interview.

46 Martinsone, Interview.

47 Lejnīks, *Marta Staņa*, 63.

modern function.⁴⁸ Jānis Lejnieks emphasised her ability to work with cultural heritage, with its story, which may also be a weakness in the situations when it is necessary to create something fundamentally new.

Conclusion

From 1918 to 2018 there has been a stark contrast between the development trends in cities and in the countryside of Latvia, and the impact of the Modern Movement is dual. The architecture created by women along with the principles of the Modern Movement also takes into account the qualities of the surrounding context and includes the regional features. The Modern Movement brought novelty to the work of architects and architecture became a result of teamwork. A female architect can be a team leader or be part of a team. The work of female architects has a high added creative value. Modernist architecture can be understood by analysing the construction history of the building and its construction process. Only those buildings the emotional effect of the architectural concept of which, the materials and the uniqueness of the solutions used are still relevant today are being restored and preserved. The list made by the DoCoMoMo Latvian Working Party with the most significant representative samples of the Modern Movement in Latvia should be reviewed and supplemented with several objects designed by female architects.

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The Women Architects of Iran: Their Practice and Influence (1940-1976)

Despite the growing number of women entering profession and practicing architecture in Iran within recent years, still the lack of role model among female architecture students is observable. Given that role models boost self-esteem by countering negative stereotypes that cast doubt on a person's abilities to perform well in the biased profession,¹ the scarcity of female role models in architecture can be profoundly damaging. Mainstream architectural history has failed to include the contribution of women in evaluation of Iran's modern architecture and as a result, their practice has remained unknown to younger generation.

Through their absence from any historiography of Iran's architecture, there are limited sources of information about this first generation of women architects; either they are known by names or they are linked to buildings, but their involvement remains uncertain. The only scholar regarding women's endeavour is Sirius Bavar mentioning the practice of these architects through narrating the International Congress of Women Architects (1976) in Ramsar,² however, referring to projects designed and built in association of women and their co-workers, as the same cliché women's contributions is omitted. The study of gender as such in Iranian historiography still remains a new frontier. Vanished within the patriarchal structure of Iranian modernity, the instrumental female role in reformulating the life of a modern society has largely been ignored.

1 Cf. Michela De Giorgio, "Donne e professioni," *I professionisti*, edited by Anna Maria Malatesta (Torino: Einaudi, 1996), 455–456, vol. 10 of the collection *Storia d'Italia: Annali*; Despina Stratigakos, *Where Are the Women Architects?* (Princeton: Princeton University, 2016), 35.

2 Sirius Bavar, *Looking Towards New Architecture in Iran* (Tehran: Faza, 2008), 364–377.

48 Lejnieks, Interview.

The scope of this study is limited between two crucial backgrounds relating to women architects in Iran: establishing of Faculty of Fine Arts in University of Tehran (1940) as the first phase women starting to enter architectural education to the holding of the International Congress of Women Architects (1976), when it can be said that women in Iran had the first opportunity to gather together and present their practices.

The women selected as the first generation of women architects of Iran in this study are Nektar Papazian-Andreeff, Keyhandokht Radpour, Mina Samiei, Shahrzad Seraj, Giti Afrouz-Kardan, Nushin Ehsan, Nasrin Fajih and Leila Farhad who were the first woman awarded important commissions, were involved in important governmental designs and practiced in different designs and constructions like universities, residences, hospitals, libraries and urban designs, however, comparing to their male co-workers, their practice never saw the equal and desired attention.

As Jullie Willies indicates that 'the study of the history of women architects should be, by its nature, a critical history',³ focusing on the second Pahlavi period with a critical approach, this study is based on the contribution of the first generation of women architects to the formation of early modern Iranian architecture and tries to answer these questions: What was the context of their practice, for instance, whether they established their own firms or preferred to work with their husbands, what was the characteristics of their designs, and finally and more importantly, whether they succeeded in forming any particular critical viewpoint in architectural landscape of modern Iran.

Women's Architectural Education in Iran

The foundation of very first architecture school in Iran dates back to 1927,⁴ however, the opportunity to study architecture was not provided for Iranian women until the establishing of faculty of Fine Arts in the University of Tehran in 1940.⁵ The school was under the tutelage of the French archaeologist and architect Andre Godard and the Iranian architects, Mohsen Foroughi and Hushang Seyhoun as the three directors who respectively followed the principles of *École des Beaux-Arts* of Paris as the teaching model.⁶ The rigid structure of the education system was not changed for over the next 28

years and dissatisfaction merged students to seek for better chances of education abroad.⁷ After the management period of Seyhoun and alongside with the cultural transition of time, subsequently educational curriculum and teaching staff undergone relative revisions.⁸

According to the published information in the third issue of *Architect* reviewing the status of architectural students enrolled in the School of Fine Arts and Architecture at the Tehran University, no woman did enter the school in the first three years after the establishment of the school.⁹ In 1943, the first woman gained entrance to the department; and in 1945, Nectar Papazian-Andreeff became the first Iranian woman with graduate diploma in architecture.¹⁰

Following the University of Tehran, other architecture centres were established, among which, Madrese Ali Dokhtaran¹¹ was the first single-sex school devoted to female architect students, opened in 1964 under the Farah Diba's patronage, who was educated in Paris at the *École Spéciale d'Architecture*.¹² This school offered disciplines within the curriculum ranging from the social sciences to the liberal arts. In Addition, the college was also known for its unique program in women's home economics and interior design, initiated in 1967. Following the addition of this program, interior design became a major division in several architecture schools.¹³

It can be said that before the transition in the teaching system in Faculty of Fine Arts, architectural teaching experience was not sufficient for the female students. The majority of these women completed their education in foreign universities. On the other hand, Nektar Papazian-Andreeff,¹⁴

7 Over the period Dariush Mirfenderski directing the faculty, fundamental changes occurred, for instance the curriculum thoroughly saw changes and Fataneh Naraghi, Mirfenderski's wife, also started to teach interior and industrial design at that time. "The history of Faculty of Fine Arts," ammi.ir, <http://ammi.ir/ammiprint?id=8575> (accessed January 27, 2018).

8 The transition stemmed from the post Second World War influences of American in Iranian politics, economy and media that replaced the pre-Second World War influences of Germany and France in Iran. M. Reza Shirazi, *Contemporary Architecture and Urbanism in Iran: Tradition, Modernity and, the Production of The Space-in-Between* (New York, NY: Springer Publishing Company, 2018), 126.

9 Khajouy, "The History of the Faculty of Fine Arts," 31.

10 Nectar Papazian-Andreeff, "Address by the President of the congress," *Report of the Proceedings of the International Congress of Women Architects: The Crisis of Identity in Architecture* (Tehran: The Hamdami Foundation, 1977), 9–11.

11 Now Al-Zahra University.

12 Farah Pahlavi played an active role in promoting the culture and the arts in Iran from the beginning of her reign. She took a direct interest in the Ministry of Culture and Art, her ministry encouraged many forms of artistic expression, however, the majority of her time went into the creation of museums and the building of their collections. Baharak Tabibi, "Propagating Modernities: Art and Architectural Patronage of Shahbanu Farah Pahlavi" (PhD dissertation, Middle East Technical University, 2014), 3–17.

13 Pamela Karimi, *Domesticity and Consumer Culture in Iran: Interior Revolutions of the Modern Era* (New York, NY: Routledge, 2013), 149.

14 After two years in Faculty of Fine Arts, she attended the Atelier of Perret Remondet Herbe where she gained an equivalent PhD degree from *L'École Des Beaux Arts* in 1956. Andreeff, "Address by the President," 10.

3 Julie Willies, "Invisible Contributions: The Problem of History and Women Architects," *Architectural Theory Review* 3, no. 2 (1998), 57–68.

4 This school was founded by Karim Taherzadeh Behzad the Iranian architect. The school provided training for male students, however, due to the lack of budget, it was closed down during the second year of its education. Bijan Shafei, Sohrab Soroushian and Victor Daniel, *Karim Taherzadeh Behzad Architecture: Architecture of Changing Times in Iran* (Tehran: Did, 2005), 11–20.

5 Gholam Reza Khajouy, "The History of the Faculty of Fine Arts," *Architect* 3 (1947), 111.

6 Gholam Reza Khajouy, "The History of the Faculty of Fine Arts," *Architect* 1 (1946), 31.

Nushin Ehsan, Keyhandokht Radpour and Guity Afrouz Kardan were the only women of presumed generation who studied architecture in Faculty of Fine Arts. Andreff, Ehsan and Radpour furthered their studies abroad. In an interview published in *Honar e Memari*, Radpour declared that the reason behind leaving faculty of fine arts was her dissatisfaction of teaching methods.¹⁵

International Congress of Women Architects (1976)

Before the International Congress of Women architects, women's participation toward profession was not observable in published media in Iran. In addition to this, the whole society of architects was addressed by male propositions. Published in the first issue of *Architect*, Women are absent from the very first published list of registered architects with the Iranian Society of Architects.¹⁶ In following pages, advertising for photography of built structure is recommending its services to 'male' engineers and architects.¹⁷

The congress of women architects' role in historiography of female architects of Iran is crucial since through the related published documents, the status of female architects in can be investigated.¹⁸ The congress was part of a series envisaged to be held every four years after 1970 and was the first opportunity for women architects of Iran to be acknowledged in more considerable way.¹⁹ A number of Iranian women architects, subsequently, were carefully chosen and invited to attend a meeting at the Ministry of Housing and Urban Development. As the executive committee to establish the framework to conduct the event, Azar Faridi, Noushin Ehsan, Guiti Afrouz Kardan, Leila Sardar Afkhami, Nasrin Faghih and Shahla Malek were elected among them.²⁰

'Identity', 'the Crisis' and 'the Role of Women in the Crisis and Search for Identity' were three

subthemes of formal congress held with the companion of national²¹ and international women architects.²² Due to the third sub-theme of the 'Role of Women in the Crisis and Search for Identity', Denise Scott Brown presented the various forms of discrimination she encountered as a partner in the profession,²³ however, it was decisively mentioned that the aim of the congress was not to encounter overt discrimination against women architects neither was it a search for an equal recognition for women's practice in architecture of Iran.²⁴

Through the attempt to deny discriminations facing women architects in Iran, as Pamela Karimi mentions, editorial strategy of *Hunar va Memari* by including first-hand accounts of women's experiences with home-building, encouraged women to identify themselves as housewives. Because the issue limited women's participation in public discourse to domestic architecture, their identification as housewives was strengthened.²⁵

While foreign participants complained about their public status and recounted how they had suffered in their profession, Iranian women architects' attempt was to exaggerate in their prestige. In response to interviews of *Hunar va Memari*, For instance, Rosamaria Grifone Azemun mentioned that 'this Congress would prove the lack of sexual discrimination'.²⁶ In the same manner, Guiti Afrouz Kardan, the representative of Iran in the International Congress of Women Architects stated that considering the issue of sexual discrimination in the developed countries, mentioning a Swiss participant of the congress who won an architectural competition in her country was banned from construct her project just because she was a woman, it was 'a privilege to be a woman architect in Iran'.²⁷

15 'I entered faculty of architecture in university of Tehran in 1954, after one year and half, displeasure of architectural teaching method, based on French style and, the inspiration of my friends made me left my studies unfinished in Iran and continue my education in California.' "Keyhan Radpour," *Art and Architecture*, no. 35–36 (1976), 76.

16 "Akhbare Anjoman," *Architect* 1 (1946), 39.

17 "Photouniversal advertisement," *Architect* 1 (1946), 40.

18 Congress was advertised months in advance in a 1976 issue of the Iranian journal *Art and Architecture*.

19 The congress of Isfahan held in 1970 with the participation of architects including Louis Kahn, Pavid Rodulf and Richard Buckminster Fuller based on the problems of agriculture, urban development and environmental planning. Three years later in 1974, the second Iranian International Congress of Architecture and Urban Planning was presided over by the Farah Pahlavi under the principal subject of 'The Role of Architecture and Urban Planning in Industrializing Countries' with the participation of practicing distinguished Iranian and foreign architects in Shiraz. Tabibi, "Propagating Modernities," 146.

20 Tabibi, "Propagating Modernities," 151.

21 Rosa Maria Grifone Azemoun, Laleh Mehree Bakhtiar, Noushin Ehsan, Francade Gregoria Hesamian, Moria Moser Khalili, Keyhandokht Radpour, Shahrzad Seraj, Mina Sameie, Leila Sardar Afkhami, Guiti Afrouz Kardan, Nasrin Faghih, Zohreh Chargoslo, Mina Marefat, Yekta Chahrouzi, Silvana Manco Kowsar, Anne Griswold Tyng, Laila Farhad Motamed, Nectar Papazian Andreff; Azar Faridi. "Report of the Congress by the Secretary General," 1977.

22 Guest included Indira Rai and Eulie Chowdhury from India; Alison Smithson, Monica Pidgeon, and Jane Drew from England; Denise Scott Brown, Joyce Whitley, Ellen Perry Berkeley and Ann Tyng from U.S.A.; Nobuko Nakahara from Japan; Marie Christine Gangneux and Delatur from France; Anna Bofill from Spain; Gae Aulenti from Italy; Bola Sohande from Nigeria; Mona Mokhtar from Egypt; Hande Suher from Turkey; Nelly Garcia from Mexico; Hanne Kjerholm from Denmark; Laura Mertsu from Finland and Helena Polivkova from Czechoslovakia. "Official Invited Guests for the International Congress of Women Architects," *Art and Architecture*, no. 35–36 (1976), 17.

23 Denise Scott Brown, "Sexism and the Star System in Architecture," *Report of the Proceedings of the International Congress of Women Architects: The Crisis of Identity in Architecture* (Tehran: The Hamdami Foundation, 1976), 39.

24 *Hunar va Memari* alerted its readers that the volume had no intention to motivate competition between male and female designers insisting in the equality of talent among men and women. The editorial confirms that women's compassion towards her family is the only thing that keeps her from being more productive.

25 Karimi, "Domesticity and Consumer Culture in Iran," 152.

26 "Rosamaria Grifone Azemun," *Art and Architecture*, no. 35–36 (1976), 24.

27 "Guiti Afrouz Kardan," *Art and Architecture*, no. 35–36 (1976), 84.

In response to the conservative approach of Congress, Mahnaz Afkhami²⁸ in an article published in the Tehran Journal stated that she preferred the theme of the conference to relate more specifically to the problems encountered by female architects in Iran.²⁹ According to this, Anet Lazarian Shaghaghi interpreted the difference in the status of women architects in Iran and abroad. As she truly mentioned, relatively limited number of architects in Iran was the cause of less discrimination against women in favour of men. Whereas in the western countries, young architects must study and serve apprenticeships for as long as ten years before establishing successful practices.³⁰

Women's Contribution in Modern Architecture of Iran

The first generation of women architects in Iran practiced architecture in three varied ways. The majority of them involved with their husbands: Andreff became involved in the establishment of Moghtader-Andref Consulting Architects in 1960 and Modaam Consulting Architects later in 1967 and in 1972. She also participated in the establishment of Artek Consulting Architects in collaboration with her husband. In the same manner, Leila Farhad's joint work with her husband Amir-Ali Sardar Afkhami. Meanwhile foreign women practitioners married to Iranian architects, Franca de Gregorio Hessamian, Rosamaria Grifone Azemoun and Moira Moser Khalili participated in Iran's architecture in associate with their husbands.

Architects like Nasrin Fagih and Guiti Afrouz Kardan participated in various architecture firms in association with male co-workers. During 1970s, a number of female-owned architectural firms were emerged gradually among them Banu (ladies) Consulting Architect was the first small self-employed female-owned firm formed by Keyhandokht Radpour, Shahrzad Seraj and Mina Samie in 1974.³¹ B.E.B. Tehran Architectural and Planning Consultants was another female directed architectural office formed by Noushin Ehsan.³²

The primary attempts among the practice of women architects can be classified in two different categories: Most of the works can be placed in the modern style category, however, Ehsan and Afkhami had the attempt to reference their practices to the traditional architecture of Iran. The motif-based plan of Mahshahr Hotel in Noshahr consist of two parts, Bedrooms organized around

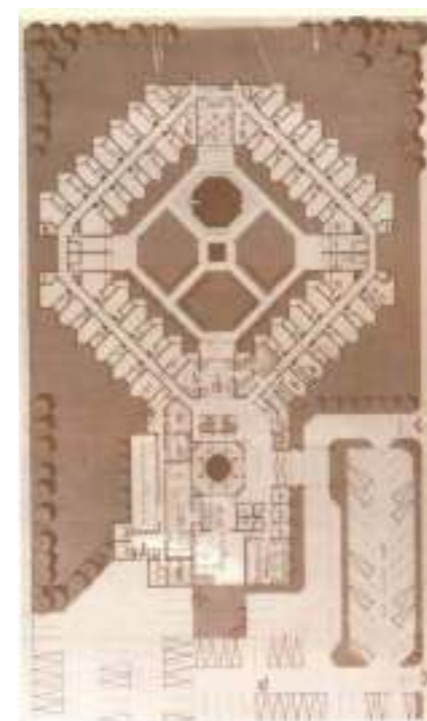


Fig. 1. Plan of Mahshahr Hotel.
From: "Nushin Ehsan," *Art and Architecture*, no. 35-36 (1976), 42.

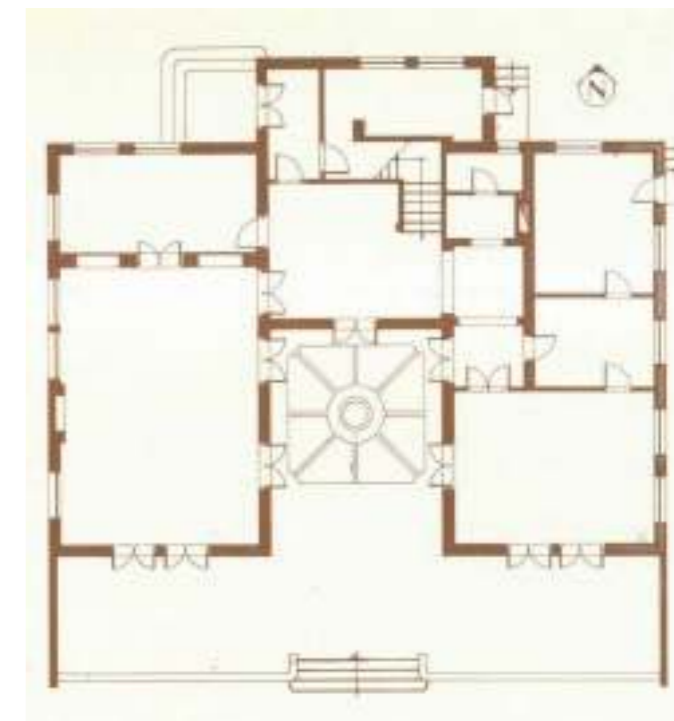


Fig. 2. A villa in Isfahan.
From: "Leila Farhad," *Art and Architecture*, no. 35-36 (1976), 70.

the square formed yard are influenced by the plan of Karavansara, the traditional form of hotels in Iran. In contrast, the facades and the materials are modern (Fig.1). The idea of centre yard in octagonal plan as a motif can be traced in courtyard houses designed by Ehsan and Farhad (Fig. 2).

While Nektar Papazian believed that producing Iranian style shall be potent and informative, numerous buildings designed by her participation was wholly in conformity with the modern architecture: Functional plan, flat facades, concrete and steel structure. Among her recorded projects were the Faculty of Agriculture and Veterinary Medicine for University of Azerbaijan, student residences for Jondi Shahpour and Pahlavi Universities, several centers for technical training and the Master Plan of Tabriz She formed and Andref's key projects included the Master Plan for Pahlavi University and Jondi Shahpour University, Faculty of Agriculture and Central Library for Pahlavi University, Faculty of Science and Technology of University of Azerbaijan and some more centres for technical training.

City planning projects were also a practice field for women architects since the fourth plan (1968-73), new urban settlements were begun and existing urban centres upgraded. New master plans and large-scale public building programs became a basis of public policy. While working as a project manager at Organic Consultant, Fagih was attributed to the Isfahan Detailed Master Plan,

28 The former Secretary General of the Women's Organization of Iran and the Minister of State for Women's Affairs.

29 Tabibi, "Propagating Modernities," 164.

30 Ibid.

31 "Mina Samie," *Art and Architecture*, no. 35-36 (1976), 75-81.

32 "Nushin Ehsan," *Art and Architecture*, no. 35-36 (1976), 37.

a project for the Ministry of Housing and Urban Planning.³³ Andreff set up practice to be involved in the projects of the Ministry of Housing and Urban Planning for the Tabriz Master Plan; furthermore Ehsan participated in Tehran master plan.

Conclusion

The desire to construct role models for contemporary women practitioners and recover the contributions that women have made to architecture of Iran would not be fulfilled except mentioning this fact that the true status of women in architecture through early years would not be understood until all the classes of women architects are included in research. By the time and considering available pre-revolution documents, we shall highlight this fact that despite the contribution of first generation of female architects in Iran and, the inequity was still the same for the working and the poor class who were even deprived of basic education through cultural biases. The advertised status of these women practicing architecture in Pahlavi was not the true face of the whole society of female architects of Iran, however, their omission from any historiography of Modern Architecture of Iran and, neglecting accompany of them, while mentioning their co-workers practices is the truly naked fact about their status.

Luis Darmendrail Salvo

University of Bío-Bío, Concepción | Chile

Beyond Architecture: Legacy of the First Female Architects in the Modern Era of Concepción, Chile

To Luz, Inés, Gabriela, María Cristina, Betty, Angelita, Yolanda, Sonja, Anita and Ida...

We cannot consider architecture as a profession that is just about designing and building. It involves a mixture of passion, strong convictions and an integral understanding of the topics and issues that surround us as citizens and human beings. It implies a sensibility for the acts that are involved in what we are creating. Creation may be a personal process but what we do has a repercussion in our territories. Beyond the buildings that we see and use in our cities, there is a hidden layer where personal struggles, ideas; political views and the architect's personality are combined. If we appreciate that, we can understand the works beyond bricks, stones or concrete, we can learn about what drove the professional to create and also learn from them, in times where global issues are affecting all of us. The idea of this article is to present the extended work of a group of female architects that worked in Chile, specifically at the Concepción area, a zone marked by modern architecture, social struggles, periodic reconstruction and urban memory loss. As the first female architects graduated from Universidad de Chile in the early thirties decade, Chilean society was going through significant changes.¹ The Great Depression affected deeply the economy and lower classes; migration process from countryside to large cities became a standard and modern ideas for architecture were some of the topics that were in discussion at universities and architecture spheres. Modern architecture

33 "Nasrin Fagih," *Art and Architecture*, no. 35-36 (1976), 86-95.

1 The Architectural School of Universidad de Chile is the oldest one in Chile. It was founded in 1849 and it also became the first school to allow women to study in the 1920s decade.

became a strong belief for young architects that felt inspired by what was happening in Europe, following the works by Le Corbusier and the Bauhaus School. This decade was also the stage for changes in terms of gender equality. By the mid-thirties women were allowed to vote and their professional work was gradually respected, (not entirely of course), on a macho society. Despite the fact that during this decade there were some women already graduated as architects, they didn't work immediately. Just a few of them were actually working by themselves. Some of them were considered 'partners' or 'collaborators' of their also architect husbands that sometimes didn't give them enough credit. As the forties were approaching, a very strong group broke that tendency, working at ministries, government and project management. During the twentieth century, several Chilean female architects developed a career beyond architecture, taking chances on topics like politics, human rights, social housing, art support, editorial work, theory, government and public work. The first woman with an architecture degree in Chile was Dora Riedel who got it in 1930 from Universidad de Chile.² Previously, in 1890, Chilean-born Sophia Hayden Bennett, became the first American architect graduating with honours at the Massachusetts Institute of Technology (MIT).³ Hayden never returned to Chile and her career never took off mostly because discrimination for being a woman. The situation was similar in Chile in the first decades of the twentieth century for every woman that wanted to go to college. During the late twenties, some women inscribed to study architecture at Universidad de Chile⁴ and after Riedel there were a few more women graduated like Inés Floto (1934), Inés Frey (1937), Luz Sobrino (1938) and María Cristina Suazo (1939), who shared ideals and dreams studying architecture and coincidentally developed important careers in the south central area of Chile. In 1939, a large magnitude earthquake destroyed several cities from the south central area of Chile.⁵ Cities like Chillán and Concepción were heavily affected. The situation was critical and there were not many architects in the affected area so after the catastrophe a group of architects migrated from the capital Santiago to the cities that were in need of reconstruction. During the 1940s, cities like Chillán and Concepción were completely reconstructed with the influence of modern architecture. The young architects that arrived to the damaged zone were formed with the principles of Le Corbusier and the information received from the German

2 "Lista de Arquitectos Titulados Hasta el Año 1930," *Arquitectura y Arte Decorativo* (September, 1931), 36.

3 Sophia Hayden Bennet (1868–1953) projected the 'Woman's Building' for the 1893 World's Columbian Exposition and she was fired during the construction of the building, after serious struggles looking for respect she never worked as an architect again.

4 About that, the book *150 Años de Enseñanza de la Arquitectura en la Universidad de Chile: 1849–1999* shows several images from the 1920s and 1930s where some young women appear. Some of them never finished her career like Nora Manns or Brunilda Rojo, who are photographed but never appeared in the professional records. Raimundo Barros Charlin et al., *150 Años de Enseñanza de la Arquitectura en la Universidad de Chile: 1849–1999* (Santiago: Facultad De Arquitectura y Urbanismo de La Universidad De Chile, 1999), 236–53.

5 The 1939 earthquake is considered one of the deadliest in Chilean history. It is also considered the moment where modern architecture became the trend and solution for reconstruction of almost all the affected cities.



Fig. 1. Luz Sobrino (1913–1998), on an Architects Guild meeting, c. 1943. Courtesy of Family archive of Dall'Orso Sobrino Family.

ideals of Bauhaus and Western Europe architecture. Luz Sobrino, born in the affected area arrived first, then Inés Frey and last María Cristina Suazo. The three architects already knew each other from the college years and Sobrino with Frey were close friends; they even travelled together to Europe in the late 1930s and absorbed the new ideals of modern architecture complementing their formation that was stepping out from a beaux arts perspective to a much more complex view of functionality and idealism. Shortly after graduating as an architect in 1938, Luz Sobrino worked in a small house for a family project in a little town called Isla Negra, and then she moved back to Concepción to reconstruct some family properties.⁶ Subsequently in 1940, she gained recognition as an architect for her work in the Torregrosa Building, a six story building with curved balconies and modern aesthetics. The local media acknowledged her work,⁷ and later on, she developed more than a hundred houses, small markets, industrial buildings and even evangelical churches.⁸ She became the only female architect working by herself in south central Chile and also one of the most prominent architects in Concepción (Fig. 1). Her husband Luis Dall'Orso, was an engineer with whom she created a construction company that lasted for half a century. Her views about social life, feminism, politics and art were deeper and made her go beyond her career as a respected architect. She was born in a left sided family and from a very young age she was encouraged to

6 The family land in Isla Negra was later acquired by the well-known and Nobel Prize winner poet Pablo Neruda who transformed the house constructed by Sobrino.

7 "Hermoso Edificio Construido en la Zona Céntrica de Concepción," *El Sur* (August, 1940).

8 Luis Darmendrail, "Participación Femenina en la Construcción de un Ideario Moderno: Concepción y Sus Primeras Arquitectas (1940–1960)" (paper presented at Surmoderno: Valoración del Patrimonio Moderno Congress, Concepción, Chile, August 13–14, 2015).

follow her aspirations like painting and creating.⁹ As an adult and professional, she was involved in the creation of the Fine Arts School of Concepción alongside other professionals and artists. She supported the arts, promoting talents and continuing to work on her own paintings as well. She was also a pioneer in female participation on the Chilean Architects Guild, becoming the first woman to do so in Concepción and contributing with ideas and an active participation through the twentieth century. In fact, after the *Coup D'état* of 1973 and later Military Dictatorship, all the professional guilds were closed and in the early eighties a group of young architects wanted to re-establish the guild. Sobrino was one of the few senior architects that helped them despite her age and personal struggles at the time. She didn't bother; she did as much as she could and defied the violent and tumultuous atmosphere. Luz Sobrino had other reasons to defy the established regime, her daughter, Ana Dall'Orso Sobrino, (also an architect), was exiled along with her husband and family to Colombia. Ana Dall'Orso was also a professional with strong convictions about social housing and the importance of the State in terms of improving life quality and urban development. Dall'Orso was relevant for her works at government entities that dealt with impoverished areas of Concepción that required urban and housing solutions. Luz Sobrino became an active advocate for human rights, calling for protests against the Dictatorship and associating with exiled familiars. By the late seventies, her architectural work was not as profuse as decades before but she fought for freedom and the return of her daughter and all of the exiled Chileans as well. She created adverts and used her office as a meeting point. Sobrino along with other people, especially mothers, participated in walks around the city and she even went to prison during a protest in 1979.¹⁰

Nowadays, Luz Sobrino is remembered in architectural circles like a refined and respected architect that helped to transform the urban image of Concepcion after the 1939 earthquake with her modern vision and extended career but her ideals and personal fights led her to become a firm character in the history of architecture in the south of Chile. Like Sobrino, her friend Inés Frey, had a parallel side associated to politics, involving herself in the communist party and contributing to social housing solutions after the previous mentioned earthquake. Frey landed in Concepción along with her husband, the architect Santiago Aguirre and both formed an office that worked in highly *avant garde* projects, with, renewed composition, wide spaces and influence of Western Europe. Unfortunately, Frey didn't work by herself in Concepción and after a few years in the zone, the marriage move back to Santiago and later they filed for separation after the death of their only son at a short age. Several

tragic events marked the life and works by Inés Frey but her political importance remained in left sided circles. She also was close to some female artists like the sculptress Ana Larraguirre who embodied the architect with a bust in marble.¹¹

Since 1950, a new wave of young architects arrived to Concepción and started to work in a wide range of buildings and management. Most of them studied architecture at Universidad de Chile when the Architectural School went to significant changes because of an integral reform process in the mid-forties.¹² A renewed view on politics and social studies and the spirit of 'changing the world through architecture' was shared.¹³ Gabriela González de Groote was in this group and she moved to Concepción in the late forties because she won the contest for the Medicine School Building, part of Universidad de Concepción, a project worked in team with Edmundo Buddenberg. González later worked in the first residential buildings of Concepción and associated with contemporary architects.¹⁴ She developed a unique language appealing to geometry and sober façades prioritizing functionality and structure. She became the second most prolific architect in Concepción (after Luz Sobrino), and shared ideals with left sided architects. Beyond her constructive vision and architectural production, she attended several international congresses like the 1963 UIA Congress in Havana, Cuba: Architecture in Underdeveloped Countries, along with her friend and partner Osvaldo Cáceres.¹⁵ After a prolific career during the fifties and sixties, she worked in certain projects of social housing in the early seventies and after 1973 she remained a low profile figure. Later on, she worked in the Ministry of Public Works, a place where she became a well-respected figure despite the differences with colleagues, being a woman and also having closeness with left sided architects.¹⁶ Between 1955 and 1973, modern architecture in Concepción and the south of Chile reached a superior level of exploration, functionality, design and urban idealism, with every aspect being conceived on an associative way. Gabriela González remained as an important figure and in parallel, other female architects arrived and developed a few buildings and other kind of work like Angelita García-Fauré, an Argentinian architect that was married to Osvaldo Cáceres and projected a few houses and buildings along with her husband. She was very close with theatre and after her

11 The marble bust is preserved at the Pedro del Río Zañartu Museum, near Concepción, <http://prz.cl/>

12 The Reform process happened at Universidad de Chile and it changed the way architecture was taught with the influence of the Hungarian-born Bauhaus former architect Tibor Weiner, who arrived to Chile escaping from the violent scenario in Europe.

13 Luis Darmendrail, interview with Miguel Lawner, Betty Fischmann, Osvaldo Cáceres and Sonja Friedmann, (June – August, 2015).

14 Darmendrail, "Participación Femenina."

15 Luis Darmendrail, interview with Osvaldo Cáceres, (October 23, 2016).

16 Luis Darmendrail, interview with Osvaldo Cáceres, (June 16, 2015).

9 Luis Darmendrail, interview with Ana and Luz María Dall'Orso Sobrino, (Concepción, April 8, 2013).

10 Ana Dall'Orso is her youngest daughter; she became an architect and worked with Sobrino for a while. She was exiled to Colombia with her husband, Dr Carlos Condeza and their children for being associated to the socialist party. Dall'Orso worked specifically at CORMU (Corporación de Mejoramiento Urbano / Urban Improvement Corporation) between 1970 and 1973; she managed the construction of some of the most impoverished housing complexes in the city.

separation with Cáceres in 1960; she was recognized as a respected scenography designer.¹⁷

As Gabriela González was slowly becoming a prominent architect and Luz Sobrino already had the recognition due to her intensive work and art association, in the mid-1950s, a group of four young architects arrived to Concepción and specifically worked in Lota, a mining town near Concepción with a long history of fights for worker's rights. The group was composed by Sergio Bravo, Carlos Martner, Maco Gutiérrez and his wife Betty Fischmann. Fischmann was born in Valdivia like Gabriela González, but her work and life took a different direction, while she was studying, she became involved in several groups with political influence, working for poor areas and participating actively in the Chilean communist party.¹⁸ In the mid-fifties, the Syndicate n° 6 of the miners of Lota had the idea of creating a place for meeting and also with a cultural function, they didn't have budget to build something nor even paying to an architect to design it so the group mentioned before took the job mainly for their social convictions and as a 'must' in times of crisis for the miners whose salary was low and living quality was not at its best. Fischmann along with her husband and the other architects moved to Concepción and later Lota to develop the project of the building of the Syndicate no. 6 which was conceived as a large scale theatre paid by the miners and included several spaces for meetings and also concerts.¹⁹ The building was never finished for the economic instability of the miners and to this day is subject of discussion about its conclusion and conservation. As active communists, they both felt the need to follow the Cuban Revolution and moved to the island in the mid - sixties.²⁰ In Cuba they followed the ideal and the works by Che Guevara and Fischmann established herself as a designer and constructor of schools and urban equipment.²¹ Later on, the marriage moved back to Chile and her husband left the country and relocated in Bolivia. In 1972 Bolivia went through a *Coup D'état* and Maco was shot dead in the frontier border between Chile and Bolivia, a year later, the Chilean *Coup D'état* happened and Fischmann with her children had to move to Cuba where they lived in exile.²² She kept working there and became one of the few Chilean female architects with works outside the country. Following those ideals, other female architects did a special job denouncing and exposing the reality of social housing and poverty in a publication

that became the most important architectural magazine ever made in Chile, *AUCA*.²³

That magazine became the most comprehensive publication devoted to not just architecture, but also to urban theory, critic, art and a slight view of architectural heritage. It was in this magazine that a few groups of female architects took charge in different areas and their views on certain issues that affected the Chilean cities, like the 13th issue where Concepción was the main topic. Ana María Barrenechea was already working at the redactor's team and Yolanda Schwartz published a critical essay about the urban chaos in Santiago de Chile. Later on, another architect became quite prominent in the magazine because she evolved from collaborator to redactor and also changed the graphic design and even the logo of *AUCA*, she was Sonja Friedmann Woscoboinik, a longtime collaborator of an architects group called TAU (Taller de Arquitectura y Urbanismo), the youngest of the team and also very interested in topics like publishing and exposing architectural ideas in the media. She managed to handle the magazine during hard times, specifically during the *Coup D'état* in 1973, which meant the exile, imprisonment and disappearance of large number of architects. Friedmann was very close to the Bío Bío region and Concepción as well, as a collaborator of TAU, she worked for the project Remodelación Paicaví, an iconic example of modern architecture, social housing and urbanism and as an editor of *AUCA* she worked as a staff member of the 13th issue and later in 1979 she was an important writer for the 36th issue, the second part of the Concepción edition, prepared eleven years later and in which she could expose the local architecture and the work of the left sided architects, (like her), that were in constant oppression by the Dictatorship. Unfortunately she faced exile and had to move forcibly to Bolivia along with her family. There, she suffered from machismo and several incidents just because she was a 'female architect'.²⁴

AUCA magazine was important not just because its longevity and the panoramic and integral view of architecture in the entire country within its problems and issues, but also for the group of architects that was behind the magazine, most of them formed during the Reform process. Mostly composed by men, Sonja Friedmann became a special figure but other female colleagues took part of the publication like Raquel Eskenazi. She married the cofounder of *AUCA*, Abraham Schapira and built a large scale enterprise and combined their work with the editorial job. In Concepción they did just one project, the EMPART (Particular Workers Union) building, now an icon and a significant example of the Chilean architecture of the late sixties. Eskenazi was creative and rigorous since her college

17 Luis Darmendrail, interview with Berta Quiero, (actress and friend (December 9, 2017).

18 Luis Darmendrail, interview with Betty Fishmann, (July 6, 2015).

19 Each miner contributed a small amount of money of its monthly salary to pay for the building. About that, the architect Miguel Lawner exposes his vision and information about the building on his memoirs. Miguel Lawner, *Memorias de un Arquitecto Obstinado*, edited by Pablo Fuentes (Concepción: Ediciones UBB, 2013), 130–148.

20 Lawner, *Memorias*.

21 María Victoria Zardoya L., "La arquitectura educacional de los sesenta en Cuba," *Arquitectura y Urbanismo* 36, no. 3 (2015), 5–19, <http://www.redalyc.org/articulo.oa?id=376841788001> (accessed December 2017).

22 Miguel Lawner, "Maco Gutiérrez," *AUCA*, no. 23 (1972), 68–70.

23 *AUCA* is the acronym of Architecture, Urbanism, Construction and Art. It was founded in 1965 and kept a constant running until 1986; it was created by a group of architects that were fired from Universidad de Chile like Ana María Barrenechea and Abraham Schapira. Hundreds of projects from Chile, South America and Europe were published in the magazine and it also had a very special critic side about housing and development of architecture during the sixties and early seventies, during the Dictatorship the magazine continued to work but with fewer architects, the original staff was mainly exiled or hidden.

24 Luis Darmendrail, interview with Sonja Friedmann (October 6, 2016).

years; she did an editorial contribution to *AUCA* appealing to her convictions, also oriented to left side architects and remained as a strong figure along with Ana María Barrenechea.

At college Barrenechea met her husband and long-time partner Miguel Lawner, they both shared the communist ideal and worked as independent architects after graduation. Along with the rise of Salvador Allende as president of Chile, they were called to command important entities of the government, related to housing and financial aspects. Barrenechea became the president of *SINAP*, (Sistema Nacional de Ahorros y Préstamos – National System of Savings and Loans); a unit where the lower middle classes put their money safe so they could afford to buy a house built by the state or a private company. She managed to build and construct houses all over the country and became an important part of Allende staff improving *SINAP* and make profits contacting banks and construction companies. Barrenechea was involved in projects in Concepción and the near Chillán as leader of *SINAP*, but also, was part of the state financed professional institute *INACAP*, along with the TAU team and her husband Miguel Lawner a few years before. She definitely comprehended architecture beyond the traditional views, she went further; writing, discussing and studying the importance of housing from her also sociologic perspective like her friend Yolanda Schwartz who worked on some houses for the state entity *CORHABIT* near Concepción.²⁵ Schwartz was deeply involved with the people and also with the investigation of new typologies for social housing, participating on the creation of INVI (Instituto de la Vivienda / Institute of Housing) and exploring ideas like the 36 m² houses.

She worked with neighbourhood leaders and residents, listening to their demands and needs. Likewise, she was fully aware of the importance of Salvador Allende's government, but unfortunately she died in a car accident a few years after assuming her job at *CORHABIT*. Frequent collaborator and friend in terms of ideas and urban consciousness was Margarita Pisano, she was married to Hugo Gaggero and studied at Universidad Católica. Years later, she abandoned architecture and became a prominent feminist writer, establishing herself as a well-known figure in Chile and the rest of the continent (Fig. 2).

At last but certainly not for least, this article is going to mention the youngest of the female architects that worked until 1973 in the academic and management field. She was Ida Vera Almarza, born in La Paz, Bolivia and since her student phase at the Universidad de Chile was a prominent investigator of how we habit and how we use our homes, taking notes on the dimensions of furniture and basic distributions for social housing. She worked very close with Yolanda Schwartz, doing research and studies at the university and also independently. She also did some works for *CORHABIT* in

²⁵ Ana María Barrenechea, "La Realidad Habitacional en Chile," *AUCA*, no. 1 (1965).



Fig. 2. Yolanda Schwartz, Ana María Barrenechea and Margarita Pisano at the 1972 'Santiago Urban Renewal Contest'. Courtesy of Personal archive of Miguel Lawner (1972).

team with Schwartz and the architect Roberto Briones.²⁶ We can find her name several times on the 10th issue of *AUCA*, dedicated to productivity and the management of social housing in times of the Unidad Popular government.²⁷ By 1973 she developed a small career in which she stood strong with her beliefs on living quality and improvements in the life of impoverished people, and of course, architecture as a solution for it. Unfortunately, that year the *Coup D'état* happened and she was forced to stop working. In November, 1974, she drove back home and later detained by *DINA* agents,²⁸ in the moment; she was shot in one leg and got hit in her head with the bottom of a gun. Later, she was taken to prison and since that, she became one of the thousands of Chileans gone missing and one of the eight architects missing during the Dictatorship by Augusto Pinochet. She did not work in Concepción or Bío Bío region, but she is included in the article for what she means, a young and strong figure that always looked beyond architecture, establishing a dialog with the people and knowing the real necessities of the people. Like many architects of her generation, she wanted to change the world through architecture and for a short time they did.

After the *Coup D'état*, everything changed, there were no more views beyond architecture and everything was closeted in stiff rules and the incipient introduction of a savage neoliberal economic view that changed the way of considering architecture, affecting the State role and the essence

²⁶ *CORHABIT* (Corporación de Servicios Habitacionales / Housing Services Corporation), was a state entity that took charge of anything that had to do with housing units and checking the application process for the people. The architect Alejandro Rodríguez (1926–1976?) was the president during the Salvador Allende government, he is also one of the eight architects gone missing during the Dictatorship of Augusto Pinochet.

²⁷ The 10th *AUCA* issue was published in 1971 and contains the articles "Vivienda en 36 m²" and "Proyecto de Creación del Instituto de la Vivienda," in which both architects, Yolanda Schwartz and Ida Vere participated.

²⁸ *DINA* was an intelligent office during the Dictatorship.

of the sensibility of the architects. Now, as young architects, we appreciate the work made by our predecessors and we certainly feel that their struggles, conflicts and passions are also part of the creative process and also inspire our generation to become better architects and understand what is needed to fulfil the needs of our society, working in teams and not looking for fame or ego recognition. Even in 2018, there is still a feeling of inequality between men and female architects, not the same consideration or payment so we really need to change that if we really want to talk about a new Chilean society and of course a new generation of architects that it seems they are going beyond and deeper, making statements, taking risks and becoming agents of change.

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Tuscan Women Architects and Engineers: Visions, Practice and Intervention on Architectural Heritage

The Tuscan region well represents the feminization process of those professions traditionally reserved men to men that interested Italy during the twentieth century: a process that was hampered by social, economic and political dynamics managed by men, who have opposed what they have warned as an unnatural competition. The survey of women who undertook the studies of Engineering and Architecture in Tuscany between the 1920s and the 1960s, photographs this slow and tortuous process.

The first woman-engineer in Italy is Emma Strada,¹ who graduated in 1908 at the Royal Polytechnic University of Turin; a few years later, in 1925, Elena Valentini Luzzato² is the first women to be graduated at the Royal School of Architecture in Rome. Right in 1925, the Chamber of Deputies examined the draft law concerning the admission of women to the administrative electorate, and during the lively and controversial debate, Mussolini stated that women do not have a 'great power of synthesis', and therefore they don't have a feel for 'great spiritual creations'.³

Besides, according to the common opinion, the vocation of women was to be an 'exemplary wife and mother', or -in rare cases- relegated to a few professions, chosen and granted by men.⁴ Again,

1 Caterina Franchini, "Women Pioneers in Civil Engineering and Architecture in Italy: Emma Strada and Ada Bursi," *MoMoWo: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot et al., (Ljubljana: ZRC Publishing House, 2017), 80–99, Series Women's Creativity, Vol. 1.

2 Anna Maria Speckel, "Architettura moderna e donne architetture," *Almanacco della donna italiana* 13 (1935), 120–134.

3 *Atti del Parlamento Italiano: Discussioni della Camera dei Deputati: XXVII Legislatura: Sessione 1924–1925*, vol. 4 (Roma: Tipografia Camera dei deputati, 1925), 3613.

4 Évelyne Sullerot, *La donna e il lavoro* (Milano: Bompiani, 1977), 319.

in 1932, Mussolini insists on his idea that a woman -as she is 'analytic and not synthetic'- 'is alien to architecture, which is the synthesis of all the arts, and this is a symbol of her destiny'.⁵

Although this belief had been emphasized during the Fascist period, it was shared at least until the mid-twentieth century. The dominant thought, indeed, has long supported, through the force of habit, the inability to perform functions and professions hitherto purely 'masculine'.

It must however be stressed that in Italy -the only country in Europe, except for Russia- there were women enrolled and graduated in polytechnics even before the First World War: a fact that was defined as one of the 'paradoxes of backwardness' of the Italian situation.

Tuscan Women Architects and Engineers between the Two World Wars

The magnifying glass focused on the evolution of the female careers in Tuscany shows a series of significant similarities with the general Italian situation. Thus, it becomes interesting to pull out of anonymity Tuscan women architects and engineers who have contributed to change their 'social destiny' by challenging conventions.

In Italy, the first degree assigned to a woman in the post-unification age is conferred in Tuscany: Ernestina Paper, a young Jewish woman from Odessa, that first came to Pisa, where she graduated in Medicine in 1875, and then in Florence where, in 1877, she obtained her specialization. Ernestina Paper, like Emma Strada, came out of the shadows choosing 'transgression as an alternative to self-exclusion'.⁶ However, in general, Tuscan women architects and engineers, began to 'transgress' slightly later than their colleagues in Piedmont, Lazio and Lombardy.

We should note, also, that the female emancipation process towards the professions of architect and engineer is intertwined with the long debate, started at the dawn of national unity, about the roles of such professional figures, more and more distinct in education and skills. The establishment of the Schools of Architecture -the first in Rome (1920), followed by Venice (1926), Turin (1929), Florence and Naples (1930)- are the result of these exhausting battles.

In 1928, in this somewhat contradictory situation, women-engineers are just 37 overall the country, and 'belong to the professional middle-class from the North-Center'.⁷ In 1936, there were only 15 women-architects. After all, undertaking the career of engineer or architect would have meant working in a strictly masculine and highly competitive environment, therefore, women who chose to take this path had to be ready to overcome prejudices and hostilities. The percentages of women enrolled in Engineering in Pisa and in Architecture in Florence, until 1940, confirm such difficulties.

The Royal Application School for Engineers of Pisa was established in 1913, but the origins of the engineering studies here have a long tradition, and date back to the Grand-ducal Era, when a new professional figure of 'engineer, technician and man of science' has its origin.⁸

The female presence at the Application School for Engineers (and since 1936, Faculty of Engineering),⁹ however, is insignificant: two women enrolled in 1924-5, one in 1925-6, one in 1926-7 and three in 1937-8.¹⁰ Unfortunately, none of these women -so daring to challenge the traditionally masculine environment- graduated. Among those, there are Ghertl Caplanski, Maria Ferraro, Maria Pagliarulo, Angela Pinnetti:¹¹ almost completely invisible women, who took up a very impervious road, in a professional world where even a visionary man like Gio Ponti is convinced that embroidery is the only 'work for a woman who does not remove her from home'.¹² Two further daring figures, Maddalena Buoni and Anna Buonvino, graduated in Mathematics and Physics in 1924, decided to enrol in the 'biennio di avviamento all'Ingegneria' ('two-year introduction course to engineering) in the A.A. 1926-7, but over the years they disappeared, swallowed up in a list of male names.

Between the two World Wars, Engineering is still a 'fervently defended male feud', thus, 'we must wait the post-World War II period to have the first graduated in Engineering in Pisa'.

In 1926, at the Academy of Fine Arts in Florence, the School of Architecture was founded. In 1930, it became *Regia Scuola Superiore di Architettura* (the Royal High Institute of Architecture) and in 1936, once aggregated to the University, it became Faculty of Architecture.¹³ Despite the overall increase in university enrolments during the 1930s (Fig. 1), in Florence and Pisa as well, female

7 Ibid.

8 Massimo Dringoli, "Nascita e sviluppo della Facoltà di Ingegneria," *Annali di storia delle università italiane* 14 (2010), 233-243.

9 Dringoli, "Nascita e sviluppo della Facoltà di Ingegneria," 236.

10 Annamaria Galoppini, *Le studentesse dell'Università di Pisa (1875-1940)* (Pisa: Edizioni ETS, 2011), 378.

11 Galoppini, *Le studentesse dell'Università di Pisa*, 255-324.

12 Gio Ponti, "Per l'affermazione delle industrie femminili italiane," *Domus* 139 (1939), 65.

13 Francesco Quinterio, "Guida alla nascita della Facoltà di Architettura di Firenze," *La Facoltà di Architettura di Firenze fra tradizione e cambiamento: Atti del convegno di studi, Firenze, 29-30 aprile 2004*, edited by Gabriele Corsani and Marco Bini (Firenze: Firenze University Press, 2007), 3-26.

5 Sabrina Spinazzé, "Donne e attività artistica durante il Ventennio," *L'arte delle donne nell'Italia del Novecento*, edited by Laura Iamurri and Sabrina Spinazzé (Roma: Meltemi editore, 2001), 123.

6 Rita Biancheri (ed.), *Formazione e carriera femminili: La scelta di ingegneria* (Pisa: Edizioni ETS, 2010), 53, https://www.cisiaonline.it/_mamawp/wp-content/uploads/2014/03/formazione-e-carriere-femminili.pdf (accessed May 28, 2018).

Tabella II
ISTITUTO SUPERIORE DI ARCHITETTURA DI FIRENZE
STUDENTI ISCRITTI E LAUREATI O DIPLOMATI
NELLE CLASSE QUINQUENNALE

ESERCIZIO	ISCRITTI		LAUREATI O DIPLOMATI	
	M	F	M	F
STUDENTI ISCRITTI				
1930-31	50	2	57	0
1931-32	74	3	79	4
1932-33	99	3	93	10
1933-34	115	3	117	3
1934-35	100	2	105	1
LAUREATI O DIPLOMATI				
1930-31	2	—	2	—
1931-32	1	—	1	—
1932-33	3	—	3	—
1933-34	6	—	6	2
1934-35	14	—	14	4

Fig. 1. Royal High Institute of Architecture, enrolled students and graduates in the last five years - from 1930 to 1935.

From: *Annuario del R. Istituto Superiore di Architettura di Firenze: Anno accademico 1935-36*, 5 (1936), 95.

students are concentrated in Faculties of Literature, a much friendlier environment if compared to the technical-scientific one.¹⁴ The choice of the university studies is still strongly conditioned by the social projection of the maternal role: the woman assists childbirth, educates and teaches. The number of women enrolled in the School of Architecture is small, yet it witnesses their desire for expression and affirmation in such field.

Giovanna Celentani enrolled in 1928–29, and results to be enrolled in the last year of the School in 1933–34, but then, unfortunately, we lose her tracks.¹⁵ Vittoria and Valentina Alessandri enrolled respectively in 1929–30 and 1931–32, together with Vittoria Rogantini and Iris Margoni. Wanda Panerai and Berenice Parisella enrolled in 1930–31, and in 1934–35 they appear enrolled in the fifth year of the School together with Piero Sanpaolesi.¹⁶

Berenice Parisella finished her architectural studies in 1936–1937, with a thesis entitled 'Project for a women's college in Fiesole'.¹⁷ She was born in Pavia in 1909, in 1936 she got the Architectural degree in Rome,¹⁸ and in 1940 she enrolled in the Architects' Register of Lazio. Berenice was so active that her name was mentioned in the *Almanacco della donna italiana* - a Florentine magazine

14 Simonetta Soldani, *Le Donne nell'Università di Firenze* (Firenze: Firenze University Press, 2010), 12–16.

15 *Annuario del R. Istituto Superiore di Architettura di Firenze: A.A. 1933-34*, 3 (1934), 132.

16 *Annuario del R. Istituto Superiore di Architettura di Firenze: A.A. 1934-35*, 4 (1935), 135.

17 Università degli Studi di Firenze, *Annuario per l'A.A. 1936-37* (1937), 412; *Gazzetta Ufficiale* 148 (June 26, 1939), 37.

18 "Donne nel giornalismo e nelle arti: Architetture," *Almanacco della donna italiana* 22 (1941), 394; Katrin Cosseta, *Ragione e sentimento dell'abitare: La casa e l'architettura nel pensiero femminile tra le due guerre* (Milano: Franco Angeli, 2000), 74.

that claimed the intellectual role of women- among the twelve names of the 'Women-architects of the fascist era', including also Stefania Filo, Elena Luzzatto and Anna Ripamonti.¹⁹ Architect at the Universal Exhibition in Rome in 1942, set designer and interior designer, Berenice is a figure with undefined biographical and professional outlines, but that certainly will be worth investigating.²⁰

The Milanese Corinna Bartolini also emerges from the shadows. In 1934, she enrolled at the Royal High Institute of Architecture where she graduated in 1941.²¹ Presumably student of Giovanni Michelucci, she attended his study together with Nereo De Mayer and Francesco Tiezzi, and continued to collaborate with him even after his departure for the University of Bologna.²² In 1946, she participated in the competition for the reconstruction of the destroyed areas around Ponte Vecchio, with the project named *VITA* drawn up in collaboration with Ugo Conti and Alberto Romualdi.²³ During the early 1950s, the City of Florence announced a competition for the construction of *Case minime*, and Corinna works together with Aurelio Cetica, Domenico Cardini, Rodolfo Raspollini and Emilio Isotta.²⁴ The study of the Sorgane district, at least in the initial phase, was entrusted to Michelucci in 1956, coordinating a large group of architects, including her.²⁵ In 1958, Michelucci presented a house in Florence designed by Corinna on *L'architettura - cronache e storia*.²⁵ In collaboration with the engineer Alessandro Giuntoli, she radically remodels the *Teatro Comunale* in Florence, which was inaugurated on 8th May 1961.²⁶ The year later, in 1962, within the *Piano Regolatore Generale PRG di Firenze* developed by Edoardo Detti, the plan of Mantignano-Ugnano for the CEP plan was drawn up by Rolando Pagnini with Corinna Bartolini, Aurelio Cetica, Emilio Isotta and Giovanni Sanità.²⁷ From 1966 until 1970, finally, Corinna Bartolini replaced Renzo Ciardetti (elected member of the National Council of Architects in Rome) in the role of President of the Order of Architects of Tuscany.²⁸

19 On 10 March 1950, she was deleted from the register *Iscritti degli anni 1945-1956*, Archivio Ordine Architetti Romani, Roma.

20 *Annuario del R. Istituto Superiore di Architettura di Firenze: Anno accademico 1935-36*, 4 (1936), 89.

21 Cecilia Ghelli and Elisabetta Insabato, *Guida agli archivi di architetti e ingegneri del Novecento in Toscana* (Firenze: Edifir Edizioni, 2007), 365.

22 Osanna Fantozzi Micali, *Alla ricerca della Primavera: Firenze e provincia: Dopoguerra e ricostruzione* (Firenze: Alinea Editrice, 2002), 84.

23 Emilio Isotta et al., "Tre contributi," *Giovanni Michelucci: La Nuova Città*, edited by Renato Risaliti, (Pistoia: Libreria Editrice Tellini, 1975), 321–327.

24 Fabio Fabbrizzi, *Giovanni Michelucci: Lo spazio che accoglie* (Firenze: Edifir Edizioni, 2015), 43.

25 Giovanni Michelucci, "Una casa che non è un villino, a Firenze: Architetto Corinna Bartolini," *L'Architettura, Cronache e storia* 35 (1958), 314–316.

26 Repertorio delle Architetture Civili di Firenze, edited by Claudio Paolini, <http://www.palazzospinelli.org/architetture/default.asp> (accessed May 28, 2018).

27 Valeria Orgera et al., *Firenze: Il quartiere di Santo Spirito dai gonfaloni ai rioni: Una metodologia d'indagine per un piano delle funzioni della vita cittadina* (Firenze: Alinea Editrice, 2000), 235.

28 Rossana Bernardini, "Donne architetto nella storia," *Architettura: Singolare, femminile*, edited by Lorella Bonanni and Michela Bandini (Pisa: Edizioni ETS, 2010), 17.

Despite the presence of such uncommon women, the architectural and engineering environment, at least until the end of the war and beyond, remained exclusively masculine. The post-Second World War period is a sort of watershed within the struggle for women's rights, or at least the moment in which a series of fundamental steps take place for the path towards women's emancipation (the right to vote and equality of spouses in the family).

Tuscan Women Architects and Engineers since the Post-Second World War Period

The 1951 census attests 10571 among architects and civil engineers and among them only 88 are women; in 1962, instead, women architects in the Professional Orders were 509, against 4942 total members (Fig. 2). However, still in 1957, women engineers and architects are in absolute minority, so that Emma Strada together with other colleagues founded the Italian Association of Women Engineers and Architects (AIDIA) to 'enhance the work of women in the field of technology'.²⁹

In 1962, there were only 31 women registered in the Order of Architects of Tuscany, out of a total of 393 members, a percentage equal to 8.56 %, one of the lowest in Italy; among these, 22 were residents in the city of Florence.³⁰ In 1964, this led the AIDIA to declare that 'women, engineers and architects, who actually practice the profession represent a small minority'.³¹ These data should not surprise, given that, in 1964, people were still convinced that a woman 'could perhaps do furniture', but certainly not 'raise walls!'³²

A first prominent figure is that of Carla Pietramellara, architect, full professor of Architectural Restoration (now retired) at the Faculty of Architecture in Florence, where she began her academic career as a collaborator of Piero Sanpaolesi, founder of the Florentine Institute of Restoration of monuments.

Over her long career, she had many collaborations with scholars in the fields of history and restoration, such as Renato Stopani and Anna Benvenuti Papi. Among the most important contributions, we can mention the studies about the Duomo of Siena,³³ the Convent of Assisi,³⁴ the 'Fonte delle fate' in

DISTRIBUZIONE DEGLI ARCHITETTI NELLE VARIE REGIONI
secondo le iscrizioni agli Ordini nel giugno 1962

Regioni	Maschi	Femminile	Totale	Regione	Maschi	Femminile	Totale
Piemonte . .	505	61	566	Umbria . . .	24	1	25
Val d'Aosta .	5	1	6	Marche . . .	20	2	22
Lombardia . .	957	145	1,102	Lazio	1,065	120	1,184
Trentino A.A.	67	6	73	Abruzzo . . .	20	3	23
Veneto . . .	317	21	338	Campania . .	317	57	374
Friuli-Ven. G.	73	8	81	Puglia	54	3	57
Trieste . . .	113	8	121	Lucania . . .	6	—	6
Liguria . . .	137	13	150	Calabria . . .	16	2	18
Emilia	200	4	204	Sicilia	145	21	166
Toscana . . .	362	31	393	Sardegna . . .	11	2	13
				Totale . . .	4,433	509	4,942

Fig. 2. Distribution of architects in the various regions.

From: Nasi, *L'architetto*, 190.

Poggibonsi³⁵ and the particular problems of restoration of archaeological sites.³⁶

Another important figure is Silvia Briccoli Bati, architect, full professor of Science of Construction (now retired) at the Faculty of Architecture in Florence, where she graduated in 1969. Her interests focused since the beginning on the calculation of framed steel structures. However, over time, she was involved in many restoration projects of heritage sites, including the Cathedral of Parma,³⁷ the Colonnade of the Piazza del Popolo in Ascoli Piceno,³⁸ the Cathedral of St. Leo³⁹ and the

³⁵ Renato Stopani et al., *La fonte delle fate a Poggibonsi* (Firenze: Firenzelibri, 1990).

³⁶ Carla Pietramellara, *Contributi sul 'restauro archeologico'* (Firenze: Alinea, 1982).

³⁷ Silvia Briccoli Bati, "Analisi statica della cupola della cattedrale di Parma: La salvaguardia delle città storiche," *Architettura e terremoti: Il caso di Parma: 9 novembre 1983*, edited by Salvatore Di Pasquale (Bologna: Pratiche, 1986), 145–153.

³⁸ Silvia Briccoli Bati, *Studio della situazione statica dei fabbricati che si affacciano sulla Piazza del Popolo di Ascoli Piceno*: (Firenze: Facoltà di Architettura, 1990), Technical report.

³⁹ Silvia Briccoli Bati, *Analisi della consistenza statica e proposte di consolidamento della Pieve e del Duomo di S. Leo*: (Firenze: Facoltà di Architettura, 1992), Technical report.

²⁹ *Notizie dall'A.I.D.I.A.* 1 (1956), 1.

³⁰ The percentage was 15,15% in Lombardy and 12,08% in Piedmont. Franco Nasi, *L'architetto* (Milano: List, 2015), 190, 191, 205.

³¹ *Notizie dall'A.I.D.I.A.* 10 (1964), 1.

³² Nasi, *L'architetto*, 159.

³³ Carla Pietramellara, *Il Duomo di Siena: Evoluzione della forma dalle origini alla fine del Trecento* (Firenze: Edam, 1980).

³⁴ Carla Pietramellara and Gino Zanotti, *Il sacro Convento di Assisi* (Roma: Laterza, 1988).

Amphitheater of Pozzuoli,⁴⁰ leading her to deal with traditional construction techniques and their structural problems. Her interest towards the historical heritage, moreover, has led her to address, since the 1990s, the restoration of rammed-earth constructions, a topic which would have raised much interest over the following years.

In the field of professional practice, instead, a prominent figure is that of Anna Braschi, who enrolled at the Faculty of Architecture in Florence in 1956. She stood out since her university experience for the innovative experience of thesis, developed within a group of students -Bianca Ballestrero Paoli, Pierluigi Cervellati, Loris Macci and Gianpaolo Bartolozzi- working on the installation of the European University in Florence, under the guidance of Adalberto Libera and Ludovico Quaroni. During her long career, she also focused her interest toward environmental issues and landscape preservation, so that she took also a Specialization in Landscape Architecture (1990, University of Genoa). Among the projects in this area we should mention: the recovery of the Roffia Lake and the recovery of the charcoal alley of San Miniato.

A further important figure is the architect Bianca Ballestrero Paoli, originally from Rome but who lives and works in Tuscany, married to the architect Piero Paoli. She developed many projects in collaboration with Gae Aulenti, including the restoration of the *Palazzo Pretorio* in Prato, Tuscany. Among the many projects, it is worth mentioning also: the 'Solaria' Hotel and Tourist Center in Mazzin di Fassa,⁴¹ in Trentino (1972–76) designed with L. Macci, P. Paoli, A. G. Postal and G. Pedrotti; the IFAB of Bagno a Ripoli,⁴² in Tuscany (1971–74) designed with L. Macci and P. Paoli; and the commercial center and municipal services in Prato (1995–99).

In the professional field, further significant figures which deserve further consideration are the architects: Anna Olivetti, daughter of Adriano Olivetti and Paola Levi, married to the architect Antonello Nuzzo; Maria Grazia Dallerba, collaborator and second wife of the architect Leonardo Ricci, with whom she also worked on the Palazzo di Giustizia of Florence; Bona Pellini Arzelà, married to the architect Arzelà, originally from Cremona but who worked in Tuscany; and finally, Marta Lonzi, architect and feminist, also author of relevant writings.⁴³

As for the engineering field, thanks to the yearbooks of the University of Pisa, it was possible to find out the names of the first females graduated in Engineering, who are very late in coming if compared

to the first females graduated Architecture, so much that only 10 women were identified over the 1950s and the 1960s. Unfortunately, at the moment, the yearbooks from 1946–47 to 1950–51 have not been found, so it was possible to check only the previous and following academic years. The first female name we were able to find was that of Ornella Bibbiani, from La Spezia (Liguria), graduated in the academic year 1950–51 in Civil Engineering, Subsection Building, with a thesis entitled 'Reconstruction of the Railway Station of La Spezia'.⁴⁴

Ornella is the daughter of the renowned architect from La Spezia (Liguria) Raffaello Bibbiani, author of the so-called *Grattacielo* of Via Veneto, of the La Spezia Theater (1926–33) and of the *Palazzo San Giorgio* in Via dei Colli (1927). The architect's archive is kept at the Amedeo Lia Civic Museum. A thorough analysis of the available documents and drawings, foreseen in the next phases of the present research, could help in understanding the role played by Ornella in her father's study.

A few years later, in the A.y. 1954–5 Franca Pugi, from Florence graduated in Civil Engineering, Hydraulic Subsection. In 1955–6, Renata Annibaldi, from Rome, graduated in Civil Engineering, Transportation Subsection. In 1958–9, Maria Teresa Brandizzi, from Baiso (Emilia Romagna) graduated in Civil Engineering, Transportation Subsection. In 1962–3, Silvana Anna Seller, from Leghorn, graduated in Civil Engineering, Building Subsection, with a thesis entitled 'Project of the urban architectural arrangement of a launch base for missiles'. Silvana Anna Seller, now retired, has worked at the Genio Civile office of Livorno. Among the other five women-engineers, four of them graduated in Mechanical Engineering and one in Electronics Engineering.

Conclusion

This contribution was born with the twofold objective of pulling out from the anonymity the first graduates in architecture and engineering in Tuscany, and to focus the magnifying glass on some more interesting figures, of which -among architectural magazines and other bibliographic sources- there are some tracks.

This first cognitive survey about the Tuscan case, has allowed both to understand the female incidence in architecture and engineering, and to interpret these results compared to other Italian realities, as well as to identify some names, sketching some quick biography, that make further attention worthwhile in the continuation of the present research.

The few but significant traces that emerged from this first phase of study, lead to suppose, especially

40 Silvia Briccoli Bati, *Accertamento dei dissesti delle strutture monumentali dell'Anfiteatro Flavio di Pozzuoli per la prevenzione dei rischi sismici* (Firenze: Facoltà di Architettura, 1993), Technical report.

41 Giovanni K. Koenig, "Centro alberghiero in Val di Fassa," *L'architettura: Cronache e storia* 331 (1983), 337.

42 "Bianca Ballestrero," *Architectour*, http://www.architectour.net/architetti/scheda_arc.php?id_opera=5620&id_arc=257, (accessed January 31, 2018).

43 Marta Lonzi, *L'architetto fuori di sé* (Milano: Scritti di Rivolta Femminile, 1982); Marta Lonzi, *Autenticità e progetto* (Milano: Jaca Book, 2006).

44 Università degli Studi di Pisa, *Annuario per l'a.a. 1951–52* (Pisa: Tipografia Editrice Umberto Giardini, 1952), 235.

for some women, the considerable level and breath of their work in the fields of architecture and design, but also of urban planning and engineering. Just think of the architects Berenice Parisella and Corinna Bartolini, who have been active since the interwar period, or think of Ornella Bibbiani and Silvana Seller, among the first working in the civil engineering sector, and finally think of the other women who have begun to emerge in starting from the 1950s and 1960s, like the professors Carla Pietramellara and Silvia Briccoli Bati, and the architects Braschi, Olivetti, Ballestrero, Dallerba, Pellini Arzelà and Lonzi.

Women whose contribution deserves to be thoroughly investigated, since they are among the first to have practiced profession and scientific research, and their point of view and work could enrich with precious elements the most recent history of architecture and conservation.

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Mualla Eyüboğlu:

A Female Architect to Serve the Country

Due to the Kemalist revolution in 1923, women architects in Turkey had the opportunity from the 1930s to attend the architectural education. The very first woman, Leman Tomsu (1913–1988), was graduated in 1934 in the department of Architecture at Istanbul Academy of Fine Arts/Sanayi-i Nefise Mektebi, known today as the Mimar Sinan University of Fine Arts. Mualla Eyüboğlu (1919–2009) (Fig. 1) followed her eight years later.¹ After their education, women in Turkey became involved in a couple of architectural fields; practice based education, restoration and academic research.

A modernization of the country started when the renowned Atatürk –Mustafa Kemal Pasha (1881–1938)– established the Republic of Turkey in 1923. In order to find a so called modern way of governing, the new government analysed the institutions and constitutions of Western states such as France, Italy, Sweden and Switzerland and adapted the findings to the needs and characteristics

¹ As a forerunner, Leman Tomsu worked on design commissions for public buildings, her solutions reflect the combination of rational modernism and regional elements. A project of hers is *Uludag Sanatorium* (1946–49) in Bursa. She also worked with the German architect Martin Wagner, well-known for his Neues Bauen-movement. To compare with Sweden; Ingeborg Waern-Bugge, was educated at the Royal Institute of Technology KTH in Stockholm, and became in 1922 the first female architect. – Osman Hamdi Bey (1842–1910) is the founder of Istanbul Academy of Fine Arts (Sanayi-i Nefise Mektebi), known today as the Mimar Sinan University of Fine Arts in 1883 – the first Art school in Turkey. In the university, the students were trained in aesthetics and artistic techniques, an education in a French way. Before the Academy of Fine Arts was grounded, architects and artists in Istanbul in the 19th century were often trained in military schools. Hamdi Bey was a Turkish painter, archaeologist and founder also of the Istanbul Archaeology museums. In his work, large-scale figures are seen for the very first time in Turkish art. His depicted people are self-confident, thinking and working. They take place in the architecture. Notable for the time, women are depicted on equal terms. He displays the soul of daily life during the Ottoman period in his compositions, for example the activity around the mosque.

* The paragraph “Tuscan women architects and engineers between the two world wars” was written by Denise Ulivieri. The paragraph “Tuscan women architects and engineers since the post-Second World War Period” was written by Stefania Landi. Introduction and Conclusions were written together by the authors.



Fig. 1. Photos of Mualla Eyüboğlu in a row. From: Tuba Çandar, *Hitit Güneşi* (Istanbul: Doğan Kitap, 2003).

of the Turkish nation.² Atatürk strove to change the Turkish society from regarding itself as a Muslim part of a vast Empire into a modern, democratic and secular nation-state. From now on focus at school was science and education, while Islam was studied in mosques and religious schools. Atatürk promoted new teaching methods in the schools, which should create a skill base for the social and economic progress of the country. Female education was used to establish equality between men and women. Turkish women should not just stay at home and take care of children, dressmaking and housekeeping, but also contribute to the economy outside the household. In advance of several European nations, Turkey moved to grant full political rights for women. Atatürk declared his cultural reforms in 1934:

There is no logical explanation for the political disenfranchisement of women. Any hesitation and negative mentality on this subject is nothing more than a fading social phenomenon of the past. ... Women must have the right to vote and to be elected; because democracy dictates that,

because there are interests that women must defend, and because there are social duties that women must perform.³

This was consequently the context for Mualla Eyüboğlu Anhegger.⁴ 'We grew up with the revolutions of Atatürk,' Mualla says in the book *Hitite Sun/Hitit Güneşi*, written [in Turkish about her] by Tuba Çandar (2003), that was 'what Atatürk had indoctrinated in us. That we would finish school and serve our country.'⁵

Culture in many fields flourished; museums, theatres, the beginning of a film industry started, and increasing publications of books and magazines. In Ankara opened the State Art and Sculpture Museum (Resim ve Heykel Müzesi) in 1927, designed by the architect Arif Hikmet Koyunoglu, displaying historical sculpture collections and folk art. Atatürk highlighted pre-Islamic civilisations, and encouraged research on Phrygian, Lydian, Sumerian and Hittite cultures in Anatolia, civilizations before Christ and obviously before Seljuk and Ottoman time. In addition, he emphasized the folk arts of the countryside as a well-spring of Turkish creativity.

Following her graduation in 1942, Mualla Eyüboğlu began her career in the small village of *Hasanoğlan* in the Ankara province. She became thus one of the leading women architects working on the Village Institutes in modern Turkey. In the 1940s and 50s, these institutes –after the death of Atatürk in 1938, supported by İsmet İnönü, the prime minister of the Republic of Turkey and İsmail Tonguç, the General Director of Elementary Education– were all aimed to instruct people in the fields of culture, fine art, arts & crafts, the social sciences and economics. Another purpose of the institutes was to train teachers in order to spread the Kemalist Revolution to the rural areas of the country. The Village Institutes were a unique rural development project in Turkey. The most successful students were selected to become teachers in the villages after their education.

Following her strong passion to serve the country, Mualla started her work in the Hasanoğlan village with planning the construction. The book *Hitite Sun* (2003) gives an outlines of the background:

Village institutes were an education project that targeted the whole of Anatolia. When the Turkish Republic was founded, 90 percent of the country lived in villages and only 3 percent of the population was literate. It was a must to educate people. So the country was divided into 21 parts and in each was built an institute that not only taught people how to read and write

2 Actually, this was not the first time to create a modernization in a Western way, a series of governmental reforms were performed between 1839 and 1876. Tanzimât was a reorganization of the Ottoman country, with political, institutional and social reforms. With Europe as a model, reforms were shaped on equal rights regardless of social status, religious or ethnic affiliation; all citizens should be regarded as modern citizens, included by the same rules. Slavery was abolished. A new tax system was introduced, and also postal, telegraph and rail networks, and compulsory schooling for all.

3 Ayşe Afet İnan et al., *Medeni bilgiler ve M. Kemal Atatürk'ün el Yazıları* (Ankara: AKDITYK Atatürk Araştırma Merkezi, 1998), Wikipedia https://en.wikipedia.org/wiki/Mustafa_Kemal_Atat%C3%BCrk (accessed September 23, 2016).

4 To many Turkish people, the name Eyüboğlu points forward to Mualla's two brothers, Bedri Rahmi, painter and poet, and Sabahattin, author and translator. They are both famous and well-known throughout the country.

5 Tuba Çandar, *Hitit Güneşi* (Istanbul: Doğan Kitap, 2003); here from Isil Eğrikavuk, "Portrait of A Lady as a non-conformist," *Hürriyet Daily News*, August 21 2009.

but also crafts like carpentry and planting.⁶

The Village institutes were placed on not cultivable grounds. Mualla designed and drafted the project plans for the Hasanoğlan village, including facilities for the music department, the teachers' housing and the cafeteria. She supervised the students during the construction period. At the village, the students had to learn how to play a musical instrument, and together they conducted concerts. The Prime Minister İsmet İnönü followed the work and performances with interest, and so did other famous authors and people. Besides Hasanoğlu, Mualla designed – all twenty-one villages! – and supervised, and taught in the other village institutes around Anatolia. During the 1940s, she travelled around the village institutes in Anatolia. All people at the institutes built the schools from 'nothing', and they worked together with the villagers. It's worth noticing, there were no roads to the villages, Mualla was riding a donkey.

In 1947 while Mualla was working on the Village Institute in Ortaklar (Aydın province, near Izmir. The village received Turkish refugees from Greece after the Balkan war), she caught malaria and returned to Istanbul. Once she was recovered from the illness, she began working at the Istanbul Academy of Fine Arts as a research assistant (1948–52), and at the Turkish Art History Institute. Her research assistant employment included travels, and soon she started travelling again as an excavation architect in the Eskişehir province, in collaboration with professor Albert Gabriel, the director of the French Archaeological Institute, and Halet Çambel, the leading Turkish female archaeologist, researcher for primeval and ancient history and the Turkish Hittite expert.

In the village of Yazılıkaya (66 km south of Eskişehir) Mualla participated as an architect in the excavation work between 1949 and 1951. The site included the Phrygian archaeological remains of the Midas monument on a vast plateau, a rock-cut façade with decoration and inscriptions from the 7th century BC. The intricate façade, 16 meters in width and 20 in height, is carved elaborately in a square and cross pattern system. Inside the monument, stairways and tunnels create 'a sense of mystery as if dominated by some kind of supernatural power'.⁷ The city of Midas is indeed a sanctuary, a city of Gods and spirits far from a common city. The style of the monument is 'somehow reminiscent of pre-Hittite and bronze age construction, but there are also elements such as rock cuts and cup marks which are mostly found in Neolithic sites'.⁸ Halet Çambel and Mualla Eyüboğlu worked on the underground stairs on the plateau, and also discovered a necropolis on the eastern section of the plateau.⁹

6 Ibid.

7 "Turkey's Marcahuasi: The Mysterious City of Midas," Uncharted Ruins, <http://unchartedruins.blogspot.se/2012/07/turkeys-marcahuasi-mysterious-city-of.html> (accessed September 22, 2016).

8 "Turkey's Marcahuasi."

9 "Yazılıkaya - Midas Sehri," TAY Project, [http://www.tayproject.org/TAYages.fm\\$Retrieve?CagNo=10280&html=ages_detail_e.html&layout=web](http://www.tayproject.org/TAYages.fm$Retrieve?CagNo=10280&html=ages_detail_e.html&layout=web) (accessed September 22, 2016).

Topkapı Palace

During the 1950s, churches were restored from being mosques with the mosaics hidden, to become museums, open for visitors. The churches Hagia Sophia and Chora in Istanbul were renovated in order to become available for visits. In 1951–61, the Topkapı Palace underwent an extensive restoration, conducted by Mualla Eyüboğlu (Fig. 2). Fatma Sedes, architect and restoration expert at Istanbul Aydın University and a member of the Foundation for the Protection of Historical Heritage, claims that the palace has survived until today thanks to the extensive restoration conducted by Mualla. Fatma Sedes points out that:

Despite our technology advantages today, it is impossible to carry out the same extensive work that she did in the past. She not only carried out restorations, but also archaeological excavations in the sections called the İkballer Apartment and Şimşirlik [Boxwood] Garden and revealed reservoirs.¹⁰

Topkapı was the residence of the Ottoman sultans, placed above the ancient Greek city of Byzantium, on the highest point of the hill close to the Bosphorus and Sea of Marmara. Initially Topkapı was constructed between 1460 and 1478 by Sultan Mehmed II and developed over centuries with additions and alterations, such as new quarters and kiosks. The palace was inhabited until the 19th century, when the sultans moved to the new-built Dolmabahçe Palace (1856), but Topkapı was still used for receptions. In 1924, instructed from Atatürk, it was converted into a museum.

Earlier, the sultans lived in the Topkapı's Harem section together with their families. The edifice contains more than 300 rooms, a series of buildings and structures connected through hallways and courtyards. Mualla studied the daily life of the Ottomans, and the book *Hittite sun* contains her description of the Sultans' invisible doors, the intricate system of how and there to move through the buildings. Mualla also calls attention to the complex hierarchy among the women in Harem. When Topkapı was not in use, the buildings altered. The commission for Mualla was a complete restoration, from repairing big structures, to uncover original walls behind more recent board materials. Windows and frames



Fig. 2. Harem section in Topkapı Palace. Courtesy of Gertrud Olsson.

10 "Hand-carved tiles of Harem severely damaged," Enjoy Istanbul, <http://www.enjoy-istanbul.com/history/hand-carved-tiles-of-harem-severely-damaged/> (accessed November 1, 2017).

were lost or broken and gardens were overgrown. Rooms were used as storage. Because of this, she had to take a comprehensive hold of the buildings; including floors, ceilings, domes, walls, tiled stoves, stucco and ornaments in different materials. Behind new surfaces –constructed in varying times of modernization– Mualla found original patterns and building materials from Ottoman time. She highlighted the Ottoman period due to material, construction and ornament, and worked with historians and other professionals to find out the right expression for every room. During her renovation she found excavation artefacts, and also, painted scribble from the Ottomans. To her help in this project, she had 200 soldiers as labour.

In all projects, Mualla worked carefully and took photographs in every step of the renovation. At several conferences, she presented her approach and way of working in Topkapı. In the publications, *Topkapı Sarayı'nda Padişah Evi (Harem)* (1986)¹¹ and *Hittite Sun* (2003), Mualla discussed the issue of period changes in restoration, and contributed to the discourse of conservation philosophy in Turkey. Mualla shared the view with Cahide Tamer,¹² the responsible restorer of the Rumeli Fortress, that 'the classical period of Ottoman architecture should have taken precedence over the degenerated late 19th century alterations.'¹³ As described in architect and author Zeynep Aygen's book *International Heritage and Historic Building Conservation* (2013), Mualla points out an example with the classical timber panels and the classical period decorations inside the dome of the crown prince's quarters. These were found under the later applied layers of less skilful finishes. It took a great effort for Mualla to convince the Council of Monuments of the need of the involvement of specially trained conservation architects. The Council did not understand why professional people, educated in conservation and restoration were necessary. Consequently, the building conservation profession was developed in Turkey by these women architects during the Second World War.¹⁴

'She was not a typical intellectual like the academics of today,' İlber Ortaylı, academic and formal director of Topkapı Palace Museum, said in 2009 and continues:

Today's academics are mostly educated in the U.S. They are detached from their own country. They just write without getting to know things on site. Mualla had her hands on many things; she knew folk songs and literature. But that was the way to be then.¹⁵

Ortaylı stressed Mualla's versatility and her keen interest to learn and understand, which reflected

the academics of her time: 'All leftist academics were like that. They all knew religious songs, too, because that is also part of folk music.'¹⁶

In 1952, Mualla Eyüboğlu was appointed to the Supreme Council of Antiquities and Monument Real Estate, titled 'building conservator', and began her career in the field of restoration. Her first restoration project, before the Topkapı Palace, was the 'Tomb of Barbaros Hayreddin Pasha' in Beşiktaş, designed by the architect Mimar Sinan in 1541, and located near the ferry port on the European side of Istanbul. In the 1950s with the new road connections, the tomb became a visual point at the end of the Barbaros Boulevard. Another restoration project in 1953 was the *Ebülfazl Mahmud Efendi madrasa* in Saraçhane in Istanbul. Also, the four Ottoman tombs of Hagia Sophia are included in her curriculum. She was running many projects in parallel. A reason was that every project had an allotted sum of money per year. After finishing that sum, the projects had to wait and could continue the work next year with new funds. Between 1953 and 1960, she worked outside Istanbul, with restorations of Ottoman buildings in Edirne, Kayseri, Sivas, Antakya, Mardin and Trabzon. The commissions altered between mosques, tombs, *hammam* baths, madrasa religious schools and mansions.

Another extensive project for Mualla was the restoration of *Rumelihisari*, a medieval fortress, a walled-in enclosure, 250 meters long and 130 meters wide at its longest. It has one small and three large towers and thirteen small watchtowers. Mualla's colleague Cahide Tamer, mentioned above, referred the fortress as one of the largest and most important works in the restoration history of her generation. The Rumeli Fortress (Rumelihisari) is located on the European (Rumeli) side of the Bosphorus. It was built by the sultan Mehmed II in 1452. The aim was to establish control of the waterway at the narrowest point of the strait (660 m) where ships would need to approach the shore to avoid the strong currents. In 1953, a formed neighbourhood inside the fortress was removed by order of President Celal Bayar and an extensive restoration was completed under supervision of the three women architects. A museum was opened by the Ministry of Culture in one of the tower following the restoration. An open-air auditorium was also designed and built by Mualla in the courtyard during this time.¹⁷ It has the shape of an amphitheatre and is placed in the middle of the fortress. Stones in forms of stairs compose the theatre's seats by design of Mualla in line with antique tradition. Today a mosque has been placed on the stage, but the stairs are still visible.

11 Mualla Anhegger, *Topkapı Sarayı'nda Padişah Evi (Harem)* (İstanbul: Sandoz Kültür Yayınları, 1986).

12 Cahide Tamer (1915–2005) was the first female architectural restorer, and graduated in 1943 from the Department of Architecture of the Istanbul Academy of Fine Arts.

13 Zeynep Aygen, *International Heritage and Historic Building Conservation: Saving the World* (New York: Routledge, 2013).

14 Ibid.

15 Eğrikavuk, "Portrait of A Lady as a non-conformist."

16 Ibid.

17 While this addition is often considered an innovative example of adaptive reuse, it is also criticized for having damaged the historic appearance of the fortress. Older photographs show a series of seaside mansions along the fortress' walls, none of which have survived. Their place is today taken by a two-lane coastal highway that was built immediately outside the fortress walls in the 1960s.

Equality: Mualla as a Mediator and an Idealist

For some decades, in the middle of the twentieth century, equality was widespread belief, and female Turkish architects had a natural role in practice, in built environment and in academia. They were working side by side with international and national male architects and town planners, performing the same tasks. This was the idea of Atatürk, but obviously, it did not permeate all levels in society.

In the book on Mualla's life, written from a long interview with Mualla herself, her special character is clearly viewed. The name of the book, *Hittite Sun*, refers to the ancient Hittite civilization in Anatolia, which Mualla felt allied with. The book's writer Tuba Çandar describes Mualla as a 'very different Republic Woman'. Çandar outlines her character:

Like her idealistic contemporaries in Istanbul, Mualla dedicated herself to enlighten the newly born Turkish Republic. But unlike them she was both a secularist and a devoted Sufi. She was both traditional and modern. In today's polarized Turkey we need people like her even more.¹⁹

The book also comments on Mualla as a woman in a male dominant country. When questioned about her past, and described she as more or less asexual she always talked about her work. Mualla merely focused on her mission – with the utmost integrity. Her strong interest of Anatolia, covered historical and cultural cross meetings, folk songs and literature.

Turkish women became modern, found themselves right in the centre of modernism, right in the modern thought. With this belief, Mualla married Dr. Robert Anhegger in 1958, a German expert in Turkish studies. She had worked closed to him for a decade, and they cooperated in many projects before they became a couple. Robert had fled Germany, he felt uncomfortable in his country due to socialist views. Together the couple visited and investigated Ottoman heritage in several Balkan countries. They discovered the philosophy and religion of the Dervishes, which became important for them and permeated them both.

In order to understand the modernist women (in their new context) we can use 'intermediary studies' as a tool. This includes a pursuit of an understanding how society and cultural connections change, how culture transforms, and who the actors are behind this process.¹⁸ In intermediary studies 'the actor' (who can be a dragoman, a diplomat, a craftsman etc.) has an important role in crossing and transforming cultural boundaries. Also studied are the consequences this process has on societies. The actual person adopts, translates and transfers various perspectives of knowledge and cultural values. In this process, knowledge is changed when different cultures come into contact and thus produce new knowledge.

Accordingly, 'knowledge- and cultural transfer' is defined via the actor or intermediary who moves

across a cultural border and arrives in a new context. Using the concept of intermediary studies, the method will shed light on the 'actor', that is the architect and restorer Mualla, who brought forward her profession. Mualla thus became a 'mediator' in the following respects a) through her role in the Village Institutes, as an architect and teacher mediating Atatürk's manifesto that all people have right to schooling; b) through excavations in Anatolia, she uncovered the Hittite artefacts; c) as a woman in a male dominant profession and country, she mediated a new image of how to be a woman. In all these ways, Mualla crossed boundaries and passed limits.

The late modernist era in secular Turkey was a notable time. Women's new position in Atatürk's reform was reachable only for a selected group, an academic and intellectual middle class. (Atatürk's goal, however, was everyone's right to schooling and equality as the foundation for a better world.) The well-educated and strong women were capable of mediating a new approach of how to be and perform. The year before her death, in 2008, Mualla Eyüboğlu Anhegger received the National Architecture Award in the category of "Contribution to Architecture."

If we look at Mualla's approach to work, and follow Tuba Camber's reasoning in her book, Mualla was definitely an 'idealist'. She worked for a better world for the people in the villages. In her renovations, she tried to restore the buildings and monuments into an original shape. She was engaged in her work and doings, but apparently uninterested of people around her, and thus characterised as somewhat childish. Contrary to other academics and intellectuals in the country, Robert and Mualla Eyüboğlu Anhegger were interested in religion. They followed and celebrated several traditions. They opened their apartment for all who wanted to visit them. Mualla said, she often worked against the wind in the society. She made her own decisions and took full responsibility. In a short film about her, Mualla Eyüboğlu Anhegger utters these solemn words; 'What we can contribute with is to love this country – everything else is history'.¹⁹

¹⁸ Natalie Rothman, *Brokering Empire* (New York: Cornell University Press 2011).

¹⁹ "Mualla Eyüboğlu Anhegger," Vidivodo, <https://www.vidivodo.com/mualla-eyuboglu-anhegger>, (accessed December 5, 2017).

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Ruth Rivera Marín and Her Commitment to Cultural Heritage

Daughter of the mural painter Diego Rivera, one of the most significant figures of the first half of the twentieth century in Mexico, and Guadalupe (Lupe) Marín, a strong nonconformist feminist, model and writer, Ruth Rivera Marín (June 18, 1927 – December 15, 1969) played a decisive role in the cultural policy and heritage protection in Mexico and Latin America in the 1960s.

From a very young age, her left-wing politics, interest in culture and education and her commitment to educating the disadvantaged set her apart. In addition, her struggle to establish herself as an architect in a world still strongly dominated by conservative and masculine values, made her almost an exception in the context of a Mexico grappling at the time with the achievements of the objectives of the Revolution and the entry in the contemporary world, conditioned by capitalism and the market economy, the inevitable influence from closeness with United States.

Coherent with her principles, Ruth Rivera choose not to attend the elite Universidad Nacional Autónoma de México in 1945 to study engineering-architecture, preferring instead the Instituto Politécnico Nacional, founded in 1936 by President Lázaro Cárdenas, with the aim of training new generations of technicians dedicated to realizing the ideals of the Revolution for the reconstruction and economic development of the country. Both the choice of the University and her studies broke a taboo which allowed her to enter into a world, which at that time, was almost entirely reserved for men. It is not a coincidence that Ruth Rivera became the first woman to graduate from the Escuela Superior de Ingeniería y Arquitectura ESIA.

While a student she was active in the Brigadas Mixtas of the Servicio Social. Organized by the Politécnico, and still operating today,¹ the Brigadas Mixtas aimed at creating groups of volunteers who applied their knowledge and experience in health, industrial production, legal procedures, urban development and engineering (roads, water supply, infrastructure networks) to help poor and distant communities. In this context she participated in the preparation of the Urban City Plan of Celaya in the State of Guanajuato in 1948; while, between 1953 and 1957, she directed the Brigada de Servicio Social in Chilpancingo, capital of the State of Guerrero.²

In 1953 she began her profession as a teacher at the ESIA, initially for the Architectural Composition course (until 1957), and then, as head of the Area of Theory, for the Architectural Theory, Urban Theory and Planning and Urban Planning courses, from 1958 to 1960.³ In 1957, she was appointed to the Consejo Intersecretarial para la Protección de la Pintura Mural, and in this capacity, she proposed the creation of a murals museum, with the aim of collecting murals that, for conservative reasons, could no longer remain *in situ*.

It was however, at the Instituto Nacional de Bellas Artes (INBA), where she undoubtedly carried out her most important work in architecture and conservation of cultural heritage: first as a member of the Department of Architecture from 1952 to 1954 (alongside the architect Enrique Yáñez), and then as head of that Department from 1954 until her premature death in 1969.

Of particular note is her participation in the preparatory work for the draft of the International Charter of Restoration, discussed at the meeting held in Venice in 1964. In the *Presentazione* of the volume that collects all the contributions, Piero Gazzola stated that the Charter should be considered 'not a text but a cultural historic episode'. The conference was also an opportunity to establish the



Fig. 1. Ruth Rivera Marín
Courtesy of Archive Arch. Martín Yáñez Molina,
Mexico City. Photo: Fritz W. Neugass.

1 "¿Qué son las brigadas?," <http://www.dess.seis.ipn.mx/serviciosocial/Documents/Pdf/que%20son.pdf> (accessed May 28, 2018).

2 "Curriculum vitae Arq. Ruth Rivera," *Calli*, no. 42 (July – August 1969), 21.

3 Ibid.

International Council on Monuments and Sites (ICOMOS), 'the Institution', in the words of Gazzola, that would constitute 'the supreme assizes in the fields of restoration of monuments, conservation of ancient historical sites, landscape, localities of art and history in general', from that moment on.⁴

In that meeting, which was attended mainly by Europeans, a Mexican delegation also took part. It was composed of four architects, assigned to four working groups: Carlos Flores Marini (who later figured among the signatories of the Charter), Salvador Aceves García, Ruth Rivera Marín and Arturo Ramírez Bernal. Rivera presented two papers which were published in the proceedings *Il Monumento per l'Uomo*: the first concerning "The protection of the Artistic and Cultural Patrimony in Mexico,"⁵ and the second regarding a "Commentary concerning the Remodelling of the Urban Centre of Mexico City."⁶

In the first report, summing up the work she had coordinated in the city of Dolores Hidalgo (cradle of the Mexican independence movement), she lists the three fundamental elements taken into consideration for urban planning: 'historical; urbanistic and traditional', but also 'the growth, evolution and expansion of the region', not just in big cities but also in small towns, considering them as 'a base for the government programs'. But she also highlights the importance of those measures implemented in buildings 'of historical and architectural value, saved from destruction and abandon, and thus integrated into the National Cultural Patrimony'. These buildings had been restored and transformed to resolve local cultural necessities, by converting them into 'museums, cultural centres, cultural institutions and administrative buildings', thus ensuring their 'maintenance and conservation'. She also noted that 'in the majority of these projects, the minimum investment was made, with large returns in the form of social benefits'.

This contribution, together with that of other participants, was accepted in article 5 of the Charter:

The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable, but it must not change the lay-out or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted.⁷

In the second paper, Ruth Rivera tackles the issue of urban recovery and particularly the case of

the historic centre of Mexico City. At the time the city was very degraded with serious social and economic problems and stifling traffic congestion, but with an extraordinary historical heritage dating back to the different periods of Mexican history: those squares and buildings that were the pride of a past formed from the merger of pre-Hispanic and European legacy.

Squares and buildings 'that have survived the constant transformation of the urban centre', and that should have 'recovered their proper proportions', offering visitors 'the opportunity to contemplate and enjoy the architectural treasures fully', once restored, 'by the dignity of their original materials', but above all by providing them with a 'function, purpose and use ... thus incorporating them into the life of the city'. On this basis, she concluded:

we affirm that in the foreseeable future, our city will have bettered not only its typical development, but its economic development as well. The civil and moral consciousness, transmitted from those who have dealt with the problems, to each individual, will demonstrate to them the importance of the protection and conservation of our cultural patrimony: symbol of the personality of a people.

With this statement she anticipated what would become the basic principles of Integrated Conservation, later codified in the Amsterdam Declaration of 1975.

Part of her work as head of the Department of Architecture included the development of the National System of Art and Culture Centres between 1959 and 1960. In this context, she completed several historical buildings conversions between 1959 and 1962. In addition to the already mentioned urban planning work carried out in Dolores Hidalgo, she was in charge of adapting –together with the architect Manuel Parra– the former prison into the Regional Museum of Crafts and Cultural Center of INBA and CAPFCE (Comité Administrador del Programa Federal de Construcción de Escuelas).

While in San Miguel de Allende, a typical historic city in the centre of the country, she converted the eighteenth-century Convent of the Conception –a school of Fine arts since 1938, and where several painters had executed wall paintings (including David Alfaro Siqueiros, who in 1948 painted the *Vida y obra del generalísimo Ignacio Allende*)– into a cultural centre named after the nineteenth-century writer and intellectual Ignacio Ramírez *El Nigromante*. A restoration that saved the monument from definitive ruin, ascribing it to the INBA with the aim of returning it to public use, which is still the case today.⁸

In Mexico City, she designed a functional and elegant solution to host temporary exhibitions of Mexican contemporary Art, on the ground floor of the gallery Salón de la Plástica Mexicana, at number 7 Havre Street. Always in the capital city, she carried out works on the Comonfort Theater, between 1961 and 1964.

4 Piero Gazzola, "Presentazione," *Il Monumento per l'Uomo = Le monument pour l'homme = The Monument for the Man: Atti del II Congresso Internazionale del Restauro (Venezia 25-31 maggio 1964)* (Padova: Marsilio Editori, 1971 (1972)), XXI.

5 Ruth Rivera de Coronel, "The Protection of the Artistic and Cultural Patrimony in México," *Il Monumento per l'Uomo*, 667–668.

6 Ruth Rivera de Coronel, "Commentary Concerning the Remodelling of the Urban Center of Mexico City," *Il Monumento per l'Uomo*, 912–913.

7 International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter, 1964), in https://www.icomos.org/charters/venice_e.pdf

8 "Curriculum vitae Arq. Ruth Rivera," 21.

During the presidency of Adolfo López Mateos (1958–64), probably one of the most favourable for art and culture in Mexico, Ruth Rivera participated –with the architect Pedro Ramírez Vázquez– in the formulation of the program –architecture and museology– of the Museum of Modern Art in Mexico City.⁹ The two buildings constituting the Museum are located in the centuries-old Chapultepec forest, formerly belonging to the Emperor Moctezuma, then seat of the Spanish Viceroy, and in the second half of the nineteenth century residence of the Emperor Maximilian of Habsburg. The first building has a circular plan, the second a guitar-shape plan, and both are coated with an external curtain wall designed to dematerialize the building and confuse it with the lush foliage surrounding it.

She also collaborated with the architect Guillermo Rosell in the reconstruction of the Museum of the Revolution Aquiles Serdán, located in a house in the historic centre of Puebla. In Mexico City she worked with the architect Ramiro González del Sordo on the adaption of the nineteenth-century former tobacco factory La Ciudadela as a School of Design and Crafts (1961–1964) and directed the works on the School of Painting and Sculpture *La Esmeralda* (1965–67).¹⁰

Finally, she collaborated with the architects Ramiro González del Sordo and Jorge Luna, in the restoration and adaptation of the neoclassical building (belonging to the Counts of Buenavista and designed by the Valencian architect Manuel Tolsá) for the Museum of European Painting, which became home to the collections from the Academy of San Carlos, in Mexico City.¹¹ 'Rescuing this work of artistic and monumental heritage, and adapting it to a suitable program of operation, in accordance with the worthy program that was assigned to it as the headquarters of the Academy of Arts of Mexico and the Museum of European Painting, was a pleasant task because the work was carried out as a team, with the advice of the experts in restoration and soil mechanics, installations and services, and the support of the specialists in the pictorial collections and in the modern interpretation of a museum.'¹² It was, in fact, one of the most important works of the time, in which the criteria for a correct restoration were combined with those of a modern museum design.

In all the works cited above we can observe a prevailing attention to the preservation of the historical features of the buildings, but also the precise intention to establish a harmonious dialogue with the contemporary additions, which allow the building to carry out the new functions that had been attributed to it. In fact, Ruth Rivera was very much an architect of her time: she was aware of the

historical value of the buildings she was working on but was also convinced that the only way of preserving them for the future was to find a new role for them.

Central, however, remains her attention to the social problems and education of marginalized groups of society. In a typescript, dated 1967, probably work for an unpublished book, Ruth Rivera notes: 'The population suffers from a great deficit in terms of its cultural progress, its knowledge and its artistic education, which prevents it from participating, thus stopping the stimulus that would represent its contributions as a spectator.'¹³

She founded and directed the magazine *Cuadernos de Arquitectura*, published by the Department of Architecture from May 1961, in whose editorials she had the opportunity to express her views on various topics, always courageously and sometimes even against the tide.

Already in the first issue she stresses the importance of knowledge of architectural history, a history that must go beyond the mere listing of styles and dates.¹⁴ While in the following issues she reiterates the fact that

a lot of books consist in a description of works, photographs of the fashion buildings, boring lists of dates or liturgical inventories of the facades of the buildings, but never face the desire to resolve current problems, nor has it been intended to fully explain the architectural phenomenon –at least as a goal– nor has it been understood that we have to constantly review the theoretical foundations of our art.¹⁵

Her focus is on the role that architecture plays in society. But the most innovative ideas appear in the following numbers, with the growing conviction that authentic architecture is outside of time and space,¹⁶ and that tradition is never static, but in constant evolution.¹⁷ In number 11 she returns to this last point, combined with that of memory (updated for the present):

Tradition understood as the neutral point of a culture is the very negation of that tradition. This makes sense when the positive and alive of a past time survives as an example in the present.

It is not important how big or tall a tradition is:

if it is not understood from our contemporary point of view, it loses its vigour and, in a certain way, its value. We must look at the past with a current critical sense and not put ourselves in the 'skin' and mentality of the men who worked in past times.

9 This building was part of the ambitious presidential program for the institution of new museum containers, with different subjects, strategically distributed in the forest of Chapultepec, together with the Museo de Historia Natural and the most famous Museo Nacional de Antropología.

10 "Curriculum vitae Arq. Ruth Rivera," 21.

11 Ruth Rivera, "El Museo de San Carlos," *Calli*, no. 34 (July – August 1968), 50–54. Cfr. also Isabel Tovar de Arechederra and Magdalena Mas (eds.), *Reencuentro con nuestro patrimonio cultural* (México: Consejo Nacional para la Cultura y los Artes, 1994), 93, Series Ensayos sobre la Ciudad de México, Vol. 6.

12 Rivera Marín, "El Museo de San Carlos," 50–53.

13 Typescript, signed RR, Mexico, D. F., November 1967, 2, Archive Segarra Lagunes.,

14 Ruth Rivera, "Propósito," *Cuadernos de Arquitectura*, no.1 (May 1961), 3.

15 Ruth Rivera, "Propósito," *Cuadernos de Arquitectura*, no. 7 (February 1963), s.p.

16 Ruth Rivera, "Propósito," *Cuadernos de Arquitectura*, no. 3 (October 1961), 3.

17 Ruth Rivera, "Propósito," *Cuadernos de Arquitectura*, no. 6 (June 1962), s.p.

Considerate and understand our tradition means

using it for the present, either by following the example of its positive values, or by avoiding its mistakes: example and instruction from the past, updating itself, coming to life in the face of the problems of our current times, by analogies that preserve human problems, but not copying yesterday's forms.¹⁸

For Rivera, the value of art is however historical, historicized; in fact, unlike what certain 'idealist' critiques claim, the concept and value of art must not remain abstract, but be firmly linked to the economic and social reality of the moment, and to the culture of that particular age:

Art is socially productive when it responds to the purposes and values that distinguish a locality. At certain times, the guidelines of a culture acquire the character of universality. However, to date, this universality has not managed to make a *tabula rasa* of certain local, national nuances. Responding to this universality and to the nuances that distinguish it, is what makes socially productive the work of art. The value of art is, therefore, historical. Recognizing and locating within the culture in which it emerges is also a non-transferable need.¹⁹

Not to be forgotten among her endless activities, is her participation (carried out in parallel with teaching at the Department of Architecture), as a member of the Commission for the Protection of Colonial Monuments, as well as at the Colegio de Arquitectos de México and the Sociedad de Arquitectos de México, two of the most important corporate associations in the Country, through which she was able to expand their international relations.

She also contributed with various essays to the magazine *Calli Internacional: Revista Analítica de Arquitectura Contemporánea*. At the time Rivera wrote her first article,²⁰ the periodical was directed by Benjamín Mendez Savage and Alejandro Gaitán Cervantes was editor-in-chief, two very active exponents of the new generation of architects, ready to contribute with new ideas to the renewal of architecture.

Her international activities for the protection of cultural heritage, apart from ICOMOS and the International Council of Museums (ICOM), included membership of the Advisory Council of the Government of Mexico at UNESCO from 1960 and, as part of the Mexican section; she participated in the Association International des Critiques d'Art (AICA). She was also president of the International Union of Women Architects (IUWA), from 1965.

In June 1969 she led the Mexican delegation attending the Second International Congress of Women Architects that took place in Munich under the patronage of Princess Grace Kelly. The theme of the

meeting was the role of women architects in urban development. Some of the Mexican participants who made up the delegation included Valeria Prieto, Ofelia Berumen, María Luis Dehesa, Carmen Aguirre Cárdenas

A year before her death Ruth Rivera was working on one of the most challenging projects that Mexico had embarked on in the twentieth century: the Olympic Games of 1968. The President of the Olympic Committee, architect Pedro Ramírez Vázquez, who together with the coordinating the construction of the sports facilities – from the Olympic Stadium at University City, the Swimming pools, the Velodrome, and the rowing basins – organized, with the support of Ruth Rivera, the Cultural Olympics. Dance, theatre, exhibitions, music and architecture: Mexico City became, for the duration of the Olympic Games, a world capital not only for sport, but also for culture, art, architecture and design.

In addition to an exhibition on sports buildings, with over 400 projects representing the countries participating in the Olympics, an international meeting for young architects was organized together with the Union of International Architects (UIA). The final resolutions of the meeting were subsequently published in the magazine *Calli*. Rivera, signing as coordinator of the group which included the architects Alejandro Gaitán Cervantes, Ramón Vargas, Vicente Armendáriz, describes how the team had worked together «at all the scales," from the overall to the detail.

Last but not least, among her many activities, is the work carried out with her father, which began before the latter's death in 1957, and Juan O'Gorman for the construction of the Diego Rivera Museum (Anahuacalli), in a southern suburb of Mexico City.

A real *calli*²¹ but also a Templar treasure chest, intended to preserve the vast collection of archaeological pieces that Diego Rivera had collected throughout his life. Ruth devoted several pages to the building in a monographic issue of the magazine *Cuadernos de Arquitectura* dedicated to her father. She attributed to him, in all modesty, the whole paternity.²²

Distinguished and self-assured, with her hair always tied up with a *chignon*, incredibly resembling her father, Ruth Rivera was an exceptional woman for her time. This short paper aims to testify, albeit briefly, to the multiplicity of her interests and her tireless activity as a promoter of architecture and culture. But much remains to be researched on this complex and multifaceted personality.

18 Ruth Rivera, "Propósito," *Cuadernos de Arquitectura*, no. 11 (October 1963), 3.

19 Ruth Rivera, "Propósito," *Cuadernos de Arquitectura*, no. 14 (September 1964), 6.

20 Rivera Marín, "El Museo de San Carlos."

21 In the Náhuatl language, house, temple.

22 *Cuaderno de Arquitectura*, no. 14 (1964).

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Věra Machoninová: First Lady of the Czechoslovak Brutalist Architecture*

Historical Background

The symposium 'Women's Creativity since the Modern Movement' is chronologically bordered by the beginning of the Modern Movement, *videlicet* by the year 1918. This year means for the Czech Lands not only the end of the First World War, but also an establishment of an independent state – Czechoslovakia. Czechoslovakia was a democratic state with all its pertinent attributes, naturally including creative freedom. Czechoslovak architects had the possibility to create without any restrictions and architectural competitions for public buildings were considerably frequent. Also contacts with international architectural communities were not an exception, bringing in new impulses, opinions, and experiences. Generally, the period from the mid-1920s is characterised by an elegant, though progressive modernist architecture and functionalism. The Second World War and following years brought a fundamental change. In 1948 Czechoslovakia underwent a radical transformation of the political and social situation. So-called 'Victorious February' pushed Czechoslovakia towards the Eastern Bloc and Socialism. The expropriation, centralized organisation and control took place in all the possible areas of human activity. Admittedly, architectural and construction works were not, an exception. Many architectural offices were expropriated already during February of 1948. It was followed by establishing of a state-owned architectural organisation called 'Stavoprojekt' (State Project Organisation). 'Stavoprojekt' forcibly partnered most of the architects and designers in Czechoslovakia. Freshly graduated students had to join 'Stavoprojekt' or similar centralised organisations – there was basically no other alternative if they wanted to commence and proceed their careers as architects.

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Early Career

Věra Machoninová's (born Větrovská) career started as outlined above. Machoninová was born in 1928 and grew up in the democratic regime of the first Czechoslovak Republic. However, she graduated from the Faculty of Architecture at Czech Technical University (CTU) in Prague in 1952, i.e. four years after the putsch. Shortly after the graduation, she entered the 'Stavoprojekt' in Prague.¹ Initially, she worked in the studio of Jiří Gočár (son of the well-known architect of the First Republic, Josef Gočár). Later on, for instance, she was engaged in the studios of Karel Filsak or Pavel Bareš. As she recalls, the work in 'Stavoprojekt' meant for her a possibility to be an inherent part a 'fine team' of professional architects – for example, she cooperated with Karel Prager, Jiří Albrecht or Jiří Kadeřábek.² However, Machoninová's closest and lifelong associate was her husband, Vladimír Machonin. Machoninová married Vladimír already during her studies in 1948, in the year of the communist *coup d'état*.³ Thenceforth, most of the projects are signed by both of them, by Věra and Vladimír, and it is practically impossible to differentiate between the authorship of each one of them. Therefore, the following text describes the projects as shared works of the husband and the wife. In conclusion, I try to differentiate Věra's approaches and specify her work, pointing out her own contributions within the projects.

The Culture and Union House in Jihlava: A Way to an Own Style

Together with Vladimír Machonin, Věra created her first larger projects. Noteworthy is the proposal for the architectural design competition of the Central House of People's Army in Prague-Dejvice (1953), created in the style of the socialist realism, a preferred style of the regime.³ However, more important is the winning project from the architectural design competition focused on Culture and Union House in Jihlava.⁴ The implemented project demonstrates not only the general shift of the Czechoslovak architecture in the mid-1950s, but it also shows several key-aspects, important for the later work of Věra a Vladimír. The design proposal from 1955–56 is still relatively moderate, with persisting aspects of the socialist realism. The final design, however, is far more austere and generous. The architecture features, though it may seem impossible, both temperance and

1 Petr Vorlík and Beryl Filsaková, "Věra Machoninová," *Šedesátá léta v architektuře očima pamětníků*, edited by Petr Urlich et al. (Praha: Česká technika – nakladatelství ČVUT, 2006), 187.

2 Vorlík and Filsaková, "Věra Machoninová," 187.

3 Lukáš Beran, "Architekt Vladimír Machonin," *Umění* 52 (2004), 272.

4 Beran, "Architekt Vladimír Machonin," 272; Miloslav Cajthaml, "Kulturní dům ROH v Jihlavě," *Architektura ČSSR* 22 (1963), 149–157.

a certain level of playfulness. It is legitimate to say that the Culture and Union House in Jihlava mirrors the first aspects, later defined as characteristic features of the work of the Machonins, and manifested in all their large-scale projects. Based on formal analysis, it is evident that this shift is influenced by Vladimír Machonin who took part in the construction of the Czechoslovak Pavilion in *EXPO 58* in Brussels.⁵ This assignment allowed him to see the western trends, 'rediscover' the pre-war modernist architecture, as well as to be inspired by the so-called 'Brussels style'. The latter is well visible in the interior of the Culture and Union House including colour shades, wall mosaics, dropped ceilings and light fittings. The interior reveals one more aspect, typical for the work of the Machonins; it is a great eye for detail and an effort to include all possible particularities in the final project. The Machonins created not only the architectural and urban project of the Culture and Union House, but also a detailed and cultivated designs of interiors and furniture. The Machonins created, among others, the railing, lights, chairs in the halls and other furniture. Another important aspect of the interior design is represented by the included artworks – for this task, the Machonins invited painters Arnošt Paderlík and František Jiroudek.⁶ Their efforts result in a deeply sophisticated architecture of coherent composition, as well as precise details. Already, the work was respected by their contemporaries; Miloslav Cajthaml, reviewer of the journal named *Architektura ČSSR* wrote:

Although the Culture and Union House had been designed during the confusing era of rapidly shifting opinions on style, the resulting architectural piece represents, without any doubts, classically modern architecture. The high value of the work is mainly apparent in its interiors. These have the greatest impact on feelings of the visitors and help to fulfil the mission of the house; the cultural education.⁷

Golden Sixties: Melting of the Regime

In their work, the Machonins managed to overcome the period of socialist realism and the following uncertainty in a considerably short time, defining their own style. With every new project, their style developed a bit more of its characteristic sophisticated complexity. Looking back to the end of 1950s, the Machonins, for instance, participated in the architectural competition for an extension of the theatre in Hronov (1959)⁸ and for a new theatre in České Budějovice (1959–60)⁹.

Both the designs resemble the project already carried out in Jihlava – constructions in the style of a revitalized modern classicism, with a typical monumental front, decorated with a high order and protruding from the wall of glass. While participating in these competitions, although without any factual impact, the Machonins entered the 1960s. For several reasons, the year 1964 could be described as the year of change not only for the Machonins and their career but also in terms of general situation of the Czechoslovak architecture.

Professional success the Machonins earned in 1964 is represented by two architectural competitions. They won the first place in a domestic competition for 'Thermal' – a complex of festival buildings including the cinema and the hotel in Karlovy Vary. Moreover, together with Jiří Albrecht, Jiří Kadeřábek and Karel Prager, they gained the third place in a competition for the university town in Dublin.¹⁰ Nonetheless, important events took place throughout the entire society. Starting by the end of the 1950s, the social situation has slowly loosened up – the socialist regime eased its grip and allowed people to live in a bit more opened ambience. The changes were especially and immediately apparent in the culture (for instance, previously forbidden books were published), but they effected also other areas of public life – e. g. entrepreneurship (it was possible to establish semi-private cooperatives). The architecture was also no exception: the 2nd meeting of the Union of Architects in 1964 resulted in reduced control executed over the projects. The architects newly enjoyed larger freedom of (not only) creative work. These conditions led to an important organisational step, taking place three years later: several active architects left the 'Stavoprojekt' organisation. Věra and Vladimír Machonins were not the only ones who abandoned the centralised association; they were accompanied by Jiří Klen, Jan Šrámek, Karel Prager and Karel Filsak.¹¹ All together, they established the Union of Architectural Studios (in Czech called Sdružení projektových ateliérů, abbreviated SPA), a free cooperation of several architectural studios with independent budgets (considerably free conditions, taking into account the regime). The architectural studios were named after letters of the Greek alphabet; the studio of Věra and Vladimír was established under the name Alfa. The Machonins brought to the studio –as did the leaders of other ateliers– their own projects, for the most part gained within the design competitions. Generally, a large number of new architectural contests belong to the characteristics of the 'Golden Sixties'. Architects from the SPA were rather successful in the competitions, and the Machonins excelled. Despite that, Věra Machoninová herself considers the projects with limited success to be the interesting ones: they exhibited radical features.¹²

5 Brůhová, Interview.

6 Cajthaml, "Kulturní dům ROH v Jihlavě," 149–157.

7 Cajthaml, "Kulturní dům ROH v Jihlavě," 157.

8 Beran, "Architekt Vladimír Machonin," 271.

9 Jaroslav Paroubek, "Soutěž na řešení dostavby Jiráskova Divadla v Hronově," *Architektura ČSR* 18 (1959), 130–132; Miroslav Sýkora, "K soutěži na Jihočeské divadlo v Českých Budějovicích," *Architektura ČSR* 19 (1960), 439–445.

10 Vorlík and Filsaková, "Věra Machoninová," 187–188.

11 Ibid, 187.

12 Ibid, 188.



Fig. 1. Věra Machoninová with her husband Vladimír and Pierre Luigi Nervi (in the middle), 1967. Courtesy of Archive of Věra Machoninová.

Contests: Between Brutalism and Modernist Architecture

Machonins's unsuccessful participations in design contests include extremely progressive projects: for instance, the design of the National Assembly in Prague (1966)¹³, regulation of the Republic square in Prague and the concert hall (1967) (Fig. 2), completion of the Old Town Hall (1967) or the House for the Recreation (ROH) in Prague¹⁴ and many others. The project regarding the Republic square would have had a radical impact on the large area within the historical town, since it included an amount of simplistic solitary volumes. The House for the Recreation was designed as a dynamic shape suggesting a three-dimensional fan. Another project, the National Assembly, was represented by a

superstructure of the so called 'house above house'. In other words, it was a construction which should have encompassed the original historical object. The listed designs suggest that the architectural work of the Machonins underwent a considerable change from the turn of the 1950s and 1960s. It might be described as a reminiscence of the interwar Czechoslovak modernism combined with tendencies of the international brutalism. However, it is necessary to add that the Czechoslovak brutalism, the brutalism of the Machonins respectively, was never a direct citation of works conducted abroad. It might be rather described as a free inspiration. Their style resulted in specific and original works, impossible to be ascribed to one of the styles in particular. Nevertheless, it is possible to find common features characterising the work of the Machonins. Above all, it is the true effort to achieve 'sincerity and rationality' (and here we can see the link with the interwar modernism). Inner dispositions are evident in exteriors and in shapes of objects, materials and technologies are chosen pragmatically, rooms are designed logically and synoptically. And importantly, the inner logic of the buildings is not impaled by inventive and even artistic approach of the Machonins.

13 Jiří Voženílek, "Soutěž na přestavbu areálu u Národního muzea v Praze," *Architektura ČSSR* 25 (1966), 455.

14 Ondřej Beneš, "Dům rekreace ROH," *Věra a Vladimír Machoninovi*, edited by Pavel Směták and Klára Pučerová (Praha: Galerie Jaroslava Fragnera; ARCHITECTURA, 2011), 66–69.

Thermal

The specific features of the Machonins's architecture can be demonstrated at the abovementioned Thermal Hotel in Karlovy Vary, a project the couple won in the design contest in 1964. The same project will also serve for the demonstration of the pitfalls faced by the architects in Czechoslovakia at that period.

The assignment was to create a large spa resort and a cultural festival centre with several cinemas and congress halls. This functional variety became the key to the design of the complex, both in the competition and in the subsequent realization. The hotel and spa facilities are in the form of a low pedestal (public area) with an emerging narrow part (hotel rooms). The modernist character of the composition is underlined by the horizontal division of facades and by the utilization of glass and steel. However, the rational rectangular mass is disrupted by spatial oval volumes of the cinemas, which resemble in their appearance the Corbusier's sculptural concept and international brutalism. This connotation is underlined by the used material, namely an exterior cladding made of blasted concrete. In addition to the pronounced and logical solutions of the volumes, the building features also other favourable principles. Even though the hotel represents a massive intervention to the central valley of Karlovy Vary, it is truly sensitive to the surrounding terrain. The construction *de facto* integrates its structure. The immediate surroundings of the hotel create architectural terraces regulating the embankments of the River Teplá and creating a cultivated public space. The principle unifies the public areas of the hotel's interiors and exteriors and creates an open and generous architectural landscape.

The design is then performed with a strong emphasis on detail and a complex artistic solution. The artistic approach of the entire structure is characterized by the use of the outdoor panels from blasted concrete in the interior, coloured wall tiling, as well as the design of lights and seating furniture that the Machonins designed specifically for the hotel facilities. In one of the interviews, Věra Machoninová stated that the work of architects exceeded to such details as designs of tablecloths, cutlery and glasses for the restaurant. An important part of the creative process was the cooperation with leading artists of the era. The exterior was among others designed with Josef Klimeš, the pieces in the interior are by Čestmír Kafka (cooperation on the lamellar ceiling in the great hall), René Roubíček (a large glass chandelier in the main foyer) or Stanislav Libenský and Jaroslava Brychtová (lights). As in the case of the Culture and Union House in Jihlava, the hotel Thermal is a great example of the *Gesamtkunstwerk*.¹⁵

15 Z. Vávra, "Omezená neanonymní meziústavní soutěž na ideové řešení festivalového kina a mezinárodního hotelu v Karlových Varech," *Architektura ČSSR* 23 (1964), 603–610; Věra Machoninová and Vladimír Machonin, "Mezinárodní hotel a festivalové kino v Karlových Varech," *Architektura ČSSR* 25 (1966), 30; Ondřej Beneš and Daniela Karasová, "Hotel Thermal," *Věra a Vladimír Machoninovi*, edited by Pavel Směták and Klára Pučerová (Praha: Galerie Jaroslava Fragnera; ARCHITECTURA, 2011), 42–57.



Fig. 2. Design of the Republic square in Prague, 1967.
Courtesy of Archive of Věra Machoninová.

However, the construction that *de facto* started the career of the Machonins, encountered considerable problems, even though the beginnings were promising. An important moment was the aforementioned third place in an international contest for the University City in Dublin. The outcome of the competition did not result into construction of the Machonins's project, but it brought them a considerable financial reward in the form of a western currency. The money allowed the Machonins to travel extensively. They were even able to visit the countries behind the Iron Curtain and see the current architectural trends and solutions of the most important cinemas in France and the UK.¹⁶ Naturally, they used the experience in their own designs. However, they faced the challenging situation of the Czechoslovak economy. Feasibility of the designs was rather problematic. International supplies were a complete taboo and the range of Czechoslovak construction assortment was considerably limited.¹⁷ Sometimes, the Machonins had to seek out alternative approaches, through an individual and often rather difficult agreement with local companies, or even by cooperating with research institutions. Věra Machoninová recalls that there indeed were important and significant scholars at the research institutes at that time – people with international contacts and with a great insight in the latest development within their field.¹⁸ Therefore, it was not impossible to obtain non-standard materials and elements, but it required a large personal commitment. A common problem of the local construction works was also their

duration. The extension of the construction period affected a relatively large number of projects dating back to the 1960s, and it was not exceptional for a project to take more than ten years to finish. This was also the case of Thermal, which was completed in 1977, 13 years after the initial contest. It is necessary to point out that the delay caused a relatively little attention which was paid to the final building – an earlier completion would have brought much greater (deserved) attention to it. Possibly, the progressivity of the work could have established it among the icons of not only the Czechoslovak but also the European architecture.¹⁹ The same can be said about other projects by Věra and Vladimír Machonins: the Centre of home design in Prague (project in 1968, completed in 1981), the Kotva department store (contest in 1969, completed in 1975) or the Czechoslovak Embassy in East Berlin (contest in 1970, completed in 1978).

Nevertheless, the loss of architectural up-to-dateness was not the only consequence of long construction processes. The transformation of the social and political situation that took place in the meantime also played an important role. With the end of the 1960s, ended the period of relative freedom as well. After the occupation in August 1968, the 1970s represented a period of the so-called normalization. The time was seen by many as grey and unhappy, and even today is largely perceived as an entirely negative period. The unfortunate perception somewhat unjustly clings to the architectural realizations of the era. And the view was not altered by the fact that the visions were carried out by progressive architects in the liberal atmosphere of the 'Golden Sixties'. Paradoxically, and even unfortunately, the label 'socialistic architecture' is used for objects whose authors had nothing in common with the regime.

Grey Seventies

Resistance to the normalisation meant an end of the career for the Machonins. The year 1971 brought a cancellation of the SPA and Vladimír Machonin lost his leading position in the Alfa studio. A year later, the Union of Architects was restructured, and neither Věra nor Vladimír were allowed to become its members. It had a fundamental impact on their future work: they were banned from publishing in professional architectonic journals, restrictions were placed on their further architectonic activities and they were prohibited to take a part in design competitions.²⁰

16 Vorlík and Filsaková, "Věra Machoninová," 187–188.

17 Vorlík and Filsaková, "Věra Machoninová," 189.

18 Vorlík and Filsaková, "Věra Machoninová," 191.

19 Radomíra Sedláková, "Úvod," *Věra a Vladimír Machoninovi*, edited by Pavel Směták and Klára Pučerová (Praha: Galerie Jaroslava Fragnera; ARCHITECTURA, 2011), 7.

20 Beran, "Architekt Vladimír Machonin," 274.

Year 1972 meant an end of the relatively free work for the Machonins. In following years, Věra focused on finishing the running projects and on their improvement.²¹ Věra's approach, supervision and devoted work, turned the projects to the thorough *Gesamtkunswerks*. However, the quality and cultivated architecture did not bring Věra and her husband much of appreciation. The 1970s are characterised by 'not mentioning' the artists who did not adhere to the rules, let alone celebrating them. For instance, the opening of the 'showcase of socialism' – of the large department store Kotva – took place without any involvement of the Machonins.²²

Věra Machoninová: The First Lady of the Czechoslovak Brutalist Architecture

In the introduction, I mentioned problems connected with the authorships of the projects, specifically with the determination of the work done by Věra and Vladimír separately. Although most of the projects are signed by both of them, it is at least roughly possible to divide their roles in the working tandem. Division of the tasks performed by the group is apparent in the words of Machoninova who stated:

My husband was a leader of the atelier, and as such, he devoted a lot of time to administration and organisation. ... Machonin had a great skill: when it was necessary to get something done, he was able to persuade everybody. ... He was able to defend everything we needed. I usually stayed in the project, because somebody had to do this as a full-time job.²³

It implies that Vladimír Machonin was rather a manager and a diplomat, focused on an organisational improvisation within the cumbersome socialistic system, whereas Věra represented creative element, more closely linked with the design activities. She remembers that it was her who cooperated with research institutions dealing with issues of particular materials.²⁴ Věra also took part in the works concerning the statics. She worked in the Institute of Statics and Mechanics at the Faculty of Architecture at CTU already as a student,²⁵ and she proved a great knowledge of static and construction problems in many of the projects. For instance, she designed the generous system of consoles in the cinema halls of the Thermal hotel and the efficient hexagonal structure of the department store Kotva. Věra was also the one who focused on the interiors. At least, she let herself to be recognised as an author of the interior and equipment of the Culture and Union

House in Jihlava, the Thermal hotel and the Embassy in Berlin. It is, therefore, possible to state that the treasured complex approach to architecture of the Machonins was made possible by the thorough work of Věra. I am aware of the fact that dividing the authorship in a collective of two authors is rather simplifying, but I think it is entirely legitimate to pronounce Věra Machoninová an independent artist and engineer, and with a bit of exaggeration, the first lady of the Czechoslovak brutalist architecture.

The Czechoslovak Brutalism Today

'I am sorry that all the buildings we created slowly succumb to destruction.'²⁶ These words said by Věra in an interview in 2004 apply to the situation concerning the protection of the Czechoslovak architecture from the 1960s to 1980s and it is, unfortunately, still the same; insensitive interventions to interiors, a total ignorance of relations between equipment and the architectural design. These alterations within interiors frequently destroy the entire architectural *Gesamtkunswerk*. Furthermore, the changes often involve not only the interiors, but the entire building. This is also the case of the Thermal hotel, since its section with swimming pool is purposefully left to fall apart. The Embassy in Berlin has been threatened by the demolition. In several cases Machoninová was attempting to stop the devastations with the help of the court, but without any greater success. The approach of the Czech Ministry of Culture is nothing short of alarming. The Ministry is refusing, despite strong appeals of the public, to recognize a number of Czechoslovak buildings from the 1960s to 1980s as a part of the national culture heritage. For instance, listing of the Thermal hotel was denied and now, the hotel might be rebuilt in an entirely devastating manner. Currently, the experts and a number of enthusiasts are trying to save the unfavourable situation of the post-war architecture. There are several educational projects focused on the post-war architecture and its popularisation. And it is necessary to point out that the public awareness concerning qualities of the architecture slowly rises. One of the aforementioned projects is fighting directly for the salvation of the works by Věra Machoninová. It is the project 'Respect Madam'²⁷ initiated by the grandchildren of the Machonins who conduct presentations, guided tours and public discussions. Unfortunately, their effort does not have any significant impact on the general system of protection. I wish for the present situation to change soon and for the architectural works of (not only) Věra Machoninová to receive the well-deserved institutional care. I also hope my paper will contribute to a larger awareness concerning the qualities of the Czechoslovak architecture, unfairly often pronounced as simply 'socialistic'.

21 Brůhová, Interview.

22 Jakub Železný, "Machoninovi: Architektura navzdory," *Věra a Vladimír Machoninovi*, edited by Pavel Směták and Klára Pučerová (Praha: Galerie Jaroslava Fragnera; ARCHITEKTURA, 2011), 19.

23 Vorlík and Filsaková, "Věra Machoninová," 188–189.

24 Vorlík and Filsaková, "Věra Machoninová," 191; Julius Macháček, "Plech jako prvek architektury Věry Machoninové," *Architekt* 10 (2006), 10.

25 Vorlík and Filsaková, "Věra Machoninová," 187.

26 Vorlík and Filsaková, "Věra Machoninová," 194–195.

27 "Home," Respekt madam, <http://respektmadam.cz> (accessed January 15, 2018).

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Nadia Godar-Devinoy: The Architect Who Became a Politician

Introduction

In this paper, I will present an overview of Nadia Godar-Devinoy's career: Nadia Godar-Devinoy is a woman architect born in Bucharest, Romania, in 1930 who practiced architecture in France all her life. She was and still is one of the architects who have invested in the protection of national heritage in France, notably in its eastern part, during the last quarter of the twentieth century.

She left Romania with her parents and sister in 1948,¹ when the communist regime came into power² and started studying at the *École des Beaux-Arts* in Paris the same year. In 1949, she was admitted into the school and decided to stay in Paris, while her family migrated further to Canada and settled in for the rest of their life. Ten years later, in 1958, she obtained her diploma as an architect and started practicing architecture with her husband, Pierre Devinoy, who was already working with Paul Nelson on hospital's projects. A few years later, the couple bought Paul Nelson's agency where they worked together for almost 20 years. Nadia Godar-Devinoy was particularly in charge of designing individual houses but she also conceived a psychiatric clinic, offices for a printing company, an elementary school and factories.³ In 1975, Nadia Godar-Devinoy decided to quit her activity in Paris

1 R. B., "Les toniques de la liberté Nadia Devinoy et Martina Franekova," *Le Républicain Lorrain*, January 14, 1990.

2 The communist Romanian Party came into power since 1946 and the following year the People's Republic of Romania was declared.

3 Psychiatric clinic, Ymare (1963–1967); offices for a printing company, Pithiviers (1964); elementary school, Antony (1967) and factories Usines VéloSolex in Mâcon (1969) and Tours (1973). 133 Ifa 80/10, Nadia and Pierre Devinoy, Centre d'archives d'architecture, Cité de l'Architecture et du Patrimoine.

and to go work in Carpentras with Jean Coignet, a friend she had met at Lods's workshop, during her time at the *École des Beaux-Arts* in Paris.⁴ He introduced her to his work: the rehabilitation of historical centres. With him, she discovered the fascinating world of heritage. Eventually she decided to study at the *École de Chaillot* the only school in France specializing in heritage – while she kept on working in Carpentras with Jean Coignet. A whole new life started for her: after graduating in 1977, she passed the competitive examination to be appointed as an ABF (*architecte des bâtiments de France*) title referring to architects specialised in heritage conservation in charge of the protection of listed 'historical monuments' and their surroundings. She was appointed 'ABF' within the department of *La Moselle* until 1995, the very year where she became deputy mayor of the city of Metz, in charge, among other things, of urbanism and housing policy. After handing out her resignation in 1999, she continued to promote heritage conservation by leading a foundation and joining the work of associations.⁵

My paper today will focus on the second period of her life, between 1978 and 1995, when she was pursuing her career as an ABF in order to understand, the way she was invested in this duties.

In fact, during the twentieth century in France, the field of 'heritage' appeared to be one where women could work as architects and Nadia Godar-Devinoy was among them. One may assume, in the twentieth century, this field was enabling women's careers, when in others, like the field of project's management, women struggled to thrive and build a career. However, what was the reason behind the fact that it was allowed for women to have a career in the field of heritage? What were the requirements giving them access to this sector?

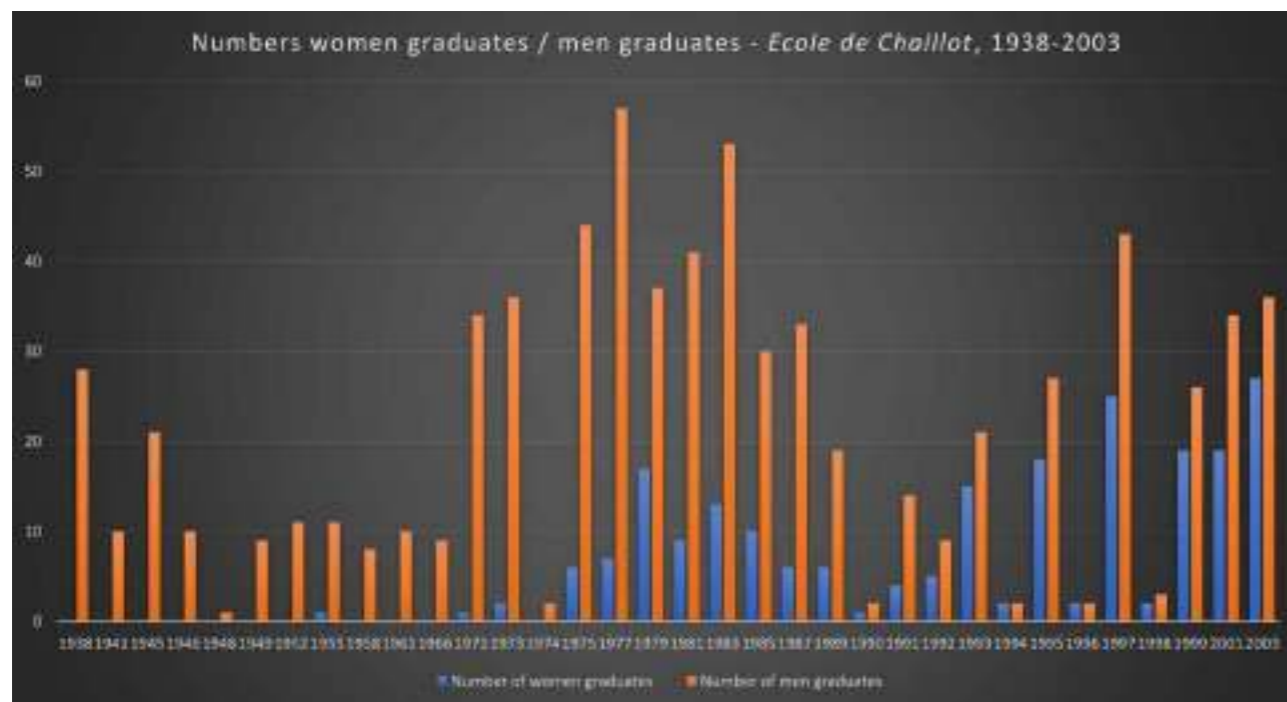
When Women Architects Became ABF

The story of the *École de Chaillot* began in Paris in 1887, when the decision to create a chair within *Le Palais du Trocadéro* (Trocadéro Palace)'s building focusing on French architecture's history in the Middle Ages and Renaissance,⁶ was taken. The aim of the school was to train architects so that they would become specialists in charge of listed historical monuments and diocesan buildings' restauration.

4 Nadia Devinoy, Interview with Stéphanie Bouysse-Mesnager (Paris, February 1, 2018).

5 Nadia Devinoy became the Moselle departmental delegate of the *Fondation du Patrimoine* at the beginning of the 2000s.

6 Florence Contenay et al., *L'École de Chaillot: Une aventure des savoirs et des pratiques: Architecture & patrimoine* (Paris: Éd. des Cendres, Cité de l'architecture & du patrimoine, 2012), 237.



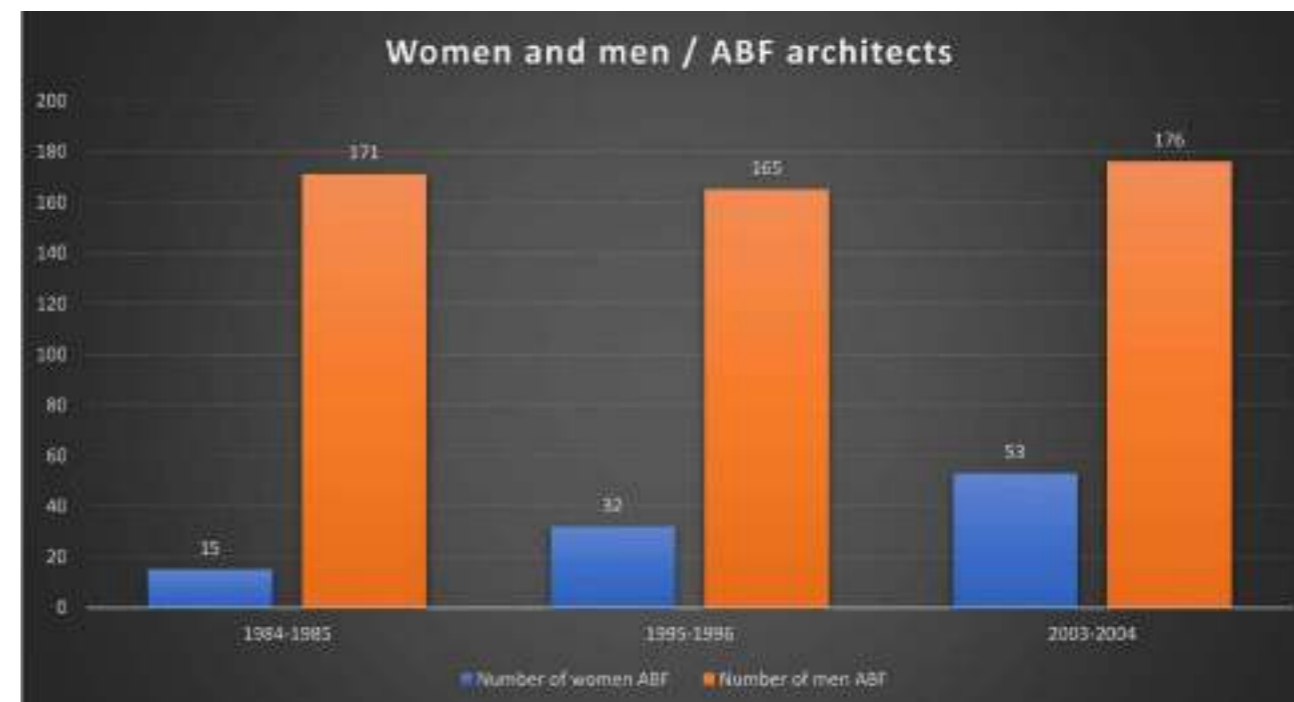
Tab. 1. Number of graduates (women and men), *École de Chaillot*, 1938–2003. Graph created by the author.

After two years of study, the School students who successfully passed the final exams are called as *Architectes du Patrimoine* (architects specialized in heritage issues). If most of them remain in the private sector and practice as independent architects (project managers ...) some decide to take a competitive examination to be appointed as civil servants in one of the French Administration's bodies of which the *Architecte des Bâtiments de France*, created in 1946.⁷

Was there any woman at the *École de Chaillot* and if yes, how many? It is rather impossible to tell if any attended the school between 1887 and 1938 but we know how many of them did between 1938 and 2010. After 1938, Marie-Thérèse Tulasne (1920–2003) was the first woman to study at the *École de Chaillot* and she got her diploma in 1955.⁸ The number of women graduates really started to increase in the year 1971, as it shows in the tables. (Tab. 1) It is interesting to note however that the number of graduates (both for women and men graduates) sharply increased between 1970 and 1980–85; this exceptional raise seem to be directly linked to the fact that the school had been renewed in 1971. Indeed afterwards figures went down for both men and women until 1990, where they finally went up again showing jagged peaks. Therefore graduates's figures follow the same

7 Decree no. 46-272 of 21 February 1946, *Journal Officiel de la République Française*, 22 February 1946, quoted by Contenay et al., *L'École de Chaillot*, 238

8 Association des architectes diplômés du centre d'études supérieures d'histoire et de conservation des monuments anciens (Centre des Hautes Etudes de Chaillot), *Annuaire 2003/2004 des architectes du Patrimoine* (Paris: OFERSOP, 2004), 31.



Tab. 2. Number of working ABF architects (women and men), 1984-2004 (Graph created by the author)

pattern for men and women.

We can also observe that the feminisation was a very gradual process: in 1975 women represent 12% of the students of the school, in 1985 25% and in 1995 40%.

After 1970, women also started to become ABF: Marie-Thérèse Tulasne, who was presumably the first female school student, was the first woman to take on this role from 1970 till 1985, in the department of *la Sarthe*.⁹ Nadia Devinoy, whom I am talking about today, became ABF in 1978¹⁰ in the department of *La Moselle* and was consequently one of the first women ABF. In 1984–5, 15 women were ABF,¹¹ 32 in 1995–6,¹² 53 in 2003–4.¹³ (Tab. 2)

9 Conseil Général d'Indre-et-Loire, *Etat sommaire des fonds d'origine privée, Séries F et J* (Tours: Archives Départementales d'Indre-et-Loire, 2013), 140, <http://archives.cg37.fr/UploadFile/GED/SerieJ/1481198683.pdf> (accessed June 11, 2018).

10 Devinoy, Interview.

11 Association des architectes diplômés du Centre d'études supérieures d'histoire et de conservation des monuments anciens École de Chaillot (France), *Annuaire - Association des architectes diplômés du Centre d'études supérieures d'histoire et de conservation des monuments anciens 1984-1985* (Paris: Association des ADCESHCMMA, 1985).

12 Association des architectes diplômés du Centre d'études supérieures d'histoire et de conservation des monuments anciens École de Chaillot (France), *Annuaire officiel 1995-1996, Architectes du Patrimoine, Association des architectes diplômés du Centre d'études supérieures d'histoire et de conservation des monuments anciens* (Paris: Association des ADCESHCMMA, 1996).

13 Association des architectes diplômés du centre d'études supérieures d'histoire et de conservation des monuments anciens (Centre des Hautes Études de Chaillot), 2004, op. cit.

In fact, the recruitment of women as ABF only began in the 1970s, nearly 30 years after the ABF's body was created. Were they prevented from doing so before, because of a competitive examination's existence? It is unlikely so. Actually, looking at graphics, it is obvious that ten years after the first cohort of women got their diplomas into the school in the 1970s, 15 women were appointed as ABF in the process.¹⁴

It seems like it was actually more difficult for women to access this school rather than to pass ABF's competitive examination.

Was it more difficult to enter this school because of admission requirements? Was it because it was required to have some degrees, such as an architect's diploma? Or was it more difficult for women to enter this school because it was harder for them, after having obtained their degree as an architect, to start again with a two years length training course? In this day and age, it is impossible to give a proper answer because we were not able to access archives.

It is interesting to pinpoint the fact that the change which occurred in the 1970s granting women access to the *École de Chaillot* and allowing them in turn to hold ABF's positions, goes hand in hand with the general changes women were experiencing in France at that time: indeed, after 1970 French women had new opportunities and could take up positions or professions that were not accessible to them in the past.¹⁵

How Nadia Devinoy Invested Her ABF Position

As Florence Contenay reminds us, ABF's functions consist in expressing a judgment on architecture based on both legislative and aesthetics arguments.¹⁶ The ABF architect has an individual power, which allows him/her to put an end to a project, whether he/she deems it not compliant with urbanism rules or he/she considers it not to fit well within the urban context.

When Nadia Devinoy came to Metz in 1978 (Fig. 1), only a few projects were subjects to ABF's recommendations and part of the city of Metz was in a demolition process since the 1960s.

For 18 years, Nadia Devinoy's actions focused on three things: compliance with conservation laws, taking into account surroundings of listed historical monuments, and safeguarding heritage



Fig. 1. *Le Républicain Lorrain*, 6 juin 1978.

(whether it meant by rescuing a building from demolition or by protecting one architectural element) and, in particular, safeguarding ordinary heritage such as Lorraine countryside and villages' architecture.¹⁷

She was very involved in her function, as if she had received a mission from the divine: she used to say 'I entered into heritage as others enter into religion'.¹⁸ She considered herself to be an upholder of the law and a State representative, entrusted by the Administration to enforce the laws, when mayors of the Department of Moselle ignored them in their municipalities.¹⁹ Her work was based on laws, far more than on aesthetics arguments.

In truth, basing her actions on laws is what seemed to allow Nadia Devinoy to assure her legitimacy, and serve as a shield. It brought her so much confidence that she was able to face

ministries and famous architects; she became a public figure because of her uncompromising stance. Each project became 'a battle' to her, a type of word and lexical field that she would use in order to describe this part of her career that one could compare to a saga. She even hosted an event to celebrate her career and her return to Paris in Csy-Chazelles, a city where she had actually succeeded in stopping a big individual houses' project.

She contributed to put an end to another famous project in the early 1990s: the *Place Coislin's* project. The call for proposals for this project aimed at establishing a new housing complex with offices, hotels, restaurants etc. Christian de Portzamparc, the famous French architect and other agencies as AART (Farah Architects) had put forward a project. Nadia Devinoy gave a presentation on those projects to an audience of ABF during the national congress which took place in Rennes and demonstrated to her colleagues how the project was excessive. After her lecture, Jean Frébault, the Director of Architecture and Urbanism at the Ministry of Equipment, gave instructions that contributed to definitively put an end to the project.

14 Association des architectes diplômés, *Annuaire 1984-1985*.

15 On this point, see: Sylvie Schweitzer, *Les femmes ont toujours travaillé: Une histoire de leurs métiers, XIXe et XXe siècle* (Paris: Editions Odile Jacob, 2002).

16 Contenay, *L'École de Chaillot*, 110.

17 Richard Bance, "Le combat urbain à Metz débouche sur la connivence," *La Pierre d'angle*, no. 23 (May - June 1998), 61.

18 *ibid.*, 60.

19 Devinoy, Interview.

Requirements to Become ABF

Looking at Nadia Devinoy's career, what can be understood? What exactly did allow her to pass this competitive examination and to hold her position as ABF?

Break-away from Family Life

Working as an ABF required living in the region of France where the post is located. After 1978 when she passed ABF's competitive examination, Nadia Godar-Devinoy had to choose between Metz and Chambéry. She chose Metz, in the eastern part of France, because the climate reminded her of Romania – and she moved there.

This position also required to work significantly. From what Nadia Devinoy was telling herself, she was working seven days a week, twelve hours a day, living her life as an 'apostolaté', her job as a vocation.

Geographic mobility and hard work necessities made it difficult for ABF to reconcile their work and family lives, and perhaps could force them to break away from their family. In Nadia Devinoy's case, this was presumably not an issue, since she accepted her job as an ABF when (it seems like) she actually needed to stand back from her domestic life. In 1975, when she decided to leave both her family (her husband and her daughters) and her work, it was because she was bored at the agency she owned with her spouse: there was not a lot of work nor any interesting projects to be done. As she confided in an interview: 'There was a moment of gap, between 1970–75, when it was really difficult for me, there was nothing interesting to do at the office anymore and my children were older... and I really needed a change of scenery'.²⁰ So she looked for a new place to go,²¹ left her Parisian life and went to Carpentras, in the south of France, to work with Jean Coignet. There, she started to study at the *École de Chaillot* and finally moved to Metz in 1978. She used to come back to her home to visit her family in Paris once a year but did not settle down back there until 2010.

It seems like breaking away from family life was the result of a choice for Nadia Devinoy but could it have been differently? Would her husband and daughters have moved out to Metz just because she was appointed there? Would have she been able to be ABF if she had been willing to live with her family?

20 'Il y a eu dans le fond, un creux dans les années 70-75, vraiment euh j'avais du mal parce que il y avait plus grand-chose d'intéressant au bureau et puis mes enfants étaient plus grands et j'avais vraiment besoin...de changer d'air.' Devinoy, Interview.

21 'J'ai cherché un point de chute.' Devinoy, Interview.



Courage, Nadia !

Un boulevard fait semblant de jaillir de la pierre et tout Metz veut le voir en peinture. Le portrait, assez drôle, s'étale en trompe l'œil sur un mur d'angle, dans le style ingénu des enseignes. L'ennui, c'est qu'on ne peut recevoir sans le galbe d'un quartier classé. Nadia Devinoy proteste au téléphone et, plus tard, envoie l'huissier.

Je n'ai jamais vu cette dame mais tous les Mosellans connaissent le prénom de leur Roumaine incorruptible. Elle est devenue aujourd'hui l'insurmontable sphinx de leur patrimoine en péril. Le soir, sur sa béquille hollandaise, Nadia pédale vers la Cour d'Or, pour surveiller les maisons menaçant comme une liane ses petits.

À la différence de la musique et de la peinture, qui touchent des publics consentants, l'architecture est un art qui modifie le paysage et s'impose au citoyen. Vous pouvez jeter un disque à la poubelle ou fuir un vernissage au pas de course. Mais vous n'échapperez pas aux laideurs d'une rue.

Chef du service départemental d'architecture, Nadia veille depuis douze ans sur nos dignités piétonnières. Le ravalement des façades, la réhabilitation des quartiers, l'alignement des trottoirs, tout est soumis à son feu vert d'enquiquineuse. Comme elle possède un caractère assez dru, auprès duquel l'honneur d'Edith Piaf n'est que doucette, on ne peut jamais l'incriminer. Autant dire que la moitié de Metz la déteste et l'imagine comme un Gracqilly protégé par des grouillots. Alors qu'une autre moitié la prend pour une fée des Carpates et la vénère.

Le plus mystérieux dans ce rapport ambigu, c'est que les deux moitiés sont interchangeables ! Tel commerçant qui voit Nadia aux enfers, admet avec plaisir que Metz a embelli. On ne voit plus présentement de rue qui ne soit drapée dans le treillis vert de plusieurs façades en chantier. Des ambiances oubliées ressuscitent. Au « tac au tac » de la loterie Devinoy, la ville gagne au gratage, à tous les coups.

Mais la bataille est épuisante. Un jour, c'est un propriétaire qu'on scandalise en l'empêchant de surélever son toit. Le lendemain, c'est un promoteur furieux qu'on force à respecter un site. Plus tard, c'est un commerçant décontenancé qui ne peut changer la toile de sa vitrine sans reconstruire à ses frais l'auvent que son prédécesseur avait déliguré. Partout c'est la même réaction : « De quoi elle se moque ? »

Elle fait bien son travail, c'est tout ! Sa ténacité quelquefois crispante a fait de Metz l'une des plus jolies villes de France. Le vieux centre fait bon vivre avec ses terrasses de café sous le soleil. Hélas, ce genre de conquête ne peut s'opérer sans conflit ! Si Nadia n'était pas intraitable, on perdrait nos dernières terres vingt ans de plus.

Je m'engage que moi mais je me mouille ! Tiens bon, Nadia ! Metz veut une femme courageuse et pas commode qu'un fonctionnaire arrondissant et soumis.

Jacques GANDEBELF.

Fig. 2. *Le Républicain Lorrain*, 2 juin 1991

External Supports: Press, Journalists, Ministries

Nadia Godar-Devinoy's action was in conflict with many politicians' views, in particular with mayors as Jean-Marie Rausch, mayor of the city of Metz between 1971 and 2008. However, she also received solid supports from several organisations or individuals, which certainly were of help to her work.

Firstly, she benefited from the Department of Architecture within the French Ministry of Environment and livelihood: she benefited from Florence Contenay's support, the deputy director in charge of promoting architecture and protected areas within the Ministry between 1979 and 1981; Nadia Godar-Devinoy was also supported by Jean Frébault, acting as Director of Architecture and Urbanism at the Ministry of Equipment between 1989 and 1994.

Secondly, and this is more unusual, she received supports from several local newspapers, such as the *Republicain Lorrain* or *La Semaine*, which published many articles on her life and her professional actions. Those articles were nearly always in her favour and contributed to give her some kind of 'local hero' and 'public figure' status. Journalists were constantly using slogans and ready-formulas to describe her, which contributed to raise her, I think, as a 'public figure' (Fig. 2).

Finally, it's interesting to note that when she arrived in Metz in 1978, she was also helped by local associations promoting heritage protection like 'Renaissance du Vieux Metz' and local archaeologists volunteering from University to look for remains of the past with her.

Conclusion: An Architect Who Entered Politics

Nadia Godar-Devinoy got her diploma in 1977 at the *École de Chaillot*, where the feminisation process started at the beginning of the 1970s in a context of rebuilding and new attractiveness of the school. Taking the role of ABF architect in 1978 in the Moselle Department, Nadia Godar-Devinoy is also one of the first women who had this position.

Looking at Nadia Devinoy's career, the field of 'heritage' appeared to be one, in the twentieth century, where women could work as architects and build a career, taking administrative roles.

Carrying out her duties as an ABF paved the way for her to enter politics as it required her to develop diplomatic skills in her relationships with mayors, architects, ministries etc. This position also allowed her to become a public figure, someone famous. The fact that numerous press articles were published about her also gave her the opportunity to express her points of view, her commitment towards the city of Metz and her wishes to renovate this city.

Actually, in 1995, she became a politician and the deputy mayor of Metz, in charge of urbanism and housing policy. She carried out these functions between 1995 and 1999²² and also became the director of *The Agence d'urbanisme de l'Agglomération Messine* (the urban planning Agency of Metz Region).

The ABF role is one of the high-level positions women accessed since the 1970s in France; it remains to be seen if women were working in others less-valued positions related to heritage field, at the beginning of the twentieth century or even less before.

²² In 1999, she resigned: Jean-Marie Rausch and Nadia Devinoy were in conflict over one of Metz's big project, Sablon-Nord Project. She was against the project put forward by the Germans that had been selected by the mayor without any consideration for her advice, so she chose to step down.

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Eileen Gray's House E-1027: a Unique Design of Modern Movement Heritage

Prologue

An auction house. The price knocked down to the buyer stopped at 19.5 million euro.

The object sold for such an exorbitant price at Christie's in Paris in 2009 was a small brown leather armchair once owned by Yves Saint Laurent, the selling price making it the most expensive piece of twentieth century design ever auctioned. The unique piece, an armchair just 61 cm high, known as the *Dragons armchair* because of the ornate sculptures on its sweeping armrests, was created between 1917 and 1919 by the Irish designer Eileen Gray (1878–1976). Despite the global recession, frenzied bidding between the world's richest furniture collectors pushed the price to more than six times the estimate. The event, which was recorded, functions as the start of the movie *The Price of Desire*, a movie that delineates the controversial story of how Eileen Gray's influential contribution to twentieth century architecture and design was almost entirely wiped from history by the egotistical 'Father of Modernism' – Le Corbusier.

At the Christie's auction, which was held in the Grand Palais, the chair was bought by the Vallois Paris art gallery owners Robert and Cheska Vallois, who in the early 1970s after their first purchase of this very special piece of art, had sold the *Dragons armchair* to Yves Saint Laurent for a hefty, but undisclosed sum. Following Saint Laurent's death, the art collection he had amassed with his partner Pierre Bergé was auctioned, amongst the items for sale was Gray's *Dragons chair*, and amongst the bidders was Cheska Vallois. It was a much-wanted item, but just how wanted came as a surprise to everyone, when asked afterwards, Cheska Vallois answered quite simply about the price, that it had been 'The price of desire'.

The Early Start

It is noticeable that the movie opens with the re-enactment of the *Dragon armchair's* purchase, as the successful bidder of this astonishing sale, tries to explain the extravagant price tag to a throng of reporters.¹ The movie then flashes back through the highlights of Gray's life, told to the camera by Le Corbusier. As the story gradually unfolds, Gray's own, very different version emerges; how her relationship with Jean Badovici, who was Le Corbusier's promoter by way of his influential architectural publication *L'Architecture Vivante*, further fueled the rift between the two architects, both personally and professionally, consigning her legacy to a century of neglect and long-overdue recognition. The sale of the *Dragon armchair* made a culmination, a point of no return to Eileen Gray's legacy.

Eileen Gray's career started out slow; however, she was a cult figure all her life among those who knew her work. Her first client was the fashion designer Jacques Doucet, who dressed Sarah Bernhardt and was himself beloved by Proust.

Doucet wanted to get rid of his collection of eighteenth century art and furniture and make his apartment, and his life, more modern. Gray made him a large red lacquer screen called *Le Destin* (1914), decorated on one side with the shadowy figures of three men, and on the other with swooping silver and gold forms. The tones used, black ebony and silver on a red background are made according to Chinese techniques. This work is in the boundary of a more figurative production period (till 1914) and a period where appeared for the first time furniture and abstract themes that cover the years from 1914 till 1920.²

Soon designers, aristocrats and members of the beau monde placed their own orders with the Irish-born Gray. Each piece was unique, made by Gray herself. It did not hurt that she drove a roadster along the streets of Belle Epoque Paris, dressed in Poiret coats and hats by Lanvin, and with her lover, the nightclub singer Marie-Louise Damien, better known as Damia, sitting next to her, while Damia's pet panther rode in the back.³

The legendary hat designer Suzanne Talbot was among the first patrons to provide Eileen Gray with a genuine opportunity to design an entire interior, and it was she that acquired the *Dragons armchair* directly from the artist.⁴

1 Mary MacGuckian (dir.), *The Price of Desire* (Ireland; Belgium: EG Film Productions et al., 2015), Film.

2 Brigitte Loyer, *Eileen Gray: 1879–1976: Architecture, Design* (Paris: J. P. Viguier, 1984).

3 Deirdre McQuillan, "Eileen Gray, thoroughly modern maker," *The Irish Times*, November 29, 2014, <https://www.irishtimes.com/life-and-style/people/eileen-gray-thoroughly-modern-maker-1.2015801> (Accessed January 16, 2018); Jeanne Willette, "Eileen Gray, Designer of Art Deco, Part One," *Art history Unstuffed* (posted November 10, 2017), <http://arthistoryunstuffed.com/eileen-gray-designer-of-art-deco-part-one/> (Accessed 16 January 2018).

4 Philippe Garner, "Dragons Armchair," *The Yves Saint Laurent-Pierre Berge Collection: The Sale of the Century*, edited by Christiane de Nicolay-Mazery (Paris: Flammarion, 2009), 106.



Fig. 1. Eileen Gray's House E-1027 (photo Andrea Furlan, 2018). Courtesy by Association Cap Moderne.

Gray spent two years crafting the *Dragons chair*. A process where she hand-rubbed lacquer, layer after layer, letting it set each time in the humidity of her bathroom, then spent days polishing the chair. What emerged was as much a Symbolist sculpture as it was furniture.

Gray designed the exotic and symbolic creation for Talbot's apartment on rue de Lota that she completed in 1922. Such as it was deployed in this chair, the dragon –in Chinese culture, a figure of kindness and strength, as well as of protection and vigilance– alludes to a depiction widespread in Chinese art.

The enveloping, enfolding shape of the armchair, the curvilinear form of the seat, together with the padded upholstered back and the originally light-coloured fabric, might be seen as a transposition of this traditional motif and its evocation. The *Dragons armchair* stands as a masterpiece of the first phase of Eileen Gray's career, explains expert in Art Nouveau and Art Deco, Philippe Garner. It perfectly encapsulates the inventiveness, quality, and subtlety of her art.⁵

5 Garner, "Dragons Armchair," 107.

Eileen Gray and the Modern Movement

Gray's lacquer pieces are still the most prized of her works, regarded as luxurious objects, and, more to the point, there are very few of them. The pieces of furniture Gray made from around 1913 to 1922 is often categorised as Art Deco, but by the time of the 1925 Paris Exposition, which was the first grand showcase for Art Deco pieces, Gray had moved on, embracing the machine-age utopian vision of modernism.

For little more than a decade, from her first participation in the Paris Salon in 1913 until her shift in focus toward modernist architecture in the 1920s, Eileen Gray revealed a unique sensibility as she allied the painstaking craft in the demanding medium of lacquer with an ability to conjure novel and mysterious forms and motifs. This paper will focus on the late 1920s period where Gray became an architect, designing a house for another of her lovers, the Romanian architect Jean Badovici.

The house is Gray's finest work: a whitewashed concrete home called the *Séjour*, built into a cliff overlooking the Mediterranean, as a hideaway for herself and her lover (Fig. 1).

When Gray broke up with Jean Badovici and moved out of the house Badovici's friend and later neighbour Le Corbusier loved it so much, he 'destroyed' it –as far as Gray was concerned– by painting lewd murals on the walls during a visit. To the actions of Le Corbusier damaging the walls of *E-1027* Gray called 'an act of vandalism'. After years of neglect, the home has been restored and is now reopened as a museum. Le Corbusier's murals have been left intact. (Fig. 2)

During the construction of the house, Eileen remained in a little flat in Roquebrune for most of the time till the house was built. 'Eileen was in Roquebrune working on her new project, which took all her energy and enthusiasm. Very little else mattered to her now'.⁶

The work was terribly hard. As there was no road, all the material had to be brought on wheelbarrows to the site. Eileen remembered how lonely and tired she was at the end of each day. The only diversion was the daily swim in the crystal-clear water right underneath the house. There was no one to talk to, and she took most of her meals alone, sometimes sharing a sandwich with the workers who lived on the site.⁷

Dr. Lynne Walker, a British specialist in gender history corroborates that Gray not only lived on the site for *E-1027* but that she acted as builder and designer of all aspects of the architecture, including

6 Lynne Walker, "The Entry of Women into the Architectural Profession in England," *The Education of the Architect*, edited by N. Bingham (London: Society of Architectural Historians, 1993), 181.

7 Peter Adam, *Eileen Gray: Architect/Designer: A Biography* (London: Thames and Hudson, 1987), 191.



Fig. 2. One of Le Corbusier's murals in the House E-1027 (photo Andrea Furlan, 2018). Courtesy by Association Cap Moderne.

the furnishings and fittings.⁸ A fact, Walker argues, is a similar practice to the Arts and Crafts ideal.⁹

Both –the movement and Gray– shared a commitment to craftsmanship and careful construction, as well as the practice of working closely with artisans. It is, we find, significant that the Arts and Crafts Movement aimed to break down the hierarchy of the arts that favoured painting, sculpture and architecture over the applied arts and thus encouraged the collaboration of artists, designers and architects, which Gray explored throughout her career.

Arts and Crafts approaches, continues Walker, encouraged the crossing of artistic and professional boundaries with architects designing for the applied arts and sculptors and painters applying their work to architecture. Gray's move from painting to craft and from design to architecture was undoubtedly facilitated by these exact ideas, which is something that needs to be considered in this context.¹⁰

Moreover, Gray's architectural activities both challenged and helped break down the repressive mechanism of the sexual division of labour, that was limiting women's design activities to areas associated with the applied or so-called lesser arts. Around 1900, gender not only circumscribed the choice of the professional activities available to women but also determined access architectural education. Had Eileen Gray stayed to study architecture at the University of London after her training at the Slade, she would have been offered only a short, non-professional course, which was all that

8 Lynne Walker, "Architecture and reputation: Eileen Gray, gender and Modernism," *Women's Places: Architecture and Design 1860–1960*, edited by Brenda Martin and Penny Sparke (London: Routledge, 2003).

9 Walker, "Architecture and reputation."

10 Walker, "Architecture and reputation," 98.

was open to women at the Bartlett School of Architecture at that time.¹¹ The other school which would have undoubtedly been considered by her, The Architectural Association, had turned away women applicants in 1893 and did not take women until 1917.¹²

However, Gray's professional and feminine enhancement of modern architecture and interiors are very clearly acknowledged by Badovici who wrote:

Eileen Gray occupies the centre of modern movement... She knows that our time, with its new possibilities of living, necessitates new ways of feeling. The formidable influence of technology has transformed our sensibilities. All her work reflects a lyrical force, an enthusiasm, and the strength of feeling of this new civilization and spirit... The beauty of her work ...is derived from an original and lyrical élan which gives her objects their profound unity... This systematic unity... gives all her designs a unique, architectonic significance. Furniture, wall hangings, the general mood seem to be like the components of a soul, the soul of its inhabitant, whose outside form corresponds to its inner rhythm.¹³

Beyond the fact that Badovici supported the plan of building up the house *E-1027* and collaborated with technical knowledge, he, as an architecture critic and editor of the periodical *Architecture Vivante*, was able to catch the vivid creativity of Gray as representative of the spirit of *Gesamtkunstwerk*. Gray chose the site, defined the volume, and designed the furniture creating a meaningful modern place to live.

Eileen Gray a Designer Working with Architecture

It is a fact that in *E-1027* house, she used the most recent innovations of modern architecture, incorporating elements from Loos' anti-ornamentalism, the Bauhaus functionalism, and most obviously, Le Corbusier's not yet widely published five points for new architecture. However, she interpreted through a personal way the rigid principles of *L'Esprit Nouveau*, and therefore brought into the functionalism, that she accepted, the idea of modern dwelling with comfort and flexibility to integrate the gestures that express daily life' vicissitudes. With a peculiar sense of detail, she considers the importance of a balanced body and mind and its functions while occupying a place that should be a home.

11 Walker, "The Entry of Women," 39–46.

12 Walker, "Architecture and reputation," 98.

13 Philippe Garner, *Eileen Gray: Design and Architecture* (Cologne: Benedikt Taschen Verlag, 1993), 28.

Gray stated that 'a home is not a machine to live in' in response to Le Corbusier's often quoted line about a house being a *machine à habiter*. Eileen engaged herself in designing an alternative to the modern (gender) architecture.

She pondered for long hours about 'sitting, relaxing, reading, eating, conversing, entertaining, washing, dressing and sleeping – and devised novel solutions in furniture and fittings which exploited compactness, versatility, respect for function, practicality, and what might in a later jargon be called user-friendliness'.¹⁴ Disregarding the urban concerns that informed Le Corbusier's early Purist villas, Gray generated her domestic architecture from within the private domain of the dwelling. Eileen writes about her conception of inhabiting as a very organic context and 'each of the inhabitants could, if need be, find total independence and an atmosphere of solitude and concentration'.¹⁵

She conceived the house from the interior outward, from a reconsideration of the modern individual's need for an interior life and a place of retreat, a direction seemingly at odds with Modern-Movement predilections for transparency and spatial continuity. 'The interior plan should not be the incidental result of the facade', she argued in reaction to certain of Le Corbusier's built works. 'It should live a complete, harmonious and logical life'. She sought a more integrated conception, an interior that 'as in Gothic times [was] a homogenous whole built for man to the human scale and balanced in all its parts'.¹⁶

It is important to notice that the independent Gray, felt that each room should remain independent of the others. Therefore, a home should provide the possibility of being independent and free. The inhabitants 'must have the impression of being alone, and if desired, entirely alone'.¹⁷

The quote from Baudelaire on the living room wall 'Invitation au Voyage' invites the visitor into a space that would have been by then familiar, where one would have expected an open floor-plan furnished sparsely with aluminium and chrome in the camping style, a boudoir for the lady of the house, a study for the man and an overall arrangement that encouraged maximum action and productivity. One would not have expected a space as an invitation to luxuriate, not have expected soft wool multi-layered rugs, an extendable divan piled with cushions and fur blankets, below a nautical map stencilled with the quote from Baudelaire to form the centrepiece of the main room.

One would not have expected the elimination of gendered spaces, an architecture designed for the prone, lounging body with divans in every room equipped with trays for holding drinks and cigarettes, lights for reading and writing and electrical outlets for hot water. One would never have expected an architecture of such intimacy and sensuality, an architecture incorporating so much of the decadence

14 Garner, *Eileen Gray*, 30.

15 Adam, *Eileen Gray*, 198.

16 Eileen Gray and Jean Badovici, "Description [of E.1027]," *L'Architecture Vivante* 3 (1929), 25, 28.

17 Caroline Constant, *Eileen Gray* (London: Phaidon Press Limited, 2000), 95.

that it would have looked –from the outside– to have rejected the whole modernist manifest.

Concerning the gender question, some researchers suggest that Gray mixed elements of the sensual, feminised boudoir with the austere, masculinised studio to produce gender-free living and working spaces. In this design process she was deliberating creating flexible designs and systems of tables, beds and lighting that could be combined in different ways and had multiple purposes in spaces geared towards study and work not associated with either sex; thereby destabilising the traditional separations of home/work, of female/male.¹⁸

A Design Integrating Furniture and Architecture

Gray's integration of furniture and architecture facilitated multiple uses in each space. She conceived the living room opening onto a narrow balcony as a loggia, equipped with screen-like vertical windows capable of opening fully to admit sunlight and view. A partition, incorporating shelves, coatrack, and umbrella stand, blocks the space from view upon entry; a sleeping alcove and adjoining shower/dressing area in the far corner of the room, and a dining alcove near the stair contribute to the room's plurality of use, evoking the spirit of her Boudoir de Monte Carlo.¹⁹

The film, *The Price of Desire*, by the Irish film director Mary McGuckian, provides an architectural poetic scene showing Gray imagining the rooms, the view and even the living in the *E-1027* when in a scene opening doors to the imaginary view and gaining control over the emptiness of a non-existing building. At the end of the scene, she dances with Badovici, emphasising the at that time romantic relation they had.²⁰

The strategy in Gray's Mediterranean work of orienting bedrooms to the east, living rooms to the south and west, and service areas to the north reflects a negotiation of both the *Zeilenbau*²¹ approach of designing for morning sunlight in bedrooms and afternoon sunlight in living areas, and Adolf Behne's counter-idea that service areas should be located to the north and living areas to the south.²²



Fig. 3. Eileen Gray's House E-1027 interior (photo Andrea Furlan, 2018). Courtesy by Association Cap Moderne.

In the film *Eileen Gray: Her Life and her Work*, the filmmaker and author Peter Adam's claims that Eileen Gray calculated 'the precise passage of the sun'. Gray did pick up a more or less southern orientation; she shifted the building away from its terraced site.²³

Jean-Paul Rayon suggested that 'she opted for a superior cosmological order; the trajectory of the sun. The north-south axis appears as the diagonal of a pair of rectangular co-ordinates in the horizontal plane'.²⁴

Gray's Interiors

Architectural writer and critic Caroline Constant accentuates that combining sensuousness with practicality Gray attached back-rests of ribbed satin padding to the adjoining walls, and a folding

18 Constant, *Eileen Gray*, 52; Bridget Elliott, "Housing the work: Women artists, modernism and the *maison d'artiste*: Eileen Gray, Romaine Brooks and Gluck," *Women Artists and the Decorative Arts (1880–1935): The Gender of Ornament*, edited by Bridget Elliott and Janice Helland (Aldershot: Ashgate Publishing Limited, 2002), 181–182; Susan Hoyal, "Gray, Eileen," *Encyclopedia of Interior Design*, Vol. 1–2, edited by Joanna Banham (London: Routledge, 1997).

19 MacGuckian, *The Price of Desire*, 00:26:40–00:29:01.

20 Here 'Zeilenbau' is used as a pejorative term to describe any organisation of minimalist housing slabs arranged in parallel, open-ended rows; also applied to a single minimalist east/west slab with blank ends and minimal detail.

21 Paul Overy, *Light, Air and Openness: Modern Architecture between the Wars* (London: Thames & Hudson, 2008), 121.

22 Adam, *Eileen Gray*.

23 J. P. Rayon, "Eileen Gray: The North Star and the South Star," *9H*, 8 (1989), 170.

24 Constant, *Eileen Gray*, 105.



Fig. 4 and 5. Eileen Gray's House E-1027 interiors (photo Andrea Furlan, 2018). Courtesy by Association Cap Moderne.

end table, light fixture, and electric switches to her collage. Gray extended multiple purposes to the private enclave of studio/bedroom, where she differentiated areas for working, sleeping, and dressing, and modified floor-tile colours and ceiling heights to enhance such distinctions of use.²⁵

In contrast to the bright and open workspace overlooking the sea, where she suspended a reflective ceiling fixture capable of drawing additional daylight into the interior, she created a more protective domain for sleeping by articulating the furnishings as extensions of the walls: a headboard that incorporates storage compartments, reading lights, a clock electrical switches, and an extending table top; closet and clothes cupboards that line the side walls; a shallow aluminium storage cabinet that projects from the wall to form a dressing alcove.

To convey her intentions, underlines Constant, Gray adopted a drawing technique prevalent in eighteenth-century English representations of domestic interiors. She represented each room as four sectional elevations 'folded out' from the plan. Architects associated with de Stijl revived this

type of axonometric projection, known as the 'American method', as part of their renewed emphasis on domestic interiors.²⁸ It is a drawing technique that articulates the principle of a total concept of design wherein wall and window, furnishings, and floor and carpeting contribute equally to the creation of a complete and private milieu. Because this type of drawing tends to isolate a single volume from the spatial sequence, Gray used it to emphasise the functional multiplicity associated with the modern spatial concept; each room takes on attributes of a broader living environment.

Epilogue

Gray's design of *E-1027*, relying upon the refuse of modernity as a male-hero-focused narrative, called the attention of modernists and became an icon of modernist architecture's personal interpretation. The architecture of *E-1027* transcends the neutrality of geometrically determined and physically defined structure and enclosure to become a site of lived life, where cultural processes, gender transactions, and modus of sexual desire are continually enacted. The villa was designed to shelter the individual, alone or socialising, the landscape, and the multi-functionality of a home as an invitation to experience the space of living in an organic and slowly mood.

Today the house and the ideals persecuted by Gray are restored symbolically with the recent reopening of *E-1027* surviving, then, all the mishaps and oblivion. Gray's professional and feminine enhancement of modern architecture and interiors are a paramount legacy that deserves more discussion and acknowledgement.

25 Ibid.

Chapter C

Women in Communication and Professional Networks

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Women in Communication and Professional Networks in Europe

Henrietta May Steinmesch, Helen Milius, Angela Burdeau and Jane Pelton were four North American architects who contributed to a change in the understanding of such a masculinised profession as architecture. These students, tired of being rejected by masculine architectural associations, decided to found their own. So, *La Confrerie Alongine* was born. This group achieved such success that in 1922 it finally became a national students' association with the name Alpha Alpha Gamma. After all, in 1934 it would become known as 'The Association of Women in Architecture and Allied Arts (AWA)', with its founders converted into professionals who aspired to bringing together all women associated with architecture, landscaping, interior design and engineering. Currently known as the Association for Women in Architecture + Design, they continue to maintain the original essence and to struggle for fairer and more equal working conditions for women, not only in the area of architecture but also in graphic and product design, in construction etc., in those professions with a largely masculine profile.¹

Awareness of professional discrimination in the workplace suffered by those North American architects was the starting point for a general tendency in all geographical areas: to combat the social and professional invisibility of women architects, designers and civil engineers throughout history through the formation of associations. As in so many other aspects of gender-related achievements, the creation of networks of solidarity and mutual strengthening, have been and remain an adequate vehicle to eliminate gender inequality in a world traditionally led by men and to promote the social recognition of their work. As has already been pointed out in other studies, in the case of Europe it is logical that the first such professional associations were born in those

¹ "About," Association for Women in Architecture + Design, <http://awaplusd.org/> (accessed February 15, 2018).

countries with an early incorporation of women into design, such as in Finland or Italy,² although it is true that each nation has gradually set up their own associations with identical objectives. Each national initiative has worked with the same implements: annual awards, the professional recognition of pioneers in each country (who have been omitted from official history), acts of pressure to demand equality on judging panels, activism in the media and, more recently, in social networks, and, above all, the creation of female space in a world where the 'masculine' has been the paradigm for centuries.

Women's Professional Networks. Some Examples of Associations in Europe

The first attempt to create a female association in the area of engineering in Europe came from Maria Artini,³ one of the first women to be awarded the degree of Industrial Engineer in Milan in 1948. As an engineering executive for the Edison Society in the same city, she came up with the idea for an association for those with identical professional interests, but, after her death, this initiative was cut short. Some years later, in 1957, a national association was founded in Italy for professionals in the engineering and architecture sectors, with the aim of defending their rights. *AIDIA- Associazione Italiana Donne Ingegneri e Architetti* was founded by the engineers Emma Strada, Anna E. Armour, Ines Del Tetto Noto, Adele Racheli Domenighetti, Laura Lange, Alessandra Bonfanti Vietti and by the architect Vittoria Ilardi. Their aims were centred on promoting and creating a network for visibility and the work of the women engineers and architects on both a national and international level. AIDIA struggled for an improvement in working conditions for women in this sector, and it promotes reciprocal help among professionals, which completely moves away from the competition and rivalry so frequently found in this area of work.⁴ In 1957 the first National Convention was organized with the title *Affirmations and Possibilities of Women in Technological Areas*, and had the support of Emma Strada, the first woman to be awarded a Degree in Engineering in Turin. In the year 1958, Anna E. Amour presented the third National Convention with a monographic exhibition about *The House*. AIDIA not only organized the congresses which acted as a meeting point for professional

concerns about certain issues, but also encouraged international participation in developing an inter-professional and cultural network. Thus, in 1971 the third International Conference took place in Turin and was attended by 240 women graduates from some 35 different countries to discuss current issues in professional work such as *Planning for Progress* or *The Professional and Family Obligations of Women*.

Currently, AIDIA has a web page from which they continue to promote the visibility of the work of women engineers and architects. Thanks to this web page, it is possible to get first hand information about its events, as well as to access information regarding projects that have been carried out. These are categorized into three areas: sustainability, good practice and innovation. It also gives information, in the section on resources, about job opportunities, legislation and regulations, publications, websites of interest within the areas of engineering and architecture, etc. Furthermore, they have two broadcasting channels on YouTube and Facebook,⁵ networks with great power of dissemination. Lastly, it must also be added that AIDIA has formed part of a catalogue of patronage of the European project MoMoWo-Women's creativity since the Modern Movement.

In 1942, during the Second World War, a group of women architects got together with the aim of creating an association which would support both individual and collective work in this professional sector in Finland. Thus, *Architecta* was born, which would be the first female association specifically focussed on architecture in Europe. The location was not due to chance because Finland was one of the pioneering countries in promoting and defending gender equality in professions like engineering or architecture, given that in the XIX century the first woman architect, Signe Hornborg (1862–1916) had graduated there⁶. At the beginning of the century, the architect Wivi Lönn (1872–1966) was the first to become established as an independent professional and to have her own studio from which she worked, especially on school architecture. From the beginning *Architecta* wanted to explore means of reconciling family and professional life, it was not considered fair that, in order to achieve certain professional recognition, it was necessary to sacrifice personal life. Furthermore, in order to carry out the distribution of information, they organized trips and excursions, conferences and also exhibitions all with relation to the professional work of these women,⁷ with a significance which is difficult to quantify but which is thought to be of great importance for those pioneers who served as a model for new generations of young Finnish women.

2 Ana María Fernández García, "On Women Architects: Looking for a Room of One's Own: On the visibility of Professional Women and Associationism in Europe," in *MoMoWo - 100 works in 100 years. European Women in Architecture and Design 1918-2018*, edited by Ana María Fernández García, Caterina Franchini, Emilia Garda and Helena Seražin (Ljubljana-Turin: Založba ZRC SAZU, 2016), 16–19.

3 Lucía Krasovec Lucas, AIDIA: 60 anni di buone pratiche," *EUDONNA* vol. 2 (2017), 36–39, <http://www.aidia-italia.it/documenti/EUDONNA-201702.pdf> (accessed March 11, 2018).

4 "About us," A.I.D.I.A. Associazione Italiana Donne Ingegneri e Architetti, <http://www.aidia-italia.it/index.php/en/home/about-us> (accessed March 11, 2018).

5 "AIDIA," Facebook, <https://www.facebook.com/aidia.ita/?fref=mentions> (accessed February 11, 2018).

6 Luis Fernando González Escobar, "Las mujeres en la arquitectura: De fabricatrix a arquitecta," *Revista Universidad de Antioquia*, no. 330 (October-December 2017), 116–122, <https://aprendeenlinea.udea.edu.co/revistas/index.php/revistaudea/article/view/330502/20786831> (accessed February 11, 2018).

7 Pirkko-Liisa Schulman, "The changing careers of women architects," *Arkkitehti-Finnish Architectural Review* 2 (2017), <http://www.ark.fi/en/digital-issue-archive/3099-schools-174138-02052017> (accessed February 25, 2018).

In 1960 an initiative began with regard to Romanian architecture in Paris, Solange d'Herbez de La Tour la *UFFA-Unión de Mujeres Arquitecta*. The motive for this initiative was the prohibition of women as members of the International Architects Association.⁸ The objectives of the association are the promotion of the work of architects, the establishing of professional relations, the compilation of experiences and projects, and to achieve a human support network without cultural, racial, political or religious discrimination.⁹ From its beginnings it was established as an international institution, with a representation of more than 90 countries and as a window for the dissemination of feminine design through the organization of International Congresses in the principal world capitals. Since the first congress celebrated in Paris in the same year in which the association was founded, with the theme *Women in Architecture around the World and the Requirements of the Modern City as Conceived by Women*, the professional work of these women has been shown in cities like Tokyo, Bucharest, Berlin, Seattle, Seoul, Vienna etc., and has involved the participation of such well-known women as Anne Tyng, Jane Drew, Denisse Scott Brown o Anna Bofill, among others.¹⁰ In these congresses, which are celebrated every three years, a huge intellectual production based on reflections from the all sessions has been generated in the form of minutes and different publications which are kept in the Archives of the special collection of the Virginia Polytechnic Institute and State University,¹¹ and which today has become the most important centre for documentation of the history of women in architecture and design.

Other important European associations are the Belgian UFVAB-Belgium's Union of Women Architects with its headquarters in the city of Brussels and which has been recognized by the National Order of Architects of Brussels,¹² as well as the Belgian WWIRE, World Women in Real Estate, created in 2012 by Janicka Bassi, the first woman to occupy the position of director of the international market of real estate investment capital in France. WWIRE aims to give visibility to those women who work in the real estate sector and has created its own job pool. Furthermore, workshops and conferences are organized which put professionals from the sector in contact, thus promoting the exchange of knowledge and abilities in order to assure the success of this professional career.¹³ In Portugal the association *Muheres na Architectura* was founded in 2017 by a group of women architects: Ana

8 "Solange d'Herbez de La Tour," Who's Who in France, https://www.whoswho.fr/bio/solange-d-herbez-de-la-tour_5056 (accessed February 11, 2018).

9 "About," UIFA-Union des Femmes Architectes, <http://www.uifa2015.com/about-1/> (accessed February 11, 2018).

10 Eva Alvarez, "Women in architecture: 1975, 2015," (PhD Thesis, Polytechnic University of Valencia, 2016), <http://hdl.handle.net/10251/63278> (doi:10.4995/Thesis/10251/63278).

11 "International Union of Women Architects (UIFA) conference materials, 1981–2007," Virginia Tech, <http://ead.lib.virginia.edu/vivaxtf/view?docId=vt/viblv00055.xml> (accessed February 11, 2018).

12 "Association," Amazone, <http://db.amazone.be/association/1003097> (accessed February 11, 2018).

13 "Home," World Women in Real Estate, <https://www.wwire.eu/en/> (accessed March 16, 2018).

Catarino, Ana Jara, Joana Braga, Joana Pestana Lages, Lia Antunes, Luísa Paiva, Patrícia Santos Pedrosa, Rita Ochôa and Sofia Castelo. They are convinced that the invisibility of women architects is still a latent problem in the XXI century and they sustain that, although Portuguese architecture faculties have achieved an increase in the presence of women in the classrooms, they have still not gained complete equality in the large studios monopolized by their male colleagues. They promote their activities, seminars, conferences etc., through social networks.¹⁴

In 1984 a group of women architects, designers and urban planners who worked for the Greater London Council decided to create a feminist association from which to work and promote the interests of women professionals in these areas of work. Thus the Women's Design Service came into being, whose interests were in promoting the visibility of projects done by women architects, urban planners and designers, silenced by a system that they consider patriarchal. One of the most original activities of this association is the creation of interior and exterior environments suitable for women and the adaptation of spaces for different necessities that they may have at different times of their lives. In this way, they analysed childcare centres, schools, houses, parks, footpaths etc. All of these analyses arose from the work carried out in different women's communities and from listening to the types of necessities and problems that they found, not only in their own homes but also in the city. Among those projects which must be highlighted, all of them of a multi-disciplinary character, are *Women's Needs: Toilet Talk*, whose mission is no other than to discern whether public toilet facilities are adequate to the needs of women, a study that includes everything from locks to toilet doors to latrines; *Making Safer Places* where different cities have been studied for three years to see how safe they are for women, or the project *Disability and Regeneration* in which the need of women with disabilities and their role in society in analysed.¹⁵ The work carried out by WDS was financed with public money, but in the year 2012, due to a lack of funds, their activity ceased.¹⁶

AWISE-Cambridge Association for Women in Science and Engineering is a job network with headquarters in the English city of Cambridge. It includes professional women from the sciences, medicine and all other technological specializations. AWISE was founded by Joan Mason (1923–2004) and by Anne MacLaren (1927–2007) in 1994 and, since then, the number of members has increased surprisingly. The origin of this association is in this year's report entitled *The Rise Tide* where the situation of women in science and engineering is made evident. In this document, financed by the British government, the scarce female presence in certain studios is shown statistically and, also, it shows a worrying dropout rate of young female students from technological specializations.

14 "Mulheres na arquitetura," Facebook, <https://es-es.facebook.com/mulheresnaarquitectura/> (accessed March 16, 2018).

15 "Current projects," WDS, https://www.wds.org.uk/projects_current.html (accessed February 25, 2018).

16 WDS, "Women's Design."

Apart from organizing talks in schools in order to get more students into scientific and technological degree courses, it maintains active accounts in Facebook and Twitter to reach a young public¹⁷ and to continue promoting gender studies which are available in a special section of their web page.¹⁸

Another Association with certain impact in Europe is the NAWIC National Association of Women in Construction, which was set up in 1953 in Texas, USA, starting with a small working group known as Women in Construction of Forth Worth. These women who were working in the area of construction wanted to create a platform for mutual support to improve professional development and work opportunities of its members. Over the years this association has become a strong organization with branches in the USA, Australia, New Zealand, South Africa, the UK and Ireland.¹⁹ Each year prizes are awarded for outstanding careers and also to young professionals for exceptional work. Annually an international conference is held, and they offer their own specialized courses as well as scholarships. This association has written a professional code with contents covering all areas of construction work (companies, institutions, studios etc.). In 2017, motivated by the sexual scandals appearing in the media in the USA, they have published a statement condemning any type of sexual harassment.

Femme+SIA- Réseau Femme et SIA de la Société Suisse des Ingénieurs et des Architectes is a network of groups of women workers within the Swiss association SIA. It was created in 2005 and its founding president was Maya Karácsony. Initially it was set up as an autonomous organization of the Swiss society of Engineers, but its organizers wanted to function independently without totally dissociating themselves from the SIA. This was finally achieved in 2014 with the attainment of the network *Femme and SIA*, which works in national territory through small regional groups. Among its activities can be highlighted the organization of different events such as talks in primary and secondary schools in order to transmit information about the work of the association, publications and cooperation with other institutions and organisms.

The vitality of women's associationism has favoured the production in recent years of greater visibility of these women. The following pages of this book will contain a monographic analysis of other women's associations such as the *Beroepsvereniging van Nederlandse Interieurarchitecten* (Association of Dutch Interior Architects) o BNI, la *Associazione Donne Architetto-ADA*. All have contributed in their setting and with their resources to an improvement in the profession and to publicizing the work of thousands of professional European women.

17 "AWISE," Cambridge Association for women in science and engineering, <https://camawise.org.uk/> (accessed February 25, 2018).

18 "Relevant Reports and articles," Cambridge Association for Women in Science and Engineering, <https://camawise.org.uk/resources/relevant-reports-and-articles/> (accessed February 25, 2018).

19 "NAWIC," National Association of Women in Construction, <https://www.nawic.co.uk/> (accessed March 5, 2018).

Strategies for the Dissemination of the Professional Work of Women

One of the main problems experienced by the majority of women professionals who work in these sectors is the lack of visibility of their work, because both in the media as well as in the politics of official awards, masculine hegemony is unquestionable. In this sense, internet services like Blogger, launched in 2004, or WordPress, operating since 2005, which allow easy opening of web pages, and, above all, as from 2008 the connectivity of the social network Facebook, have made it possible for professionals of this sector, and many other women, to be able to use these tools in order to make their professional work known.²⁰ Apart from the individual work done in their studios, platforms have been created to disseminate the biographies of pioneering women, of current professionals and of inter-disciplinary working collectives. One very interesting example is *La mujer construye*²¹ (LMC), a logbook which uses Google's Blogger platform to give a voice to all those women architects who have remained in the shadow of male architects, or who have been silenced by history. The first comment on this blog in 2011 affirmed:

La Mujer Construye is a sharing of words and views, a mirror of other views, is ears which listen and try to give form to the many desires to inhabit, and a heart which feels and beats in time with the necessities of those who cannot and do not wish to escape.²²

This blog is only the tip of the iceberg, the method of dissemination of the association *La Mujer Construye*. The idea of creating an association was born in 1995 during a course financed by the European Union, NOW-New Opportunities for Women, in which a number of women architects coincided and decided to set up a collective to promote not only their work but also their professional projection. Its basic pillars are research, dissemination and the development of new proposals both in the areas of architecture and urban planning, making use of all those tools that internet offers freely. The nature of the association, that is to say, the virtual network in which they move, aims to be a platform for all those women architects who wish to promote their work. Among the highlighted objectives of *La Mujer Construye* is their theoretical and reflective work from which they attempt to analyse the attitudes and contributions of women to the world of architecture and construction. They also disseminate projects from professionals through both physical and virtual exhibitions. Another of their objectives is the dissemination of those competitions and projects that may be of interest to women architects and in which they can participate. With regard to the activities carried out by this association, it must be mentioned that they do important work in the collection of

20 "Ziff Davis, Definition of: blog network," PC World, www.pcmag.com/encyclopedia/term/56587/blog-network (accessed March 12, 2018).

21 "Home," *La mujer construye*, inicio, <http://lamujerconstruye.blogspot.com.es/> (accessed March 12, 2018).

22 "¿Qué es La Mujer Construye?" *La mujer construye*, <http://lamujerconstruye.blogspot.com.es/> (accessed March 10, 2018).

architectonic work which has been done in Spain by women architects, through archives of plans, reports, photographs and even the valuable reflections of their authors, who, without a doubt, lead us to a better understanding of their work. This association also sets up annual meetings in which the main topic is architecture. Monographic works are also distributed and a bulletin is published each term in which all the activities and results of *La Mujer Construye*²³ are brought together. But, Who is behind the association? The architect Cristina García-Rosales González-Fierro has been the co-founder and president of *La Mujer Construye* since the year 1997. Cristina is very aware that 'architecture is masculinised in Spain, where patterns are still followed which are not in keeping with issues which worry women architects and that should worry society in general, like those of work-life balance, motherhood and the salary gap'.²⁴

Another Spanish platform is *Un día | una arquitecta*, in Wordpress, which is more than just a blog. The platform facilitates the buying of tickets, similar to a web page. The unique aspects of this web will be analysed in some detail in another section of this book, but it should be pointed out here that its campaigns for collecting signatures, such as the so-called 30%, which aims to achieve that public institutions do not support events where there is not at least a 30% participation of women architects.²⁵

In 2008, as an initiative of the French association ARVHA (*Association par la Recherche sur la Ville et l'Habitat*), el *Encuentro de Mujeres Arquitectas del Espacio Mediterráneo* (Meeting of Women Architects in the Mediterranean Area) was held in Paris. This geographical space covers different gender problems, for example in the north of Africa the life of professional women has been considerably more complicated than for those in Europe, as well as issues related to visibility in the profession, gender relations and space, within the generalized paradigm of the masculine city. The debate was the culmination of a project financed by the Foundation Anna Lindh of the European Commission and the *Conseil Régional d'Île de France*, which had also taken other actions such as setting up a web site (*femmes-architect-euromed.org*), and exhibition and a series of conferences in France, Belgium, Morocco and Algiers.

Since its foundation in 1993 ARVHA has carried out associative work with three main ideas: urban renovation, access and equality of opportunities for women. So from 1997 to 2000 they led the program *Now*, which, with European finance, articulated a program of exchange of experiences

among Italian women architects from Florence and Siena, Irish and French women architects on the rehabilitation of monuments and reflections on the urban habitat.²⁶ In May of 2013 an award was launched with the support of the French ministries for Culture and Women's Rights, as well as the Order of Architects of this country. Annually three awards are given in three categories: an award for the best professional career, an award for the best original work and an award for a woman architect under 40 years of age. Since 2017 a new award has been incorporated for the best foreign woman architect. Awards have been given for the careers of Odile Decq (2013), Manuelle Gautrand (2014), Corinne Vezzoni (2015), Véronique Joffre (2016) and Sophie Berthelie (2017). In that same year the Spanish architect Carme Pinós was awarded first prize as a foreign professional. They wish to make known the work of well-known women architects and also young women designers, so that they may serve as a model and inspiration in a profession with 'dominant masculine strength'.²⁷ Their web page also contains video interviews with participants as a documental archive for the future. In these dialogues, apart from questions related to work, they also ask about opinions on their feminine role in architecture, about possible discrimination at work and about recommendations for young women professionals. Furthermore, each participant has a personal file with biographical data, contact information and a list of projects, explained and illustrated in detail. This database that is enriched with each edition can be searched by professionals and also, according to projects by type, place, name etc.

The British version of the French prizes ARVHA is the Jane Drew Prize, created in 1988 and currently patronized by the magazines *The Architects Journal* and *The Architectural Review* to recognize innovation, diversity and diversity in architecture. Its origins are in a series of debates which took place a year before at the request of a group of women architects from the Royal Institute of British Architects (RIBA) and the Arts Council of England. A prize was awarded in tribute to the architect Jane Drew (1911–1996), author of important projects all over the world and the first woman professor in Harvard University and in MIT. In the 1998 edition, the prize was awarded to the North American landscape architect Kathryn Gustafson, and since 2012 prizes have been awarded to Zaha Hadid, Eva Jiřičná, Kathryn Findlay, Grafton Architects, Odile Decq, Denise Scott Brown and in 2018 to Amanda Levete.

Throughout Europe in the last decade of the XXI century a number of university initiatives have taken place which aim to make known certain professionals, traditionally considered as masculine among young pre-university students. In the majority of countries of the continent, these initiatives are linked with scientific and technological courses and they have a variety of formats. In some

23 LMC, "La Mujer Construye."

24 "La mujer muy presente en la arquitectura aunque sin el reconocimiento necesario," *Mujer Emprendedora*, <http://www.mujeremprendedora.net/la-mujer-muy-presente-en-la-arquitectura-aunque-sin-el-reconocimiento-necesario/> (accessed March 11, 2018).

25 "Compromiso 30%," *Un día | Una arquitecta*, <https://undiaunaarquitecta.wordpress.com/compromiso-30/> (accessed March 10, 2018).

26 "Home," *Arvha hesite*, <http://www.arvha.asso.fr/> (accessed March 2, 2018).

27 "Présentation," *Femmes Architectes*, <http://www.femmes-archi.org/> (accessed March 4, 2018).

cases, such as the Portuguese University of Oporto,²⁸ professional talks are offered which can serve as an example to new generations and events are organized unilaterally, while on the majority of occasions an institutionalized and general model is followed. So, in the area of engineering, *International Women in Engineering Day*, by petition of the Women's Engineering Society, has been celebrated each 23rd June since 2014 with competitions and activities in different cities and universities in the United Kingdom.²⁹ On other occasions awareness campaigns are centred on *International Women's Day* and *Girls in Science*, which has been an initiative of the United Nations since 2012. It is celebrated all over the world on 11 February as a global proposal for improvement in science and gender equality, Sustainable Development Goals included in the United Nations 2030 Agenda.³⁰ Within the Framework Programme (F7) of the European Union, the project Trigger (Transforming Institutions by Gendering contents and Gaining Equality in Research) has been financed for four years (2014–2017). This project aims to be converted into a pilot project and model for all European scientific-technological institutions, in order to incorporate a gender perspective into academic content and into research and to promote women's careers. The objective of this ambitious project, led by the *Universidad Politécnica de Madrid*, is to achieve a change in European scientific-technological culture. It is centred on women architects, urban planners and engineers, with the slogan 'Women invent, women innovate, women construct'.³¹

One action that has had large media repercussion has been the documentary, also conceived as an installation video, *Arquitectas* (Women Architects), made by the architect and Argentine-Spanish, cultural adviser, Ariadna Cantis Silberstein. During the shooting a few concepts are put forward (maternity, role, bias, training, recognition, experimentation, replacement, cutting edge, time and establishment, which are reflected on by ten women architects who belong to different generations and who work in different professional areas: Izaskun Chinchilla, Blanca Lleó, Almudena de Benito, Eva Gil, Liliana Obal, María Buey, Isabel Sánchez, Carmen Espegel, Carolina González Vivesnes and Inés Sánchez de Madariaga. During the video they put forward different reflections on the female condition in architecture based on a variety of personal experiences.

One of the lines of action which has been developed in recent years to increase the visibility of

European women architects has been that of the recuperation of historical memory with regard to the authorship of designers that, at the time, and for different reasons, were silenced, made invisible and even deprived of their authorship. A clear example has been the initiative of the Cassina Company in 2013 when they edited a new model of chaise longue LC4, designed by Le Corbusier, Charlotte Perriand y Pierre Jeanneret, and whose initials referred only to the work of Le Corbusier. In the latest edition, limited to one thousand copies, it has been commercialised with the name LC4 CP as a tribute to the French designer who came up with this tilting piece of furniture which has become an icon of XX century design. With the collaboration of Louis Vuitton for the leather chair, the amends made to the famous French designer included an exhibition in the *Design Miami/ Art Basel Miami Beach* 2013.³² There, as well as the reinterpretation of the 'relaxing machine', a collection of photographs were on display which showed Perriand's passion for architecture, travel and nature. Something similar occurred with the Chaise Longue ND-07 of the Danish designer Nanna Ditzel (1923–2005). This piece was exhibited in 1951 for the 25th anniversary of the *Copenhagen Cabinetmaker's Guild Exhibition*, but it never really became commercial until 2007, when, with the motive of a retrospective exhibition of the designer in Japan, the Kitani Company made a limited production.³³ In 2014 the design firm Barcelona Après Ski chose a creation by the French designer Nathalie du Pasquier to represent the colourist style of the Grupo Memphis (Memphis Group).

The exhibitions that recapitulate and show the past and present activity of women in European design have shown themselves to be excellent ways of dissemination of projects and biographies. As well as the itinerant exhibition that the European project MoMoWo has organized throughout a number of European cities since 2016 under the title of *MoMoWo - 100 Works in 100 Years: European Women in Architecture and Design (1918–2018)*, there were other exhibition highlights. In 2017 the *Deutsches Architekturmuseum* (DAM) organized a show *Frau architekt Over 100 years of Women in Architecture* where the careers of twenty-two women architects from different generations are analysed. Parallel to this exhibition, a selection of unconstructed plans and drawings for an office block in Berlin by the recently deceased Zaha Hadid (1950–2016) were shown. Also in 2017, with the motive of the centenary of the admission of women into the Architectural Association School, a show was organized in the London headquarters with the title *AA Women and Architecture 1917–2017*.³⁴ With sections dedicated to the first students, to globalization and social architecture, identity and memory, the materials exhibited were extremely varied: original drawings, correspondence, diaries, photographs, models, films, oral testimonies, work tools or travel diaries. This exhibition, at the end

28 "Mulheres em Engenharia reúnem-se na FEUP," *Eu Estudo em Portugal*, http://euestudoemportugal.com/pt/noticias/2571_%E2%80%9CMulheres+em+Engenharia%E2%80%9D+re%C3%BAnem-se+na+FEUP (accessed March 4, 2018).

29 "About INWED," *International Women in Engineering Day*, <http://www.inwed.org.uk/about.html> (accessed March 7, 2018).

30 "Women and girls in science day," *United Nations*, <http://www.un.org/es/events/women-and-girls-in-science-day/> (accessed March 7, 2018).

31 "Arquitectas, Ingenieras, Urbanistas," *UPM Trigger Project*, <https://triggerprojectupm.wordpress.com/> (accessed March 15, 2018).

32 "A Homage to Charlotte Perriand by Cassina and Louis Vuitton," *Cassina*, <https://www.cassina.com/en/press/homage-charlotte-perriand-cassina-and-louis-vuitton> (accessed March 15, 2018).

33 "ND 07 Easy chair 1951 (Nana Ditzel)," *Kitani*, <https://www.kitani-g.co.jp/theme466.html> (accessed March 15, 2018).

34 Lynne Walker and Elizabeth Darling (ed.), *AA Women in Architecture 1917–2017* (London: AA Publications, 2017).

of 2017, really meant a culmination of a collection of commemorative events, like the *International Conference AA Women and Architecture in Context 1917–2017*, organized in collaboration with the Paul Mellon Centre or the collecting of oral testimonies from British women architects, which are available on the web page for this centenary.³⁵

In 2016 the Museum of Modern Art (MoMA) of New York presented an exhibition titled *How Should We Live? Propositions for the Modern Interior* centred on design from the 1920's to the 1950's where the exhibits came from the imagination and technical ability of women architects and European women designers, such as Eileen Gray with her house E-1027, the Frankfurt Kitchen by Grete Schütte-Lihotzky, the Silk Café by Lili Reich in collaboration with Mies van der Rohe, metallic tube pieces by Perriand or delicate designs in wood by Aino y Alvar Aalto. In the exhibition some spaces known through photographic testimonies were recreated, such as the silk curtains of the Silk Café in the *Women's Fashion Exhibition of Berlin* in 1927, or the interior of the *Maison du Brésil* that Charlotte Perriand designed for the *Cité Universitaire of Paris* with Lucio Costa and Le Corbusier.

Equally in recent years there has been a great deal of attendance in Europe at a proliferation of exhibitiv events conceived as a tribute to women pioneers in design and architecture. Some women, in many cases, lived in the shadow of their partners or their professional male colleagues, which diminished their prestige and work opportunities. In this sense, the memorable exhibition of the Irish woman, Eileen Gray (1878–1976), organized by the *Centre Pompidou* in Paris in 2013 was of special interest. Here were compiled her works of furniture, carpets, architectural models and an extraordinary collection of drawings that had been acquired by the *Pompidou* archives. Similarly, there was an exhibition in tribute to the woman architect Gae Aulenti (1927–2012) which took place in the *Pinacoteca Giovanni e Marella Agnelli* in Turin in 2013,³⁶ or the show dedicated to Cini Boeri on behalf of the Genovesian furniture company Arcadia, which included in 2012 the edition of a catalogue of her work and an interactive project with design students in her own studio. In 2016, in a place as emblematic as Cilla Tugendhat, a show was organized in tribute to the German designer Lilly Reich (1885–1947), a collaborator with Mies van de Rohe on many interior design projects, such as the very same Brno building. At the end of 2017 in the Guggenheim Museum in Bilbao the show *Touch Vision* was presented with 180 textile works by Anni Albers (1899-1994) conceived retrospectively from her Bauhaus designs up to her North American pieces created in her years at Black Mountain College. At the end of 2018, a large exhibition is expected to be held in the Tate Modern in London in collaboration with the *Kunstsammlung Nordrhein-Westfalen of Düsseldorf*

which is planned to be an exhibition not only of her work but also of her influence on modern design.

Another woman architect who has had recent revisions and tributes in the form of exhibitions is the Italian-Brazilian Lina Bo Bardi (1914–1992), figurehead of a type of socially- committed architecture from which we may take many lessons. In 2014 the show *Lina Bo Bardi 100-Brazil's Alternative Path to Modernism* was presented in the *Architekturmuseum* of Munich. The following year, the *São Paulo* Museum of Art recreated the famous exhibition of 1968 in which this architect used a system of easels for her works with cubes of concrete which supported glass panels. Also in 2015, the Graham Foundation organized what would her first exhibition in the United States under the title be of *Lina Bo Bardi: Together*. In 2016 *SpazioFMG* of Milan presented a retrospective of Nanda Vigo with the title *Nanda Vigo Opere abitate da opere 1959–1972*. This show included images of monochrome interiors like Zero House or Casa Nera, as well as pieces of furniture and objects like the golden Gate lamp designed for Arredoluce, or the seat Due Più for More Coffee. More recently, in the first months of 2018, the work of Vigo has inaugurated the new format of Studio Visit in the MAXXI in Rome.

Two years after the death of the French architect Edith Girard (1949–2014), the exhibition *Edith Girard. De l'intime à l'infini, habiter* was set up in the *École Nationale Supérieure d'Architecture Paris-Belleville*. At the same time, only a few months after the unexpected death of Zaha Hadid, the Venice Architecture Biennial set up a tribute to her in the Palazzo Franchetti with a retrospective tour of her professional career.

All these exhibitions, associations, web pages, and women's architectural or engineering collectives that have been mentioned in previous paragraphs have contributed to generalizing the idea that the past 8th March 2018 has been expressed eloquently by Amanda Levette: 'Now is our time'.³⁷

35 "AA XX 100: Celebrating 100 Years of Women in the Architectural Association," Architectural Association, <https://xx.aaschool.ac.uk/> (accessed March 17, 2018).

36 "Sara Banti, A Tribute to Gae Aulenti," Abitare since 1961, http://www.abitare.it/en/events/2016/04/15/gae-aulenti-exhibition-turin-en/?refresh_ce-cp (accessed March 17, 2018).

37 "Five top women in world architecture: 'Now is our time,'" CNN Style, <https://edition.cnn.com/style/article/top-women-in-architecture-advice/index.html> (accessed March 17, 2018).

Annex

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Women in Modern Neighborhoods:
Margarete Schüte-Lihotzky, Jakoba Mulder,
Lotte Stam-Beese and Carmen Portinho

Introduction¹

Housing, as an architectural solution to the massive needs of problems derived from the industrialization of cities, comes into being at the beginning of the 20th century, coinciding with the public presence of women, both in the suffragist movements and in university's professions.

Despite numberless obstacles, women began the university's professional career as architects at the end of the 19th century, both in the United States of America and in Europe. The first women in the profession of architecture were trained outside of the universities. The first woman architect, recognized as such by the AIA, was Louise Bethune (1856–1913) who created her own studio with 25, in the city of Buffalo² in 1881, after 5 years of apprenticeship in the architecture and edification studio of Richard A. Waite and F.W. Caulkins. The two first architects with university training, both in the USA and Europe, received their degree in 1890, Sophia Hayden (1868–1953) graduate from MIT in Cambridge, and Signe Hornborg³ (1862–1916) graduate from the Polytechnic Institute of Helsinki.

However, the interventions and contributions of women to improve the living conditions of the working class did not wait for recognized and university trained professionals. At the beginning

1 Text based on my forth coming book about women in architecture and cities.

2 Sarah Allaback, *The First American Women Architects* (Urbana and Chicago: University Of Illinois Press, 2008).

3 Riita Nikula, "Signe Hornborg," *Profiles: Pioneering women Architects from Finland*, edited by Marja Nuutila-Helenius et al. (Helsinki: Museum of Finnish Architecture; The Finnish Association of Women Architects, 1983).

of the 20th century there was already a tradition of women intervening in the city, based on the assigned gender roles. For example, women from reformist movements⁴ approached housing and urban issues in an integral and global way; from the understanding of everyday life difficulties; and from the specific needs and capacities of citizens, they proposed progressive and realistic improvements based in the knowledge of the situation and in the personal relations. The first three of this activist list, who have been often underestimated as benefactors, are Angela Burdett Coutts (1814–1906), Octavia Hill (1838–1912) and Henrietta Barnett (1851–1936). Through their works these women opened new paths and ways for understanding and acting in the city. Their way of acting, paying attention to reality, the needs of the different groups and the own capacities, is also a characteristic of other women's groups organized at the end of the 19th century and beginning of the 20th century in the large cities of the Eastern USA, both from the *Settlements Movements*⁵ and from *Municipal Housekeeping*.⁶

Among these experiences we find common characteristics that are still visible today in contemporary proposals formulated from women's experiences, or from a gender perspective and the feminisms. These characteristics are that we should act from a deep and close knowledge of the reality that enables us to find solutions from the micro to the general, walking away from universal neutrality that hides the hierarchical and masculine experience of patriarchy; and on the other hand, the collaboration and cooperation among diverse agents in structures that tend to be more horizontal than hierarchical. This way of networking, with less individual leadership and unique authorship, makes it challenging to trace the contributions of women architects in the construction of modern neighborhoods.

The Women of the Modern City

The modern women architects involved in the urban transformation, growth and improvement from the period between wars also used their intimate knowledge of the reality, working in an integral and crosscutting way. We will briefly review the actions of four of them, three European Margarete Schütte-Lihotzy (1897–2000), Jakoba Mulder (1900–1988), and Lotte Stam-Beese (1903–1988), and a Brazilian, Carmen Portinho (1903–2001).

Margarete Schütte-Lihotzky, since the beginning of her career, was committed to an architecture that was responsible to society. Due to her demonstrated interest for improving the life of people, as a young student her professors recommended that she visit working class housing in order to understand how they lived and be able to design in consequence. For her, the architecture has a sociological meaning that places the act of building in a social and communitarian context.

We the architects have the duty and the obligation of "scratch" our heads about what needs to be done with the edification of inhabiting in order to facilitate the life of women and men; from the beginning I have wanted to focus, always and exclusively, on the edification of inhabiting with everything involved: institutions for infants, schools, libraries, health centers... what is called social edification.⁷

One of her first works was for the settlers' movements, *Siedlebewegung*. These movements began occupying land by the municipality, basically to produce food, though little by little to construct cottages for housing. These associations built their houses, and women participated intensively in this construction. She designed for these families an embryo house that was exposed in the 'V Viennese Exposition of Family Gardens'. The proposal assumed and proposed the progressive development of the house, from the initial nucleus of main floor that includes a living kitchen, with chimney in the wall, and a wall bed; a bedroom, and a place for the laundry accessible through the garden. After successive proposals of enlargement, the settlers' home had a living kitchen, a laundry space, three bedrooms, two small bedrooms, an attic, a water closet, a space for animals and a storage room. At the same time, Schütte-Lihotzky's concern for the city was evident in that, once the 7 phases of growth were completed they were a group of row houses with a continuous front that creating an urban structure. The water closet that she proposed was innovative, since she placed it in the interior of the house, and this room included all the needs associated to water: laundry, dishwashing and personal hygiene.

In 1921 Margarete Schütte-Lihotzky worked in the Secretary of Housing of the municipality of Vienna,⁸ with Adolf Loos as the head architect since 1920, designing housing and new domestic facilities for the *Siedlung Friedensstadt* in Lainzer Tiergarten, the first cooperative of Austrian war veterans. Later, working independently, she collaborated with Loos in the *Siedlungen* Hirschstetten (1921) and Heuberg (1923).

Schütte-Lihotzky shared with Loos a political vision and the interest in economizing strategies of rationalization, such as the reduction of housing spaces from a functional decrease of their

4 Alison Ravertz, "A View from the Interior," *A View from the Interior: Feminism, Women and Design*, edited by Judy Attfield and Pat Kikham (London: Women's Press, 1989).

5 Allen F. Davis, *The Social Settlements and the Progressive Movement 1890–1914*, (New Brunswick, New Jersey: Rutgers University Press, 1991).

6 Daphne Spain, *How Women Saved the City* (Minneapolis-London: University of Minnesota Press, 2001).

7 Lorenza Minoli (ed.), *Della Cucina alla Città: Margarete Schütte-Lihotzky* (Milano: Franco Angeli, 2008), 1st edition in German 1996.

8 Manfredo Tafuri, *Vienna Rossa - La politica residenziale nella Vienna socialista: 1919–1933* (Milano: Electa Editrice, 1980).

components. Her professional position allowed her meet with Ernst May when he visited Loos. Soon after their initial meeting, Schütte-Lihotzky soon became May's frequent collaborator and developed a relationship that lasted many years. Their first collaborations were articles for the journal *Schlesisches Heim* (Silesian House). In 1925 May invited her to be part of her project team in Frankfurt, which she would join in January 1926.

In her work she sought to propose solutions to improve women's lives. In Frankfurt, the social democrat council member Elsa Bauer was persistent to apply all the technologies and useful knowledge to reduce labor. Also there was the concern for giving response to the housing needs of single women, and for maternity schools, child and infant care. These interests coincided with the professional and ethical positions of Margarete Schütte-Lihotzky, a situation that was very useful for the project office of May where Schütte-Lihotzky was the only woman. In 1926 in the *Siedlung* Praundheim they proposed a single-room apartments housing complex for young couples and single women. As she would do later with the Frankfurt kitchen, Schütte-Lihotzky used the most modern means of the moment to disseminate her ideas. In both cases, she used short films to explain how to use these houses and kitchens. She saw the need of special typologies for single women, however she did not agree to make buildings only for women as other cities did, she preferred the integration of different typologies in the same building⁹ to favor the mixture, and she considered that is essential for the city.

The Frankfurt kitchen of Margarete Schütte-Lihotzky, made for the first time in 1927 for the *Siedlung* Rommerstad, is one of the most recognized achievements of housing policies in the Weimar Republic, communicating through their shiny metal surfaces, their high features and specificities, the modular relation of the parts and the technological advances, and the transformation of the everyday life of modernity. A kitchen thought to be efficient for daily work, with minimum movement needed to arrive to the different elements.

This kitchen had international dissemination, not only through the periodical publication of *Das Neue Frankfurt*, but also in the international annual exhibition of Frankfurt in 1927, where Schütte-Lihotzky placed the kitchen in an exhibition of a wider context called *Die neue Wohnung und Innernausbau* (The New House and its Interior). The exhibition included the construction at real scale of a model in reinforced concrete of the row housing, pictures and examples of elements.

The Frankfurt kitchen is not a closed and unique model, but a kitchen composed of modules that could be organized according to the need of each house. This modular kitchen, the first in history, was one of the elements that the municipal corporation industrially produced for their housing and, also, for selling to other cities.

While the Frankfurt kitchen was the place of most innovations, the electrified communal laundry room, completed with washing and drying machines, irons and ironing machines, also was acclaimed for its potential capacity to reduce labor. Schütte-Lihotzky calculated that this facility, built in all the large projects of new settlements, reduced the typical laundry day from fifteen to five hours.¹⁰

However, the crisis of 1929 ended with the incorporation of facilities, services and housing that responded particularly to women's circumstances. And in 1930, Ernst May with sixteen architects, Margarete Schütte-Lihotzky among them, moved to Moscow to plan modern cities in the Soviet Union.

In Holland, two women can be highlighted at the front of planning offices, Jakoba Mulder in Amsterdam and Lotte Stam-Beesein Rotterdam.

Jakoba (Ko)Helena Mulder graduated in 1926 as Construction Engineer in the Technische Hogeschoolin Delft¹¹ and started working in 1930 in the Department of Urban Planning of Amsterdam. Her first project was the *Boschplan*, the current forest of Amsterdam (*Amsterdamse Bos*), which gave her the fame among citizens who called her 'the lady of the forest'. The creation of this natural space was also an employment policy that responded to the economic crisis.

Since the beginning of her career she was concerned for the lack of appropriate places for children to play in the city, asking why there was a lack of them, being something so easy to achieve, 'I think it is crazy, children need sandboxes and other spaces to play'. Her attention to the reality, and to the small details, in scale, but of great influence in the quality of people's lives and based in a personal experience of observation of the reality, led her in 1947 to propose a 'bottom-up' system to create public spaces for children to play. Jakoba H. Mulder had observed from her window a girl playing in a corner of the street without any resource but imagination, dirt and a can, and she realized that it was possible to create small and economic spaces full of possibilities for children to play, whose design was offered voluntarily by the young Aldo van Eyck. Her proposed method was always that a person or group would identify and propose empty lots, corners, sidewalks and other unused small urban lots to transform them into playgrounds; the city government responded once the viability was demonstrated. Through this system, 700 playgrounds were created between 1948 and 1978, scattered throughout Amsterdam, and Aldo van Eyck had the opportunity of designing from his office in the city's public works. A series of simple elements allowed to conform spaces to play adequate to each surface, being each of them different, and most important, with a great variety of

10 Susan R. Henderson, "A Revolution in the Woman's Sphere," *Architecture and Feminism*, edited by D. Coleman, E. Danze and C. Henderson (New York: Yale Publications on Architecture; Princeton's Architectural Press, 1996).

11 "Architectuur Centrum Amsterdam," Architectuur Centrum Amsterdam, http://www.arcam.nl/aad/detail/detail_uk.lasso?ref=lbx&lang=uk&-token.item_id=1659last (accessed June 8, 2013).

9 Minoli, *Della Cucina*, 1996.

forms, textures and possibilities that prompted a creative use of these elements by girls and boys.¹²

In 1947 she proposed for the suburb Watergfrasmeer in Frankendal a change in the system of parallel buildings, built following the directions of Van Eesteren, for buildings in 'L' that organized interior spaces, squares that could be adequate as playground spaces.¹³ This system of parcels was used since then in the extensions to the west; according to Hema Hellinga this return to more closed spaces could be explained as the result of the neighborhood ideal.

In 1958 Jakoba Mulder substituted Cornelis van Eesteren as director of planning in Amsterdam, after being previously the vice director. Their team designed between the two World Wars the most famous Dutch urban plan, which was the extension of Amsterdam. Its importance was reflected in the scale of the plan that allowed the city to grow from 750.000 inhabitants in 1930 to almost a million at the end of the 20th century. The plan set the base for the growth of the so-called garden towns (*tuinsteden*) such as Sloterveer. After 1945 the plan was applied much faster than expected, and according to Stephen Ward¹⁴ should be considered one of the most successful efforts between wars of the great European cities.

This plan sets an interesting trend in the professional evolution of planning since it was the first plan consciously prepared and presented as a team work: the research work of Theo van Lohuizen and the planning work of Jakoba Mulder under the leadership of LSP Scheffer, head of urban planning, and the Director of Planning Cornelius van Eesteren. This plan was an evidence of the profound and diverse growth of the knowledge needed in planning that implies a new way of working; planning would become since the plan of Amsterdam of 1939 a team-work.

The second protagonist of Modern Dutch planning, Lotte Stam-Beese has German origin and her vital trajectory is essential to understand her great personality. Stam-Beese was since 1946 until her retirement in 1968 the head architect of planning in Rotterdam. For her, the city project was the result of a community and not an individual, and the role of the planner was to know how to interpret and advance the strategies to enable the representation of society.¹⁵

Between 1926 and 1929 she studied in the Bauhaus, which marked her future, both because, based on her words, she found there a community to create in an integral way, and because she met

Hannes Meyer. After graduation Lotte worked in the studio of Meyer and Hans Wittwers that worked similarly to the proposed workshops of the Bauhaus.

Since she was a student in the Bauhaus she maintained a complicated relationship with Hannes Meyer until 1932, and from this relationship they had their first son Peter. Between 1929 and 1933 Lotte Stam-Beese lived in different cities from Dessau to Vienna, Berlin, Brno, Prague, Moscow and finally Charcow. In each city she was in contact with groups of modern architects and developed works in different studios of well-known architects. In 1933, in Charcow she will run into Mart Stam, a colleague since 1928 from the courses of urbanism in the Bauhaus. Stam was part of the so-called Brigades May, led by Ernst May that worked in the design of new cities in the Soviet Union. A little bit later Lotte became part of the team, at the same time with Margarete Schutte-Lihotzky. At the end of 1934 they decided to leave the URSS and move to Holland, where Stam came from.

In October of 1940 she decided to register in the School of Architecture of Amsterdam, her experience was wide and in places of reference, but she lacked titles and degrees to certify her knowledge. Finally she graduated in 1945, two years after her separation from Stam. Two months after, Stam-Beese moved to Rotterdam, and a bit later she started her activity in the Department of Planning being the director until 1971, when she retired. Few times Stam-Beese would put in practice the architectural design independently from the renovation of her own home and the design of single family housing in Nagele with Groosman. Urbanism will be her specialization.

In 1948 she started the project of Pendrecht through which she defines the neighborhood as the extension of the city and not as a suburban and isolated community. She recognized the great diversity of people who inhabit in the city, and therefore the neighborhood cannot isolate them as a homogeneous community. In the case of Pendrecht she designed taking as point of departure the neighborhood unit, repetitive, differentiated, composed by a complex of buildings surrounding rectangular green spaces, that house 300 people. Contrarily, in the project for Alexander Polder she determined initially a detailed road structure leaving residential parcels more undefined, as spots with design more open. Pendrecht is considered a project of transition between the project of neighborhood and the one of large scale without form of the 1960s.

In the group of women with dedication to modern urbanism, we find Carmen Portinho¹⁶ born in Corumbá, Brazil, who lived in Rio de Janeiro since she was five, although she was the third Civil Engineer of Brazil in 1925, the first woman training in urban planning. As a student, she was part of one of the pioneer educative experiences in Brazil, led by Lucio Costa, who sought to train integral

¹² Josep Maria Montaner and Zaida Muxí, *Arquitectura y política: Ensayos para mundos alternativos* (Barcelona: Gustavo Gili, 2011).

¹³ Liane Lefebvre & Doll, *Ground-up City: Play as a Design Tool* (Rotterdam: 010 Publisher, 2007); Helma Hellinga, "Plan General ampliación de Amsterdam," *Cuaderno de notas*, no. 6 (1998).

¹⁴ Stephen Ward, *Planning the Twentieth-Century City: The advanced Capitalist World* (London: John Wiley & Sons, Ltd, 2002).

¹⁵ Helene Damen and Anne-Mie Devolder, *Lotte Stam-Beese: 1903–1988. Dessau, Brno, Charkow, Moskou, Amsterdam, Rotterdam* (Rotterdam: Hef, 1993).

¹⁶ Carmen Portinho and Geraldo Edson do Andrade, *Por toda a minha vida: Carmen Portinho* (Rio de Janeiro: Universidade do Estado do rio de Janeiro, 1999).

professional for the new era. For the time and the environment where she developed her training and career, she was a fervent admirer and defender of modern architecture; the new materials and forms of buildings tied to new programs that respond to unsolved social needs marked her professional and political action.

Since her young years, she took feminist positions. In 1919 she participated with Bertha Lutz in the organization of the Brazilian suffragist movement,¹⁷ was part of associations such as the Feminine University Union that she created in 1932, with the goal to gather recent graduated young Brazilian women and to help them to improve their careers, and avoid the suffering of sexual discrimination. In 1932 women won the right to vote. She also founded in 1937 the Association of Brazilian Engineers and Architects (ABEA) being her first president. She was trained as urban planner in a Master program in London where she witnessed the decisions that will develop the New Towns projects.

She proposed the creation of the Secretary of Housing in Rio de Janeiro (*Departamento de Habitação Popular*) and she was the director for two decades. One of the first interventions of the Secretary was the housing complex of Pedregulho, projected by Affonso Edoardo Reidy, architect and municipal staff. In addition to its discursively pioneer form, the program of the complex defined by Carmen Portinho has a pioneer character from the beginning. In the same way than other women architects, such as the other three women, Portinho thought housing should be part of a wider complex of the neighborhood and services should be collectivized to liberate women from the domestic work. The program of Pedregulho, in addition to housing of different sizes, proposed a school center, childcare in the same building, spaces to play, and communitarian laundries.

Without the toughness of Carmen and her predisposition to face all the challenges, the project of Pedregulho could have hardly been developed, as a symbol of a period when housing was viewed as a social service and not a commodity. As a defender of the idea, Carmen enable a social project that includes a synthesis of the arts: the innovative architecture of Reidy, the panels of Portinari and Anísio Teixeira, the gardens and mosaics of Burle Marx and the mechanized laundry service to free women from the slavery of domestic work.¹⁸

She was the sentimental partner of Affonso Eduardo Reidy and responding to their criteria of modernity they shared 30 years together, until he died, without getting married, seeing their own lives as a declaration of principles. They shared two homes, one urban and one of leisure, that they projected and built together. Two houses of reduced dimensions, since their economic income

as municipal staff were reduced. The house in Rio de Janeiro is a house of glass built few years beforehand than the house of Lina Bo Bardi in Sao Paulo.

As a public server she led the construction of the embankment of Flamengo deciding the location of the Museum of Modern Art in front of the sea, proposing and defending modern proposals for the building and the integration of the arts in the work. The project of the Museum was from Reidy, but during the construction she led and controlled its execution.

Her last public job was as director of the Superior School of Industrial Design (ESDI), an avant-garde institution, where she dedicated 21 years, opening for these years the horizontal debate between students and professors about the objectives, reach and methods of the education. During the military dictatorship of the 1960s, at the beginning of being director, she defended the students in front of the police that tried entering the building.

Common characteristics

In the cases presented we can confirm that the contributions of women to modern city planning are essential because of the response to the everyday live needs such as the domestic tasks and the efficient incorporation, individually and collectively with the objective of reducing the time of the women dedicated to these tasks; the verification of the diverse needs and therefore not giving universal solutions; the acknowledgement of the community and the need to share of gathering and reference; the attention to the children thinking of safe spaces to play and leisure close to home; as well as the needed services to develop the life in community.

17 "Carmen Portinho," cpdoc-fgv, http://cpdoc.fgv.br/producao/dossies/JK/biografias/carmen_portinho (accessed June 8, 2013).

18 Nabil Bonduki (ed.), *Affonso Eduardo Reidy: Arquitetos brasileiros* (São Paulo, Lisboa: Editorial Blau; Instituto Lina Bo Bardi e P.M. Bardi, 2000), 101.

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Feminine Presence inside Architects and Urban Planner's Professional Networks in Brazil: 1960s to 1980s

Introduction

In the 1960s Brazilian architecture had achieved great international prestige with Brasília launch, acknowledged worldwide. Consequently, Brazilian architects and urban planners conquered an important status. As result, they worked for the consolidation of an autonomous architectural education, separating it definitely from the Polytechnic and Fine Arts schools where they had been created. The architects and urban planners graduated in those schools had an independent practice in offices as its main professional performance. The feminine presence in those schools, which existed since de the 1950s, started to grow in the 1960s. In accordance with Sá,¹ the feminine attendance in the Faculty of Architecture and Urban Planning of University of São Paulo (FAUUSP) passed from 10% of the students in the 1950s to, approximately, 50% in the 1980s.

To analyse this growth is necessary to consider that in the 1970s the number of architecture and urban planning schools had grown from two (in the 1960s) to eight schools – one in São Paulo city and the seven others nearby, in the State of São Paulo.² Durand³ mentions that with the increasing number of higher education opportunities and consequently, the grow of women interested in this

education, they started to be absorbed by the labour market. One of the factors that attracted women to the architect and urban planners labour market was the status of freelancer and the new field opened as teachers in the new schools of architecture and urban planning. Due to it, they had a chance in the scope of higher education and as a freelancer, to develop their role as a professional and as a mother inside her family.⁴

However, in the 1970s the architects and urban planner's profession, initially with a freelancer character, started to be transformed. The labour market changed, engineering companies had emerged and the small offices started to receive fewer design requests. Consequently, the profession started a transition from the model disseminated by the São Paulo core of the Brazilian Institute of Architects (IAB/SP) – the architect as freelancer to the architect employed in engineering companies and by the State. Even with the maintenance on the education of the architect as a freelancer, changes were needed.⁵

Added to that, the data offered by the Brazilian Institute of Geography and Statistics (IBGE) attested that between all professionals working as architects and urban planners in the 1950s, 3,70% were women, increasing to 4,80 % in the 1960s, 12,90 % in the 1970s and 36,70% in the 1980s.⁶ Besides that, in the years 1970 – 1980 the percentage of men working less than 40 hours per week increased from 7% to 15%. For women, the rate increased from 30% to 35%.

Therefore, the IAB/SP, institute installed in 1943 in São Paulo, with the objective to disseminate the role of the architect and reformulate the architect and urban planner education, collaborated to the creation of two new organizations to answer the new profession demands. In 1971 the Trade Union of Architects of São Paulo State (SASP), was installed in the IAB/SP building, with the challenge to speak up and protect the profession. In the 1973, the third network was created – the Brazilian Association of Architecture Schools (ABEA) – located at FAUUSP building, with the objective to gather the schools of architecture and urban planning. This structure was built as a 'strategic and professional system for the architecture field'.⁷

In this respect, this article's objective is to unveil the presence and the role of women architects and urban planners in the executive board from those professional networks between the 1960s and 1980s, demonstrated through the newsletters and bulletins published and edited by them. In this period, Brazil was challenged by a Military Dictatorship (1964–1985) and most of the

1 Flávia Carvalho de Sá, "Profession: Architects – Professional Graduation, Labour Market and Architectural Design in Gender Relations Perspective" (Masters, Faculty of Architecture and Urban Planning of University of São Paulo, 2010), 4.

2 Elena Salvatori, "Architecture in Brazil: Education and Profession," *Architecture* 4, no. 2 (July-December 2008), 57, doi: 10.4013/arq.20082.06 (accessed December 14, 2017).

3 José Carlos Durand, *Art, Privilege and Distinction* (São Paulo: Perspectiva, 1989), 169.

4 Durand, *Distinction*, 169.

5 José Carlos Durand, "The Profession of the Architect (Sociological Study)" (Masters, Faculty of Philosophy, Literature and Human of University of São Paulo, 1972), 42.

6 Durand, *Distinction*, 170.

7 Information about the new executive board of ABEA 1982-1983, Box no 94 – Education and Professional Legislation. São Paulo: Brazilian Institute of Architects, IAB/SP Archive.

architecture journals were extinguished. One of the journals that followed the opposite direction was the 'Architect' (1972–1979) developed because of a partnership from SASP and IAB/SP. A couple of women architects and urban planners worked for the journal in the coordination and collaboration of many editions. Besides that, the feminine presence in the architectural and urban planner profession was meaningful in the events organized by the IAB – the Brazilian Congress of Architects – and in the teaching practice in the new schools that were opened in São Paulo State. Nonetheless, the numerical growth of women as architects and urban planners did not mean an increasing prestige in the professional field.

Feminine Presence in Professional Networks

The administrative structure of each professional network was different. At IAB/SP the positions established for the biannual executive board were composed of a president, a vice president, a general secretary and two other secretaries; a general accounting officer and two accounting officers; directors and members of a financial council. This structure was maintained from 1959 until 1965. In 1966, new positions were created: the 2nd and the 3rd vice-president as well as a couple of members who represented the State of São Paulo in the Federal Senior Board. At that position, five members were titular and five substitutes. At the Table 1, is possible to identify that any woman took the positions of president or vice-president. There were three women as 2nd vice-president: Marlene Yurgel (1970–1971), Rita de Cássia Vaz Artigas (1982–1983), Helena Saia (1986–1987). The 3rd vice-president position was once occupied by a woman, Maria de Fátima Infante Araújo between the years 1984–1985.

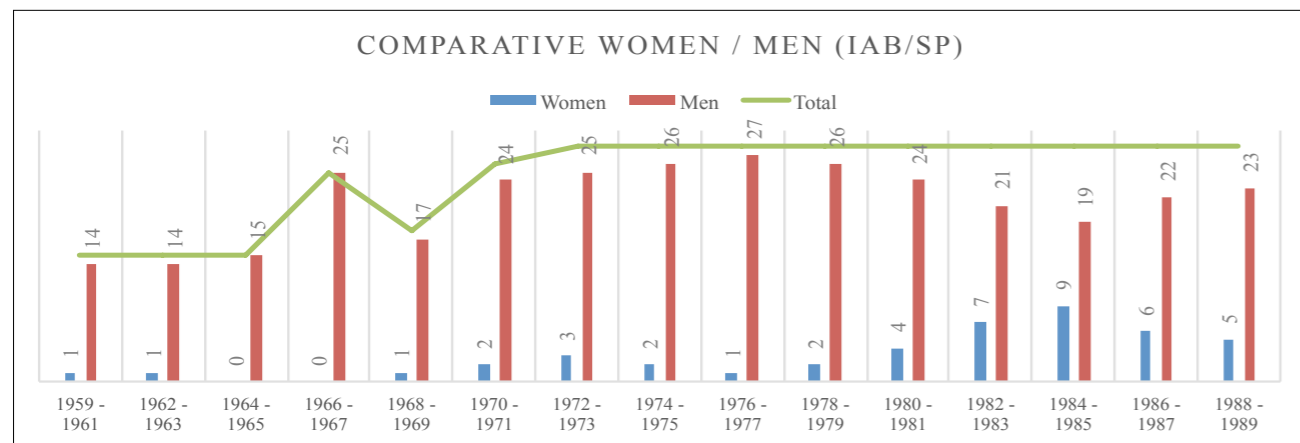
The position mostly occupied –10 times– by women was the director's position, followed by the general secretaries and 2nd secretary – 10 times either. The women also held positions as titular and substitute of the Federal Senior Board – five times each position (Tab. 1). In contrast, the positions less occupied by women were as accounting officer and as member of the financial council.

Observing Graphic 1, the number of women as chairwomen in the Directors Board of IAB/SP fluctuated from the 1960s to the 1970s and started to grow significantly at the 1980s. However, contrasting with the presence of women in the undergraduate schools of architecture and urban planning that had achieved 50%, inside the director's board they weren't in half of the positions.

Year	Women in the Board of Directors
1959–1961	Rosa Kliass (Director)
1962–1963	Marlene Picarelli (Director)
1964–1965	-
1965–1967	-
1968–1969	Bonna de Villa (2 nd Secretary)
1970–1971	Marlene Yurgel (2 nd Vice-President); Maria Giselda Cardoso Visconti (Substitute at the Federal Senior Board)
1972–1973	Bonna de Villa (Director), Marlene Yurgel (Titular at the Federal Senior Board), Maria Giselda Cardoso Visconti (Titular at the Federal Senior Board)
1974–1975	Maria Cecília Scharlack (Secretary), Rita Olmo Aprigliano (Director)
1976–1977	Maria Cecília Scharlack (Financial Council)
1978–1979	Marta Maria Soban Tanaka (General Secretary), Marcia Lucia Guilherme (1 st Secretary)
1980–1981	Marta Maria Soban Tanaka (Substitute at the Federal Senior Board), Christina de Castro Mello (General Secretary), Neide Angela Jopert Cabral (2 nd Secretary), Helena Ayoub Silva (Director)
1982–1983	Helena Ayoub Silva (2 nd Secretary), Rita de Cássia Artigas (2 nd Vice-President), Maria de Fátima Infante Araújo (General Secretary), Maria de Lourdes Carvalho (1 st Secretary), Maria Tavares (Director), Helena Saia (Director), Vania Moura Ribeiro (Substitute at the Federal Senior Board)
1984–1985	Helena Ayoub Silva (Titular at the Federal Senior Board), Rita de Cássia Artigas (Titular at the Federal Senior Board), Maria de Fátima Infante Araújo (3 rd Vice-President), Maria de Lourdes Carvalho (1 st Accounting Officer), Edith Gonçalves de Oliveira (1 st Secretary), Elisabete França (2 nd Secretary), Maria Cristina Veiga de Assis Lage (Director), Vera Santana Luz (Director), Laura Martinez Serrana Guidugli (Substitute at the Federal Senior Board)
1986–1987	Helena Saia (2 nd Vice-President), Elisabete França (General Secretary), Laura Martinez Serrano Guidugli (1 st Secretary), Dalva Elias Thomaz Silva (Director), Maria de Fátima Infante Araújo (Titular at the Federal Senior Board), Rita de Cássia Vaz Artigas (Substitute at the Federal Senior Board)
1988–1989	Cássia Regina Magaldi (General Secretary), Lidia Matiko Yamada (1 st Secretary), Lidia Cunha (Financial Council), Helena Saia (Titular at the Federal Senior Board), Elisabete França (Substitute at the Federal Senior Board)

Tab. 1. Board of Directors of IAB/SP⁸ (1959–1989)

8 Register of the executive boards of IAB/SP, São Paulo, Brazilian Institute of Architects, IAB/SP Archive.



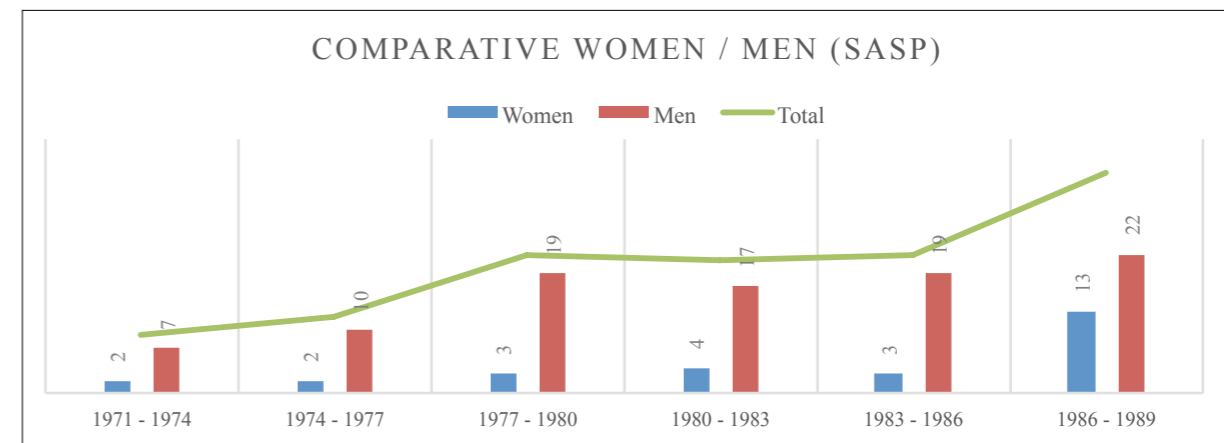
Graph. 1. Comparative between Women and Men in the Director's Board of IAB/SP (1959 – 1989)

At SASP the board of directors was organized in a different way. The positions were president, vice-president, secretary, financial council and accounting officer. From the 1980s new positions were created, including members which represented SASP at the National Federation of Architects (FNA). As occurred at IAB/SP, any woman occupied the presidency (Tab. 2). At SASP they did not take the vice presidency, mostly working as directors. In addition, women architects and urban planners took positions as secretaries, members of the financial council, delegates of National Federation of Architects and accounting officer. They also took substitute posts at those positions.

Year	Women in the Board of Directors
1971-1974	Edith Gonçalves de Oliveira (Director), Helene Afanasieff (Secretary)
1974-1977	Helene Afanasieff (Substitute), Ana Maria Dente (Substitute)
1977-1980	Maria Giselda Cardoso Visconti (Director), Therezinha Banurcius (Substitute Director), Zelma Cincotto (Substitute in the Financial Council)
1980-1983	Vania Moura Ribeiro (1 st Secretary), Marilda Froes (Financial Council), Maria José Carneiro Muniz (Substitute of the Federal Senior Board – FNA), Clara Ant (Federal Senior Board – FNA)
1983-1986	Elizabeth Teixeira (2 nd Secretary), Vera Lucia Campos Correia (Substitute in the Financial Council), Regina Cretin (2 nd Substitute Secretary)
1986-1989	Berthelina Alves Costa (Accounting Officer), Valeska Pires Pinto (Director), Maria Lúcia Guilherme (Director), Ermínia Maricato (Director), Yasuko Tominaga (Financial Council), Mayumi Watanabe Lima (Federal Senior Board – FNA), Diana Giuseppe, Fúlvia Ducca, Lúcia Simoni, Maria do Carmo Bicudo, Maria Lúcia Refinetti Martins, Regina Meyer, Regina Pacheco (Directors)

Tab. 2. Board of Directors of SASP (1971-1989)⁹

9 "20 years," *Journal Architect* (1992), 25-26 (Special Edition).



Graph. 2. Comparative between Women and Men in the Director's Board of SASP (1971 – 1989)

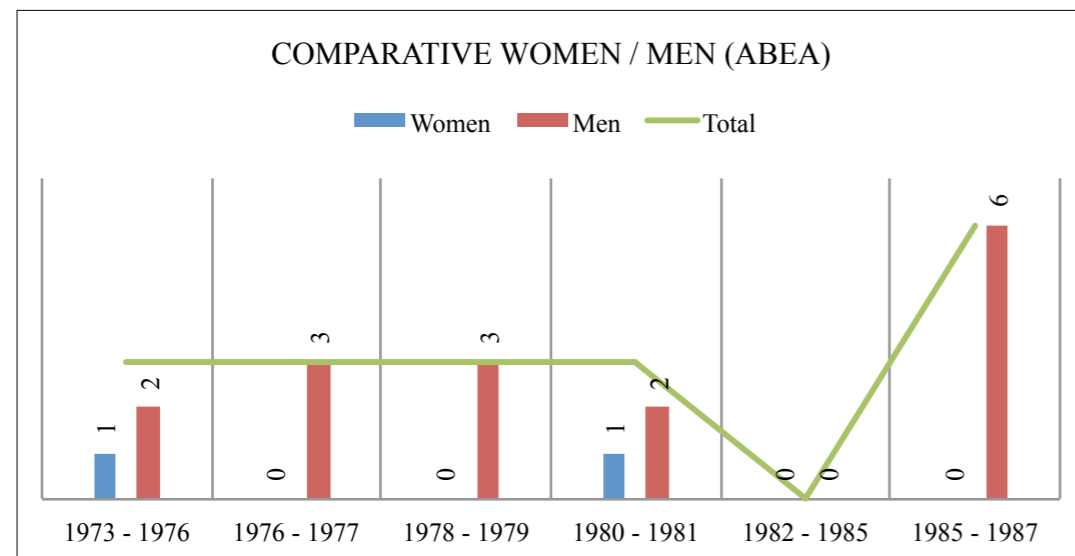
The notorious growth of women in the director's board (Graph. 2) happened in the last years of the 1980s. This number increased probably because of the growing number of architects that were getting employed by the labour market (at the education, as teachers, in engineering companies and public offices) and affiliated to the Architects Trade Union.

ABEA board of directors had fewer positions. Only three members were responsible for representing the association: the president, a vice-president and a secretary. Proportionally, the number of women were inferior from the other professional networks. However, ABEA was the only association to have a woman as vice-president, the architect and urban planner Vera Lúcia França e Leite (1980-1981) (Tab. 3).

Year	Women in the Board of Directors
1973-1976	Marlene Yurgel (Secretary)
1976-1977	-
1978-1979	-
1980-1981	Vera Lucia França e Leite (Vice – President)
1982-1985	-
1985-1987	-

Tab. 3. Board of Directors of ABEA (1973-1981)¹⁰

10 Ester Gutierrez, "The Brazilian Association of Architectural Education in Its First Years (1973-1985)," *The Construction of a New Perspective about Brazilian Architectural and Urban Planning Education: 40 Years of Brazilian Association of Architectural Education*, edited by Ester Gutierrez (Brasília: ABEA, 2013), 18-58; "I CONABEA, Permanent Headquarters and Other News," *Projeto Magazine*, no. 69 (November 1984), 3.



Graph 3. Comparative between Women and Men in the Director's Board of ABEA (1973–1987)

Even with the increasing number of women at schools of architecture and urban planning as students and teachers, their presence as directors in ABEA was very low, being null through many years (from 1976–1979 and 1982–1987) (Graph 3). Some women that were members of IAB/SP and SASP directors board and were teachers at the architecture and urban planning schools such as Marlene Picarelli and Marlene Yurgel (FAU USP), Bonna de Villa (Faculty of Architecture and Urban Planning of Santos), Maria Lucia Guilherme (Faculty of Fine Arts and Faculty of Architecture and Urban Planning of Santos), Christina de Castro Mello (Faculty of Fine Arts and Faculty of Architecture and Urban Planning of Santos), Rita de Cássia Vaz Artigas (Presbyterian University Mackenzie and Pontifical Catholic University of Campinas), Helena Saia (Pontifical Catholic University of Campinas), Yasuko Tominaga (Faculty of Architecture and Urban Planning of Santos) (IAB 1980), weren't present at the directors board of ABEA.¹¹

It is worth considering that five women held positions in the board of directors of more than one professional network like Marlene Yurgel (IAB/SP – 1970–1971; 1972–1973, and ABEA – 1973–1976) working as secretary in ABEA and as member of the Federal Senior Board of IAB/SP; Maria Giselda Cardoso Visconti (IAB/SP – 1970–1971; 1972–1973; and SASP – 1978–1980), Maria Lúcia Guilherme (IAB/SP – 1978–1979; and SASP – 1986–1989), Vânia Moura Ribeiro (IAB/SP – 1982–1983; and SASP – 1980–1983) holding the position of Substitute in the Federal Senior Board at IAB/SP and secretary at SASP, and, Edith Gonçalves de Oliveira (IAB/SP – 1984–1985; and SASP – 1971–1974).

The simultaneous presence of Vania Moura Ribeiro at IAB/SP and SASP could be justified because of the location of both networks, which occupied, at the same time the IAB/SP Building, in the city centre of São Paulo.

The Role of Women in the Professional Networks

In addition to the professional role of women architects and urban planners as teachers in the architecture schools of São Paulo State, IAB/SP and SASP directors were part of an initiative to disseminate the work of both professional networks. As a result, the Journal *Architect* started to be published in 1972:

From the existing resources of the Trade Union Journal – team work and professional journalists involved as well as advertisement connections – editing a journal with IAB would be an efficient way to keep architects informed. The IAB Journal would be edited and distributed with the Trade Union Journal. The organization of both would be done together by members of IAB/SP and SASP. With that in mind we should enlighten for all architects the specific fields of action of each network and show that we have an intimate connection. IAB and the Trade Union are fundamental for the architects and should take important place for the profession.¹²

Were collaborators of the Journal: Helene Afanasieff (since its first publication, in 1972, until its transformation in a Journal called *Project*, in 1979), Ana Maria Dente, Maria Cecília Scharlack and Bonna de Villa (de 1972 a 1974). All of them started their work as collaborators and, years later, held a supervisor's position. That was a notorious fact in the Brazilian publishing industry that faced at that time, because of the Military Dictatorship, the end of many specialized journals and magazines. However, few texts were credited to women at the *Architect*. There were only two texts that mention their author as a female architect and urban planner. One of them is from Marlene Yurgel, at the 7th edition with the theme "Architect of Leisure," presented in the International Union of Architects Congress.¹³ The other was written by Giselda Visconti, who went to Kenia to represent IAB/SP in a Seminar of Public Health and elaborate a review about the discussions on the 23rd edition.¹⁴

In addition, women architects and urban planners attended the events organized by the Brazilian Institute of Architects – the Brazilian Congresses of Architects. Their participation was not identified

¹² Meeting Minutes of the Executive Board of Brazilian Institute of Architects, Box no 107B, Book from 1946–1975, São Paulo, Brazilian Institute of Architects.

¹³ Marlene Yurgel, "An architecture for leisure," *Journal 'Architect'*, no. 07(1972), 16.

¹⁴ Giselda Visconti, "Report on the V Seminary of Public Health in Kenia," *Journal 'Architect'*, no. 23 (1973), 12.

¹¹ Meetings Work Group 03 – Higher Education, Box no. 124, São Paulo, Brazilian Institute of Architects, IAB/SP Archive.

at the texts published on Annals of the events but probably they attended the discussions. Among those women who were members of the director's board of the professional networks attended the IX Brazilian Congress of Architects, at São Paulo, in 1976, Bonna de Villa, Christina de Castro Mello, Edith Gonçalves de Oliveira, Helene Afanasieff, Maria Cecília Scharlack, Marlene Yurgel, Marta Maria Soban Tanaka, Regina Cutin, Rita de Cássia Vaz Artigas, Rosa Grena Kliass, Therezinha Banevicius, Valeska Peres Pinto and Vânia Moura Ribeiro.¹⁵ Vera Lúcia de Campos Correia attended the Brazilian Congress of 1979, in Brasília.¹⁶ In this regard, is possible to identify that those women were lively working and attending professional discussions. In those events, issues were debated about the profession, architectural education, the development of construction industry.

Conclusion

All those women, architects and urban planners, are 'faceless' in Brazilian history of architecture and urban planning. Is a challenge to search for references of projects or academic works produced about them. What is visible is that the growth of the number of women in the architecture profession didn't meant an increasing prestige in the labour market and professional field. In the Portuguese case, until today the profession of architects and urban planners is related to women in works like interior design, as an extension of their household activities.¹⁷ In addition, feminine presence in the architect's labour market have weaker links, contrasting with male work positions. Therefore, women have more flexible work journeys to maintain their house and family duties.

New questions about the presence and role of women architects and urban planners in Brazilian architectural history must be made. Especially in the period analysed (from 1960s to 1980s), when new professional patterns that are kept until today were established. Why the profession of architects and urban planners is, until today, mostly feminine? Why, even been a feminine profession, the role and the presence of women in professional networks is smaller than the male presence? Besides that, is necessary to look for references and documents that can testimony the production and importance of those women for the professional history.

15 *Annals of IX Brazilian Congress of Architects* (São Paulo: Brazilian Institute of Architects, 1976), 180–184.

16 *Annals of X Brazilian Congress of Architects*, Vol. 2 (Brasília: Brazilian Institute of Architects, 1980), 81–84.

17 Lia Pereira Saraiva Gil Antunes, "Dossier: Gênero, profissões e carreiras: oportunidades, constrangimentos e desafios," *Ex. aequo*, 33, no. 73 (June, 2016), http://www.scielo.mec.pt/scielo.php?script=sci_arttext&pid=S0874-55602016000100006&lang=pt (accessed December 14, 2017).

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Women as Interior Architects during 50 Years of the BNI (Association of Dutch Interior Architects)

Introduction

The *Beroepsvereniging van Nederlandse Interieurarchitecten* or BNI (Association of Dutch Interior Architects) is an association for the promotion and development of interior architecture, and the representation of the interests of interior architects in the Netherlands. It's established under its current name in 1968 and throughout the years, women have made up a fair share of the BNI's board members and regular members. Their work is presented as a part of the norm, not as something extraordinary, and numerous women architects affiliated with the BNI have been awarded and praised for their high quality and innovative work. The intention of this paper, however, is not to provide a complete overview of all women professionals that have played an active role in the BNI or are associated by membership, nor does it aim to disclose gender issues or make definite statements about them. Rather, it aims to gather stories of BNI members and women working as interior architects in the Netherlands for the past fifty years and give credit to their achievements, without being distracted by extensive biographical records.

The content of this paper is defined by the information available in the archive of the BNI and its predecessors, housed in the New Institute in Rotterdam, and the magazine *Intern*, published by the BNI since 1984, both of which I was asked to research in light of the 50th anniversary of the BNI in 2018. A publication focusing on half a century of interior architecture in the Netherlands and the achievements of the BNI will appear in the same year.

Interior Architecture

The thought that women have a 'natural feeling for home decoration' is outdated but has not yet disappeared. It is based on centuries-old belief that the home is the place of the woman, the housewife. The division between 'the female and private domain' versus 'the male and public domain' is for the largest part constructed in the 19th century. This vision is refuelled after World War II, when in the Netherlands the so-called *kerngezin* (nuclear family) becomes the cornerstone of the new society and (re)build cities: women should stay at home and take care of the children (at least two of them); men should work and are responsible for earning income. In the unfavourable event that women want to work or need to make a living of their own, the work possibilities are highly gendered. In women's magazine *Libelle* in 1953 it is stated that 'indoor architect' –next to apothecary assistant, dentist assistant and flight attendant– is deemed an appropriate profession for women, even though the future opportunities are 'not very favourable'.¹

Defining the work of an interior architect is always difficult, and sometimes confusing, because in work practice, it overlaps and interacts with other disciplines such as architecture, civil engineering, furniture design and art. According to ministerial guidelines, a graduated interior architect is capable of creating 'interior design that meets aesthetic, functional and technical requirements, with insight in the working of framed spaces and voids, and the mutual interaction between space regarding form and ratio specifically'. They also have knowledge of architectural construction and are capable of shaping the relation between people and spaces. Furthermore, they need to be well-informed on regulations and developments on climate control, fire safety, constructive safety, ergonomics, sustainability and more.²

Interior architecture as a discipline has a very dynamic character. In its educational practice two opposing developments can be recognized in the past decades: on the one hand, interiors are 'architecturized', the focus lies on its technical qualities and the relation with architecture, engineering, landscape and urban design; on the other hand, the creative possibilities and expressive qualities of the designing 'of' space and 'in' space are explored, linking interior architecture to experimental forms of spatial art and industrial design.

A recurring and frustrating misconception encountered by interior architects, is when interior architecture is mistaken for interior decoration. In *Intern* magazine in 1990, BNI president Hein Salomonson already warns: 'the interior architect has become a prisoner of the lifestyle', meaning that the

interior architect has to succumb to the demands of the commissioner asking for fashionable finishing touches instead of a thorough sustainable design.³

History of the BNI

The GKf (*Gebonden Kunsten Federatie* or Related Arts Federation) is established in September 1945 and from 1946 functions as a part of the four-pillar foundation of *Goed Wonen* (Better Living). The GKf represents artists and designers from a range of disciplines, while the other pillars of *Goed Wonen* represent the consumers, manufacturers and distributors. This collective ceases to exist in 1954 and the GKf continues independently as a collective of artists.⁴ In search of their own identities, the departments representing the different disciplines within the GKf –graphic design, ceramics, photography, fine arts, and others– get separated and become independent institutions in 1968. The 'GKf department of interior architects' renames itself as the *Beroepsvereniging van Nederlandse Interieurarchitecten* (Association of Dutch Interior Architects) and remains based in Amsterdam.

Some years later, in 1975, the BNI merges with the WBA, or *Werkgroep Binnenhuisarchitecten* (Workgroup Indoor Architects), a foundation they have been concurring and collaborating with for several decades. The WBA is established in 1948 by the 'indoor architects' who are member of the artist association of *Arti et Industriae*, as a department within the collective organisation in The Hague. In the same year as the GKf, 1968, the WBA separates itself from *Arti et Industriae* and goes on as an independent foundation.

In 1972 the first extensive collaboration between the two associations results in the Register of Interior Architects, a separate association both the WBA and BNI take seat in. Three years later the two associations merge and continue their work under the name of the BNI. The officially stated aims of the association are: to promote the development and practice of interior architecture, regarding qualitative design of our living environment; to represent cultural and social interests of interior architects; and to reinforce acknowledgement and understanding for the discipline of architecture. The activities of the BNI have changed over the years, but the legislated protection of the title of interior architect, and the development and improvement of education remain two of its main focus areas. The year 1988 offers a breakthrough when the *Architectenwet* (architect's law) is approved by the government and the professional title of all architectural disciplines becomes protected.

1 As quoted in: *Intern* 23, no. 1 (2007), 5.

2 Guus Enning and Warna Oosterbaan (eds.), *Titelbescherming van interieurarchitecten: Advies van het college van Rijksadviseurs aan de ministers van EZ, OCW en BZK* (The Hague: College van Rijksadviseurs, 2017), 3–5.

3 *Intern* 6, no. 4 (1990), 6.

4 Noud de Vreeze, *Goed Wonen: Geschiedenis van een Keurmerk* (Bussum: Thoth, 2015); Elinoor Bergveldt et al., "Goed Wonen: Een Nederlandse Wooncultuur 1946–1968," *Wonen-TA/BK*, 4–5 (1979), 9.

In 2018, the BNI will celebrate its 50th anniversary, but recent developments have shown that their work is not –if ever– finished. Due to European influence, the title of interior architect was in danger of losing its protected status, meaning the title would become free for everyone to use without following the proper training and gaining work experience.⁵ Luckily, with the efforts of the BNI, the government announced in February 2018 that the protected title will be maintained making an end to years of insecurity for the Dutch interior architects.⁶

Member Statistics and Gender

In a paper researched for the second international conference-workshop of MoMoWo in Ljubljana (2016),⁷ I have made statements about the presence and position of women in the *Goed Wonen* foundation: what they lacked in quantity and visibility, they made up for in quality. Many women who participate in *Goed Wonen* stay active members in the GKf for the following decades, like Bé Niegeman-Brand, Lida Licht-Lankelma, Cora Nicolai-Chaillet and many others.

A member list of the GKf interior architects, published in *Goed Wonen* magazine in 1955, is the earliest official member list to be found in the archive, along with the 1958 member list of the WBA. There's a big difference in the percentage of women in both associations: 22% of the GKf members are women, while only 5% of the WBA members are women (Tab. 1). This means that from the twenty-one WBA members at that time, only one is a woman: Agnes Brackel. In the following years, both associations show a very slow increase of female participants. In the years before the merger, there's still a big difference: 25% women in the GKf (already called the BNI) and only 8% of women in the WBA. Luckily, in the following years and decades, there's a steady increase in female members to a solid 45% in 2013.

The statistics of a selection of member lists throughout the years present a clear overview of the increase in female members of the BNI.⁸ Although not every interior architect working in the

Netherlands is a member of the BNI, its memberships are a solid reflection of the work field and changing society: not only does the membership decrease in size during an economic crisis –a hard time for assignment-based professions in general– the increase in female members correlates to an increase of women in the professional environment.

Another interesting reference point is the BNI award for encouraging young and talented students, that has been awarded almost every year since 1986. The first three winners of the *BNI-prijs* competition were female students: Evelien van Veen (1986), Ingrid van Ommen (1987) and Josje Kuiper (1989). After this, the award is handed out fairly equally between the sexes. The award was a promising start to the successful careers of all three students mentioned here: Evelien van Veen went on to study at the Architectural Association in London, has been active in many associations and is now owner of her own firm; Ingrid van Ommen has worked for several firms, including O.M.A., and started a successful studio in 1989 with architect Sjaak Hofwegen; and Josje Kuiper worked at the internationally renowned studio of Evelyne Merckx (first Merckx+Girod, later Merck X) since 1993.⁹

In the magazine *Intern* (published by the BNI from 1984 onwards) not much attention is given to gender-related aspect within the BNI and its members, or within the field of interior architecture in general, although I want to single out one excruciating exception: in 1990 the *Intern* publishes the article "De garderobe van de keizerin, of: het vrouwvriendelijke wonen," written by Gijs Bolhuis.¹⁰ He writes about an urban planning project in the Dutch city of Almere containing ten 'female-friendly' residences. The project developer explains to Bolhuis: 'The increasingly active role of women in public life of the 1990s, leads to a changed living pattern,' one that asks a different kind of living environment than the stereotypical family home. Bolhuis quotes two articles stating that, in general, women prefer flexible, alternating spaces that merge into each other and that they 'simply love the possibilities of sleeping here on a Monday and there on a Tuesday'. The mocking tone of the article is very frustrating and ends with saying the next step could be human- and animal-friendly homes, 'to give our loyal four-legged and feathered friend the attention they've all been waiting for'. Bolhuis makes it even worse by introducing the interior architect, BNI-member Luzia Hartsuyker, by saying the only female-friendly aspect of this project is that it's designed by a woman –'at least she knows what women want!'– and 'the name alone is enough for groups (of women) to become utterly delighted'. Hartsuyker herself prefers not to label the homes as 'female-friendly'. She designed the

5 Enning, Oosterbaan, *Titelbescherming*, 3–5.

6 "Interieurarchitectentitel gehandhaafd," *BNI*, February 21, 2018, <http://bni.nl/nieuws-en-projecten/interieurarchitectentitel-gehandhaafd.php> (accessed February 25, 2018).

7 Ilja Sarah Meijer, "Inclusion and Exclusion in Dutch Design History: Female Designers of the Goed Wonen (Better Living) Foundation 1946–1968," (paper presented at MoMoWo 2nd International Conference-Workshop: Women Designers, Architects and Engineers between 1946 and 1968, Research Centre of Slovenian Academy of Sciences and Arts, France Stele Institute of Art History, Ljubljana, Slovenia, October 3–5, 2016).

8 The selection of member lists is based on their availability on the one hand –some lists were more easily accessible than others, sometimes statistics were included in the yearly reports– and an attempt to have a representative chronological spread.

9 "Van Veen Architecten bureau / over Evelien van Veen," Van Veen Architecten, <http://www.vanveenarchitecten.nl/bureau>, (accessed January 25, 2018); "Ingrid van Ommen interieurarchitect," Van Ommen Hofwegen, <http://www.vanommenhofwegen.nl/ingrid.html>, (accessed January 25, 2018).

10 Freely translated to "The empress' wardrobe, or female friendly living."

homes from the inside out, not with a flexible floor plan, but with multipurpose rooms and a wide between the *woonkeuken* (kitchen) and living room.¹¹

Board Members and Politics

During the whole existence of the WBA, from its beginning in 1949 to the merger in 1975, Agnes Brackel is the only woman who takes seat in the board. She is also the first female member of the society –the second woman enters in 1963– and remains a very active member throughout the years. She becomes assistant secretary on the board in 1966 and full secretary in 1968, a role which she fulfils until 1975. In 1986 she is honoured with a special membership, *lid van verdienste* (member of merit), in gratitude of her dedication to the cause. In the context of the WBA, Annette van Oost also needs to be mentioned, as she was the head of the advisory committee of this 'men's club' for many years. She was married to Anton van Oost, who was president of the WBA from 1966 to 1972 and with whom she collaborated in architectural practice.

In the GKf and pre-merger BNI, the presence of women in the board and committees is a bit more promising. For example, in 1961 Cora Nicolai-Chaillet is elected president of the department of interior architects, but ends her presidency in 1963 to continue as a regular board member until 1969. She is also very active in the education committee and leaves her mark on the two-yearly IFI-congress 'the Milieu and it Design', hosted in Amsterdam in 1967. She designs the logo –expressing the correlation between interior architecture, architecture and urban design– and gives one of the keynote lectures next to architects John Habraken and Herman Hertzberger.¹²

One of the most interesting women from this 'political perspective' is Liesbeth Hardenberg's Jacob: she's the secretary on the board of the GKf from 1963 to ca. 1972, and from 1967 to 1992 she's secretary general of the International Federation of Interior Architects (IFI).¹³ On the 9th of October 1992, a farewell party is organized in her honour after 30 years of relentless effort and secretary activities in the IFI, BNI and other associations. Initiated by the BNI, she receives a royal degree for her work and is appointed honorary member of the BNI, including her in a list of 'the great names'

of interior architecture in the Netherlands such as Hein Salomonson, Benno Premsele, Nel Verschuuren, Jan de Bouvrie and Marijke van der Wijst. After her retirement as secretary general of the IFI, she organizes the IFI archive and writes down its history, which she publishes in the book 'IFI 1963-1993. A personal view' (1997).¹⁴

Together with Jan Vonk (treasurer GKf) and Jan Hagendoorn (president WBA), secretaries Agnes Brackel and Liesbeth Hardenberg acted as the legal representatives of the GKf and the WBA on the establishment of the previously mentioned Register of Interior Architects, an important historical milestone for the acknowledgement of the profession of interior architects.

After the merger, the BNI is lead by several female presidents: of the thirteen presidents since 1975, six are women: Nel Verschuuren (1975–1979), Tuci de Loo-Alons (1979–1983), Elli van Schelt (1993–1995), Joke van Hengstum (1996–1998), Christine van Gemert (2008–2012) and Anita Haver (interim 2012). Besides this, the history of the BNI shows three women treasurers –Corien Sparnaay, Lia de Bruijn and Margot Eras– and six secretaries – Marijke van der Wijst, Joke van Hengstum, Ingrid Alkemade, Margot Eras, Christine van Gemert and Bianca Venus. Notably, Joke van Hengstum becomes president of the ECIA (European Council of Interior Architects) from 2008 to 2014, besides working at her own studio and staying an active member of the BNI.¹⁵ Two other influential women in the organisation of the BNI are the secretary generals Nellie Visser-Engelgeer (from 1979 to 1990) and Cornelia van der Velden (from 1990 to 1994), not to mention all the women who worked as editors for *Intern*, took seat in one of the committees and regional boards or were employed by the BNI as administrative personnel (Fig. 1).



Fig. 1. Photo of the BNI board with (from left to right): Jan Kuijt, Waling Dijkstra, Jan Stienstra, Joke Budding-Fels, Roeland van der Hidde, Frank Pluym, Nellie Visser-Engelgeer (secretary general), Maddy Wackers, Fons Kooymans and Gezinus Meijer, 1989. Source: *Intern* (1989), 1.

11 *Intern*, no. 2 (1990), 20–21.

12 Wies van Moorsel, *Cora Nicolai-Chaillet: Interieurarchitecte en Woonpedagoge 1919–1975* (Rotterdam: Stichting Bonas, 2004), 33–34.

13 The IFI shared an office in Amsterdam with several other associations: the BNI, BNS (urban planners), BNT (garden architects) and GVN/BNO (grafic designers). From 1976 to 1986 it was situated at Keizersgracht 321 (office of the BNA, Association of Dutch Architects), after which it moved to the Arsenaal, near Waterlooplein. Later, the IFI moved to South Africa, which watered down the very close collaboration between the BNI and IFI.

14 Liesbeth Hardenberg, *IFI 1963 – 1993: A personal view* (Johannesburg: Avonwold Publishing, 1998).

15 "Joke van Hengstum / welkom," Van Hengstum Interieurarchitecten, <http://www.jvanhengstum.nl/> (accessed January 25, 2018).

Honorary Members and Members of Merit

In 1990, a farewell party is organized for Nellie Visser-Engelgeer. For almost 15 years she fulfils the position of secretary general for the BNI and is an important force as a writer, editor and supporter of *Intern* magazine. For this, she is given the title of member of merit, just like Agnes Brackel. 'In 1976, I responded to a job advertisement for "creative staff member," with "creative" referring to formative and productive, rather than artistic qualities. It appealed to me,' she recalls. 'At the actual job interview, four women sat across the table: BNI-president Nel Verschuuren, board secretary Marijke van der Wijst, secretary general Liesbeth Hardenberg and Marita Horn. Jokingly, I said: "With all these women, you need to hire a man!"'.¹⁶

Besides the title of member of merit –given to members in appreciation of their efforts for the BNI– and honorary member –in highest esteem– people could also become extraordinary member or associated member – given to members who no longer worked as interior architect but were still offered membership because of their respected opinions and experience level. Cora Nicolai-Chaillet is the first member of merit, appointed after she passed-away in 1975, only 56 years of age. Such posthumous honouring is also bestowed on Joke Budding-Fels, who is named honorary member in 2008 after her sudden death in a bus crash in Peru. Besides the women already mentioned, Nel Zwart (married to famous Dutch designer Piet Zwart), Elsbeth Bout-van Blerkom, Joke van Hengstum, Nicoline Minke-de Jong, Bé Niegeman-Brand, Marianne Ketel, Helen van Ruiten and Jo Elffers are also honoured with such titles.

In a short memorial of Jo Elffers in the *Intern* magazine, Liesbeth Hardenberg remembers she once told her about her 'big brothers', the well-known architect Cornelis Elffers and graphic designer Dick Elffers, 'who had never treated her as a full-fledged professional, for she was only a girl. It wasn't a complaint, and definitely no self-pity, but more the ascertainment of a fatality, which she had learned to live with'. Jo Elffers starts her career in the difficult years of the 1930s and is one of the first and most loyal members of the GkF and the BNI. Hardenberg ends the memorial by crediting Elffers with designing 'one of the most elegant rattan chairs I have ever seen'.¹⁷

Women as 'Interior Architects' and Award Winners

Although membership of the BNI is not mandatory for practicing interior architects –unlike registration in the Register of Architects– and the BNI's membership numbers have dwindled in some



Fig.2. Nel Verschuuren and Kho Liang Ie, Schiphol Airport, on the cover of *Intern* magazine. Source: *Intern* (1986), 3.

years, some of the most successful and renowned interior architects from the Netherlands have been long-term members and active players within the organisation. In the early years these included Margaret Staal-Kropholler, Cora Nicolai-Chaillet and Truus Schröder-Schräder, who collaborated with Gerrit Rietveld for her home in Utrecht (1924), now appointed as UNESCO world heritage.

Investigating winners of prestigious awards is one way to 'track down' celebrated architects in later years. For example, in 1986, the first award for interior architecture –later known as the Mart Stamprijs– set up by the *Amsterdams fonds voor de kunst* (Amsterdam Fund for the Arts) is awarded to Nel Verschuuren for her work at Schiphol Airport (Fig. 2). She's unanimously selected by the jury, consisting of BNI members Marijke van der Wijst, Sem Aardewerk and Krien van Stapele. The interior of the airport is finished in 1967 after the design of Kho Liang Ie, Nel Verschuuren's architectural associate, but needs to be expanded and adapted

over the years: Verschuuren's continuation of the high quality of interior design after the passing-away of her associate, earned the admiration of the jury. Interestingly, Marijke van der Wijst wins the award fifteen years later in 2001. She also wins the Kho Liang Ie design award –note the recurring cycle of names and the fact all awards carry male names– in 1993 for her design of the exhibition 'Voorzien' in the Stedelijk Museum in Amsterdam, an exhibition showing the collection of applied arts of Benno Premsele: designer, honorary member of the BNI and central figure in the Dutch art and design world. Both Verschuuren and Van der Wijst also receive the BNO Piet Zwart award (in 1998 and 2001), a lifetime achievement award rewarding expertise and contribution to a specific design or photography discipline. These awards are only few of the many they received, illustrating the respect and acknowledgement they receive from their peers and society in general.

Some other awarded or otherwise celebrated BNI members are: Mieke Poot, who used to be partner in the multidisciplinary design and architecture studio of BRS Premsele Vonk, a studio that has left its mark on the Netherlands in the 1980s and 1990s; Evelyne Merckx, who only started her career when she was 37, but designed many awarded projects such as the Concert Hall in Amsterdam or the bookstore in the former Dominican church in Maastricht; Odette Ex, who received an honourable

¹⁶ Telephonic interview with Nellie Visser-Engelgeer by author, March 28, 2018, freely translated by author.

¹⁷ *Intern* 9, no. 1 (1993), 7.

mention at the BNI award in 1993, owns a successful studio and recently, together with Wessel de Jonge, finished the renovation of the well-known Burgerweeshuis of Aldo van Eyck in Amsterdam; and –one more– Eline Strijkers, the co-founder of multidisciplinary and internationally working studio Doepelstrijkers, with a major focus on sustainability.¹⁸

The accomplishments of these women and their relations with the BNI are inspiring and beneficial for the furthering of interior architecture as a professional discipline in the Netherlands. It's no longer a 'simple interior design' they offer their clients, like the more traditional *binnenhuisarchitecten* (interior decorators), whose work consisted for a large part of designing homes for the wealthy elite, but they offer complete ideologies and multi-faceted spaces, working together with civil engineers and urban planners, and are well-informed on the newest innovations and technical advancements. While this paper barely scrapes the surface of everything that can be said about the BNI and all the inspirational women that are associated with it, I believe the statistics and stories presented here form a compact but straightforward view on the progress of women working as interior architects over the past fifty years. As a profession that was once perceived as 'suited for women', but until more recent years was still dominated by male practitioners, interior architecture provides an interesting point of view on the professionalization and acknowledgment of creative women.

	% women	% men
1958 (WBA)	5	95
1974 (WBA)	8	92
1955 (GKf)	22	78
1960 (GKf)	23	77
1973 (BNI)	25	75
1983	28	72
1992	30	70
1999	32	68
2009	43	57
2013	45	55

Tab. 1

18 *Intern* 26, no. 4 (2010), 4–7; *Intern* 27, no. 1 (2011), 4–7; "Eline Strijkers – founding partner," Doepelstrijkers, <http://www.doepelstrijkers.com/en/team/> (accessed January 25, 2018).

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Building the Networks in Architecture: Serbian Women Architects 1900-1941

From the Periphery to the Centre: Education of Serbian Women Architects

The concept of centre and periphery provides insight into transformations present in a framework of the power network. The connecting networks represent dynamic categories, expressive of shifting political, economic, social, and cultural alignments.

Peripheral position of Serbian women shifted after 1909, when the first generation of girls graduated from the Gymnasium for Girls in Belgrade. In consequence, the number of female students entering the University of Belgrade (Univerzitet u Beogradu) significantly increased.¹ From the earliest admission into historically male-dominated engineering field, women trained in architectural schools² had the skills to push the boundaries.

Architect Jelisaveta 'Caja' Načić Lukaj (1878–1955)³ (Fig. 1) was one of the European pioneers.

- 1 IIAV00000533 – 133, Completed Questionnaires on the Status of University Women 1936–1937, Country Yugoslavia, Archive International Federation of University Women (IFUW), Atria, Institute on Gender Equality and Women's History, Amsterdam.
- 2 Many architects worked as unmarried women, and upon marriage assumed their husband's surname. That made them difficult to trace. Hence, in this paper, if available, the first mention of name is full: first name, 'nickname', birth surname, followed by married surname(s). After that, the name used is the one by which the architect is known for.
- 3 See Divna Đurić Zamolo, "Prilog poznavanju života i rada arhitekete Jelisavete Načić," *Godišnjak grada Beograda* 36 (1989), 149–62; Divna Đurić Zamolo, "Građa za proučavanje dela žena arhitekata sa beogradskog Univerziteta generacije 1896–1940," in *PINUS zapisi* 5, edited by Aleksandar Kadjević (1996), 43–7; Jelena Bogdanović, "Jelisaveta Načić: The First Serbian Female Architect," *Serbian Studies* 18/2, (2004), 403–10; Divna Đurić Zamolo, *Graditelji Beograda 1815–1914* (Beograd: Muzej grada, 2011), 218–27; Bojana Ibrajter Gazibara, "Jelisaveta Načić: talentovana graditeljka Beograda," in *Žene u arhitekturi: Savremena arhitektura u Srbiji posle 1900*, edited by Milena Zindović, (Beograd: Centar za arhitekturu, 2014), 42–9; Aleksandra Ilijevski, "Breaking Ground. Pioneering Women in Serbian Architecture," in *MoMoWo: 100 Works in 100 Years: European Women in Architecture and Design: 1918–2018*, edited by Ana María Fernández García, et al. (Ljubljana: Založba ZRC; France Stele Institute of Art History ZRC SAZU, 2016), 258–61.

In 1896 Jelisaveta Načić enrolled at the Technical Faculty (Tehnički fakultet) of the Great School (Velika škola),⁴ and in 1900 she graduated from the Architectural Department, as the first Serbian woman architect.

Other women followed in her footsteps and were awarded the degree in architecture. In the pioneering generation before the First World War were Milica Čolak-Antić Krstić (1887–1964; graduated 1910),⁵ Milica Vukšić Karasinski (b. 1887; graduated 1911),⁶ Angelina 'Anđa' Janković Nešić (died in 1975; graduated 1912)⁷ (Fig. 2), Jelena Tomić Bokur (1889–1961; graduated 1913),⁸ and Jelena Golemović Minić (1890–1973; graduated 1914).⁹

At the same time, Kingdom of Serbia supported the education of its citizens at the Universities in Europe, and after 1882, women accounted for 5% of students.¹⁰ Jovanka Bončić Katerinić (Ger. Bontschits Katerinitsch, 1887–1966),¹¹ began to study architecture in Belgrade, and as the Ministry of Civil Engineering fellowship holder in 1909/10 transferred to the Technical University Darmstadt (Technische Hochschule Darmstadt). Jovanka Bončić Katerinić completed her degree course on 18 July 1913, and was among the first women in Germany to hold the degree 'Diplom-Ingenieur'.¹²

After the war, Serbia became part of the Kingdom of Serbs, Croats and Slovenes (SCS, from 1929



Fig. 1. Jelisaveta Načić (1878–1955), the first woman architect in Serbia, before 1913. Published in: *Srpskinja: Njezin život i rad, njezin kulturni razvitak i njezina narodna umjetnost do danas* (1913), 82.



Fig. 2. Angelina Nešić (died in 1975), one of the first women architects in Serbia, 1931. Courtesy of the Historical Archives of Belgrade (Istorijski arhiv Beograda, IAB-1119-K 46 3. 1. 357)

Yugoslavia). With the social changes, the number of women attending the University of Belgrade rose much more rapidly. In 1919–39, from the Architectural Department of the Technical Faculty 89 women gained their degree in architecture, making 21% of 420 graduates for the period in question.¹³

Among them were eight émigré students from the former Russian Empire: Irina K. Fomina (Ирина К. Фомина, b. 1905; graduated 1932), Ksenija Petrovna Belavenec Medvedeva (Ксения Петровна Белавенец Медведева, 1905–1980; graduated 1932), Marija A. Sinicina (Мария А. Сеницына, b. 1899; graduated 1934), Ljudmila Radionovna Kolčina Krat (Людмила Родионовна Колчина Крат, b. 1906; graduated 1935), Ljudmila Ivanova Poljuškina (Людмила Иванова Полюшкина, b. 1897; graduated 1935), Zoja Aleksandrovna Vikova Filipova (Зоя Александровна Быкова Филиппова, b. 1893; graduated 1936), Irina Vasiljevna Koteljnikova (Ирина Васильевна Котельникова, b. 1912; graduated 1936), and Irina Vladimirovna Komarova Halafova (Ирина Владимировна Комарова Халафова, Eng. Halafoff, 1908–2013; graduated 1937).¹⁴

Power Network: Women as the State Architects

Traditional gender role ideology was embedded in the Civil Code of 1844, which stated that a married woman could not be engaged in public service without her husband's consent.¹⁵ The doctrine of coverture restricted social position of Serbian women for a full century, compelling many to resign from public service employment after marriage.

Jelisaveta Načić had internship in the Ministry of Civil Engineering, institution considered to be the core of the power network that exercised legislative policies and disseminated architectural

4 The Great School in 1905 became the University of Belgrade.

5 See Đurić Zamolo, "Građa," 42–3; Snežana Toševa, "Arhitekt Milica Krstić (1887–1964)," *Godišnjak grada Beograda* 44 (1997), 95–114; Milena Zindović, "Milica Krstić: Arhitekta u državnoj službi," in *Žene u arhitekturi*, 69–78; Ilijevski, "Breaking," 258–61.

6 See Maja Nikolova, "Obrazovanje inženjera u Srbiji do Prvog svetskog rata," in *PINUS zapisi* 4 (1996), 99; cf. Đurić Zamolo, "Građa," 8, 21–2 where the author states 1910 as a graduation year.

7 See Nikolova, "Obrazovanje," 99; Đurić Zamolo, "Građa," 10, 47.

8 See Nikolova, "Obrazovanje," 99; Đurić Zamolo, "Građa," 12, 49–51.

9 See Đurić Zamolo, "Građa," 12, 23.

10 Ljubinka Trgovčević, *Planirana elita: O studentima iz Srbije na evropskim univerzitetima u 19. veku* (Beograd: Službeni glasnik, 2003), 194.

11 See Đurić Zamolo, "Građa," 19–21; Draginja Maskareli, "O delatnosti arhitekta Jovanke Bončić Katerinić," *Leskovački zbornik* 43 (2003), 217–22; Đurđija Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić Katerinić u Beogradu: Zgrade Ženske učiteljske škole i Veterinarskog fakulteta," *Godišnjak grada Beograda* 55/56 (2008/9), 265–90; Ilijevski, "Breaking," 258–61.

12 See Jovanka Bončić's records (Jovanka Bontschits on her diploma), Universitätsarchiv, Technische Universität Darmstadt.

13 All data deduced by the author from *Imenik diplomiranih inženjera i arhitekata na Tehničkom fakultetu Univerziteta u Beogradu*, edited by Vojislav S. Marković (Beograd: Tehnički fakultet, 1939).

14 Names, and years edited by the author. For Russian émigré, if available, the full name is written as: first name, patronymic, birth surname, followed by married surname. See *Imenik*, 77, 94, 106, 108, 112, 123.

15 Ljubinka Trgovčević, "The Professional Emancipation of Women in 19th-Century Serbia," *Serbian Studies* 25, no.1 (2011), 7–8.

influence. After passing her license exam, she was denied a position. Precisely, as a woman, she did not have compulsory military service. Soon afterward, with the Belgrade Municipal Court decree of 17 July 1902, the Council instated Jelisaveta Načić for the municipal architect on 30 December 1903.¹⁶ She administered a wide range of architectural and urban design projects in the capital until 1916, when she was, as a civilian, taken to the Internment Camp in Nézsider (today Neusiedl am See). There she married Albanian politician Luka Lukai (Luk Lukaj), and had a daughter. Jelisaveta Načić subsequently left the architecture profession, and lived in Dubrovnik.

Jovanka Bončić Katerinić gained a position in the Ministry of Civil Engineering. She worked until 1914 when she married, and for a time, lived abroad. Before the First World War, architects Milica Krstić, Jelena Tomić Bokur, Milica Vukšić, and Jelena Minić were also employed by the state.

At the time, women could only be contract public employees. In 1919 Jelena Tomić Bokur became the first woman architect appointed for the permanent position. She became the head of the Technical Department at the Vršac Municipality, and retired in 1937 as a senior advisor.¹⁷ Architect Milica Krstić had most imposing career in the Ministry of Civil Engineering (1914–41). In 1940 she reached the highest position, the rank of inspector.

Women were engaged as the state architects in ministerial, regional and municipal offices. Although they advanced in the workplace, gender connotations were prominent, and large-scale public projects were often work of male colleagues.

In the Section for Educational and Church Buildings of the Architectural Department women were entrusted the planning and standardizing school buildings. Milica Krstić, Danica Milovanović Kojić (1899–1975; graduated 1924),¹⁸ Radojka 'Rada' Milivojević (b. 1892; graduated 1921), Desanka 'Šanka' Đorđević Manojlović Jovanović Pavličević (b. 1900; graduated 1924),¹⁹ Živana 'Žanka' Bogdanović (b. 1897; graduated 1924), Stanislava Jovanović Hristodulo (b. 1901; graduated 1928), and Anđelija Pavlović Marković (b. 1899; graduated 1925) made exceptional small town and village schools, many with teacher housing facilities.²⁰ They were inspired by regional architecture, notably the Morava vernacular house.

In urban areas, educational buildings incorporated healthful learning environment. Milica Krstić's renowned schools in Belgrade were the Second Gymnasium for Girls (1928–35, today Nikola Tesla Electro-Technical Secondary School), and the First Gymnasium for Boys (1935–38, today the First Belgrade Gymnasium). Jovanka Bončić Katerinić designed the Faculty of Veterinary Medicine of the University of Belgrade (1939–42).²¹

Professional Network: Women in the Association of Engineers and Architects

Association of Serbian Engineers and Architects (Udruženje srpskih inženjera i arhitekata USIA) was reinstated in June 1918 at the Macedonian Front in Thessaloniki, with aim to contribute to the post-war reconstruction. Among members were two women architects, Milica Vukšić, and Milica Krstić.²²

With the formation of new Kingdom, the USIA was renamed the Association of Yugoslav Engineers and Architects – Section Belgrade (Udruženje jugoslovenskih inženjera i arhitekata UJIA – Sekcija Beograd). In 1923 architects formed the Architects' Club.

Milica Krstić was a long-time elected board member of the UJIA – Section Belgrade, and a treasurer of the Architects' Club.²³ When Milan Zloković (1898–1965) became the president of the Architects' Club in 1937, Ružica Ilić (1909–1992; graduated 1934), his assistant on many projects, was elected a secretary.²⁴

Around 1930, Belgrade Architects' Club had 20 women members.²⁵ Many of them were state employees, notably from the Ministry of Civil Engineering. Interestingly, women made up around 26% of the Architects' Club that was slightly above the percentage of women graduates. These results agree that women represented around a quarter of the architecture workforce, a surprising figure for the time.

¹⁶ *Beogradske opštinske novine*, January 2, 1904, 5.

¹⁷ AJ-62, Personal file of Jelena Tomić Bokur, Personal files B: Bogdanović–Boš, F-6. Ministry of Civil Engineering Fond. Archives of Yugoslavia, Belgrade.

¹⁸ See Đurić Zamolo, "Građa," 40–2; Snežana Toševa, "Danica Kojić (1899–1975)," *Godišnjak grada Beograda* 43 (1996), 109–21.

¹⁹ As an unmarried woman, Desanka 'Šanka' Đorđević worked for the Ministry of Civil Engineering. She transferred to Belgrade Municipality, and used her married surname Manojlović. At some point she was married again, and in 1938 her surname was Jovanović. Later on, her third married surname was Pavličević. See footnote 42.

²⁰ See Snežana Toševa, "Arhitektonsko odeljenje Ministarstva građevina Kraljevine Jugoslavije i njegov uticaj na razvoj graditeljstva u Srbiji između dva svetska rata" (PhD dissertation, Arhitektonski fakultet, Beograd 2012), 137, 265–8.

²¹ See Ilijevski, "Breaking," 259–60.

²² "Spisak redovnih članova Udruženja srpskih inženjera i arhitekata," *Srpski tehnički list*, July 15, 1918, 10, 14.

²³ "Pitanje organizacije Ministarstva javnih radova," *Vreme*, February 25, 1929; "Skupština Kluba beogradskih arhitekata," *Vreme*, February 16, 1933, 5; cf. Branislav Kojić, *Društveni uslovi razvitka arhitektonske struke u Beogradu 1920–1940 godine* (Beograd: SANU, 1979), 46.

²⁴ "Skupština Kluba arhitekata," *Politika*, November 13, 1937, 17; cf. Kojić, *Društveni*, 46.

²⁵ See Kojić, *Društveni*, 51, 80.

Invisible Network: Husband and Wife Architects, and Collaborative Practice

When both partners are architects, architectural history has to research intricate network that form a process of collaborative practice. With rare exceptions, notably Milica Krstić and Jovanka Bončić, the master narrative is evident: accomplishing husband architect, and a wife whose achievements are mostly forgotten. It is difficult, however necessary, to define to what extent the partner influenced, or contributed to accomplishments.

Jovanka Bončić Katerinić, and émigré Ukrainian architect Andreja Katerinić (1883–1968; graduated 1913) were colleagues from Darmstadt. After the Russian Revolution, they settled in Belgrade in 1923, and Andreja Katerinić became municipal architect. Both exceeded in educational buildings design.²⁶

Many couples graduated from the Technical Faculty in Belgrade. Angelina Nešić was married to Milan Nešić (1886–1970, graduated 1909), civil engineer, and a professor at the Technical Faculty. Milica Krstić was the wife of architect Žarko Krstić (died in 1941; graduated 1912). He was first appointed to the Ministry of Civil Engineering, then the Belgrade Municipality,²⁷ where he administered urban policies.²⁸ Russian émigrés Ksenija Belavenec Medvedeva and Aleksandar Ivanovič Medvedev (Александр Иванович Медведев, 1900–1984, graduated 1929) had a private architectural studio in Niš.²⁹ Ljudmila Kolčina Krat and Pavle Vasiljevič Krat (Павел Васильевич Крат, 1907–1969? graduated 1931) were also émigrés. Ljudmila Kolčina Krat was engaged in the studio of architect Josif Najman (1894–1951), and from 1939 she worked for the Belgrade Municipality.³⁰

The Ministry of Civil Engineering, as mentioned earlier, was the core of the power network. Collaborative practice influenced the interaction between architects in the Architectural Department, and some formed personal relationships. Jelena and Milan Minić (1889–1961; graduated 1914) in 1923 resigned their posts, and Milan Minić founded a studio in Belgrade. The Majestic Hotel in Belgrade (1937) was collaborative work, where Jelena Minić was responsible for interior design. Danica and Branislav Kojić (1899–1987; graduated 1921) in 1928 opened a private studio in Belgrade, the same year Branislav Kojić became the founding member of the Group of Architects of the Modern Movement (Grupa arhitekata modernog pravca, GAMP). Over the time, Branislav Kojić

was involved in spatial and structural aspects of buildings, while Danica Kojić shifted her focus on interior design, a method they applied for the Cvijeta Zuzorić Art Pavilion in Belgrade (opened in 1928).³¹ Stanislava Jovanović Hristodulo was an employee in the period 1928–37, and in 1936 she married Budimir Hristodulo (b. 1892).³² Ljubica Lazarević Leko (1899–1977; graduated 1925) and Dimitrije M. Leko (1887–1964) collaborated on architectural design competitions, including Restaurant in Topčider, Belgrade (1931, second place).

Social and Intellectual Networks: Women's Organizations and International Activism

At the end of the nineteenth century a growing network of women's voluntary organizations started to form. In times of war, women from the Jewish Women's Society (1874, Jevrejsko žensko društvo), the Belgrade Women's Society (1875, Beogradsko žensko društvo), the Princess Ljubica Society (1899, Društvo 'Kneginja Ljubica'), the Circle of Serbian Sisters (1903, Kolo srpskih sestara) became nurses and organised hospitals. After the First World War main activities were building healthcare and educational facilities, and taking care of orphaned, underprivileged and ill children.

Women's organizations were also dedicated to preserving the collective memory of fallen soldiers. After the Balkan Wars 1912–1913, for the Princess Ljubica Society architect Jelisaveta Načić designed the Saint Archangel Michael Memorial Church in Štimlje (damaged in the First World War, restored 1923). In 1933 the Society also erected the Church in Deligrad near Aleksinac, and architect Momir Korunović (1883–1969) revised and elaborated Jelisaveta Načić's architectural plans for the Štimlje Church.³³

During interwar years a network of women's national and international organizations promoted gender equality. The Little Entente of Women (LEW, Mala Antanta žena, or Mala ženska Antanta) was founded in 1923 in Rome. The mission was to change socio-economic status of women in Kingdom of SCS (Yugoslavia), Poland, Czechoslovakia, Bulgaria, Romania, and in Greece. The Association of University Educated Women (1927, Udruženje univerzitetски obrazovanih žena) was a member of the International Federation of University Women (IFUW). The Cvijeta Zuzorić Association of Friends of Art (1922, Udruženje prijatelja umetnosti Cvijeta Zuzorić) was created with aim to 'raise

26 See Žarko Krstić, "Školske zgrade za osnovnu nastavu u Beogradu," *Beogradske opštinske novine*, August 16, 1931, 1037–50; Ilijevski, "Breaking," 259.

27 "Spisak," 12. Žarko Krstić was killed in April 1941, as a reserve engineer captain, Ilijevski, "Breaking," 260.

28 See Žarko Krstić, "Školske," 1037–50.

29 See Aleksandar Kadijević, "O radu arhitekta Ksenije Belavenec-Medvedev," *Leskovački zbornik* 40 (2000), 115–23; Mihailo Medvedev, *Projekti i arhitektura ing. Aleksandra I. Medvedeva ovl. arhitekta* (Niš: Društvo arhitekata Niša), 2012.

30 IAB-OGB-Administrative Department. Personal file of Ljudmila Krat. Historical Archives of Belgrade, Belgrade.

31 Toševa, "Danica," 112–7; See Aleksandra Ilijevski, "The Cvijeta Zuzorić Art Pavilion as the Center for Exhibition Activities of Belgrade Architects 1928–1933," *Zbornik Matice srpske za likovne umetnosti* 41 (2013), 238–9.

32 Đurić Zamolo, "Građa," 35.

33 *Almanah humanih društava*, edited by Siniša L. Sretenović and Božidar S. Nedeljković-Ročkoman, (Beograd, 1940), 121–2; cf. Aleksandar Kadijević, *Momir Korunović* (Beograd: Republički zavod za zaštitu spomenika kulture, 1996), 73.

interest in arts and create conditions for its progress and development'.³⁴

Angelina Nešić was board member of the Belgrade Women's Society, also the patroness of many charities in Belgrade, especially nursery schools.³⁵ Milica Krstić stands out in terms of betterment of the architectural profession, and campaign for gender equality. As a national delegate in 1925 she attended the Sixth Quinquennial Convention of the International Council of Women (ICW) in Washington D.C. She gave lectures on contemporary architecture, exhibitions and conferences she attended abroad. Milica Krstić and Jelena Minić were board members of the Association of University Educated Women. Danica Kojić was on the board of the Cvijeta Zuzorić Association of Friends of Art.³⁶

Artistic Network: Exhibitions and Professional Recognition of Women Architects

In 1912, when Jelisaveta Načić presented her acclaimed work, the King Petar I Primary School (1907) at the *Fourth Yugoslav Art Exhibition in Belgrade*,³⁷ she was the only woman among Serbian, Croatian, and Slovenian architects.

From the beginning, the Cvijeta Zuzorić Arts Pavilion produced changes in society by promoting new cultural models. In June 1929 the GAMP organized the *First Salon of Architecture*.³⁸ Milica Krstić exhibited designs and the model of the Second Gymnasium for Girls, and Ljubica Todorović (b. 1899; graduated 1924) two villas in Belgrade. Draginja Petrović Petković (1899–1995; graduated 1924) in a team with Josif Mihailović (1887–1941) displayed Skopje Partial Plan, and the Belgrade City Plan. Among his work, Branislav Kojić also featured the Zamboni building in Belgrade, and a sketch of the Cvijeta Zuzorić Art Pavilion main hall. He omitted the mention of his wife Danica Kojić, the interior designer.

Women of the LEW gathered eminent painters, sculptors, and architects from Yugoslavia, Romania and Czechoslovakia in the Cvijeta Zuzorić Arts Pavilion for the 1938 *Exhibition of Women Artists*

of the *Little Entente*.³⁹ Patrons were Queen Marija of Yugoslavia, Queen Marie of Romania and Hana Benešová, the wife of the president of Czechoslovakia. It was envisioned as an international traveling exhibition, with agenda to emphasize shared geopolitical and cultural sphere. Nine acclaimed architects were selected from Yugoslavia, and two from Czechoslovakia.

Jelisaveta Načić, in the catalogue highlighted as the first woman architect in Yugoslavia, exhibited the King Petar I Primary School in Belgrade. Dušana Šantel Kanoni (1908–1988; graduated 1932),⁴⁰ was the first woman architect to obtain a degree in Slovenia. Zoja Petrovna Nepenina Dumengjić (Зоя Петровна Непенина, 1904–2000; grad. 1927),⁴¹ a Russian émigré who gained a degree from the Faculty of Technology in Zagreb, presented the Hygienic Institute. Ksenija (Xenia) Grisogono (1909–1997; grad. 1933) also graduated in Zagreb, and later studied in Prague. She displayed a Villa in Dalmatia. Milica Krstić exhibited the First Gymnasium for Boys, and Desanka Jovanović⁴² the Queen Marija Primary School in Belgrade. Ružica Ilić presented the Labour Market building, and Jelena Minić her interior for the Majestic Hotel. Danica Kojić exhibited the Maison Particulière, and this time the catalogue stated that she collaborated with architect Branislav Kojić.

Milada Petříková Pavlíková (1895–1985; graduated 1921) graduated from the Technical University in Prague (České vysoké učení technické v Praze), and was the first woman architect in Czechoslovakia. She displayed the Czech Women's Club in Prague. Augusta Machoňová Müllerová (1906–1984) also studied in Prague, and took part at major public architectural competitions for hospitals and monuments.

Architectural exhibitions presented cross-section of the leading figures, and their productions, and were crucial factor in determining the directions of the contemporary architecture. Furthermore, they provided tangible evidence of women's presence and acknowledgement in the profession.

34 Article two, *Udruženje prijatelja umetnosti Cvijeta Zuzorić: Pravila* (Beograd, 1927). See Radina Vučetić Mladenović, *Evropa na Kalemegdanu: Cvijeta Zuzorić i kulturni život Beograda 1918-1941* (Beograd: Institut za noviju istoriju Srbije, 2003).

35 IAB-1119-K 46 3. 1. 357. Glavinic Family Fond. Historical Archives of Belgrade, Belgrade.

36 *Prosvetni glasnik*, April 1933, 386.

37 *Četvrta jugoslovenska umetnička izložba: Beograd 1912* (Beograd: Državna štamparija, 1912), 45, Exhibition catalogue.

38 See Kojić, *Društveni*, 187–94; Ilijevski, "The Cvijeta Zuzorić," 241; Ivona Fregl, "Draginja Petrović-Petković 1899–1995: prilog proučavanju dela žena arhitekata u Srbiji, *Arhitektura i urbanizam* 14–15 (2004), 94–6.

39 *La Petite Entente des Femmes: Exposition des femmes artistes des états de la Petite Entente: 1938 Belgrade, Zagreb, Ljubljana, Bucarest, Cluj, Cernatuzi, Praha, Brno, Bratislava* (Praha: Orbis, 1938), Exhibition catalogue; Ilijevski, "Breaking," 260–1.

40 See Alenka Di Battista, "Slovenian Women's Magazines and the Development of the Modern Home Concept in the Thirties," *Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot, et al. (Ljubljana: ZRC Publishing House, 2017), 176–95, doi.org/10.3986/wocrea/1/momowo1.10

41 See Zrinka Barišić Marenić, "Arhitektica Zoja Dumengjić: osobitost djela u kontekstu hrvatske moderne arhitekture," (PhD dissertation, Arhitektonski fakultet, Zagreb 2007); Aleksandar Kadjević, "Arhitekti emigranti iz Rusije i hrvatska arhitektura 20. stoljeća," *Prostor* 25/2, 54, (2017), 358–71.

42 Desanka 'Šanka' Đorđević Manojlović Jovanović Pavličević. See footnote 19.

Rebuilding the Lost Connections

Serbian women architects from their initial 'peripheral' position, by the end of interwar period created a network of influence that led to career progression and professional recognition. How did it happen that these pioneering women became invisible, and their milestones of advancements erased?

The historiography was oriented toward a star system that only credited individual. Oftentimes, women architects were engaged in large state-owned offices, worked in partnership with their husbands, or were assistants in private architectural practices. Their contribution did not appear in official accounts, and consequently, women architects were marginalized in scholarly research.

Furthermore, upon their marriage(s), women architects can be traced under more than one surname in the archives, primary sources and historiography. That made the professional women's biographies, and their work, difficult to reconstruct.

The reality of social networks constitutes the field most capable of reshaping the lost unity of the subject's praxis and the rise of political entities and power relations.⁴³ In that broader framework of interdisciplinary research, broken connections become apparent. Within the overlapping networks and connections women architects have made, they again become visible, active participants who altered social dynamics and produced changes in architectural profession, and Serbian society.

⁴³ Demetrios Stamatopoulos, "From Machiavelli to the Sultans: Power Networks in the Ottoman Imperial Context," *Historein* 5 (2005), 77.

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Women Who Build:

Giulia De Appolonia, Ulla Hell, Elisa Burnazzi

Introduction

Twenty years ago, there were just a few female architects largely known; today there are a multitude: you can find not just female 'archistars' but also female professionals, who carry out their work every day, vigorously and naturally at the same time.

This is a report of the roundtable 'Future Architecture – Women who build' (promoted by the Architects' Order of Trento), focused on three young female architects, which took place on 13 October 2016 in Trento (Italy) as part of the national event *Festival delle Professioni*; architects Ulla Hell, Giulia de Appolonia, Elisa Burnazzi were invited to show their projects and to talk about their professional and personal life, inseparable from one another.

The event is presented by members of Architects' Order Council: President Susanna Serafini tell us that women architects 'find it difficult to reconcile work and family life having at the same time a satisfying income; in Trentino region women are 35% of the Order members (compared with an average of 42% in Italy). Testimony of several successful women helps to encourage other women'. Vice President Ugo Bazzanella reminds architects' crisis in Italy:

Crisis means not only lack of work but also prejudices and vilification; as members of the Order we undertake to defend the dignity of profession. The public body equalizes architects' job with any firm providing services, without assigning any value to intellectual work, to creativity; procurement processes based on the lowest offer are not fear. In other countries, like Germany and Sweden, professional fees are defended.

Ugo introduces us to the moderator, architect Maria Grazia Piazzetta,¹ seventh woman enrolled (1964) in Architects' Order of Trento since its foundation.

Rapporteurs' curricula are extremely rich and different from each other.

Giulia de Appolonia was born in Pordenone in 1969 and was enrolled in the Facoltà di Architettura, Politecnico di Milano in 1988. In 1991–92 she was awarded the 'Erasmus study abroad scholarship' to attend University in Lisbon. She resided in Portugal from 1991 to 2004 where she began her professional career, at first collaborating with architect J.L. Carrilho da Graça, later (2000) leading her own office; her most important project in Portugal is the *Viva Science Centre* in Bragança (Portugal International Competition, first prize). In 2005 she came back to Italy and founded a new office in Pordenone; the office participated in several tenders and contests and won the international competition for the Congress Centre for *Istituto Zooprofilattico di Brescia*. In 2008 she created the firm ABDA srl with architect Camillo Botticini, developing national and international projects that brought her visibility and recognition (among the most important projects the Multifunctional Building in Assago near Milano - Housing complex, Educational complex and University facilities) and led it to winning an international competition in Portugal (Urban park and facilities in Arcos de Valdevez, 2011). In 2014 she opened her own office Giulia de Appolonia – Officina di Architettura in Brescia.

Ulla Hell, born in San Candido in 1973, is an architect trained in Austria (University of Innsbruck) and in the Netherlands (TU Eindhoven, TU Delft). She is one of the four partners of the international architectural practice Plasma Studio² (founded in London in 1999; by now offices in Beijing (Peking), Hong Kong and Bolzano) which she joined in 2002³. She has 15 years' experience with all phases and scales of architectural, urban and object design with focus on systemic, context and material driven architecture and a strong interest in the building processes of architecture. She was also involved in teaching assignment of the Reiseuni Lab at the University of Innsbruck, Austria.

In 2003 she came back home to Italy (Sesto Pusteria, Bolzano province) and she opened a branch office of Plasma, where she carries on her professional activity worldwide, by a cooperation web

based, with Plasma colleagues and collaborators; some of the widely published projects of Plasma studio were built right here. Here, at home, she finds peace and isolation that are necessary to her work and, more, she has the opportunity to stay close to her family. At the moment they are five at her Italian practice, majority of them (four) are women and this trend is going on since several years. Ulla believes that, in her experience, 'being a woman has never represented an obstacle'; actually she never asked herself 'whether man or woman'.

Elisa Burnazzi, born in Rimini in 1974, graduated in Venice, presented her professional experience as a 'partner work': two partners both in life and in architecture, since university, Davide Feltrin and Elisa Burnazzi, are driven by a passion for architecture as a creative act. After working a few years with leading architects, in 2003 they founded in Trento the firm Burnazzi Feltrin Architects.⁴ Their projects –always original and updated with respect to the international architectural panorama– reveal an inclination to paying extreme attention to every single detail, besides the purely architectural aspect, thus trespassing into high quality design. They won many awards, both national and international; in 2016 Elisa has been the only Italian shortlisted for the international award 'Women in Architecture Awards' category 'Moirra Gemmill Prize for Emerging Architecture';⁵ she has been listed, the only Italian designer together with Lina Bo Bardi, among the 15 women architects who have designed exceptional projects by Archdaily⁶ and she has been invited to join the jury panel of the international award American Architecture Prize (2016 and 2017). In 2012 Burnazzi Feltrin Architects took part in the 13th Venice Architecture Biennale and in 2013 in the 2nd Biennale of Public Space 2013.

They take care of any new project themselves, dealing with just a few collaborators; first ideas are always developed through sketches; graphics rendering is moderately used, just at an advanced stage of the designing process and whilst requested by public administration. Containing growth in their activity seems their lifestyle choice: quite every assignment has been given directly by private or public customers; in very rare cases they were engaged in design competitions: 'Recently – Elisa tells us - the situation is changing positively about national contests, with respect to a greater likelihood to realize the winning proposal so our firm is now participating in some of them'.

1 Graduated in Venice, teaching by the time great professors (Gardella, Albini, Piccinato, Belgiojoso, Zevi) Maria Grazia is founding partner of studio Schweizer-Piazzetta, dealing with many public and private commissioners and cooperating with University in design seminars; "studio's skill is combining traditional elements and contemporary architecture" (Ugo Bazzanella).

2 "Plasma Studio," Plasma Studio, <http://www.plasmastudio.com/index.html>, (accessed January 3, 2018).

3 Ulla is one of the four partners of Plasma Studio with Eva Castro, Holger Kehne and Chuan Wang. 'The term Plasma comes from Classic Greek and means modelling, form, fabric, imagination, fiction. In Physics the Plasma State- or fourth state of matter- describes a unique condition of matter arising at a complex overlay of external forces. Plasma, a charged field of particles, conducts energy.' ("Plasma Studio About," Plasma Studio, <http://www.plasmastudio.com/about.html> (accessed January 2018)).

4 "Burnazzi Feltrin Architetti," <http://www.burnazzi-feltrin.it/> (accessed January 15, 2018).

5 'Moirra Gemmill Prize', one of the four awards of 'Women in Architecture Awards', promoted by The Architectural Review in association with the Architects' Journal, awards that celebrate excellence in design and promote role models for women in practice. 'Moirra Gemmill Prize for Emerging Architecture', founded in 1999 recognizes excellence in design and a bright future for women designers under the age of 45, with an emphasis on achievements and completed projects. Renamed in memory of Moirra Gemmill, museum director (Museum of London; Victoria and Albert Museum) tragically dead in 2015. ("The Architectural Review – Awards," <https://www.architectural-review.com/awards> (accessed January 13, 2018)).

6 Victor Delaqua, "In Honor of Women's day 15 Exceptional Projects,, ArchDaily, <https://www.archdaily.com/783347/in-honor-of-womens-day-15-exceptional-projects> (accessed January 15, 2018).



Left: Elementary School Zanella in Villafranca (Verona) by Giulia de Appolonia 2014–2016.

Source: Giulia de Appolonia – Officina di architettura Photo Archive.

Center: Residence Dolomitenblick Sesto Pusteria (Bolzano) by Ulla Hell (with Plasma Studio) 2012.

Source: Plasma Studio Photo Archive.

Right: Single Family House PF in Pergine Valsugana (Trento) by Elisa Burnazzi and Davide Feltrin 2006–2009.

Source: Studio Burnazzi Feltrin Photo Archive.

Giulia is the first to start her presentation; her statement is that 'in my opinion women do play a different role in architecture compared to men'. She shows a project for refurbishment and extension of *Elementary School Zanella* in Villafranca (Verona),⁷ a construction site recently completed (Fig. 1). The school is situated 'inside a plot of land at the edge of town, uncharacterised and bordering agricultural soil; a building enclosed inside a paddock, no connection with surroundings'. The construction process lasted nearly three years, including five design steps due to project variations; meanwhile school stayed open the whole time. The first funding (by Ministry MIUR⁸) was destined to the enlargement but a negative report about structural and seismic safety forced the administration to look for more funding; more than that they managed to have a second funding to improve energy efficiency. The project consisted on demolition and rebuilding of a part of the school built during the fifties – 'An opportunity to supplement and improve the existing buildings, by inserting a canteen and a gym' - and a seismic upgrading of the remaining building. The fragmentation of the construction process obliged the project team to 'take decisions having a short range of visibility, having a continued creative effort and spending a lot of energy without a clear target'.

The idea behind the project was the intention to 'state the public function of the building and drive it out of the paddock'. The entrance, for safety reasons, was moved to the back road and part of the garden was transferred to the public administration; it was planned to create educational vegetable cultivations and a drainage concrete pavement. Main existing building was kept in place but introducing a new skin: the base is a plastered wall and at first floor stands out a translucent facade made by polycarbonate and enlightened by a light source behind: a lamp effect visible both inside and outside.

⁷ Giulia de Appolonia, "Primary School Zanella," Giulia de Appolonia, Officina di Architettura, <http://www.deappolonia-arch.com/primary-school-zanella-villafranca-it-3/> (accessed January 20, 2018).

⁸ MIUR, Ministero Italiano Università e Ricerca.

Regarding interior design we find the theme of colours –used to distinguish and identify the classrooms– the attention to acoustic (soundproofing ceilings) and to lighting (a diffuse luminance inside the hall and the classrooms), the care of details (information signs and plaques).

Ulla Hell says she has never asked herself, during her daily work, what it was the role of women; actually she did some research after had been invited to express her opinion about this subject:

According to Architectural Review survey, 70% women architects answered that at construction site it hasn't yet accepted the presence of women; the survey shows that one in five women wouldn't choose to become an architect if they could turn back time but I believe men would answer same way!

At Plasma studio we work in team, we base work on cooperation by several professionals web connected, living anywhere:

I need to stay here to work well, close to my roots, my mountains, my family. Alto Adige gave us the opportunity to realise buildings; later we won a competition in China and the firm moved its seat from London to China.

First assignments consisted in temporary installations and interior design, then Plasma Studio developed its activity to architectural and landscape design: 'Quite every project process starts with landscape design'. Ulla presents their *Horticultural Exhibition in Xian (China) Masterplan*: 'The request was to create a lake and some hill in a flat area; we imagined a bridge and an axis, where you could choose to follow different directions: some hands which leaned over to reach the lake'.

At the same way the project for *Strata Hotel* in Sesto Pusteria starts with landscape design:

Level curves, the theme of stratigraphy that we tried to take also inside; it was fundamental the trust of the customer, who wanted a building where recognize themselves and more than that let a young architect to be given full freedom.

The project for her own home *Paramount Residence Alma* is based on the themes of light cuts and

the separation between functions: work space, son's space, and common spaces; same approach we find in contemporary *Residence Dolomitenblick* architectural design (Fig. 1).

Elisa Burnazzi identifies female skills in sociability and hosting: 'Women who are part of a group tent to keep it together'. In her opinion quality architecture means paying attention to details at every scale, from interior to urban design, because 'architecture should be directed to improve life conditions of community'. In every project she presents us, you can find a special care to furniture, often tailor made, and an issue of continuity from the outside to the inside because 'architecture should deal also with emotional aspects'.

In the assignment for *Aggregation Center in L'Aquila*, destined to earthquake victims (2015), the theme was the attention to sociability.

The assignment came from a construction firm involved in reconstruction of L'Aquila. This building should remember the earthquake but giving trust to people at the same time. An alive building, thought to be used, which could fit into mountain landscape; to give trust we used references to nature: a wooden covering and a green roof which continues along the facades.

The *Single Family Dwelling BL* in Pergine Valsugana is a medieval house-laboratory: at the ground floor spaces to work, at the first floor the dwelling spaces, at the second floor the spaces to relax; the building is composed of cubic blocks completely white colored – 'the Building Commission imposed to use a single color; we would like to use several colors as homage to painter Fortunato Depero';⁹ the hearth of the building is the kitchen, where we opened ad large window south oriented.

Multifamily complex GI in Caldonazzo is a holiday home, built in front of the lake, situated in a high quality environment. The choice was to create a compact volume and minimise the impact, especially the views from the lake: lodges instead of balconies and plastered walls, which continue along the roof.

Another dwelling in Pergine Valsugana - *Single Family House PF* (Fig. 1) – is a refurbishing and extension architectural design: structure of the new block is independent from the existing one; first floor deck is supported by a Vierendeel beam, in order to obtain a free house plan. It leaves an impression of a 'cold white heart covered by nature: a lower heavy part against an upper light part, completely hidden by a wood batten frame'.

Moderator Piazzetta opens the final debate pointing out the 'life's tension' all three relators have in common though, for the rest, 'three personalities totally different from each other in this age of standardisation'.

M.G.P.: 'Could you recognise anything referring to womanhood either in contents or in architectural

design language? For example in a different approach or a particular attention to social issues?'

Ulla: 'No! Character is more important; for instance I'm interested in volume, dialogue between volume and context and the way the volume is developed inside'.

Giulia: 'What makes the difference are not goals neither tastes but the way you deal with design process and making decisions'.

Elisa:

Creativity is an impulse, having no sex nor age. In the past women had to start with small objects design because nobody let them deal with big things; maybe they are supposed to be more analytical compared to men just why work opportunities were restricted to small things design.

M.G.P.: 'In your opinion is it true that women are less competitive and ambitious than men?'

Elisa: 'Dacia Maraini¹⁰ encourages women to be disrespectful.'

Here it comes an answer by the audience, a male colleague, in defence of women: 'It's a matter of power: there is the necessity of a seizure of power by women; you lost power but you can get back into power if you want'.

⁹ Fortunato Depero (1892–1960), painter from Trento's province, important member of Futurism.

¹⁰ Dacia Maraini, born 1936, well known Italian writer. She won 'Campiello Prize' in 1990 (winner book *La lunga vita di Marianna Ucrìa*).

Fulvia Fagotto

ADA (Women Architects Association), Florence | Italy

Promoting Actions for Gender Equality in Architecture

Women in Communication and Professional Networks

During the past year ADA organized and took part in conferences concerning the promotion of women architect; these events took place in different Italian cities and were organized together with Architectural Italian Boards with the patronage of the National Council of Italian Architect.

In 2016 ADA has promoted a new action for gender equality in the profession creating the Ethic Charter for Equal Opportunity and Equality in the architectural profession; this document, showing the CNA National Council of Italian Architect and HeForShe's¹ patronage, has been shared by a lot of Architectural Boards and worldwide gender associations.

The aim of this important document is that every subject interested and involved in the matter feels free to adopt it as a good practice and use it as a starting point to set a strategy to build equality culture in our profession.

One of the first consequences following the adoption of the Charter was indeed the creation of the Equal Opportunities Commission in some Chamber of Architect.

ADA believes in the power of positive communication, good practice and role models, our aims is to build a network of communications between interested subjects to contribute actively to improve the architectural world adding the percentage that for some reason has lost its way, women.

ADA wants to show interesting professional figures, we were part in the international jury of the last edition of ARVHA prize *Femmes Architectes*.

Is It Still a Men's World?

Nowadays there are a lot of very good female architect, but do they all have the equal opportunities to come out? We know from the statistics that women in our country are conquering the profession but they stay in the border and do not reach the gold zone.

Zaha Hadid is still the most famous women architect in the world, who will take her legacy? Is there another strong figure that will possibly win the Pritzker Prize? We think there are a lot with amazing capacities but the question is, are they willing to go on that route or do they have even the occasion? That's why we need to promote and keep pushing the female position; we have to reach the right balance.

There is a lot of talking going on the topic, for example the survey from the English *The Architectural Journal* and the American movement Equity by Design; in the United States a very famous article from *New York Times* titled "I Am Not the Decorator: Female Architects Speak Out"² talks about women condition in the architectural world moving from the last study promoted by the American Institute of Architects that shows there's not a gender equity in the architecture industry.

The *New York Times* put an online questionnaire asking female architect to give their contribution on the topic, and tell about their own experience. One of the strongest comments was from Yen Ha architect from New York, who reported, once more, bad feelings and difficulties on her way doing her job.

Among this surveys, studies, reports showing not very encouraging signals on the female condition in the profession there is one voice out of the core, the ones from the Danish architect Dorte Mandrup.

She was on *Dezeen's* list of inspirational female architect and designers and she wrote an article published in the Danish newspaper *Politiken* and translated in English in her web site³ and then on *Dezeen* as well, to explain her point of view. She is a very interesting figure in the architectural scenario so she was nominated by Jessica Mairs in the list of the fifty women along with the Grafton Architects, Vivienne Westwood, Odile Decq, Kazuyo Sejima, Denise Scott Brown, Jeanne Gang and many others.

Dorte Mandrup, born in Copenhagen in 1961, is the owner and the founder of Dorte Mandrup Arkitekter an architectural practice based in Copenhagen since 1999 with experience in the world of transformations, mixed use buildings, education, workspace and landmarks.

² Robin Pogrebin, "I Am Not the Decorator: Female Architects Speak Out," *New York Times*, April 12, 2016, <https://www.nytimes.com/2016/04/13/arts/design/female-architects-speak-out-on-sexism-unequal-pay-and-more.html> (accessed May 8, 2018).

³ Dorte Mandrup, "Which one are you?," Dorte Mandrup, <http://www.dortemandrup.dk> (accessed April 21, 2017).

Is There Any Woman in the Boy Zone?

Among the prestigious positions in the architectural world there is without doubt the one to be a member of the jury of famous architecture prize and of course to be the winner of this fabulous prize.

The Pritzker is the most famous architecture prize, it dates back to 1979, we can barely find three women who won it, the first is Zaha Hadid, the second Kazuyo Sejima and the third one is Carme Pigem (with RCR Arquitectes). Looking on the other side of the table the situation doesn't improve, the jury has got a woman as executive director, the amazing Martha Thorne, and only one woman as a member the Italian Benedetta Tagliabue.

The Royal Gold Medal dates back to the 1848 and the prize is awarded every year by the Royal Institute of British Architects, we find the first woman winner, with the husband, in 1994 Patricia Hopkins, Sheila O'Donnel with John Tuomey in 2015 and Zaha Hadid in 2016.

The Riba Stirling Prize jury of the 2017 edition has got five members with two women in it the architect Anupama Kundoo, and the architect Jane Hall founder of the collective Assemble.

What about the winner? Zaha Hadid in 2011 and 2010, Benedetta Tagliabue in 2005 (Miralles Tagliabue EMBT).

Let's have a look in the academic side consulting some of the world's top Architecture School. The first one is Massachusetts Institute of Technology, among its 21 presidents of the institute we find only a woman in the 16th position Susan Hockfield that kept the position from 2004 to 2012. In Cardiff University of Architecture there is a woman deputy and Vice-Chancellor prof. Karen Holford; she began her career at the university in 1990 as a lecturer.

We could go on but even in the Italian University the situation doesn't improve, and we must state that women are left aside. The famous glass ceiling is still over there!

A Snapshot of Women in Architecture in the World

Taking part in the international jury for the *Femmes Architectes* prize by Arvha we had the occasion to have a privileged look at the international scenario of women architect. The prize provided four categories, women architects over forty years, young women architects under forty years, original work, and the new one international prize. Laetitia Antonini (born in 1976) is part of the architectural practice founded together with Tom Darmon in 2006. The team is structured in different field of competence such as research, study of the project and the site. The agency is based in Paris and can count on a team well balanced within man and women. They work in Paris and throughout France, the projects concern public and commercial spaces, offices, social housing and sport

center. Among the Italian architect we can mention Stefania Catastini (born in 1971) with LDA_iMda associated architects founded in 1999. The agency had a special mention for the international prize The Plan Award 2017, they work on different field from architecture to design. Farshid Moussavi (born in 1965) founded her own agency FMA in 2011 in London, she has a great team made up of a lot of women. She works worldwide, from United State to Europe and Russia. One of her well known project is a Museum of Contemporary Art in Cleveland, Moca (2012). The strong form and exterior of the museum redefine the whole area, it has got four levels, each destined to different exhibitions or public programs. The external cladding, mirror finish black stainless steel, is aimed to reflex the surroundings that can change according to weather and light.

Women Network Begins from the Web

The world we live in reminds us every moment that we're constantly online, we can reach everybody and can be in touch from everywhere with anyone, so our first aim was to build an active network, so no physical spaces was no longer needed. Our web site is conceived as a common space where women architects can share their work and publish articles of common interest in the way to increase the viability and visibility of women in architecture.

We also want to spread the news about the prize dedicated to women architect; The Jane Drew Prize was created to recognize promotion of innovation, diversity and inclusiveness in architecture. Jane Drew was an English architect, she was known because she was the first woman to found her all women architecture practice plus she was even the first female Professor at Harvard University and Massachusetts Institute of Technology. The last edition of the prize 2017 was won by Denise Scott Brown.

Another English prize is The Ada Louise Huxtable Prize which means to recognize architects and artist that works in the architectural industry and have given a significant contribution to architecture and the built environment. The last edition was won by the English artist Rachel Whiteread.

To the Emerging architecture is dedicated The Moira Gemmill Prize, the edition of the last year was won by the Mexican architect Gabriela Etchegaray. This prize has got a £ 10,000 reward that constitute a real financial aid for the winner.

The last important British prize is The Woman Architect of the Year, in 2017 the prize was given to Gabriela Carrillo for her project in Mexico. This prize has recognized several women's work such as Jeanne Gang in 2016, Teresa Borsuk in 2015, Francine Houben in 2014 and many others.

All this prizes wants to enlighten the career of women architect showing their excellent projects because is very important to encourage other women to have role model, which can motivate other women and can be supportive in leadership goals.

We have a section in the web site where we present other worldwide organizations; some of them choose to share the Ethic Charter, the French Arvha, the Brazilian Arquitetas Invisíveis, the Architecture plus Women from New Zeland, we hope more has to come in the future.

It's important to share ideas, to build events, to give and to receive contribution from other realities that can help to reach gender equality.

Lia Pereira Saraiva Gil Antunes

Association Women in Architecture, Lisbon | Portugal

Paths of Resistance: 'Women in Architecture' Association in Portugal

Introduction

Throughout the world, the feminist movement continues to spread to various spheres of society, over different perspectives and intensities, and in specific struggles of the contexts of women's groups. It often materializes in the creation of women's associations, in various types of models, more or less informal, fundamental for the networks of sharing, the sense of belonging and the development of common objectives. Recognizing the power in heterogeneity and diversity, these women groups are essential as a means of empowerment and sorority. In other words, the vital union and alliance between women based on empathy, companionship and cooperation. Such mobilizations extend to professional associations and are present in architecture, in response to evident centuries of absences and decades of silence. In the twenty-first century, we, women, aspire to cease to be periphery, affirming ourselves as full and active citizens.

Despite taking refuge regularly behind the cloth of space design neutrality, the architecture's field is also a mirror that reflects the gender inequalities in society. It requires to be understood in a context, i.e., within the social, political and cultural context of its production, representation, interpretation and consumption, through different approaches, institutions and interest groups. Following changes that have taken place in the theoretical, historical and critical debates, particularly regarding to Feminisms, understanding architecture in relation to gender demands a consequent development - especially in Portugal. This relationship is not a new issue but insists on being uncomfortable; it stimulates other ways of reflecting and designing the built environment and it rummages dominant sociocultural patterns and (supposedly) untouchable places. As an obligatorily political matter, it continues to cause strangeness in the Academia and the profession, and its own arena of action is indispensable. In Portugal, due to the invisibility of women and the need for a multifaceted space,



Fig. 1. Photography of Women in Architecture association members, taken in Lisbon, 2018 (right to left, back to front): Rita Ochoa, Lia Antunes, Luísa Paiva, Sofia Castelo, Ana Jara, Patrícia Pedrosa, Joana Lages, Joana Braga. Courtesy of Mulheres na Arquitectura (Copyright free).

the 'Women in Architecture' association (Mulheres na Arquitectura association) was born on 16th June 2017. It was formed by the union of nine women¹ from different areas who work within the architecture at various territorial scales (Fig.1). It privileges the interweaving of the disciplines about physical and social spaces, from architecture (landscape, interior design), to urbanism, sociology, anthropology, geography, design or engineering. The aims of the collective are reflection, research, communication, training and dissemination within the scope of gender equity in the various practices involved in making architecture, city and territory.

The group's research/practice/activism activities, coordinated by working groups, can take place within broad thematic and methodological frameworks, which will necessarily interlink, ramify and extend to other emerging themes. Generally, it leans out on reflections and actions that frequently question limits and approaches, among them: (1) (in)visibilities and gender deconstruction applied to both alternative and/or expansive proposals within space-related professions such as education, (2) the feminist theories and practices in the various aspects and components of architecture and urbanism (public space, housing, mobility, security, ...), and urban policies (municipal, regional and national) with a gender focus, (4) the representations of the body in the city and its relations with space, and (5) gender issues in the architectural and urban spheres. It will also be desirable for the weaving of these networks of research and/or research-action to include both social movements and activism, Academia, professionals and political decision-makers, among other actors, in a close articulation in the production of feminist knowledge and practice. The association integrates the Portuguese Platform for Women's Rights² with which it works in network.

1 Founders: Ana Catarino, Ana Jara, Joana Braga, Joana Pestana Lages, Lia Gil Antunes, Luísa Paiva, Patrícia Santos Pedrosa, Rita Ochoa e Sofia Castelo.

2 Plataforma Portuguesa para os Direitos da Mulheres (PpDM) is an association with a social, cultural and humanistic nature, whose members are NGO for the Rights of Women (<http://plataformamulheres.org.pt/>).

Other Look at History and Memory

In Portugal, only in the 1940s of the twentieth century female architects entered in the profession, with the validation of the academic formation of the pioneers Maria José Brito Estanco (1905–1999)³ and Maria José Marques da Silva (1914–1994).⁴ Two contemporary women architects with different life paths, who opened the doors of an exclusively masculine world for too long and with profound consequences on the profession moulding and the design of the territory. In the 1950s, during the dictatorship, Portuguese female architects would be redirected to education or remain in the profession in family partnerships, especially in the shadow of her husband, a reality that would condition the definition and individualization of women architects. The 1974 revolution brought some achievements to women as the right to vote without any restrictions or discrimination. Coinciding with the arrival of democracy in the country, there was an evident increase in the professionalization of women,⁵ also in architecture.

A national report pointed out women are still far from achieving parity in architecture,⁶ according to the analysis of a representative sample of people registered in the Portuguese Architects' Association in 2006. In an attempt to understand the construction of professional identities by women and men, the gender issue is a parameter with a great weight in the explanation of the differences of situations and attitudes between female and male architects. The authors explained that

...although the number of female professionals has increased exponentially in the last two decades, this increase is dependent on the opening of the university system and, therefore, on the age group, thanks in particular to the opening of private architecture courses from 1996.⁷

In 2006, the percentage of women graduated in architecture was already above 50%, against 35.5% of active female architects⁸ – 70% of them were under 35 years old– numbers that help to clarify

3 After graduation in Lisbon (1942), Maria José Estanco was not able to enter the profession due to the weight of the doubts about the capacities of women. She would end up as a teacher in secondary school. Joana Filipa Roxo, "A Senhora Arquitecto: Maria José Estanco: A Cidade, O Porto E a Arte: Residências Artísticas Em Sines" (Masters dissertation, Departamento de Arquitectura e Urbanismo do Instituto Universitário de Lisboa, 2016), <https://repositorio.iscte-iul.pt/handle/10071/13160>.

4 Firstly, she was linked to her father, José Marques da Silva (1869–1947) director of the School of Fine Arts in Porto. Later, to her husband, David Moreira da Silva (1909–2002), with whom she shared her professional activity in Angolan territory. Usually her biography is made within the professional biography of the couple.

5 Patrícia Santos Pedrosa, "Arquitectas: Ensaio Para Um Manual Revolucionário," *Artecapital*, September 12, 2014, http://www.artecapital.net/arq_des-114-arquitectas-ensaio-para-um-manual-revolucionario (accessed May 14, 2018).

6 *Relatório Profissão: Arquitecto/a: Estudo promovido pela ordem dos arquitectos* (Lisbon: Universidade Lisboa - Instituto de Ciências Sociais, 2006), <http://www.arquitectos.pt/documentos/116432277013pQH2qr9Wg02JR3.pdf> (accessed May 14, 2018), 39.

7 *Relatório Profissão: Arquitecto/a*, 38.

8 *Relatório Profissão: Arquitecto/a*, 30.

the masculine universe of the discipline. They concluded, on the one hand, the pace of feminization has been slower than other liberal professions, showing the sociocultural closure of the profession; on the other hand, female architects followed paths and professional profiles different from their male counterparts. Women exhibited a scholastic profile (more academic post-graduate and professional qualifications) and they were mostly wage-earners or service-rendered, with more precarious employment ties and lower wages, partly as a result of taking decentralized positions and performing less skilled functions within the profession; instead, men led the architecture held on its own.⁹ Regarding the choice of profession, Portuguese female architects were more influenced by the variety of professional possibilities, more critical of architecture, and more dissatisfied with the conditions under which they performed it, while male architects were more influenced by the prestige they attribute to professions, less demanding with working conditions and they valued more the authorship of the projects.

According to the architectural higher education overview in 2009, 56% of students were men against 44% of women.¹⁰ Between 2010 and 2013, in Portuguese public universities, the feminization index of the master's degree in architecture was between 52% (Évora) and 64% (Porto).¹¹ In the second decade of the twenty-first century, educational tasks were done mostly by men in almost all Schools of Architecture in Portugal.¹² In 2015, the feminization rate of the faculty of architecture courses in public institutions in Portugal was comprised between 8% (University of Beira Interior) and 31% (Faculty of Architecture of Lisbon)¹³. According to this data, Oliveira and Ochoa concluded '... this masculinization of education as well as the predominance of male professors in design will contribute strongly to an almost automatic connection by the students that the practice of architecture is a job of men'.¹⁴

The *Jornal dos Arquitectos*,¹⁵ recognized as press of specialty¹⁶ in Portugal, dedicated a number of 2016 to Portuguese representations at major international architecture exhibitions. The publication portrayed the contemporary national scenario, taking into account the female and male presence in curatorship and participation at the Venice Biennale, São Paulo Biennial and Milan Triennale. In these events, respectively, 4, 1 and 2 women attended as curators, against the constant presence of 7 men. As participants, 78 men, 5 women and 13 groups (Venice), 41 men, 2 women and 5 groups (São Paulo) and 41 men, 1 woman and 7 groups (Milan). The female publishers point out that '... it is important to reflect critically on the diversity and scope, the representativeness that these selections offer of the architecture created in Portugal (or of the Portuguese architecture)'.¹⁷ The numbers speak for themselves showing the (masculine) image of Portuguese architecture in and out national doors; they prove once again the general scenario of the discipline in Portugal has not changed radically and gender inequalities persist. Although Portuguese female architects currently '...represent about 44% of the members of the [national] Association of Architects, they do not yet have an equivalent visibility for the general public and their peers'.¹⁸

Towards such conjuncture and the existence of forces seeking to maintain unbalanced power relations, the Women on Architecture association aims to fill the gap in the history of Portuguese architecture through the historical and disciplinary revalidation of the role and contributions of women in the fields related to architecture. It wants to highlight the names and works of the protagonists of this other history, knowing biographies, works and practices of resistance and empowerment. Only by breaking down walls and disciplinary identities will new expectations and references build for the younger generations of architects and will increase representativeness. Pedrosa¹⁹ recalls that, although there is an increase in the feminization of the profession, old practices are still present. She also reinforces that gender equality issues have to be transmitted and worked out in educational institutions and draws attention to the need for the architects to organize and challenge the lack of visibility of their work. The maxim with which this reflection ends 'the revolution is the demand, the acted and required imposition of change. Female architects (Portuguese and of all countries),

9 *Relatório Profissão: Arquitecto/a*, 40.

10 Lia Gil Antunes, "Arquitectura: substantivo feminino: Contribuição para uma história das mulheres na arquitectura" (Masters dissertation, Faculdade de Ciências e Tecnologias da Universidade de Coimbra - Departamento de Arquitectura, 2012), <https://estudogeral.sib.uc.pt/handle/10316/20558> (accessed May 14, 2018), 98. Source: GPEARL.

11 Catarina Sales Oliveira and Rita Ochoa, *Padrões de Género No Curso de Mestrado Integrado Em Arquitetura Da UBI* (Lisboa: Departamento de Arquitetura da Universidade Lusófona de Humanidades e Tecnologias, 2015)..Source: DGES, 2015.

12 For example, in the Department of Architecture of the University of Coimbra, in the universe of 39 professors only 5 women (2011). Antunes, "Arquitectura: Substantivo Feminino," 98. At the University of Beira Interior, the architectural graduation was composed by 31 men and 13 women (2011) and 24 men and 6 women (2014). Oliveira and Ochoa, 'Padrões de Género'. Sources: DECA/MIA.UBI, 2007; DECA/MIA.UBI, 2011; Website UBI, 2015.

13 Data referent to four Portuguese public universities: 23% in the *Instituto Superior Técnico* and 30% in the Faculty of Architecture of Porto. Oliveira and Ochoa, 'Padrões de Género'. Source: DECA UBI, 2015.

14 Oliveira and Ochoa, "Padrões de género."

15 In 2011, *Jornal dos Arquitectos* 242 (Architects' Journal) was dedicated to "Being a Woman," one of the first Portuguese publications on the subject.

16 About the female representation in the specialty press, see: Tiago Almeida, "Arquitectura E Binário, 1940-1979: As (In)visibilidades Das Mulheres Na Arquitectura Portuguesa" (Masters dissertation, Universidade Lusófona de Humanidades e Tecnologias, 2017).

17 Paula Melâneo and Inês Moreira, "Editorial. Representações Nacionais Representatividade, Representantes E Representados," *J-A Jornal Dos Arquitectos*, no. 253 (July 2016), sec. Editorial.

18 "Arquitectas: Modo(s) de (R)existir: Ciclo de Conversas 2017/2018," *Ordem dos Arquitectos Secção Regional Sul* (OASRS), <http://oasrs.org/noticias/345/> (accessed January 7, 2018).

19 Patrícia Santos Pedrosa is co-founder and current President of the Women in Architecture association in Portugal.



Fig. 2. Poster of the talks event "Female architects: Mode(s) of (Re) Exist," at the São Luiz Theatre in Lisbon, 2017/2018. Courtesy of Mulheres na Arquitectura (Copyright free).

unite!²⁰ Sums up the forces and wills that moved the creation of this collective.

With the support of the Portuguese Architects' Association, the Gender Equality Commission (CIG) and the Presidency of the Portuguese Republic, the group organized a cycle of six talks entitled "Female architects: Mode(s) of (Re) Exist," a monthly event between September 2017 and March 2018 at São Luiz Theatre in Lisbon (Fig. 2). Each session was dedicated to a theme, commented and reflected by a group of invited Portuguese female architects and moderated by a member of the association. The different edges of the architectural discipline have extended from the profession to the project and the work,

research and teaching, expanding practice and politics. Finally, a special session named "Women| Architecture - Re:evolution" with the presence of the State Secretary for Citizenship and Equality in Portugal and Rosa T. Sheng, President of American Institute of Architects of San Francisco in 2018. In these times of debate '... wonders who they are and how women live in the various possibilities and difficulties of the profession'.²¹ The aim is to give voice, space and prominence to women, in their individual trajectories and collective struggles, contributing to the construction of historical memory and a more egalitarian future. In addition to questioning the dominant discourse and culture, it idealizes especially the visualization of other realities not named, not recognized, by giving them the deserved place so that they can finally exist.

Other Look at the Territory: The Feminist Perspective Applied to Different Scales

Looking at the territory with feminist (intersectional) lenses deconstructs what is offered as natural and unavoidable. In the patriarchal, neoliberal and global society, the invisibility of part of

the population for various reasons (gender, race, country of origin, age, physical capacity...) is a consequence of how current social structure is internalized and how the domination and privileges system is normalized. Feminist urbanism, with gender concerns, starts from the premise that space is not politically neutral but configured from values and norms of society that establish limits (social and spatial) and that its physical form contributes to the perpetuation of privileges. With a marked inter/multidisciplinary profile, the approach of the Women in Architecture is based on the research and production of feminist discourses and positions on architecture, urban and collective space and alternative ways of thinking and making city, linked to the micro-scale (everyday, routines, places and memories) and the wider macro-scale of the territory. It wants to support and develop good practices with a gender perspective, diverse and alternative, within the Academia, the profession and activism, based on complicity, commitment and collaboration.

Initially, the fundamental axes of constitution, existence and action, are: (1) the architecture, the city and the territory should be read as instruments of gender equity, multi/interdisciplinary and participatory, (2) the commitment and the guarantee of broad and systematic practices that allow women to be effective citizens, are a priority of central and local powers and institutions in general, (3) both the reflex in territories, cities and architectures of gender approaches - fundamental for the inclusion of women in the decisions about their built environment - as the extrapolation of the universalist vision of urban public policies that do not take into account socio-cultural diversity, will only generalize with a transversal and real investment in training, (4) good practices should be widely disseminated and networks of groups, associations or institutions with the same concerns and interests should be fostered and, finally, (5) the deconstruction of multiple discrimination and the fight against all forms of violence affecting women, present in various spheres of society, both in the public and private spheres.²²

The relations of inequality and privilege places translate into territory and culture; to rethink the city to the people and to the places of daily life implies radically altering the way of making the collective urban space, incorporating subjects hitherto absent in the urban project. In Portugal is essential to delineate other sensitivities for urban planning and policies with a gender focus applied to both large urban agglomerations and geographically peripheral territories. Analysing the reality and the perception of urban spaces by women, it is essential to establish criteria to rethink the concepts and tools used to intervene on the territory and the environment and to design the future of cities, villages, neighbourhood, block, street or square, as common spaces of everyday life.

The collective defined some action guidelines. During the municipal elections in Portugal in October 2017, the group co-organized with the Portuguese Women Without Borders Association a debate

²⁰ Patricia Santos Pedrosa, "Arquitectas: Ensaio Para Um Manual Revolucionário," *Artecapital*, September 12, 2014, http://www.artecapital.net/arq_des-114-arquitectas-ensaio-para-um-manual-revolucionario (accessed May 14, 2018).

²¹ "Arquitectas: Modo(s) de (R)existir."

²² Points of the proto-Manifesto of the association in 2017, being drafted.

with the Lisbon City Council candidacies. "Women, girls and the city: the right to the public space in Lisbon" was well attended and demonstrated that it is imperative to think of the Portuguese capital in a gender dimension. To analyse and to step in on

[...] the concrete problems that women and girls, in their diversity, face in the city they inhabit, work, study, circulate or visit: from housing to education, from work to leisure, from safety in public space to the systemic problem sexual violence, public transport access to culture.²³

The effective participation of women's diversity, in all scales of Portuguese territory, is methodologically basilar in all phases of the project, from diagnosis, to intervention and evaluation. People in each community are holders of the accumulated knowledge of such place and, ultimately, the end users. It is expected the obtained results, which will be specific to each activity and intervention contexts, will serve as an instrument of civic and political action: on the one hand, the use of participatory and collective conclusions could contribute and influence local and regional political strategies, on the other hand, to encourage women to have an active voice in the public, political and social life of the city, region and country. Empowering women to make decisions will strengthen self-esteem (individual and collective), commitments and co-responsibility.

The association wants to be a space for a polyphony of voices, bringing the concerns, experiences and realities of women's lives –professionals and users– for expanding practices and for care and inclusive territories. Priority is given to sharing, re-creating, distributing, redistributing, recomposing, retrieving and formulating more empathic relationships with the environment, diverting from normalized values. The ambition is to bring to architecture what is desired for the individual and collective lives of women: to look after living the affections from other places, to take care and to speak of what each woman feels in the spaces that it inhabits –how they touch us, surround us, repel us, invite us to be or to leave–, to share experiences so often common, through other voices that are more empowering and less conditioned. The ambition is the creation of (national and international) bridges and the opening of new paths of resistance. So that women can design and inhabit a world where so many other worlds fit.

Francesca Perani

Francesca Perani Enterprise, Bergamo | Italy

RebelArchitette: An Open Source. One-Year Venture Delivering Female Role Models to Coincide with the Opening of Venice Biennale 2018

Introduction

In March 2017, following a request from Silvia Vitali, Cristina Brembilla and Francesca Perani, Ordine Architetti Bergamo (professional association of architects in Bergamo) was the first Italian professional institution to introduce the option of a professional stamp declined in the feminine: *Architetta*.¹

The news was widely covered in the media and this opened a broad, intense, public debate on the use of the feminine term for the profession. Francesca Perani decided to keep the discussion alive and, with a number of other creatives, founded the collective editorial team *RebelArchitette* backing professional women in architecture, advocating both for the use of the feminine term and for the promotion of female role models in architecture.

Method

Promotion of the professional title *Architetta*

The collective is supporting and actively promoting the dissemination of the professional title of *Architetta*, (Italian term for female architect), which both media and insiders still struggle to use correctly, believing it is crucial to improve the awareness of a professional gender identity.

²³ Debate Mulheres, *Raparigas E O Direito Ao Espaço Público Em LX'. Mulheres na Arquitectura and Associação Mulheres sem Fronteiras*, <https://www.facebook.com/events/183769862164852/> (accessed January 6, 2018).

¹ Gisella Laterza, "Architetta Vinta la battaglia del timbro al femminile," *Corriere della sera*, April 27, 2017, http://bergamo.corriere.it/notizie/cronaca/17_aprile_26/architetta-vinta-battaglia-fb0d24b6-2a4a-11e7-aac7-9deed828925b.shtml (accessed March 20, 2018).

RebelArchitette's project promotes a less sexist and more inclusive vision in a domain where it is hard for women to find a voice, too often trapped inside a cliché and in a grammatically masculine title; new professionals and those who are still persuaded to have chosen a man's job are encouraged to see their role as no longer (male) gender specific. The team's proposal follows the Academics' of Accademia della Crusca² advice on the matter. The organization, as the most important research institution on the Italian language and an internationally renowned society for Italian linguists and philologists, encourages the use of the feminine declination for all professions following social demands for a language more respectful and representative of women.³

At present Italian institutions are beginning to honour their commitment to the ongoing cultural change by naming women's roles correctly: *consigliera* (advisor), *sindaca* (mayor), *assessora* (commissioner) are now commonly used in spoken as well as written language (such as memorandum, circulars, press releases) but there is still some resistance, and the idea that 'it sounds wrong' prevails over common sense. It is a matter of significant change in habit and culture that the team decided to encourage.

Promotion of female role models

As well as the promotion of the feminine term, which targets mainly architecture students and young professionals, in May 2017, the collective developed a 365 days project: 365 profiles of female-driven architecture studios delivered online to coincide with the inauguration of *Biennale di Architettura di Venezia* 2018, this year curated by Yvonne Farrell and Shirley McNamara (Grafton Architects).

The Facebook page *Architette*⁴ and the online, self-published, open source book *Architette=Women Architects ½ Here We Are!*⁵ were instrumental for the group to advance its actions: promoting the professional feminine title of *Architetta*; monitoring all-male juries and conferences; mentoring young generations on the ground to advocate for a more heterogeneous and fair professional landscape, where women can be reference figures for inspiration in architecture; drafting a precious database of women architects, engine and common thread of all the activities.

2 Both In Italy and worldwide, the Accademia della Crusca is among the leading institutions in the field of research on the Italian language. "The Accademia," Accademia della Crusca, <http://www.accademiadellacrusca.it/en/accademia>, (accessed March 20, 2018).

3 See work by Cecilia Robustelli for a deeper investigation in the matter.

4 "Architette = Women Architects," Facebook, <https://www.facebook.com/architettearchiwomen/> (accessed March 20, 2018).

5 "Architette = Women architects here we are! 1," ISSUU, https://issuu.com/rebelarchitette/docs/architette_womenarchitects_herewear (accessed March 20, 2018).

The project is designed to be both a source of inspiration for young professional women in design and a directory available to anyone who is interested in a fairer representation of the work of women in architecture (such as journalists, professional bodies, event or jury organisers, academics).

All architects featured have been selected by the team among women who work in women-driven offices of architecture. Contemporary names are joined by historical figures, the 'unforgettables', who led the way and continue to be a relevant source of inspiration.

The choice of profiles is based on constant, active search for investigation of dynamic women architects, each notable for inspiring, distinctive features: producing outstanding architecture, achieving academics results, exploring new architectural paths, working in problem areas, engaging with equality, social and environmental issues, or even spearheading the attainment of architect licences for women

Although not necessarily supporters of this project, they represent encouraging examples of role models for a gender balanced architectural practice.

The research has been based mainly on online sources, a dedicated international open call and profiles put forward by women and men who believed in this project while in the making

Main Online Sources

1. Most influential international on-line platforms delivering Architecture contents. (as *Divisare*⁶, *Architettura Italiana*⁷, *Archdaily*⁸, *Architizer*⁹, *Dezeen*¹⁰, ...)
2. Databases of women architects from international associations working on women gender equality in this profession (as MoMoWo,¹¹ *Un dia una arquitecta*,¹² *Archiparlour*,¹³ *ArchiteXX*,¹⁴...)

6 "Divisare," Divisare, <https://divisare.com/> (accessed March 20, 2018).

7 "Architettura italiana," Architettura italiana, <http://architettura-italiana.com/> (accessed March 20, 2018).

8 "Archdaily the world's most visited architecture website," Archdaily, <https://www.archdaily.com/> (accessed March 20, 2018).

9 "Architizer," Architizer, <https://architizer.com/> (accessed March 20, 2018).

10 "Dezeen," Dezeen, <https://www.dezeen.com/> (accessed March 20, 2018).

11 "MoMoWo - Women's Creativity since the Modern Movement," MoMoWo, <http://www.momowo.eu/> (accessed March 20, 2018).

12 "Una dia una arquitecta," Un dia una arquitecta, <https://undiaunaarquitecta.wordpress.com/> (accessed March 20, 2018).

13 "Parlour: women, equity, architecture," Archiparlour, <http://archiparlour.org/> (accessed March 20, 2018).

14 "Architexx we ask how not y," Architexx, <http://architexx.org/> (accessed March 20, 2018).

3. Awards for women architects (as Women in Architecture awards,¹⁵ ARVHA Prize of Women Architects,¹⁶ arcVision Prize – Women and Architecture,¹⁷...)
4. Dedicated online articles highlighting women in the profession.

Open Call

In November 2017, the collective launched an open call 'Architette / Archiwomen'¹⁸ in order to give an opportunity to all professionals to submit their profile. The call had been published and widely supported by Europaconcorsi (the world's leading platform in professional information for architects and engineers about design competitions in Europe),¹⁹ disseminated on social platforms gathering significant interest by online media. It closed on 15th February 2018.

Curatorial partner

Domenica Bona, head curator of *Divisare*, joined the project and provided the editorial team with consultancy on the most published women architects on their platform. Her support offered the precious opportunity to have RebelArchitette's venture promoted by the largest existing archive of contemporary architecture.

Editorial Team: Rebelarchitette a Creative Collective of Digital Activists

With an average age under 35, students and professionals, *RebelArchitette's* team²⁰ is based in

15 "Women in architecture – Awards," Architectsjournal, <https://www.architectsjournal.co.uk/women-in-architecture/awards> (accessed March 20, 2018).

16 "FA femmes architects," ARVHA Femmes Architectes, <http://www.femmes-archi.org/en/homepage-2/> (accessed March 20, 2018).

17 "arcVision Prize – Women and Architecture," arcVision Prize, <http://www.arcvision.org/> (accessed March 20, 2018).

18 "Open Call Architette / Open Call Archiwomen," Docs Google, <http://bit.ly/Call-Architette> (accessed March 20, 2018).

19 "Europaconcorsi – Servizio bandi di progettazione," Europaconcorsi, <https://europaconcorsi.com/> (accessed March 20, 2018).

20 Team: (February 2018) Founder and curator Francesca Perani; Editing managers Anna Serafini, Claudia Manenti, Caterina Pilar Palumbo, Ilenia Perloti; Editing team Giulia Baroni, Silvia Carrara, Martina Colombari, Elena Fabrizi, Mary Kaldani, Valentina Marinai, Martina Ottaviano, Giusy Paterno, Tatiana Vinciguerra; Press releases (ita) Marta Brambilla; Translation Giovanna Bosis; Divisare head curator Domenica Bona.

Bergamo, Italy, with international connections. Working in constant contact, the group has grown throughout the year adding international members outside of the architecture profession: designers, translators, editors, bloggers. The creative collective is structured as a digital editorial team in order to select, edit and post online all the 365 bios.

The architects' profiles are posted daily on *Architette* Facebook platform with a short description and images including portrait and photos of projects (pieces of information of public domain, which are properly attributed by mentioning the list of sources). The emphasis has been on architects with a substantial portfolio, demonstrating the commitment and experience indispensable to reach a high quality and innovative level of design as well as social engagement.

All biographies are edited following a pattern: academic studies, experiences, studio's most prominent projects and awards, to better represent the progression and choices that guide a successful professional.

Selections were made considering the following criteria: widely recognized indicators of success (awards, teaching, competitions won, publications, presence on juries) and a cutting edge work ethic based on commitment to equality and engaged with social and environmental issues.

The evaluation of excellence is not based simply on the ability to deliver an individual project to an individual client, rather projects that can lead to major changes in architecture, bringing innovative ideas that involve a wider community. As our profession is going through an historical Team *RebelArchitette* delivers new perspectives on the process from a female point of view.

Women-driven studios showcased in the selection feature single female architects, couples (woman+man), all female teams. The reason behind this selection is to break the stereotype of studio where women are relegated to a supporting role in a male dominated show.

Findings

The first section of the book *Architette=Women Architects ½ Here We Are!*, offered the opportunity to promote nationalities which may not get regular exposure. The resulting infographics (**Fig.1**) helped direct the second half of the book, (182 profiles) where this feature becomes even more apparent, in accordance with the team's search for wide ranging inclusion. The project was established as an on-going process, where data displayed was developed and updated as soon as a featured architect got in touch, to then move forward with their support. The team was able to make amendments and upload all the documentation on line in a very short time in order to be shared by showcased studios.

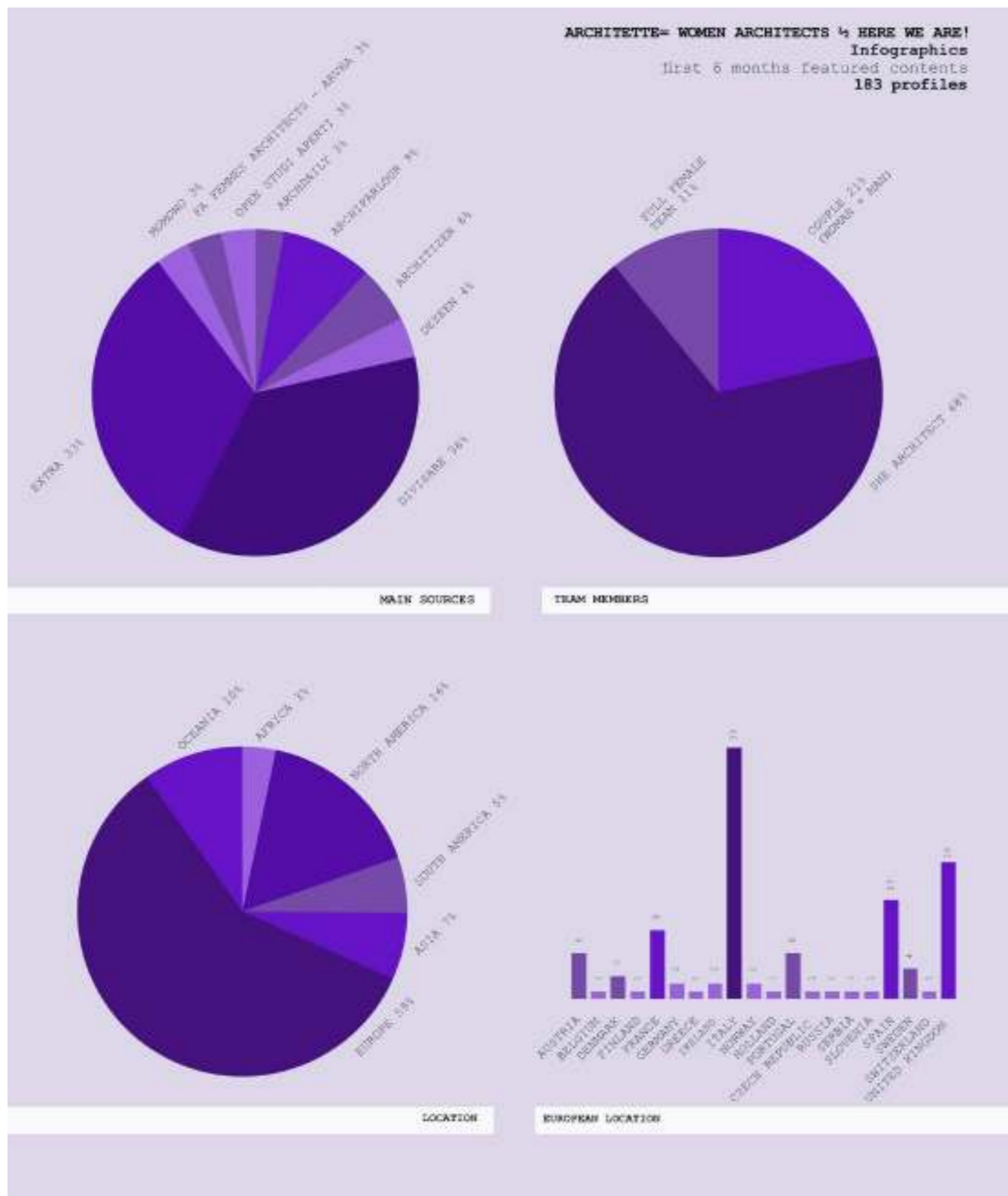


Fig. 1. Infographic: contents of the first volume of *Architette= Women Architects ½ Here We Are!*, showcasing analysis of 183 featured profiles and main sources (Creative commons RebelArchitette). Source: *Architette= Women Architects ½ Here We Are!*, https://issuu.com/rebelarchitette/docs/architette_womenarchitects_herewear (accessed May 14, 2018), 8–9.

The Facebook platform *Architette* reached 3.000 followers in the first 8 months, the book, released online on the 17th January, reached 1,450 readers in the first 15 days. Among top viewers by nationality: Italy (785), Australia (112), United States (87), United Kingdom (69), and Spain (55).

The book, the call and the project obtained great online visibility with dedicated articles appearing on architecture/art websites as www.architetti.com, www.artribune.it, www.divisare.it, www.casafacile.it, www.wearch.eu, as well as national influential gender oriented magazine as www.iodonna.it, www.alleyoop.ilsole24ore.com, www.ingenere.it.

Reaching very diverse audiences, this action has been leader in the dissemination of the world *Architetta*. The project was approved and generously supported by architects featured in the online book, who also recommended further candidates for publication.

Anna Heringer, Elisa Valero, Lina Toro, Teresa Sapey, Luna Rao, Patrizia Di Monte, Izaskun Moreno Chinchilla, Melony Ward, Hariri Hariri, Doriana Fuksass, Melony Ward, Hariri Hariri, Fooi Ling Khoo, Rozana Montiel, Isabella Inti, to name but a few who have been openly sharing the project or putting other colleagues forward for the selection.

National associations and international online projects already delivering considerable database of women architects, such as Australian *Archiparlour's Marion's list*, French *Arvha*, European *MoMoWo*, International *Un dia una arquitecta*, have been influential sources of information and inspiration. Due to the location of *RebelArchitette* collective and the supporting associations, Europe (Italy, UK, Spain, France), North America, Oceania; are strongly represented amongst the continents.

Conclusions

RebelArchitette's team, is an open group that came together organically, driven by the need to open the way for younger generations demonstrating the level of professional quality that women architect can achieve anywhere, in Italy and in the wider world.

The group's one year, not-for-profit venture of digital activism has been promoting the female side of the architecture industry, highlighting women architects, from award winning to lesser-known, yet inspirational profiles, applying a wide ranging-selection criteria, an inspirational source bringing a contemporary interpretation of the architecture profession.

It is a grassroots venture, not intended to create a scientific database, yet offering a clear vision for a new source of inspiration for younger generations. This is why *RebelArchitette's* action takes place online, on a social platform as well as with an online, self-published, open source book, to be shared and used as a powerful tool by many at an international level. The online nature of



Fig. 2. Cover of the online book Architette= Women Architects ½ Here We Are! (Creative commons RebelArchitette). Source: Architette= Women Architects ½ Here We Are!, https://issuu.com/rebelarchitette/docs/architette_womenarchitects_herewear (accessed May 14, 2018).

the collection also allows the ongoing process of amending and perfecting published work with contributions from the featured architects themselves.

This project joins many others developed internationally, as new ways to break down gender stereotypes and to motivate young generations of architects. On the other hand, the promotion and dissemination of a correct use of gender in language can be a relevant factor in steering away from the patriarchal cultural models in our country as a whole, not just in the architecture profession.

Daniela Arias Laurino

Inés Moisset

Un Día una Arquitecta | Argentina, Spain, Uruguay

Un Día Una Arquitecta: Three Years of Activism toward Inclusion

Introduction

After three years have passed since the start of “Un día - una arquitecta” (One day - a woman architect), a revision is deemed necessary with a view to continuing creating mechanisms that promote the visibility of women architects, in addition to building up professional networks at an international level.

Involved in voluntary activism in favour of a fair cause, “Un día - una arquitecta” has undertaken various initiatives on and around the blog. These have been of a communicative, academic and political nature together with actions carried out to stand up for women’s rights. The group’s actions confront the traditional paradigms which perpetuate the omission, belittling and underrepresentation of women in contemporary professional realms; we pose the following questions as to the repercussion that our work has had so far: at which levels and in which spheres has it promoted other ways to understand the (current and historical) professional reality and the architectural fact itself? Where should we focus our efforts for a real transformation?

The first epistemological rupture in the way we work has been our attempt to innovate by simultaneously producing thought and action. Simplifying the habitual process, we can state that, inside the academia, knowledge is constructed within a science and technology system which is validated by peers. At a later moment, knowledge leaves the academia, it is published (it is made public) and it gets to society at large. In our case, the research progress and results are shared in real time. These actions are taken in a conscious manner.

Accessing the spaces where public opinion is formed is a way to encourage reflection and awareness so that the demands and the fight for rights originate in society itself (a bottom-up approach).

Feminist activism is a type of activism that works toward sensitizing, protecting and fostering the rights of the feminist collective.

We consider that a gender perspective and feminism should be the essence of a person's outlook on the world and should underlie their way to act on it: a transversal look at all the strategies and decisions made by the representative bodies and by the referents of the professional and academic collective within the realm of architecture. In addition, the groups, such as ours, involved in the task of giving women a voice should exert their influence in the spaces where public opinion is formed, as a way to encourage reflection and a gender consciousness so as for the demands to come from the whole of society.

An Unwritten History

Women in history are like a sort of sand wall: they enter and exit public space without leaving any trace behind, their footprints erased.¹

Women have been omitted from the history of architecture. Canonical bibliography is responsible for hiding and belittling the work done by women architects. If we analyse the profile of the prototypical architect, whose voice is included in publications, we notice that such an architect is a white Western male, mainly from Europe and the United States. Therefore, women's history is written but from an outer perspective, it is narrated by male chroniclers who watch women from stereotypical viewpoints. Critics and historians have erased women's footprints, giving all the credit to such women's associates, husbands, fathers or brothers. This absence distorts and delimits the history of architecture. Even today, women architects are underrepresented in publications, exhibitions and the special awards of the world of architecture.

Aware of the fact that social changes and transformations precede normative structures and academic organizations with a patriarchal origin, we believe that the high impact visibility associated with different cultural productions (such as blogs, online encyclopaedias, exhibitions, multimedia, awards, etc.) is a way to disseminate ideas and exercise influence on the social imaginary, i.e. it is the path to the inclusion and the consolidation of women's presence in history.

The collective "Un día - una arquitecta" has conducted research on women architects' invisibility (how they are made invisible) since 2015. We also promote and develop a constellation of actions, employing cyberspace to position counterhegemonic discourses and help dissolve the barriers

there exist among professionals who are working on related topics.

The group is made up of specialists involved in the realm of academic editing and the media in different countries (Argentina, Bolivia, Colombia, Dominican Republic, Ecuador, El Salvador, France, Germany, Italy, Mexico, Peru, Spain, the United States, and Uruguay).

Periodic announcements are made to invite new people to write on the blog. In addition, the public can suggest names for biographies to be included on the site. The blog has given way to the creation of a community by promoting the empowerment of the group members and their followers. To work from collective intelligence is a strategic decision. One single person making denouncements is different from a group of 70 specialists pointing at the omissions in the history of architecture on a daily basis.

On the Networks

The generation of knowledge without the patriarchal and capitalist mediations which have been imposed, too, as sociopolitical regulation of legitimized knowledge, without the mediation of the academia, for example. The fact that women –and not all women, evidently, since access to writing and social media is still mediated by material and symbolic conditions that depend on class, coloniality, race and, of course, gender– are being able to express, position and communicate –by establishing a dialog– their lives, experiences, ideas, reflections and knowledge while, at the same time, making these collective and, thus, generating episteme from women and among women is totally subversive of a system made precisely to reject this possibility.²

We view the use of social media as an instrument for political empowerment. In order to promote balance, we consider a revision of history necessary. At the beginning, biographies permitted both the detection of protagonists and the organization of information which was absent from architecture history books. We started off by thinking of a one-year-long project to post a biography of a woman architect daily on our website³. The site has received more than one million visits.

The project expanded and 800 articles have been published, which has given way to us planning the fourth season now. In addition, the original idea branched out into actions related to the promotion

1 Celia Amorós, "Espacio público, espacio privado y definiciones ideológicas de 'lo masculino' y 'lo femenino'" in *Feminismo, igualdad y diferencia* (México: UNAM, 1994), 193–214.

2 "Luisa Velázquez Herrera en construcción colectiva con Lesbterroristas" (s.f.), *Redes Sociales y Activismo Feminista*. UNESCO, http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/panel_1_4_luisa_velazquez_spanish.pdf (accessed April 1, 2018).

3 "Colectivo Un Día | Una Arquitecta. (2015)," *Un Día | Una arquitecta*, <https://undiaunaarquitecta.wordpress.com/> (accessed April, 1, 2018).

of women in our profession. The site with the biographies served as a platform that extended into other spaces. Our Facebook page has more than 20,000 followers and we are also present on Twitter and YouTube.

We also take part in the radio program *Arquitectos en el Aire* (Architects on Air) with a bimonthly column. We have also struck up an alliance with ArchDaily / "Plataforma Arquitectura" (Architecture Platform), the most visited website on architecture, where our articles are published.⁴ Networks are, today, a power space to which we cannot turn a blind eye.

Digital production has also led us to the writing of academic articles, such as the ones published in the following magazines: *Res Mobilis*⁵, *Architectural Review*⁶ and *Dearq*.⁷ With our study of the biographies, we gained an understanding of the fact that rescuing a woman architect's individual life was not enough, but that, instead, we must both allow for an interrelation among the biographies and carry out a different periodization, subversive of the one present in habitual architecture books. Apart from its being an opportunity to conduct an analysis and a synthesis that are absent from the individual biography format on the blog, publication on specialized media permits to legitimize the production performed on the networks. The traditional academic system witnesses a filtering of critical and, at times, provocative intent. On more than one occasion, the peers assessing our work have resisted our positions irrespective of the profuse documentation that supports them.

For this work, in 2016, we received the Milka Bliznakov Award by the International Archive of Women in Architecture, whose headquarters is established at Virginia Tech University.

Wikipedia

Women's invisibility and scarcity in the so-called information society are a fact that has been studied for years. Being the result of collaborative, open and free group work, Wikipedia was supposed to attract men as well as women. However, Wikipedia is not impervious to the

prevailing power relations in our society, which produce unequal opportunities. Statistics show that every 100 editors, 91 of them are male.⁸

Founded in 2001, Wikipedia has become, with the passing of time, a key source of information, as it appears as a first result page when search engines like Google are employed. It has also turned into a source of reference for the mass media and, also, academic works. It is the seventh most visited site of all the web. Wikipedia repeats the gender stereotypes that exist in the realm of academic production.

In September of 2015, the Guggenheim of Nueva York held a women-only editathon, an event to edit Wikipedia articles on women architects, to which the editors of "Un Día - Una Arquitecta" were invited to participate. Women-only editathons consist in editing events organized by Wikipedia with the purpose of bridging the gender gap. It is a training event on Wikipedia relevance criteria and the rudiments to learn how to edit an article.

In order to participate, we got in contact with members of Wikimedia Argentina and the Wikiproject Women. The event had its headquarters in New York and more than twenty offices around the world. Our team created two nodes: one in Valencia (Spain), linked to the Polytechnic University of Valencia, and the other one in Córdoba (Argentina), linked to Córdoba National University, both of which enjoyed the support of Wikimedia.

One of our first actions was the creation of a 'category', i.e. 'women architects'. This category was resisted for some users thought there was no need to differentiate it from the already existing category 'architects'. It was finally admitted, however. Sixty already written biographies were, thus, categorized. With the material produced by the blog "Un Día | Una Arquitecta," forty additional biographies were added and, by the end of 2015, one hundred biographies were reached. This entailed a 5 percent of biographies of women architects against a 95 percent of biographies of male architects on Wikipedia in Spanish.⁹

Since then, we have organized a total of 5 women-only editathons. Thanks to these actions, Wikipedia has, today, 485 biographies of women architects, which represents 12.5 percent of articles on architects.¹⁰

4 "Plataforma Arquitectura: (2017)," Un día | una arquitecta en Plataforma arquitectura: <https://www.plataformaarquitectura.cl/cl/tag/un-dia-una-arquitecta> (accessed April 1, 2018).

5 Daniela Arias, Florencia Marciani, Inés Moisset and Zaida Muxí, "Sillas Fantasma: Una antología hegemónica," *Res Mobilis: Revista internacional de investigación en mobiliario y objetos decorativos* 6, no.7 (2017), 151–178, <https://doi.org/10.17811/rm.6.2017.151-178> (accessed May 7, 2018).

6 Eva Álvarez and Carlos Gómez, "The Invisible Women: How female architects were erased from history," *Architectural Review*, <https://www.architectural-review.com/rethink/the-invisible-women-how-female-architects-were-erased-from-history/10017481.article> (accessed March 8, 2018).

7 Inés Moisset, "Cien Arquitectas en Wikipedia," *Dearq*, no. 20 (July 2017), 20–27 <https://revistas.uniandes.edu.co/doi/pdf/10.18389/dearq20.2017.02> (accessed March 8, 2018).

8 Andrea Patricia Kleiman, "¿A qué llamamos brecha de género en Wikipedia?" <https://andreapatriciakleiman.wordpress.com/2017/04/29/a-que-llamamos-brecha-de-genero-en-wikipedia/> (accessed April 29, 2017).

9 Andrea Patricia Kleiman, Florencia Marciani and Inés Moisset, "Mujeres en arquitectura – español," https://commons.wikimedia.org/wiki/File:Mujeres_en_arquitectura_-_espa%C3%B1ol.pdf, (accessed March 24, 2018).

10 "Mujeres latinoamericanas en la Arquitectura," https://meta.wikimedia.org/wiki/Mujeres_latinoamericanas_en_Wikimedia/Mujeres_latinoamericanas_en_la_Arquitectura/Pagina_1 (accessed March 24, 2018).

Awards

The [Nobel] prize is biased toward men of European descent, and European and American researchers in general, a bias that is part of a larger problem of excluding women and minorities for consideration.¹¹

Awards in the world of architecture are a sign of prestige. Most of them serve to highlight the importance of the work and the career of male colleagues. Only a bit more than ten women in all history have been awarded a Gold Medal, a National Prize or the Pritzker Prize.¹²

Many competitions do not reward women; other than for a cognitive bias, this happens because there are no women candidates nominated for a prize. Thus, from "Un día - una arquitecta," we put forward Angela Perdomo's candidacy for the nomination for 'Premio Nacional de Urbanismo de Uruguay' (Uruguay Urbanism National Prize) in 2017, for the category Career. Angela Perdomo finally won together with Carlos Musso.

Biennials are power spaces, inasmuch as history books contribute to canon construction. Therefore, it is of paramount interest for women architects to participate in the most important events of the profession. Given the scarcity of women architects at the Venice Architecture Biennial of 2016, we set up two awards: 'Leona Violeta' (Violet Lioness) and 'Scar de Oro' (Gold Scar).

The 'Leona Violeta' prize aims at highlighting the delegations of countries that allocate adequate space to the work performed by women in architecture. The 'Scar de Oro' is awarded to the least inclusive pavilion and is decided upon by the public's voting.

According to the Venice Biennial of 2016 official webpage, it was 59 national delegations that presented their production, linked to the slogan 'Reporting from the Front'. A jury made up of members of "Un día / una arquitecta" conducted a survey and established the existence of 29 pavilions commissioned and/or curated by women. The jury made up of members of "Un día / una arquitecta" awarded the first shared prize to the pavilions of Mexico and Greece. An honorable mention was granted to the pavilion of Peru. The pavilions do not just have in common the presence of women among those people who both coordinate them and have exhibits but they also show democratic modes of material selection together with highly developed proposal communication

actions. The competition proceedings can be accessed on our site.¹³

The 'Scar de Oro' prize recognizes the least inclusive pavilion. The "Un día / una arquitecta" survey found the existence of 7 pavilions commissioned and/or curated by men only, where work performed by men alone was on display. The prize was decided upon by opening the vote to the public. The winner turned out to be the pavilion of the Oriental Republic of Uruguay. The prize logo shows the Venice Biennial logo (a tied lion) and transforms it into the villain of the movie Lion King, thus employing irony and humor, and using networks in a creative and innovative manner.¹⁴

Commitment: 30%

Given that co-optation exists and that in it, women are rejected, the way to reach dual representation is the installment system. By such system, an order principle is introduced in co-optation public systems. In addition, the positive discrimination principle cannot be maintained without an ample support network on its base, linked together by a feminist ideology, however diffuse as it may be.¹⁵

There exist normalized practices among those who run institutions, those who publish work and those who organize events. Such practices prevent women from accessing these spaces. Institutions are responsible inasmuch as they lay out the rules that allow (or disallow) the entire population of licensed professionals to be represented. In addition, we may demand, adopting a bottom-up approach, that the people in charge reorient their policies with a view to making a more inclusive profession possible.

We, at "Un día / una arquitecta," launched a petition called Commitment 30 %, in our attempt to establish a minimum regarding women representation in events held in Argentina and Spain.¹⁶ None of the institutions that have been invited to participate overtly admits to its being misogynist; however, tradition and 'normality' impedes self-criticism. Despite having a great number of institutions that supported the petition, it was only endorsed by two of them, i.e. CPAU (The Architecture and Urbanism Professional Council) and Avellaneda National University.

11 Jesse Emspak, "Are the Nobel Prizes Missing Female Scientists?" *Scientific American*, <https://www.scientificamerican.com/article/are-the-nobel-prizes-missing-female-scientists/> (accessed March 7, 2018). <https://www.scientificamerican.com/article/are-the-nobel-prizes-missing-female-scientists/>

12 Ray Eames (1979, Reino Unido) Jane Jacobs (1981, Canadá), Phyllis Lambert (1991, Canadá - 2016 Wolf Israel), Gae Aulenti (1991, Japón), Patricia Hopkins (1994, Reino Unido), Brit Andresen (2002, Australia), Antonia Lehmann (2004, Chile), Zaha Hadid (2004, Pritzker - 2009, Japón - 2016, Reino Unido), Kazuo Sejima (2006, Francia - 2010, Pritzker), Patricia Patkau (2009, Canadá), Kerry Clare (2010, Australia), Julia Morgan (2014, Estados Unidos), Sheila O'Donnell (2015, Reino Unido), Fuensanta Nieto (2015, Medalla Alvar Aalto Finlandia), Carme Pigem (2015, Francia - 2017, Pritzker), Denise Scott Brown (2016, Estados Unidos), Anne Lacaton (2016, Francia).

13 "Premio Leona Violeta 2016," Un día | una arquitecta, <https://undiaunaarquitecta.wordpress.com/eventos/premio-leona-violeta-2016/> (accessed March 26, 2018).

14 "Scar de Oro 2016," Un día | una arquitecta, <https://undiaunaarquitecta.wordpress.com/eventos/scar-de-oro-2016/> (accessed March 26, 2018).

15 Amelia Valcarcel, *La política de las mujeres* (Madrid: Cátedra, 2004).

16 "Compromiso 30%," Un día | una arquitecta, <https://undiaunaarquitecta.wordpress.com/compromiso-30/> (accessed April 2, 2018).

On the section All male panel, we also keep track of events that invite male architects only. We are interested in calling the public's attention to this systematic phenomenon that contributes to the reproduction of stereotypes. Members of the public are able to report these events by filling out a form on our site.¹⁷

Meetings

Sorority is also, in essence, a strategic matter. Within this framework, the strategic construction of 'solidarity leaderships' has been put forth in addition to 'marching together', so as to increase the possibilities for achievements. Shared conditions and situations as a base for a common agenda would be key in meetings and alliances.¹⁸

In addition to making our presence known digitally, we have also held traditional events, which allow us to bond with our colleagues, speaking with them 'in-the-flesh'. We organized the opening event in the Buenos Aires Architecture Biennial of 2015, whose venue was the Centro Cultural Recoleta auditorium. In 2016, we organized the "Un día | una arquitecta" meeting in Barcelona in sync with the Congrés d'Arquitectura, held in the Disseny HUB of Barcelona and in the Mies van der Rohe pavilion.

We were invited by the pavilion of Greece to take part in the Venice Biennial of 2016 while we were also invited to events organized in Madrid, Valencia and Las Palmas de Gran Canaria (Spain), Ljubljana (Slovenia), Washington DC (the United States), Salvador de Bahia (Brazil), Cochabamba (Bolivia), Quito (Ecuador), La Plata, Córdoba, Rosario, Santa Fe y Mar del Plata (Argentina).¹⁹

Together with the group 'Propuesta Decente' (Decent Proposal), we organized a series of seven meetings in different cities in Argentina in 2018. In these meetings, both a woman architect and a male architect exhibited their work on a specific topic. In sync with this activity, we also created a blog in which we posted critical articles that worked as theoretical framework for the meetings.²⁰

Actions toward Inclusion

When I started this project in 1979, I "simply" wanted to find out about forgotten women writers, because studying English literature meant almost solely studying men's writing. I just wanted to know what was there and I wanted to share what I discovered with other women [...] As the work continued, my perspective shifted [...] When I began this study, I was working on "forgotten women." By time it was finished, I was concerned with the problem of what happens to subordinate groups living under reactionary regimes.²¹

Human knowledge and work, which have been recorded throughout history, have not been neutral in terms of gender since they have only included the experience and vision of one of the genders, i.e. masculine gender. The concealment of women in the history of architecture, in particular, serves as a great opportunity to contribute to the deepening of the debate on what happens in a similar manner in other areas, such as art, science, and mass media.

Activism, such as the one for the visibility and sociopolitical transformation of the condition of women architects, requires, like all types of militancy, a total dedication and action in public life. It needs empowerment and commitment.

Another vindication that connects us is the one about language. In contexts of a mostly Hispanic origin, we demand that Spanish be used. Neocolonialism is another form of power, which must be deconstructed, and which shares its base with patriarchy.

We consider that a gender perspective and feminism should be the essence of a person's outlook on the world and should underlie their way to act on it: a transversal look at all the strategies and decisions made by the representative bodies and by the referents of the professional and academic collective within the realm of architecture. In addition, the groups, such as ours, involved in the task of giving women a voice should exert their influence in the spaces where public opinion is formed, as a way to encourage reflection and a gender consciousness so as for the demands to come from the whole of society.

Aware of the fact that social changes and transformations precede normative structures and academic organizations with a patriarchal origin, we believe that the high impact visibility associated with different cultural productions (such as blogs, online encyclopedias, exhibitions, multimedia, awards, etc.) is a way to disseminate ideas and exercise influence on the social imaginary, i.e. it is the path to the inclusion and the consolidation of women's presence in history and in the present.

17 "All male panel," Un día | una arquitecta, <https://undiaunaarquitecta.wordpress.com/all-male-panel/> (accessed April 2, 2018).

18 Silvia Salinas Mulder and Ilse Zuleta Sarabia, *Todavía no hemos soñado suficiente: Efectos de los Compromisos del Estado Boliviano con la CEDAW y PAM en la Calidad de Vida de las Mujeres* (La Paz, Bolivia: AMPUEI, 2006).

19 "Eventos," Un día | una arquitecta, <https://undiaunaarquitecta.wordpress.com/eventos/> (accessed March 2, 2018).

20 "Cruces: Encuentros de Arquitectura y Ciudad," Cruces Arquitectura y ciudad, <https://crucesarquitecturayciudad.wordpress.com/> (accessed March 2, 2018).

21 "Elaine Hobby" quote in Shulamit Reinharz and Lynn Davidman, *Feminist Methods in Social Research* (Oxford: Oxford University Press, 1992).

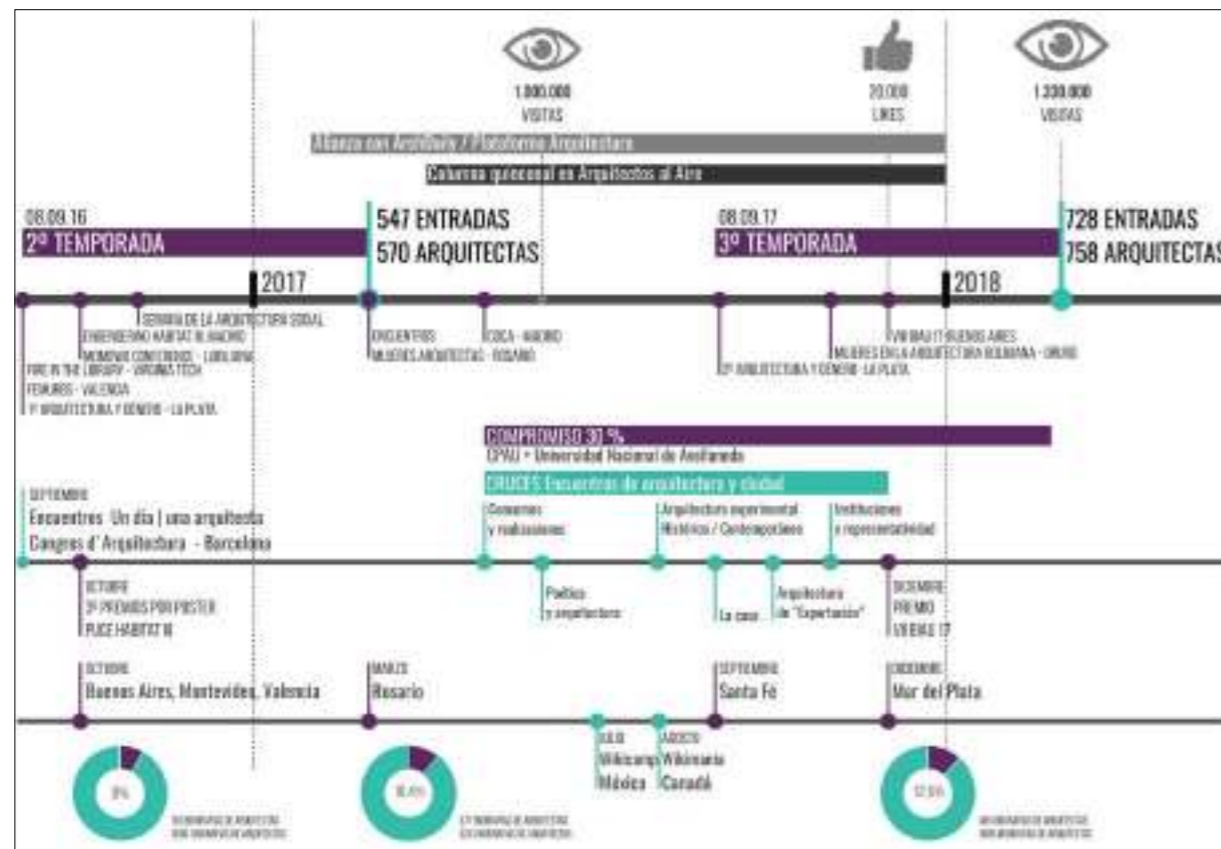
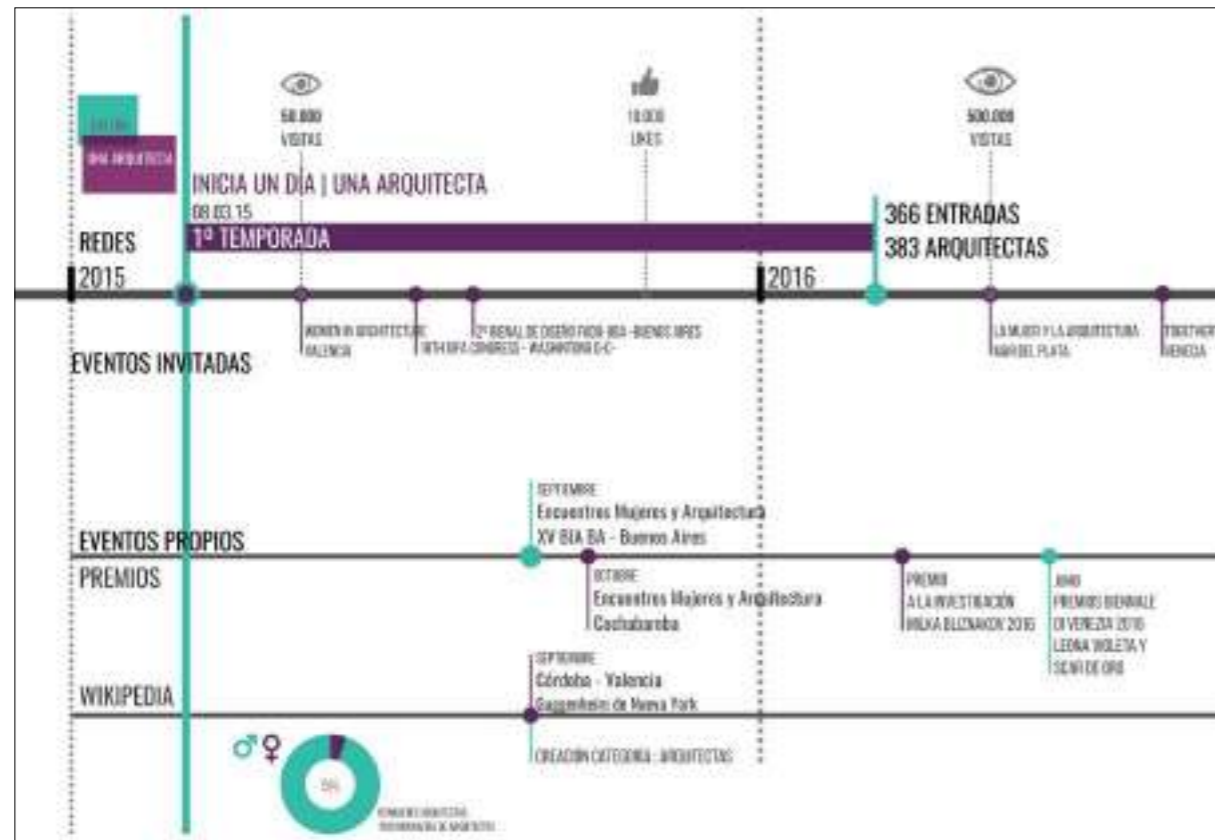


Fig. 1 and Fig. 2.: Source: Florencia Marciani, Un día | una arquitecta

Ania Lopez

National Council of Engineers | Italy

Ingenio al Femminile

Ingenio Al Femminile

The initiative Our country is by no means free of problems related to cultural prejudices and the lesser opportunities for professional growth, study consider female entrepreneurship, Italy is stationed in the lower part, giving only a few reflections on gender disparity, conceived and promoted by Consiglio Nazionale degli Ingegneri (National Council of Engineers) dedicated to the Enhancement of the female figure in technical-scientific professions.

We are already at the 4th edition of the Project, that I also plan to share with many male colleagues.

Today in Italy we have almost a 15% female graduate engineers and enrolled in our orders, which represent more than 30,000.

Stories of Women Who Have Been Able to Leave to Mark

In each edition three female engineers are rewarded for their *ingenium* (talent) by the ability to pick up impossible challenges and transform them into the future.

This was ours. Path, from 2013 to today, we have gone a long way, but we will continue, because I am fully convinced that men and women working together above all Engineers can make an innovative contribution to society.

Last Edition of *Ingenio Al Femminile*

The IV Edition of *Ingenio al Femminile*, held on October 12 in Rome, in the presence of President Zambrano of CNI, we have seen a different Italy, where technology, future, capabilities were the basis of ours. discussions, there were two sessions one in the morning where we met on the real problem of technical women, many rapporteurs from different sources (MEPs, universities, coaches, architects, journalists, economists), afternoon session we talked about visionary thinking with the technical world with a contribution from female engineers with the government, University, Company and Freelander.

The Way Prospective and Project

The woman-engineer binominal is the thread of the event with the conviction in order to overcome the taboo of female entrepreneurship and the sand prevent this from becoming a stereotype, it is necessary to share paths and knowledge, gender comparison in synergy with appropriate political reform.

National Project

The CNI has signed an agreement with the Equal Opportunity Department of the Presidency of the Council of Ministers in this regard and participates in the ProRete Project.

International Project

The activities globally towards increasing the number of women in Engineering and Technology through the years has been on the increase across the globe. The level (number) of women in employment and leadership in the private and government organizations is increasing to some extent. However, a review of this exposes the fact that these are women in the humanities or women in business. While we rejoice at the strides by women in business, politics there is the need to set a course towards reducing the great disparity in the engineering & technology sector. There for the theme for this year PRESS for Progress is a wakeup call.

The Theme of the Committee on Women in Engineering is 'Contributing to global sustainable development, women Engineers making a difference with men as allies: "turning words into action"'.

Registration of college of engineers by region and gender. Anno 2018 - Val. ass. e val. %

	UOMINI		DONNE		TOTALE	
	V.A	%	V.A	%	V.A	%
Abruzzo	5.903	82,7%	1.239	17,3%	7.142	100,0%
Basilicata	3.026	82,3%	653	17,7%	3.679	100,0%
Calabria	9.110	82,9%	1.883	17,1%	10.993	100,0%
Campania	23.487	88,8%	2.971	11,2%	26.458	100,0%
Emilia Romagna	14.027	83,5%	2.772	16,5%	16.799	100,0%
Friuli Venezia Giulia	3.758	86,5%	588	13,5%	4.346	100,0%
Lazio	23.719	85,0%	4.198	15,0%	27.917	100,0%
Liguria	6.030	85,8%	1.002	14,2%	7.032	100,0%
Lombardia	26.029	86,0%	4.225	14,0%	30.254	100,0%
Marche	5.770	80,6%	1.392	19,4%	7.162	100,0%
Molise	1.252	88,8%	158	11,2%	1.410	100,0%
Piemonte	10.849	85,5%	1.845	14,5%	12.694	100,0%
Puglia	14.282	85,4%	2.447	14,6%	16.729	100,0%
Sardegna	6.999	76,7%	2.129	23,3%	9.128	100,0%
Sicilia	18.380	85,8%	3.032	14,2%	21.412	100,0%
Toscana	11.082	84,7%	2.000	15,3%	13.082	100,0%
Trentino Alto Adige	3.613	87,4%	522	12,6%	4.135	100,0%
Umbria	3.175	81,0%	745	19,0%	3.920	100,0%
Valle d'Aosta	392	86,5%	61	13,5%	453	100,0%
Veneto	13.551	88,7%	1.718	11,3%	15.269	100,0%
Totale	204.434	85,2%	35.580	14,8%	240.014	100,0%

Share of women registered of college of engineers (Section A + Section B). Year 2018

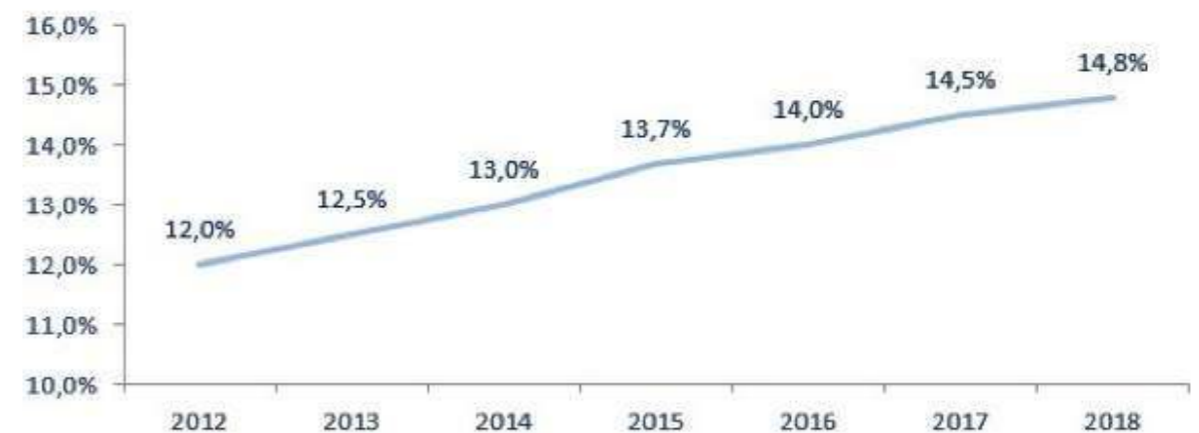


Fig. 1 and Fig. 2.: Source: Report 2018 Study Center CNI

The Committee while in Paris for the WFEO Executive Board/council Meeting and celebrating 50 Years of WFEO will also on March 8th celebrate the IWD and 10years of the committee of Women in Engineering of the WFEO.

The discussion will focus on three areas which are; strategic indicators, Actions needed for the SDGs and bridging the equality division.¹

One of the areas of the SDGs for focus by CWIE is the goal No 9 Industry, Innovation & Infrastructure. It is in view of this that the WFEO-WIE committee, decided not to only have a roundtable discuss amongst professionals but to reach out to the girls in the tertiary institutions and encourage some progress into the world of innovation.

We are aware that it is necessary to share paths and knowledge, gender comparison, in synergy with appropriate political reforms, will be the key to success for a better society that the United Nations wants in the Sustainable Agenda 2030, while the world has achieved progress towards gender equality and women's empowerment under the Millennium Development Goals including equal access to primary education between girls and boys, women and girls continue to suffer discrimination and violence in every part of the world. Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world. Providing women and girls with equal access to education, health care, decent work, and representation in political and economic decision-making processes will fuel sustainable economies and benefit societies and humanity at large. The CNI and WFEO Standing Technical Committee work together with UNESCO and United Nations for a creative project with *Ingenio al Femminile* to help the women for economic emancipation and recognition to duty and rights for better condition of labor and salary.

Amina Qayyum Mirza

Office of Metropolitan Design, Lahore | Pakistan

Four to Forty - Evolution in Three Decades since 1983

Professional Milieu -The Past

Pakistan became an independent country in 1947. And a decade later, the first professional institute in the country was founded.

The Institute of Architects Pakistan (IAP) was established in 1957 by a small group of architects who had been trained in the west and either worked for the government or were in practice. IAP was formally registered in 1968 under the Societies Act, and subsequently registered in 1968 under the Companies Ordinance, with the Securities and Exchange Commission of Pakistan (SECP)¹

At the time architecture as a profession was not recognized for the enormity of its impact on the built environment. The bulk of building design and planning of the new towns lay in the hands of engineers. There were very few women architects in the early 60s. Since the inception of IAP and almost two decades later Yasmeen Lari was elected to be the first woman President of IAP in 1980 and she is the only one to date. As the president of the institute Lari could envision future challenges that the profession would face. During her presidency she gained recognition in the government quarters and created relevant connections that would benefit the formation of statutory registration authority. Soon after becoming the Immediate Past President IAP, in order to strengthen and formalize the profession of architecture and planning, she took upon herself to establish Pakistan

¹ "Agenda 2030," United Nations, <http://www.un.org/sustainabledevelopment/sustainable-development-goals/> (accessed May 14, 2018).

¹ "About IAP" IAP, <http://iap.com.pk/index.php/about-iap/> (accessed March 13, 2018).

Council of Architects and Town Planners (PCATP) the statutory and regulatory authority in 1983. She singlehandedly formed PCATP; this was a herculean task in the patriarchal professional milieu of lately established profession.

'Through the consistent efforts and lobbying of IAP, the profession of Architecture and Town Planning received the due recognition and protection with the establishment of the statutory registration body, Pakistan Council of Architects & Town Planners (PCATP) in 1983.'²

The Pakistan Council of Architects and Town Planners Ordinance 1983 has been promulgated with a view to give recognition and protection to the profession of architecture and town planning in Pakistan. The council has wide ranging powers and is authorized to perform all functions and to take steps connected with or ancillary to all aspects of the two professions including laying down standards of conduct, safeguarding interests of its members, assisting the government and national institutions in solving national problems relating to the professions, promotion of reforms in the professions, promotion of education of these professions, reviewing and advising the Government in the matter of architecture and town planning education, etc.³

Pioneers and the Trailblazers

Women architects have played a key role in transitioning the profession in a young country. They have been a catalyst in evolution of profession and taking it to the next level. This was achieved through sheer commitment, dedication and passion. The pioneer women architects who led the profession have created a significant impact in the field and continue to contribute till date. A brief profile and a summary of dynamic women in the field is included to give an overall view of women in the profession and their contribution.

Yasmeen Lari: Lari was born in 1941. She spent her early life traveling within Pakistan and Europe. She got her degree in architecture from Oxford School of Architecture (now Oxford Brooks University), United Kingdom in 1963.

In early 60s her father was serving in Pakistan's civil services and was in charge of development projects in major cities of the country. Through her family connections she had an opportunity to work as young professional on many projects of varying scale; this being aforesaid it does not take away the merit of her work and her leadership acumen.

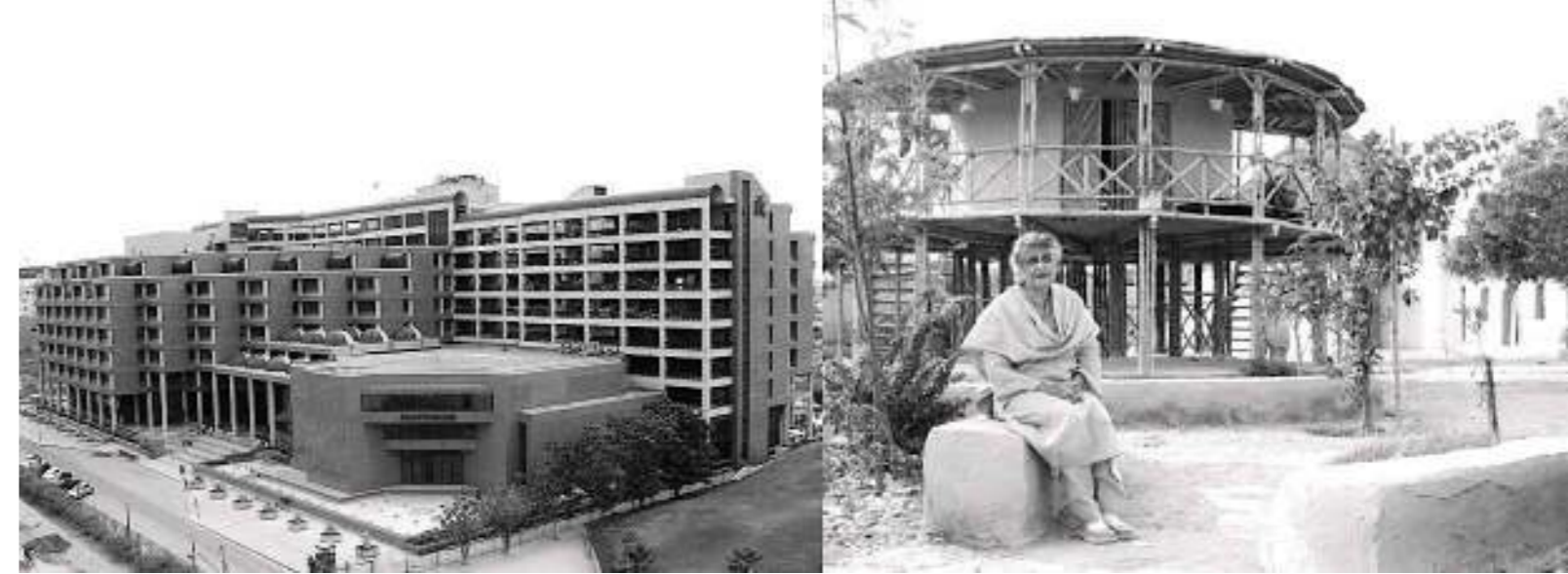


Fig. 1. Finance Trade Centre, Karachi, Pakistan 1989 (left), Lari seated at the threshold of Women's Centre, Awaran District Sindh, Pakistan 2013 (right). Source: "Yasmeen Lari: The Architect and the Saviour," Blog, NUST Science Society's, <https://nustscienceblog.wordpress.com/2015/05/08/yasmeen-lari-the-architect-and-the-saviour/> (accessed July 30, 2017) (Copyright free).

Many years into the profession and then being elected as President IAP, she had the foresight to lay the foundation of PCATP. She carved a niche for herself by being the first registered architect of the country. She formulated the byelaws of the organization so that all the powers lay with the Chairperson of the organization.

Prior to formation of PCATP she had support of her peers but once PCATP was formed she faced difficulties from engineers and architects alike. Prevailing mood of the time was as such that it was not easy for her get any support from her peers, even from the ones who were once very supportive of the idea preceding to the establishment of PCATP. Hence her resilience prevailed and with the support of her family, she successfully ran affairs of the new organization from her home office. Despite the lack of peer support she had a successful first tenure. This was a new chapter in the history of profession, to which future generation of architects are indebted.

Lari's passion for the profession translated into many areas of the field. She has tirelessly worked as an architectural historian, a conservationist and a humanitarian aid worker.

She has won many accolades. In 2002 the Heritage Foundation Pakistan, founded by Lari received U.N. Recognition Award for its efforts to promote cultural and historical conservation. In 2006 Lari was awarded the Sitara-e-Imtiaz, one of the highest civil awards by the Government of Pakistan in recognition of her services to the architectural profession. She was recently awarded The Fukuoka Prize in 2016 in The Arts and Culture Prize category (Fig. 1).

Yasmeen Cheema: Cheema is the first women architect who received her first professional degree from an architecture design school in Pakistan. She joined National College of Arts (NCA), Lahore, Pakistan in 1961 and was the first women student at the Department of Architecture. NCA was previously known as Mayo School of Arts and was founded in 1875. Cheema did her A.B.D Masters:

² IAP, "About IAP"

³ "Home," Pakistan Council of Architects and Town Planners, <http://www.pcatp.org.pk/home.html> (accessed March 13, 2018).

Program of Conservation of Historic Monuments and Cities with major in Conservation of Monuments, Historical Areas and Cities and a minor in Material Science with G.P.A 4, in 1994 from Middle Eastern Technical University (METU), Ankara, Turkey. She is the first qualified conservationist in the country.

She has been in private practice from 1966 till 1989 and her practice spanned in two major cities of Pakistan. She started her teaching career in 1976 and has held many academic positions at various institutions both locally and internationally.

As a Specialist Technical Expert she was instrumental in setting up of The Conservation and Rehabilitation Centre (TCRC). TCRC has been engaged in conservation, rehabilitation and research works on monuments in Pakistan. Currently she is advisor to architecture department at the COMSATS Institute of Information Technology, Lahore, Pakistan.

Perween Rahman: Rahman was born in 1957 in Dhaka, East Pakistan (now Bangladesh). In her early youth her family moved to Pakistan. She obtained Bachelor of Architecture in 1982 at the Dawood College of Engineering and Technology (DCET), Karachi, Pakistan and a Postgraduate Diploma in 1986 from the Institute for Housing and Urban Development Studies, Rotterdam, Netherlands in housing, building and urban planning.

She started her career from a private architecture firm in 1982. In 1983 she became the Joint Director of the Orangi Pilot Project (OPP) and later in 1988 she became the Director of Orangi Pilot Project-Research and Training Institute (OPP-RTI). She managed various programmes in youth training, education, water supply and secure housing. In 1989 she founded Urban Resource Centre an NGO dedicated to improving plight of low-income dwellers. She worked in improvised neighbourhoods and in hope to lessen their prevailing sense of deprivation. She initiated Orangi Charitable Trust (OCT), the microfinance branch of OPP (OPP-OCT).

Ms. Rahman was an ardent compiler of the record of precious lands, which were on the fringes of the city in shape of villages but were speedily vanishing into its vastness because of ever-increasing demand by thousands of families who were shifting to Karachi every year from across the country.⁴

Rahman received death threats from land mafia and corrupt political quarters but she remained steadfast and committed to her mission till her last breath.

Rahman won several local and international awards for her work at OPP. In 1986 she received Jaycees Award for community work, in 1996 UN-Habitat Best Practice with OPP-RTI and in 2001 she won World Habitat Awards with OPP-RTI.

She also taught at University of Karachi (KU) and DCET and has many publications to her credit.

The legendary social scientist, architect and a development professional was assassinated on 13 March 2013. Ten days later on Pakistan Day, 23 March 2013 she was awarded Sitara-e-Shujaat (Order of Bravery, Posthumous) conferred by President of Pakistan.

Neelum Naz: Naz is the first woman PhD in the profession. She completed Bachelor of Architecture from University of Engineering and Technology (UET), Lahore, Pakistan in 1980. Naz obtained PhD from the University of Sheffield, UK in 1998 and a Post Doctorate from METU in 2006. She is author of numerous publications in the international and national journals. She joined Department of Architecture at UET as a lecturer in 1983 and has been teaching in various capacities for the last 34 years.

Ayesha Noorani: Noorani graduated from NCA in 1982 and has been in private practice since. Her contribution to the profession is revival of the crafts. She along with a group of women architect friends formed a non-profit Daachi Foundation. Daachi holds an annual festival that includes exhibition of products by artisans, craftspeople and their local cuisine from various provinces of the country.

Speaking at the first fundraising event Noorani the founder of Daachi Foundation said:

This is our first fund raising event. Daachi aims to sponsor craftsmen. We plan to establish a village where the dying crafts will be promoted. We are not only promoting crafts but traditional foods and folk music too; there will be workshops on learning these crafts so that they can be passed on to the next generation.⁵

The efforts of Noorani have resulted in coming together of various craftspeople from different regions of Pakistan in a grand annual event. The successful endeavour has led to an increase in the number of participants each year. This event is now a major 'go to event' for the elite. The sensory delight of the festival has not only revived the crafts but has created a connection for the urban populace to their roots.

Sadia Fazli: Fazli currently holds position of Registrar at PCATP. She is known as the 'Iron Lady of Architecture'. She initiated and developed accreditation programme for architecture and town planning within the country; in consultation with resource persons from Royal Institute of British Architects (RIBA) and Commonwealth Architects Association (CAA). The programme includes, accreditation visits, liaison with Higher Education Commission on monitoring and quality assurance issues in professional education. The registrar also liaisons with the city government and development authorities nationwide on regulation and licensing issues. Fazli completed multiple degrees from

4 "About Parveen Rehman," Orangi Pilot Project, <http://www.opp.org.pk/about-parveen-rehman/> (accessed March 9, 2018).

5 "Daachi Festival," The Express Tribune, <https://tribune.com.pk/story/134534/daachi-festival/> (accessed March 18, 2011).

University of Pennsylvania, Philadelphia USA in 1988. This included Master of Architecture and City Planning, and a Certificate in Urban Design. She did her Bachelor of Architecture from UET, Lahore, Pakistan in 1983.

Amina Qayyum Mirza: Mirza received her second professional degree Master of Architecture (Advance Graduate Program) from University of Pennsylvania, USA in 1991 and Bachelor of Architecture with Distinction in First Professional Degree from NCA in 1988. Mirza has an extensive experience as the lead architect of various projects of design, research and assessment.

She is the first woman architect in the country who has won national design competitions of varying scales (Fig. 2). Hence paving the way for future women participation.

Mirza has been involved in various academic and professional activities for number of years. She is a senior validator of PCATP Architecture Education Accreditation Team and has reviewed numerous institutions in the country. She is the Chair of the newly formed IAP committee on Green and Sustainable Architecture and has initiated Green Habitat Assessment Resource (GHAR) within Pakistan. The acronym GHAR; means a home in native language Urdu. She is also a Senate Member of Pakistan Institute of Fashion Design (PIFD), a premier fashion design institute of the country. Mirza has been collaborating on various platforms related to academic, design and art both locally and internationally.

Zahra Hussain: Hussain graduated from NCA in 2008 and did her MA Research Architecture in Visual Cultures from Goldsmiths University of London, UK in 2011. She is a young PhD researcher whose ambition is to translate academic and professional material into native language Urdu. She believes this will give an equal opportunity to students who are equally talented as their peers but are disadvantaged by the language barrier. Currently she is a PhD Researcher at Durham University, UK.

'Four to Forty' a Metaphor for Gender-Shift

1983: The year 1983 has twofold significance, professional and personal. On a professional level the establishment of a regulatory and statutory authority in the country. On a personal level it was a beginning of my journey as an architect.

The significance of 'Four to Forty' is the increase in number of women students in a standard class of sixty over last three decades, since 1983. These numbers are not only an indicative metaphor for major gender shift in schools of architecture but also hold true to the statistics.

The number four and the year 1983 have personal connotations. In 1983 I joined architecture design department at the NCA, Lahore. Architecture design class intake was approximately 60 students at

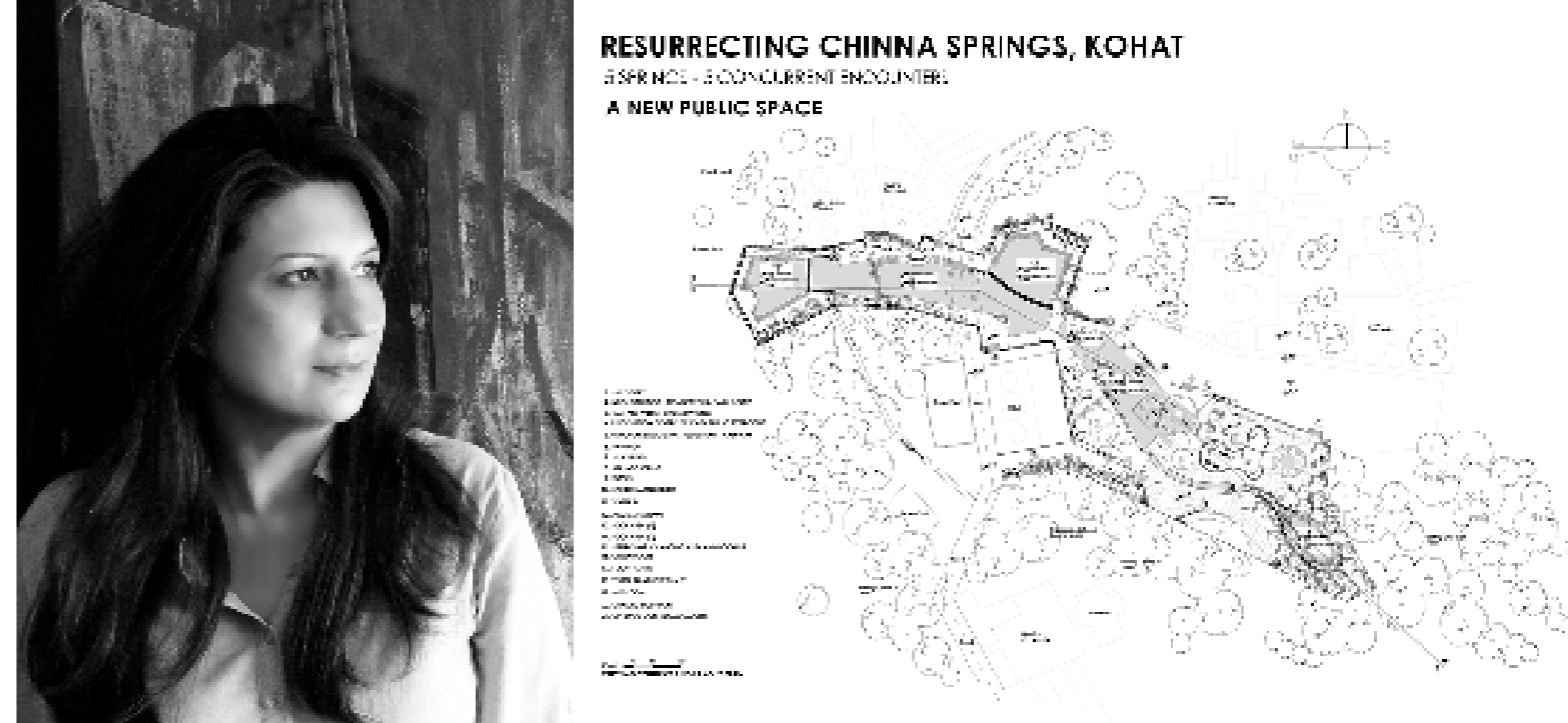


Fig. 2. Amina Qayyum Mirza with her artwork in the backdrop (Left), Urban Renewal National Design Competition Winning Project 2017 (Right). Image credit: Akbar Ali Qazi (2017), OMD-Office of Metropolitan Design (2018), (Copyright free).

the time. Total number of women intake was four. The ratio being 14 men to one woman, in a class of 60 students. The three of us were from different cities of Pakistan and one foreign student from Syria, making it a total of four women altogether.

Architecture Design Schools and Gender Shift in Architecture 1983 to 2017: In 1983 there were total of three architecture design colleges in the country, in 2017 the number has increased up to 35. The increase is more than 1000 percent in the last three decades; this includes both accredited and non-accredited schools. Similarly, the ratio of women to men studying architecture design has changed exponentially. In 1983 there were only three public sector architecture design schools with an average class of 60 each, the maximum number of women enrolled in the class was four. The women comprised 6.67% of the total class in 1983. In 2017 this percentage has increased up to 75%. The ratio of men to women in public schools varies from private schools due to high merit at the public schools. The number is as follows:

'Public sector average class of 60 comprises of 40 to 45 women students. Private sector average class of 30 students comprises of approximately 15 women students.'⁶

Hence the percentage varies between 66.66% to 75% women in public sector schools and approximately 50% women in private sector schools.

⁶ Sadia Fazli, PCATP Record/Data, pcatp.org.pk, The First Report of PCATP (November 21, 2017).

Since the inception of the country, till the late 60s, and early 70s, Pakistan enjoyed freedom of expression in the arts; her diverse culture was celebrated and revered by the people. But the political intrigues of late 70s and the dictatorial regime of the early 80s was not only regressive in general but particularly oppressive for women. The male dominated profession of architecture was viewed with scorn for women. Profession of medicine, education and art were generally considered appropriate career paths for women.

In late 80s the population growth and economic boom lead to mushrooming of private professional schools. The public sector could not meet the demand of growing urban population. Hence this boom leads to an era of privatization and many unregulated professional schools bourgeoned to meet the market demand. The sudden increase in the number of schools lead to dearth of quality education. The lack of trained teachers reflected in the resultant product of the privately owned institutions. Most of the private schools faced accreditation issues due lack of permanent faculty. The teachers were quick to change jobs when a better financial opportunity arose. An unstable educational environment with lack ownership and commitment from the disseminators of education furthered the downward trend in quality of education. Public sector schools were not as disadvantaged as the private ones due to job security and benefits they offered to their permanent faculty.

In early 90s we the Gen X were at the cusp of technological change. The studio design work was done manually till the early 90s. It was an era of digital revolution and political transition for the country. Within a few years of our graduation, the technological shift changed the medium of architecture drawing, presentation and conception. Due to the new technology the possibilities were endless and this added a new dimension to the profession. We were advantaged and disadvantaged by the change. The advantage being the generation who could grasp the tangible aspects of time and labour relating to the profession and the disadvantage was not having the first-hand grasp on the new tools and the skillset that encompassed vastness of its application.

The Millennials grew up with the technology but had to struggle to grasp tangible aspects of scale and relationship of drawing to its actual manifestation, materiality, genius loci and physicality of time. With the advent of Internet, global connectivity and technology the education of architecture changed as well. Architecture once considered physically laborious profession was now becoming easy to realize in certain aspects.

Women in Architecture, Academia and Practice; The Present: As per data compiled and presented by PCATP in annual report presented at the Annual General Meeting in July 2017. The total number of registered architects in the country were 5446, paid up members were 3060 and 2347 had been removed. Whereas 1130 town planners were registered only 473 were paid up members and 639 had been removed. Further it is reported that composition of registered architects and town planners by gender was as follows:

'Women architects comprise total of 33% registered architects, whereas 23% of registered town planners are women.'⁷

The number of women practicing and in academia have increased manifold as is evident in a survey carried out by IAP in February, 2017 for UIA Member Section, Region IV. The survey was carried on registered paid up members at the time. The total number of paid up members was 2510. As per survey statistics women registered comprise 44% of licensed architects and 25.33% were actively pursuing the professional career, whereas 40.88% of men out of 56 % of registered men are practicing professionals. The relevant details of the survey are as follows:

6. Composition of Licensed/Registered Architects, Data/statistic for the last 10 years for the following:

6.1 Total No of licensed/registered (paid up) architect: 2510

6.2 No of Male: 1404 (56%)

6.3 No of Female: 1106 (44%)

7. Composition of registered/licensed architects by gender in the following (Please provide the data/statistic for the last 10 years): -

7.1 Academics: Female:98, Male: 48

7.2 Architecture Consultancy Practices: Female: 636, Male: 1026

7.3 Government agencies and local authorities: Female: 21, Male: 23

7.4 Other building related industry (manufacturer, developers, contractors etc.):

Female:08, Male: 4

7.5 Not practicing: Female: 254, Male: 202

7.6 Self Employed: Female: 89, Male: 101⁸

The above statistics clearly indicate the increase in women in the profession both as registered and practicing architects.

It is also noteworthy to keep into account the population demographics of the country and advancement of female participation in all spheres of social and professional fields. The demographics from 1950 to 2017 show a consistent ratio of male to female population i.e.

7 Sadia Fazli, "Pakistan Council of Architects and Town Planners Annual General Meeting 2016–2017" (Presented in at AGM, Karachi, Pakistan, July, 2017).

8 Shahab Ghani Khan, "UIA Member Sections" (Presented to UIA Region IV for Survey, 2017).

approximately 51% male and 49% female with minor variations throughout the last six decades.

Women participation in urban workforce has been consistently on the increase. This is indicative of female empowerment despite political inconsistencies. The natural evolution of feminism on the rise is also due to economic hardships. It is a fact that women can achieve much more despite adversity they face due to the goals they set to uplift the circumstances of their families. The women participation benefits the society as a whole and both socially and economically.

The Future: The present state of education, economic conditions and the enrolment of women in the architecture indicates that in a near future ratio of practicing number of total women architects will be on the decline despite the fact that there will be more registered women architects. Presently there are more women joining the professional schools, this is due to the fact that young women desire empowerment and financial independence. The women are focused and consistently perform better than men and are able to secure seats in the professional institutes. The decline in professional practice will hold true if education of architecture is not intensive in area of building construction. The coursework and design studios have to be linked to equip women architects with real world experience of material construction. The current ratio of registered women architects to the practicing is indicative predictor of the future. Lack of quality education and a challenging professional practice can deter most women architects, henceforth they opt to teach or join other related fields.

Conclusion

It is important to recognize the gender shift in a traditionally male dominated profession in the country and its future ramifications.

Women who graduate with the professional degree almost all work in an art and architecture related discipline, only a few venture in actualizing the professional practice. This is due to lack of necessary training and real-world experience during education.

Strategies have to be devised that take into account the current educational curriculum and adapt it accordingly to equip the future architects of the country with necessary training and education for a successful practicing career. This is important due to the fact that women who are enrolled in architecture while studying are not made aware of the importance of building construction aspect of the profession.

Further the gaps in teaching of the profession have to be highlighted so that remedial measures can be adopted. Appropriate learning material relevant to locale, economy and construction has

to be mandatory part of the education. The internationally recognized software and virtual design tools are necessary along with tangible skillset.

The women of Pakistan are resilient and progressive. Through the consistent efforts of the leaders a way is paved and a critical mass developed which will propel the women architects of Pakistan in the next era of success.

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South American, Foreign and Female Professionals: Reflections on an Unknown Contribution through Specialised South American Journals, 1929-1965

Introduction

An analysis of the reference books about the history of Modern Movement shows us that the presence of the female contribution has appeared intermittently and punctually. In this panorama, the most publicized and known case refers to the performance of the Italian architect Lina Bo Bardi in Brazil.¹ It does not mean, in any way, that there are no contributions from South American, or even foreign professionals and therefore that women have not played a relevant role in their own countries of origin, as shown by Silva's pioneering work and Sá, Velásquez and Lima for the Brazilian, Peruvian and Latin American cases, respectively.²

Still, if we analyse another referential source, the specialised journals, it is possible to identify a panorama quite different from the books. In our case, a survey of the content of the main South American journals published between 1929 and 1965 shows us a representative set of articles published by female professionals, although male supremacy is evident.

From this set, it is possible to perceive two defined moments marked by the World War II. At first, the presence of a number of European professionals (architects, artists, art critics, plastic

¹ In fact, there is an extensive bibliography produced on the Italian architect not only in Brazil, but also in her home country.

² Maria Angélica da Silva, *Arquitetura Moderna: A atitude Alagoana (1950-1964)* (Maceió: Sergasa, 1991); Flávia Sá, "Profissão: Arquiteta: Formação profissional, mercado de trabalho e projeto arquitetônico na perspectiva das relações de gênero" (Dissertation, Universidade de São Paulo, 2010); Carolina Velásquez Castillo, "Mujer y arquitectura en el Perú: Pioneras," in *Arquitectos/Arquitectas, Pioneros/Pioneras*, edited by Wiley Ludeña Urquiza (Lima: Facultad de Arquitectura y Urbanismo/PUCP, 2011), 65-87; Ana Gabriela Godinho Lima, *Arquitetas e arquiteturas na América Latina do século XX* (São Paulo: Altamira, 2013).

designers) is evident by the publication or reproduction of articles published in Europe; in the second moment, what can be perceived is a prevalence of South American architects that shows or gives us indications on the insertion of the female architect not only in the labour market and the academy, but also in the critical field.

From this context, we can ask the following questions: who were these female foreign and South American professionals? What is the influence of female foreign professionals in the South American environment? Which are the connections between female foreign professionals and specialised journals in South America? What themes were published by them? Answering to these questions is the aim of this paper, to that end, we have analysed ten journals published between 1929 and 1965, a period that corresponds to two symbolic moments for the Modern Movement to take effect: Le Corbusier's first visit to South America and Brasília's inauguration.

However, the paper tries to obtain a South American look, so it is necessary to clarify that it corresponds to the cases of *Revista de Arquitectura and Nuestra Arquitectura* (Argentina); *PDF* and *Acrópole* (Brazil); *Proa* (Colombia); *El Arquitecto Peruano – EAP* (Peru); *Arquitectura* (Uruguay) and; *Taller, Integral, and Punto* (Venezuela).

With this, we seek to emphasize and contribute to the discussion and problematization of a chapter still unknown and/or little approached in the referential historiography of the Modern Movement.

South American Professionals in South America

The first article published by South American women in South America date, even if precisely from the 1920. It can be seen that until the next decade their presence in journals is restricted, and in the cases in which they appeared their participation was focused on subjects about decoration, art and designs. Sometimes, these articles are more than critical, they refer to photographic essays, small comments or small opinions. A particular case constitutes in *PDF* where the engineer Carmen Portinho, its creator, allowed its self-visibility.

Regarding the articles of South American professionals analysed (authorship or co-authorship), between 1929 and 1965 the following data were obtained: *Revista de Arquitectura* published 85 articles; *Acrópole* published 57 articles; *PDF* 44 articles; *Nuestra Arquitectura* 34 articles; *Proa* 15 articles; *Arquitectura* seven articles; *Integral* and *Punto* five articles each; *EAP* four articles e; *Taller* one article.

It is worth mentioning that because *Revista de Arquitectura* has a strong connection with the academic environment, it has promoted the work of female architecture students still in formation; this explains the large number of articles when compared to the other journals analysed. In addition,

this journal and *Taller* had a specific, regularly published section informing about the newly formed 'new architects'; this besides of giving us a comparison of women and men graduated per year, it gave us the identification of female architects.

Another characteristic that can be observed is that there is, to some extent, a direct relationship between the number of articles and graduated professionals. In the case of the architects, it can be affirmed that the number of graduated women was much higher in Argentina and Brazil; it is clear, in this sense, that it is important to take into account that until 1940 there were no specific courses in several other countries such as Colombia and Peru.

The 252 articles surveyed allowed us to meet a significant number of professionals among architects, town planners, engineers and plastic artists.³ It is interesting to note that although some journals were more flexible to publish articles by women from various countries such as *Nuestra Arquitectura*, *Taller* and *Punto*, other journals chose to publish and privilege only local architects like *Acrópole*, *PDF*, *Revista de Arquitectura* and *Punto*.

The Argentinean case is the most representative regarding the visibility given to women professionals; this is not only evident from the various articles published, but also from the diversity of authors. In *Revista de Arquitectura* it is noticed that between the decades of 1940 and 1950 some professionals begin to gain prominence because of the dissemination of urbanistic articles, as they were the cases of the architect Carmen Renard and Ítala Villa. On the other hand, in *Nuestra Arquitectura*, the articles of the architects will only appear more clearly from the 1960, and more specifically, from the contributions of Villa and Marina Waisman, the latter will definitely stand out as the main criticism in the field.⁴

In *PDF*, it can be observed that the published articles were much more related to technical topics; therefore, most of them were written by civil engineers such as Maria Milward and Portinho herself. This panorama is completely different in *Acrópole* where almost all the articles analysed presented architectural themes. In this journal, the architect who had more space was Francisca Rocha who, similar to Renard and Waisman, stands out for her critical works focused on art, architecture and urbanism.⁵

In *Proa*, the few Colombian professionals had always been linked to co-authoring articles, such as the architect Luz Amorocho, who published articles about urbanism and social housing between 1940 and 1950, associated to the Colombian Ministry of Public Works, among them "Reconstrucción

de Tumaco" (1948) and "Las habitaciones colectivas en Bogotá" (1950).

In *EAP*, the references to female professionals were minimal. Despite this, the article "Casas Baratas" (1954) is significant since the text was written by its editor and highlights the project developed by Berta Zegarra and Eliana Castro, for this context in which they obtained the 3rd place. It is, then, one of the few articles found where the architects evidence an achievement and recognition in the professional field.

In Uruguay, *Arquitectura* stands out the architect Julia Guarino. Graduated in 1923, she became the first graduated architect in South America. She had a successful career in public administration and also, she developed in politics, in 1935 she created, along with Dr. Paulina Luisi, the Asociación de Mujeres Tituladas (Association of Titled Women). This trade association, of which Guarino was director, brought together women graduated from the Universidad de la República (University of the Republic) with the aim of studying and proposing solutions to public health problems, social welfare, cultural life and international understanding in the defense of women.

In Venezuela, it was possible to observe the great interest in dissemination of themes related to art. Thus, the articles were not only written by Venezuelan professionals, but also by other nationalities, such as the Argentinians Juana Sujo ("La escenografía en la temporada de Jean Louis Barralt" – 1956) and Clara Sujo ("Los coloritmos de Alejandro Otero" – 1957), who published in *Integral*. An interesting article was "Visita a Le Corbusier" (1965) by the Venezuelan architect Silvia Kluger, published in *Punto*, where she expressed her impressions of Le Corbusier's studio in Paris and reported on the work he had been doing at the time; the interesting thing about this article is that it was part of a campaign that aimed to make possible a visit of the architect to that country, a fact that may have been interrupted by his death that same year.

Dissemination of Foreign Experience in South America

From the analysis of the results obtained, it is verified that the presence of South American female professionals in the journals is limited when compared to the number of articles written by male professionals. And in this perspective, it is still necessary to emphasize that there was another factor that was, ironically, determinant to the achievement of this space: the presence of foreign female professionals. They had more freedom to publish articles alone, even if they were not directly related to architecture.

An aspect to be observed is that there were found publications of foreign female professionals (Europeans or North American) only in seven of the analysed journals (*Nuestra Arquitectura*, *Proa*, *Punto*, *Revista de Arquitectura*, *Arquitectura*, *EAP* and *Integral*).

³ Due to this fact, in this paper, we had to make a selection of the most representative professionals. This selection took into account the visibility of the unknown professionals, the number of articles published by them and their extension. This gave a total of 97 articles analysed.

⁴ Like *El lenguaje arquitectónico actual* (1957) and *Creación y crítica* (1961).

⁵ For example, *Grandiosa solução do problema da vivenda econômica* (1951) and *Um novo organismo municipal* (1952).

Nuestra Arquitectura was the one which presented a greater space for women professionals, of the 21 articles identified 14 were written by the foreigners Catherine Bauer, Adrienne Gorska, Elisabeth Denby, Lucile Kirahan, Elisabeth Close, Alba Myrdal, Aline Louchheim, Victorine Homsey and Lonia Winternitz; this last one had the highest number of articles published.

In *Proa* and *Punto*, three articles were identified in each of them: "El aprendizaje de las artes del hogar en Inglaterra" (1947) by Johanna Chase,⁶ "Lo abstracto en la cerámica" (1951) by the Italian Antonia Campi and "La moderna arquitectura Americana" (1953) by the American Aline Louchheim and; "Inquietudes de un ceramista" (1953) by the Italian Tecla Tofano and "Hablando con Isamu Noguchi" and "Centro Mundial de Comercio" (1965) of the Americans Katherine Kuh and Ada Huxtable, respectively.

Considering the others journals, only the following articles were identified: "La decoración y los tapices" (1941) by the German Maria Tobler (*Revista de Arquitectura*), "Arquitectura Escolar" (1931) by the Italian Guarino (*Arquitectura*), "Casas prefabricadas de un piso" (1946) by the English Monica Pidgeon (*EAP*) and "Cine y crítica de Arte" (1957) by the Italian Ambretta Marrosu (*Integral*).

From this panorama it is possible to affirm that the publications of the foreign female writers in the journals occurred between the decades of 1940 and 1950, it can be divided in three general subjects: articles related to art, theoretical type and those related to architecture (in many cases, constructions considered references abroad). Along with this, the way this participation occurred is another important point to be approached. Often, the articles were written in partnership with male professionals, when it brought subjects related to architectural and urban design.

In this period, a very recurring theme in the journals turned to experiences in urban planning and popular housing in post-Second World War Europe. An example of this is "Construyendo nuevas viviendas desde el punto de vista de los habitantes de barrios insalubres" (1937) by Denby, member of the London City Council. Published in *Nuestra Arquitectura*, in this article she brought as a discussion the need for reflection on the growth situation of English cities. Interesting as in this case, the journal editors accompany the original text that had as purpose to provoke and sensitize the local professionals on this subject. In general, this will also be a tactic employed in others journals.

Another important contribution was from Myrdal, who wrote the article "Desarrollo de la población y reforma social en Suecia" (1950). This article, published in *Nuestra Arquitectura*, demonstrates the influence of professionals not only in the architectural field, but also in relation to urban planning in their respective countries.

Acting on themes related to theory and architectural criticism we can mention the case of the German Winternitz, who had four articles published in different editions throughout 1935 in *Nuestra Arquitectura*.⁷ In general, these deal with the importance of residential spaces for family conviviality; in addition, it seeks to demonstrate the changes that had occurred in these environments with the coming of the Modern Movement.

The residential theme was largely discussed by female professionals practically throughout the study period. In many cases, this can be understood by the fact that they have a practical knowledge of the subject since many of them shared their professional life with domestic work. These questions about the study of residential spaces arose in Europe and were brought to South America influencing the field of action of South American female professionals.

As already mentioned, in the journal *Arquitectura* the only identified case was from the Italian Guarino. Although, she was not a Uruguayan by birth, she spent almost all her life in that country. Her training was recognized as a great achievement of feminism in Latin America.

European and American Repercussions and Influences in the South American Professional Environment

As we saw earlier, the information gathered showed us the fundamental European and North American influence in the academic training of female professionals. Some of them had the opportunity to study abroad after graduating, allowing them a professional enrichment that contributed to the reflection of the architecture and urbanism in the continent in several fields, such as: public policies, social housing projects, new teaching methodologies and urban planning.

A well-known case was the engineer and urban planner Portinho; her performance in the field of social housing policy in Brazil derives from her experience in England after obtaining a grant from the British government in 1930. During her stay there, Portinho accompanied the reconstruction and remodelling team of British cities bombed during the Second World War and became aware of the politics of the 'new cities'. In 1947, after returning to Brazil, she started the Department of Popular Housing in the City Hall of the Federal Capital, of which she was its first director.

Apart from Portinho, it was possible to find less known examples, but not less important. In some of these, it was possible to clearly identify the influence of what was learnt abroad from the analysis of

⁶ We were unable to obtain information about her nationality. However, we believe that she is American or English.

⁷ "El living-room y su arreglo," *Nuestra Arquitectura*, no 68 (1935), 272–279; "La cocina moderna y su arreglo," *Nuestra Arquitectura*, no 70 (1935), 360–363; "Negocios modernos," *Nuestra Arquitectura*, no 71 (1935), 391–406; and "La decoración del comedor moderno," *Nuestra Arquitectura*, no 72 (1935), 417–420.

the professional production after their respective trips. Another similar case was that of Francisca Rocha, an architect who graduated in 1933 from the Escola de Belas Artes de São Paulo (School of Fine Arts of São Paulo).⁸ She made a trip to the United States, where she visited the Beaux-Arts Institute of Design in New York and after returning to Brazil, she wrote in 1940 an article in *Acrópole* questioning the teaching of architecture in São Paulo and praising the artistic character of the American school.

We can also mention Rosa Kliass, architect and pioneer of landscaping in Brazil, graduated in 1950 at the Universidade de São Paulo (University of São Paulo).⁹ In 1969, Kliass received support from the United States Agency for International Development (USAID) to visit the country's top landscape architecture offices. After returning to Brazil, she put these experiences into practice in the field of urban planning and landscape architecture.

Renard and Villa stand out in Argentina. Renard, after completing the architecture course, received a scholarship from the Argentine/North American Cultural Institute. During her stay in the United States, she assumed the position of international correspondent for the *Revista de Arquitectura*; in this way, she became a key figure for the dissemination of advances in urbanism and social housing not only in Argentina, but in Latin America, since her articles were reproduced in other local journals. In the article "La enseñanza del urbanismo..." (1940) she pointed to the importance of urbanism as a way to solve the problems of contemporary cities. Among her conclusions, she showed how, in contrast to many Latin American cases, the studies did not focus on the theoretical field, but rather a concern to face real demands.¹⁰

In 1937, architect Villa carried out a study tour of Europe for five months with a group of 24 young architects (including four women), recently graduated from the Architecture Course of the Facultad de Ciencias Exactas y Naturales (Faculty of Exact and Natural Sciences) in Buenos Aires, and visited different offices, among them Le Corbusier's *atelier*.

Shortly after culminating her studies, the Peruvian architect Zegarra participated of international congresses, including the National Congress of Architecture in Rome (1953); during her stay there, she produced articles that were published in the journal *EAP*.¹¹

8 Sylvia Ficher, *Os arquitetos da poli: Ensino e profissão em São Paulo* (São Paulo: EDUSP, 2005).

9 "Rosa Kliass: Pioneira da arquitetura paisagística no Brasil," CAU-BRASIL, <http://www.caubr.gov.br/rosa-kliass-pioneira-da-arquitetura-paisagistica-no-brasil/> (accessed December 18, 2017); "Rosa Grena Kliass b. 1932," Encyclopedia, <https://jwa.org/encyclopedia/article/kliass-rosa-grena> (accessed December 18, 2017); "Rosa Grena Kliass," IAWADB, https://iawadb.lib.vt.edu/view_all.php?person_pk=1657 (accessed December 18, 2017).

10 Carmen Renard, "La enseñanza del urbanismo en las universidades de los Estados Unidos," *Revista de Arquitectura*, no. 239 (1940), 622–623.

11 Zegarra nos escribe desde Italia... *El Congreso Nacional de Urbanismo* (1953) and *Comentando los proyectos premiados crítica* (1954).

The Italian architect Guarino received in 1958 a scholarship in Italy that allowed her to have contact with the diverse public policies in that country. This experience was translated, after her return to Uruguay, in the discussion of architecture as a tool in the field of politics and of the rights of gender.

In addition to these professionals who have had direct experience in other countries, it is important to highlight the foreign architects and urban planners who worked in Latin America and influenced other women through their professional practice. We can mention the North American architect and urban planner, Chloethiel Woodard Smith, who graduated in 1932 from the University of Oregon. After completing her master's degree in 1933, Smith worked for the Federal Housing Authority of the United States and became well known after winning the urban renewal project in Southwest Washington. She was also a professor at the Universidad de San Andrés de La Paz (Bolivia) from 1942 to 1944.

As a South American correspondent for *The Architectural Forum*, Smith published in the end of 1940 a series of articles that sought to provide an overview of the architecture and urbanism of Colombia, Venezuela, Argentina, and Uruguay. Throughout her professional career, Smith, faced with the term 'female architect', felt offended, as she felt that being referenced as such, depreciated her work and ability as an architect.¹² In 1979, when asked about her determination to distance herself from the term, Smith replied, 'I am an Architect with a capital A. Being a woman has nothing to do with it'.¹³

Final Considerations

The research carried out in journals, in the case study, allowed to identify and show a significant number of women who act in several fields, especially related to architecture, urbanism and arts (Fig. 1). However, a common issue found in almost all journals is the difficulty to identify them, since their names are showed incomplete, abbreviated or do not appear in the summary (only inside the journals). In addition, it was observed that the female form is not used. An example was the common use of the word *arquitecto* (male architect in Spanish) even if the writers were women.

Another issue observed was that the journals (such as *Revista de Arquitectura* and *Taller*) generally gave more space to women while in commercial journals (such as *Nuestra Arquitectura*, *Proa*, *EAP*) the number of women publication is more limited.

12 "Chloethiel Woodard Smith," IAWADB, https://iawadb.lib.vt.edu/view_all.php?person_pk=360 (accessed December 23, 2017).

13 "Chloethiel Woodard Smith 1932," University of Oregon, <https://archenvironment.uoregon.edu/chloethiel-woodard-smith-1932> (accessed December 23, 2017).



Fig. 1. Some of the South American women professionals identified in South American specialised journals: Carmen Portinho, Carmen Renard, María Luisa García Carlos Vovillos, Berta Zegarra, Ítala Fúlvía Villa, Violeta Pouchkine, Nelly Niebuhr, Carmen Méndez Arocha, Marina Waisman, Blanca Hirsch, Sara Guardia de Mendoza and Enriqueta M. Meoli. Source: Journals *Revista de Arquitectura*, *Nuestra Arquitectura*, *PDF*, *Acrópole*, *Proa*, *El Arquitecto Peruano – EAP*, *Arquitectura*, *Taller*, *Integral*, and *Punto*.

It is possible to affirm that postgraduate studies, specialization or investigation abroad became an opportunity for professionals to achieve professional development in her original country, as the cases of Renard and Portinho. In many cases, this knowledge allows them to opt a political stance which result in an active action in feminist movements that aimed to fight for the recognition of female professional performance in their respective countries.

Finally, it was observed that some women identified maintained some kind of relationship with the publisher or with recognized male professionals (in many cases their husbands). This means that another large number of professional women is still anonymous and invisible.

Golnaz Mashregi

Hassan Bolkhari

Tehran University | Iran

The Educating New Taste in Interior Designing by Iranian Women Magazine 1910-1952

Introduction

Whether it is argued that the process of changing Iranian architecture in domestic interior space in twentieth century is regulatory process that women adopted themselves to modern interiors, or history has been written with the neglect of the presence of women so women themselves used modernization and domestic science for changing the interior spaces of their houses as modern womanhood to improve their status in society. Iranian women magazines which were published between Constitutional revolution and the early Pahlavi period are one of the credible sources to understand the real place of women in the modernization of the interior architecture spaces. These magazines not only reflected Iranian cultural development and social events but also try to craft an educated housewife which can manage the house as well as the ability to design interior space of her modern house.

The purpose of this paper is to survey the articles of women magazines about the interior domestic design between Constitutional Revolution and the early Pahlavi period (1910–1952). Basically Women's magazines are among the few printed press that recorded the changes in the interior architecture of the houses between 1910 and 1952. For example, the professional magazine of *Architect* as the first Iranian architectural magazine had been published near 25 years after the magazine of *Alam-e-Neswan* and 35 years after the journal of *Danesh* and *Shokoufeh*. Also, the number of professional magazines was small and their readers limited to experts compared to the women magazines which their readers were mostly common people and their articles talked about everyday life.

As a result, seven Iranian women magazines *Danesh*, *Shokoufeh*, *Alam-e-Neswan*, *Zaban-e-Zanan*, *Alam-e-Zanan*, *Rahnama-e-Zendegi*, *Banoo* choose to study their recommendations about domestic interior design.

Tadbir-Al-Manzel and Shifting the Gender of the Management of the House

Tadbir means to manage but with consideration of consequences, in other words the term has an element of reflection thus *Tadbir-al-Manzel* is the reflective handing of household affairs.¹ The term *Tadbir-al-Manzel* or management of the house in Persian texts inspired from ancient Greek philosophers such as Plato and Aristotle. As an example, Aristotle in his book *Politics* wrote about management of the house.

Seeing then that the state is made up of households, before speaking of the state we must speak of the management of the household, the parts of household management correspond to the persons who compose the household, and a complete household consists of slaves and freemen.²

Following the text, he emphasized that the manager of the house *Modabir-al-Manzel* is man.

A husband and father, we saw, rules over wife and children, both free, but the rule differs, the rule over his children being a royal, over his wife a constitutional rule. For although there may be exceptions to the order of nature, the male is by nature fitter for command than the female, just as the elder and full-grown is superior to the younger and more immature.³

Similarly, premodern Persian books of ethics which were aimed at producing a perfect Muslim man had section on discipline and management of the household which man was addressed as the head of the house. Then in these texts mentioned how good wife should be:

'The best of wives is the wife adorned with intelligence, piety, continence, shrewdness, modesty... Obedience to her husband...'⁴

Farabi's *Fosul-e-Montaze*, Tusi's *Akhlagh-e-Nasri* and other premodern Persian texts named men as the manager of the house. In another work, *Delgosh* written by Akhund ahmad Hosseinzadeh which was published near two decade before Constitutional revolution in 1920, in its second chapter, Hosseinzadeh expressed similar but more radical views about manager of the house.

In Persian texts, shifts in meaning from premodern to modern normative concepts reconfigured woman from 'house' (*Manzel*) to 'manager of the house' (*Modabir-al-Manzel*) (Najmabadi, 1998). Thirty years after *Delgosha*, Aziz-allah Monshizadeh translated the book of *The Education of Girls* (*Tarbiat-al-Banat*) from French with the express intent of its becoming a second-grade textbook. It was published in 1905, and by 1911 it as already into its second printing. The book subtitled *The Science of Home Management*. Although the meaning of the management of the house in this book is similar to premodern Persian ethics, the readers of the book had changed from men to women and the manager of the house became woman.

Monshizadeh's book is organized in six chapters which had section on discipline and management of the household for women such as characteristic of good housewife, the methods of nutrition, clothes, children's upbringing, nursing and the fourth chapter was about the feature of domestic places which is talked about interior design of house. The book of *Tadbir-al-Manzel* written by Badrol-molook Bamdad, *Adab-e Moasherat and Tadbir-al-Manzel* by Noro-el-Hoda Manganeh and other publication of a book of this genre which was published after Constitutional revolution emphasized on the role of woman as the manager of the house.

Shifting the role of the manager of the house from men to women and added new chapter about method of design of houses is one of the basic movements of changing in interior design of modern houses. Albit, the effects of development in technology and the role of Iranian architecture scholars are deniable; crafting an educated woman for designing modern house had its role in changing interior design of houses in modern period in Iran.

Iranian Women Magazines Effects on Home Interior Design Education

Women magazines' recommendation for better housewife like the girl's education system in twentieth century in Iran try to educated women who could improve their status in the society. Some of these recommendations were about feature and design of interior space of house. The magazines emphasized that modern women should live in and manage modern houses.

Different women magazine issued different attitudes to how women could design and manage the spaces of their houses. *Danesh* and *Shokoufeh* as the first women magazines did not write about the house space design obviously; however, with the limited picture in *Shokoufeh* we can consider that the interior environment of the houses are as the same as the Iranian traditional houses. Albit, using beds and sitting on the chair in its caricatures was not common in traditional house at that time. As a result, methods of changes in interior space were just limited to furniture by these initial women magazines. *Alam-e Neswan* (Women world) is the third Iranian women magazine which was published from 1921 to 1934. Most of its writers were graduated from *Beit-al* school (American

1 Moneim A. El-Meligi, *Leading Starts in the Mind*, (New York: World Scientific, 2005).

2 Benjamin Jowett (ed.), *The politics of Aristotle*, Vol. 1, (Oxford: Clarendon Press, 1885), 4.

3 Benjamin, (350BC), 18.

4 Nasir al-Din, Tusi, *Akhlagh-e-Nasiri (The Nasirean Ethics)* (Lahore: Punjab University, 1952), 27.

girls' school which was one of the girls' pioneer schools in Iran). For the first time, in this magazine emphasized on the interior design of houses in special section. The topics of this section are about house lighting, house heating, windows and day lighting, colour and furniture, materials, house circulations, house spaces and rooms, house decoration.

Some readers of this magazine discussed about the house management, etiquette subjects and other scientific articles in magazines. They believed that these subjects are ineffectual and it was better to focus on the religious and industrial history and politics subjects; however, the editor of the magazine emphasized that for progression in Iran, women and mothers should be educated therefor they can manipulate the management of their house and country.⁵ As a result, with this approach most of the articles in design of the house were based on logic and science.

The other women magazine which had section about interior design of the house was *Zaban-e Zanan* (Women Language). Unlike *Alam-e Neswan*, *Zaban-e Zanan* used different method for educating home design. *My Life* (*Zendegi-e Man*) articles in household section, written by a modern housewife, were about her experiences on management of house especially the design of her house. The *My Life* contents could categorize in two main parts. At first, the articles which were based on writer's experiences. In this part, writer used both text and pictorial contents. This part included arrangement of furniture, colour, style, lighting, floor, windows and doors design in some spaces such as kitchen, living room, bedroom and dining room.

Sort of the text about the interior design of each space was not scientific; consequently, most of the time contents based on writer's taste. Likewise, what is seen in pictorial parts, the design of the rooms were limited to furniture and accessory and its style was not related to that time. At the same time with *Zaban-e Zanan*, *Architect* professional magazine published newly built houses which had modern furniture and decoration. In its first edition, about interior decoration was written:

'In interior design of houses like the other social movement, obvious changes have emerged, stucco and difficult frameworks are not common today- the beauty of decoration depends on its simplicity and logic'.⁶

On the other hand, some of the articles were written by professional engineers. For instance, the section had parts about bathroom and kitchen installation. The text of these parts added with some sketches and details about these installations. Although *Zaban-e Zanan* used experimental approach on educating home interior spaces, some of its articles which were written by specialists were accurate and scientific.

Alam-e Zanan was another Iranian women magazine which was published by embassy of United Kingdom. This magazine promotes the fashion and style of English houses, so most of the section included the pictures rather than recommendation or design methods of houses. The styles of interior spaces included both English tradition and modern. The purpose of *Alam-e Zanan* magazine was not educating home design, it was just tried to advertise English style and encouraged women to imitate this style.

Also, *Rahnam-e Zendegi* (1941–42) and *Banoo* (1945–48) were two women magazines which pointed out interior design of houses in their subjects; though, their contents were not looking for interior design education. Like *Alam-e Zanan*, this two magazines published pictures of the interior spaces of houses with brief explanation. Of course, their brief recommendations were not reach enough and could not be counted as the methods of educating interior design.

Conclusion

The study of women magazines specifies the changes in the every-day life of women in the early twentieth century in Iran. Changing managers of houses from men to women and scientific approach in household affairs had an impact on domestic interior spaces. Women magazines focused simultaneously with the educational system on the education of girls, and begun training modern women and modern housewives. To become a woman of modernity, the magazines advised women to forget all the nonsense that their mothers and grandmothers had thought them about and should know the modern and scientific ways of management of their houses. Consequently, women should know that how to designed their house in modern ways.

The early women magazines-*Danesh* and *Shokoufeh*- did not focused on the interior spaces of houses obviously; however, through the texts of *Danesh* and the caricatures of *Shokoufeh* we can conclude that they followed the traditional way of interior house design. On the other hand, *Alam-e Neswan* used logical an accurate science in designing of the modern houses. *Zaban-e Zanan* which was published two decade after *Alam-e Neswan*, limited their scientific texts to installation at homes and its main articles about home design which based on experimental approach. Conversely, *Alam-e Zanan*, *Banoo* and *Rahnama-e Zendegi* with their pictorial articles which did not based on logic and modern design just promote imitation trends in designing the interior space of houses.

Finally, it should be mentioned that these different attitude towards methods are highly bound to the magazines time and purpose. For example, in early magazines, due to limitation in printing photos and the number of the pages, they used texts instead of photos. Also, because of the little number of women writers at that time versus the magazines ahead, the texts of articles either write by scholars or translated from accurate sources, contrary to experimental and tangible recommendations.

5 Navabe-khanoom, Safavi, *Alam-e Neswan, Women Magazine* (Tehran, 1921–1933), 3.

6 Iraj, Moshiri, "Tazeinat-e-Dakheli," *Architect*, no.1 (August-September 1946), 29.

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Gender Issues in 'Casabella' by Vittorio Gregotti (1982-1996)

Introduction

The architecture magazine *Casabella* was directed, from issue number 478 in March 1982 to issue number 630–631 in January in 1996, by Vittorio Gregotti. In his long and passionate direction, Gregotti created a proper cultural project revolving around this magazine about the role of architecture and planners in the development of cities and territories, involving colleagues and scholars of different fields.

This project was built on themes and authors able to move and re-establish a new centre for the contemporary debate on architecture, in Italy and in Europe. Among the most relevant themes raised by Gregotti's *Casabella* we can find the relationship with the 'modern project', the convergence between architecture, urbanism and engineering, urban projects, the attention to the contest and the modification of the existent.

In the attempt to trace a female perspective on the *Casabella* project of those years, we need to reflect on two main issues: did women have roles in the editorial staff of this important magazine? Can we find an interest in gender issues in the editorial project? If it is rather easy to answer the first question by retracing the organization chart of the editorial staff and their female figures, the second question is still open and needs a wider view on the cultural scene of those years that goes beyond the borders of the editorial staff.

The Editorial Staff

The editorial staff of *Casabella* by Gregotti varied over the years and was constituted mainly by young critics and architects. Initially it was composed by two young collaborators, Pierre-Alain Croset e Giacomo Polin, alongside whom we find the more expert Sergio Crotti, Renato Airoldi, Stefano Magistretti and Ornella Selvafolta, the only woman in the group.

With a degree in architecture, Ornella Selvafolta is now professor of History of Architecture at the Politecnico of Milan. Graduated from the same Politecnico, Ornella Selvafolta has studied and done specific research on subjects related to the history of technical project, architecture, arts and landscape, with a particular focus on the regional and national contest. She had already collaborated with Gregotti to the editorial staff of the magazine *Rassegna* (as Sergio Crotti had done as well). Airoldi and Magistretti, already part of the editorial staff of the previous *Casabella* (under Tomas Maldonado's direction, from 1977 to 1981), ended their participation in 1983 and the same happened with Crotti; on the contrary, Selvafolta continued until 1984. Over the years the young collaborators Mirko Zardini (since June 1983), Sebastiano Brandolini (since 1984), Antonio Angelillo e Bruno Pedretti (both since 1989) joined the editorial staff. The only two women to work with a predominantly male editorial staff were Silvia Milesi (since issue number 511 of March 1985) and Chiara Baglione (since issue number 566 of March 1990).

Chiara Baglione initially began as a back up and substitute for Silvia Milesi during her maternity leave (from 1991 Silvia Milesi continued her collaboration as 'reporter' from Paris). Baglione was introduced to the editorial staff by the professor of History of Architecture Giorgio Ciucci, her thesis supervisor at the faculty of Venice and member of the scientific board of the magazine. While Silvia Milesi joined the editorial staff as professional architect, Chiara Baglione was selected for her education as a historian of architecture and would work continuously handling articles related mainly to this field.

Recently interviewed, Chiara Baglione does not acknowledge the peculiarity of gender in her work, she considers herself a 'female author' who has developed her personal analysis and idea of architecture beyond gender issues. Her development as a scholar, the people she met, her experiences and the social and professional contests seem to have a more relevant and determining role in defining her personal language of expression.

The inner editorial job required full-time devotion and the authors personally followed the layout phase and the collection of the drawings to be published. The choice of the buildings to be published was strongly influenced by their direct experience. The authors' aim was to provide the readers with a 'critical narration' of the buildings: through an attentive selection of pictures and technical drawings they wanted to represent, as faithfully as possible, the experience of a direct comparison – done by the authors themselves – with the architecture they represent. Their frequent travels abroad in

order to see the works and collect the drawings and the most significant images from the designers' offices also became an important occasion to extend their network and discover new talents, yet unpublished, which would also become an intrinsic characteristic of *Casabella* of those years.

The inner editorial staff was joined, under Gregotti's direction, by an «outer editorial staff," represented at different times by Bernardo Secchi, Jean-Louis Cohen, Jacques Gubler, Vittorio Magnago Lampugnani, Massimo Scolari, Giorgio Ciucci, Marco De Michelis, Boris Podrecca, Richard Ingersoll and Carlo Olmo. In this restricted group of scholars and professionals, no woman is to be found among them to discuss the cultural project of the magazine and determine the topics to be discussed in the double monographic issue of the beginning of the year. Among the external authors there were also some assiduous collaborators: Bernardo Secchi can be found almost in every issue with an argumentative text; Jean-Louis Cohen wrote numerous articles and critical essays.

The Magazine and Its Cultural Project

In a historical moment, like today's, in which it appears difficult to formulate general theorizations, Gregotti's *Casabella* can be considered one of the last attempts to structure a real homogeneous cultural project, resulting from a broader reflection also outside the mere field of the architectural discipline.

A cultural project that analysed, for example, the principles of modern design, a fundamental role in the theoretical meditates on the role of designers, their title, method and education. A project that was also able to reach a broad consensus in the academic and professional world, even at an international level. It was a cultural project that mainly focused on the problem of women in professional practice and in the development of the architectural debate.

The perspective on the contemporary architectural scene also passed through the precise and rigorous examination of the magazine.

Even in the choice of the printing support, the criticism that *Casabella* addressed to other magazines of the same field is evident. For internal pages, instead of coated paper, a thick paper is chosen, of ivory colour, particularly suitable for the publication of technical drawings and sketches of designers but much less effective for photographic reproductions. A reply to the clear hierarchy between the project and the representation of the work is the choice to publish the drawings (even the executive ones) in large format, in the whole page, pushing the photographs to the margins.

Another peculiarity of the *Casabella* of those years is the prevalence of texts over images, rather unusual for an architectural magazine. This anomaly was justified by the level of deepening of the published contributions (in particular those of historical-critical nature) that reduces the space for

photographs and reproductions, often printed in small and infra-text; there was also a pre-eminence of critical analysis of the illustrations. The main projects of each issue were always accompanied by a text written by the editorial staff or by some recognized critics who were never merely descriptive.

The graphics, edited by Pierluigi Cerri, emphasized the pattern of the internal structure with the distribution of the text in columns, which thicken and widen according to the rubrics. The result was a regular and tidy layout, as if it were the partition of an architectural façade, with symmetries, pauses, 'intercolumns' and 'pillars'.

Another obvious choice of Gregotti's *Casabella* is to present itself as a 'topical' and not thematic magazine. The monthly frequency does not allow an immediate reply; however, the absence of a specific theme leaves the editors greater freedom in selecting projects and reviews to be published. There were also precise ideological implications: a thematic magazine was meant to be more a magazine with a strong political orientation -even in the mere sense of the term- as was the previous *Casabella*, that of Tomás Maldonado. Gregotti believed instead that his *Casabella* should address to a more professional audience, who wanted to be updated about the most interesting projects and publications of the moment, without them having to relate to a specific theme. Among this professional audience, women were obviously included in increasing numbers. In Italy, the women enrolled in professional registers at the beginning of the Sixties were 12.8% (out of a total of 6,444 belonging to the order) and the number rose to 28.9% at the end of the Nineties (out of a total of 78,385 subscribers).

However, the specific field of interest of the magazine (architectural design) was still considered mainly as a male job and a reflection of this consideration can be read in the frequent advertisements preceding the articles of the magazine, addressed to a clearly male audience.

The advertising insertions, which were used to support economically the high costs of distributing this wide-spread magazine, are even more interesting in this case as they allow us to highlight the didactical nature of the magazine. In fact, they do not interfere with articles and presentations, but were inserted between the cover and the table of contents. Full-page prints on glossy paper, in colours or in black and white, composed almost a sort of separate issue, aside from the magazine. Even more characteristic is the advertising section that takes the name of 'Building Innovation' which is published at the end of the magazine from April 1984. It was an advertising column where the precise systematization had a clear pedagogical intent: in each issue a specific theme was addressed, ranging from 'insulation and waterproofing', to 'equipment for professional study'.

A short introductory text, edited by the journal collaborators, focused on the subject from the normative point of view and the typological classification; there followed a dozen pages dedicated to each specific product of a company in the sector. The product data sheets were divided into 'personal data', 'general characteristics', 'morphological-dimensional characteristics' and 'technical-

performance characteristics'. The accompanying images were often detailed drawings, technical tables, or diagrams that explained the operation of the various components.

The relationship between magazine and advertising was therefore very particular and it is not difficult to read the will, on the part of the editorial staff, to make the *réclame* (advertisement) of commercial products functional to the construction of the cultural project of the magazine, even at the cost of some obvious constraint.

The exceptionality of this attempt emerges more clearly if we try to go through other contemporary magazines, in particular those more oriented towards interior architecture. In addition to a different relationship between the pages of the magazine and advertisements (as well as the relationship between images and texts) we would also realize the different attention of the *réclame* to the female audience.

The prevalence of the female component in the specific field of interior design is also clear if we look at the composition of the editorial staff of the same magazines. *Abitare*, founded in 1961 by Piera Peroni, had in the Eighties Franca Santi Gualtieri as responsible director, the editorial staff was also mostly composed by women including Liliana Collavo, Valeria Dini, Cristiana Menghi Sella and Carla Russo Vicario.

Interni, published by Electa and directed by Dorothea Balluff and later by Gilda Boiardi, had in its editorial board female figures such as Mariaclara Goldschmiedt and Arja Luukela Imperiali and also the graphics were managed by women: Rosalba Poggiati and then Daniela Lambri and Silvia Viganò.

In magazines of architecture that can be compared to *Casabella* as *Lotus* and *Domus* the women were very few, and included Marianne Lorenz, Rita Capezzuto.

The model of the current magazine also makes it more difficult to isolate the issue of female presence in the field of architectural design; a question that a thematic model would instead have been more easy to consider, also in relation to the fortune that those studies of the Anglo-Saxon school were experiencing in those years. It is however necessary to remember that the thematic model was not completely abandoned: it was proposed again through the double numbers, published at the beginning of the year, which was used to recap and to give depth and consistency to the cultural project promoted by the magazine. Among the most significant 'double numbers' we can mention *Architettura del Piano*,¹ *Architettura come Modificazione*,² *Il designo degli spazi aperti*³

and *Internazionalismo Critico*.⁴ However, issues related to the gender issue never appeared.

The first monographic issue about women in architecture would only appear in 2005, on the pages of Francesco Dal Co' *Casabella* which, not accidentally, has been characterized by a more marked thematic approach. The 2005 editorial, edited by Chiara Baglione and Mercedes Daguerre opened with a quotation by Denise Scott Brown that denounced the sexism she was constantly subjected to: 'write about my work, not about the problem of women!'. This perplexity and irritation by women on the subject, also emerges from the round table among the protagonists of the monographic issue: Odile Decq, Zaha Hadid, Carme Pinós, Elsa Prochazka, Flora Ruchart, Annabelle Selldorf. The issue wanted to recap on the 'female contribution to architecture' in a moment in which the presence of women in the profession was widening and at a certain distance from the most vibrant years of the struggle for the emancipation of the feminist movement. Following the authors, equity in education did not mean equal opportunities in professional activity and the role played by women working with their partners or in design groups remained a matter of current affairs, but they were already partially covered by historical studies on twentieth-century architecture. In the monographic issue, therefore, appeared only women holding personal architectural offices. The monographic issue ended with the contribution of Mary McLeod, that illustrated the main American movements of the feminist history of architecture, a more activist one (especially in the Sixties and Seventies) and a more theoretical one in the Eighties and Nineties, focused especially on 'representation' instead of 'practice'. Anyway both of those movements seemed to be ignored by the publishing project of Gregotti's *Casabella*.

On the pages of Gregotti's magazine, the projects of women architects were rarely published (only the figure of Gae Aulenti stood out, she was also called to collaborate as a writer of architectural critics). Among the articles on female figures in the world of architecture, we can mention only one article that was dedicated to the figure of Eileen Gray. This article in particular, leads to some final considerations. Written by the historians Jean Paul Rayon and Brigitte Loye, it appeared in the column "Architectural documents" of the issue 480 (May 1982) with the title "Eileen Gray architect, 1979–1976." The date of publication is worth noticing: it is the third issue of the magazine under the direction of Gregotti. As it happens in all the beginnings, especially in such a meticulous construction as that of the *Casabella's* cultural project of those years, very few things are accidental.

The decision to present a retrospective on Eileen Gray is therefore programmatic and not *impromptu*. However, more than the gender of the protagonist, there seem to be other reasons that guided this choice. If we analyse the protagonists of the column "Architectural documents" of that year (Asnago and Vender, Cesare Cattaneo, Hennebique, Matté Trucco), we understand how Eileen Gray was not included in the editorial program as a rare female figure in an almost exclusively male professional

1 Vittorio Gregotti, "L'architettura del Piano," *Casabella*, no. 487–488 (January-February 1983).

2 Vittorio Gregotti, "Architettura come modificazione," *Casabella*, no. 498–499 (January-February 1984).

3 Vittorio Gregotti, "Il disegno degli spazi aperti," *Casabella*, no. 597–598 (January-February 1993).

4 Vittorio Gregotti, "Internazionalismo Critico," *Casabella*, no. 630–631 (January-February 1996).

world, but as an architect neglected by the traditional historiography that fully adhered to the spirit of the Modern Movement.

The continuity, more than once affirmed by Gregotti on the pages of the magazine, is above all a continuity towards the modern project, seen critically. It is no longer possible in the cultural context of the 1980s to reaffirm the validity of a 'strong' theoretical status based on trust in the absolute values of progress or rationality. However, it is still possible to look positively to the experience of the Modern Movement. It can be done through a tragic recovery, which is possible through a continuous, endless shift of the values of the 'modern project' on the horizon.

The metaphor that perhaps best expresses this idea is that of the polar star: it is obviously unattainable, but it is useful to indicate the way to go. And the question of gender, already neglected in the debate of the modern movement, is not part of this horizon.

Appendix - the Postcards to Mrs. Tosoni

The Swiss historian Jacques Gubler, a member of the external editorial board under the direction of Vittorio Gregotti, produced numerous interventions in the magazine and in particular he kept a fixed column which is published in the appendix of each issue of *Casabella*. The subject of the column was a 'postcard' addressed to the editorial secretary, Mrs. Tosoni. It was a *divertissement* by the author, a sort of expedient used to express in freedom and with a good amount of irony some thoughts and reflections on architectural projects and the history of architecture. However, the heading of the message and the motions with which Gubler refers to the addressee, made the presence in the editorial office of a remarkable figure, although silent, evident to all readers.

Born in 1927, Myriam Tosoni began working in 1958 as editorial secretary of *Casabella*, under the direction of Ernesto N. Rogers. She remained 38 years in the editorial office of the magazine, under four more directors (Gian Antonio Bernasconi, Alessandro Mendini, Tomás Maldonado, Vittorio Gregotti) and becoming a real 'institution', a constant reference for several generations of architects and critics until 1996. Mrs. Tosoni was not a trained architect, but during the years she spent working for the magazine, she acquired considerable knowledge about it, participating in the editorial meetings with authority and critical spirit. In short, she was much more than a simple secretary and proofreader and she personally handled contacts with internationally renowned architects and historians who collaborated with the editorial staff.

The *Postcard* by Gubler, mythicizing the figure of Tosoni, explained the role not at all minor that this woman had in the organization of the magazine and gave justice to the daily work that contributed in a concrete way to the success of *Casabella*.

Chapter D

Women in Cultural Tourism

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A Counter-Itinerary: Intersecting Histories and Geographies

Introduction

This essay presents some reflections on travel and tourism on the basis of the publication *MoMoWo: Women - Architecture & Design Itineraries across Europe* (2016), edited by Sara Levi Sacerdotti, Helena Seražin, Emilia Garda, and Caterina Franchini (hereafter abbreviated as *MoMoWo-Itinerary* and *Itinerary*). This collection of eighteen routes was one of the first publications of the MoMoWo-project. It provides data on about 125 buildings by female architects and/or designers between 1918 and 2014 in France, Italy, the Netherlands, Portugal, Slovenia, and Spain.

The word 'itinerary' presupposes travel. It has always been used with the meaning of a particular route and for an account of a journey, a journal of travel, or a guidebook.¹ It has been used for architecture and places to visit as well as for particular buildings and monuments, such as an itinerary of a church. It may be factual and documented by measurements of distances, road maps, and other specific maps such as architectural plans, but also be combined with narrative about a journey. And it may be a proposed travel scheme, as is the case with the *MoMoWo-Itinerary*. Itineraries need not be published as a separate volume either; travelling was significantly stimulated by serial articles in literary journals – as in Germany from the eighteenth century, where other studies also advocated travel as a means of education and leisure, and suggested that members of some classes might plan personal journeys. Besides remarkable buildings and landmarks, these writings described private and court collections of art, artefacts, and naturalia that were to be found in cities. Even sales catalogues of public art auctions might stimulate travel, often in conjunction

¹ *Oxford English Dictionary online*, www.oed.com/ (accessed August 23, 2018).

with fairs.² All encouraged their public to go out and travel, as well as publishing routes alone. The *MoMoWo-Itinerary* also does this.³ Tourism may seem to suggest a less serious activity than travel does, but that is not so; the main difference seems to be that travelling as tourism has a recreational purpose.⁴

Although the theme of this section, Section D, is 'Women in cultural tourism', this essay will examine the topic in a wide sense by connecting women and architecture to travel in general and to geographies, as well as suggesting anthropological and socio-cultural perspectives. All is framed by general reference works which are compiled by literary historians and travel historians and offer valuable analytical perspectives as well as case studies.⁵ In section I, I shall begin with some comments on production, reception, and mediation aspects of connecting travel and tourism with architecture, design, and women – giving some historical information and a few examples for each of these. In section II, I shall address the *MoMoWo-Itinerary* and draw comparisons from data collected. In the final section, III, I shall introduce the papers in the Annex.

I Women, travel, tourism

The **production** aspect concerning women, travel, and tourism is informed by at least three categories.

- 2 See for this Renata Schellenberg, "Mobility and the Museum: Aesthetics and Commercial Influences on Travel in Early Nineteenth-century Germany," *Travel Writing in Dutch and German, 1790–1930: Modernity, Regionality, Mobility*, edited by Alison E. Martin, Lut Missinne, and Beatrix van Dam (New York; Abingdon: Routledge, 2017), 198–213.
- 3 In Chapter F of this e-book, 527–33, two Appendices of the paper "A Tribute to Design in the Netherlands: Designs for the Present and Prototypes for the Future" by Katherine Marciniak were modeled after the *MoMoWo-Itinerary* to suggest another Itinerary composed of buildings and designs by women with a special focus on sustainability. This route was composed for the educational purpose of an Honours Class in Arts and Culture at Vrije Universiteit Amsterdam, the Netherlands.
- 4 See John B. Allcock and Antonia Young, "Black Lambs and Grey Falcons: Outward and Inward Frontiers," *Black Lambs & Grey Falcons: Women Travellers in the Balkans*, edited by John B. Allcock and Antonia Young (New York; Oxford: Berghahn Books, 2000; first published 1991), xxi–xxxiii, here xxvi–xxvii.
- 5 There are such works in many languages. Relatively early ones focusing on women travellers who wrote in English (mainly British) are by Jane Robinson, *Wayward Women: A Guide to Women Travellers* (Oxford: Oxford University Press, 1990), and idem, *Unsuitable for Ladies: An Anthology of Women Travellers* (Oxford: Oxford University Press, 1994); Allcock and Young (eds.), *Black Lambs & Grey Falcons*. Also Sidonie Smith, *Moving Lives: Twentieth-century Women's Travel Writing* (Minneapolis: University of Minnesota Press, 2001). A review by Jane Robinson of seven books about women travellers, "The Art of Listening: Nineteenth and Twentieth-Century Women Travelers and Their Work," *Journal of Women's History* 16, no. 1 (2004), 165–172, <https://muse.jhu.edu/article/53009/pdf> (accessed August 21, 2018). A few general titles, chronologically, are Glenn Hooper and Tim Youngs (eds.), *Perspectives on Travel Writing* (Aldershot: Ashgate Publishing, 2004); Ezio Marra and Elisabette Ruspini (eds.), *Altri Turismi: Viaggi, esperienze, emozioni* (Milan: Angeli, 2010); Melanie Smith and Greg Richards (eds.), *The Routledge Handbook of Cultural Tourism* (Abingdon: Routledge, 2013); Alan A. Lew, C. Michael Hall, and Allan M. Williams (eds.), *The Wiley Blackwell Companion to Tourism* (Malden: Wiley-Blackwell, 2014); Carl Thompson (ed.), *The Routledge Companion to Travel Writing* (Abingdon: Routledge, 2016); Martin, Missinne, Van Dam (eds.), *Travel Writing in Dutch and German, 1790 – 1930*.

1. Women who travel and afterwards describe their journey in a travelogue or guidebook for others to enjoy. Literary scholars have documented, for many different regions and geographies, that European women have travelled round the world since the sixteenth century at least, if not earlier. Their travelling increased in the eighteenth and nineteenth centuries. Historically, they travelled much less than men: travel was considered more dangerous for women, women had to stay at home taking care of children, they rarely had the financial means to travel independently, and they did not make the cultural Grand Tour as architects or artists. Also women recorded their journeys less often and they adapted different, and gendered, modes of writing, partly in the light of the reception of their published accounts.⁶

Texts about travels and guidebooks may follow standard patterns up to a point. When considering the material culture of peoples besides landscapes, most travelogues and journals typically observe matters of dress and appearance of foreign peoples first. There are relatively few observations about dwellings, architecture, or everyday interiors; most of the attention goes to splendid monuments such as castles and temples or cityscapes in general. On the other hand, the variety of travellers and their accounts of specific journeys make it hard to generalise. An engaged tone and sentiment in travel stories may be found in the writings of male and female authors in the late seventeenth and eighteenth centuries, when what they wrote was less learned and included more personal experiences and evaluations.⁷ But it has been suggested that female travellers in particular pay more attention to relationships with other people and to personal and domestic information.⁸ A type of description of everyday architecture that is observational and stands out as personal was written by the Austrian adventurer Ida Pfeiffer in 1854 in her *A Woman's Journey round the World* when she observed vernacular architecture in Rio de Janeiro:

- 6 For example, a count of Dutch travelogues between 1500 and 1814 came to a total of 490, of which only 29 were written by a woman and 8 of these were in French. The earliest Dutch female travel account known is from 1677, by Elisabeth van der Woude, who went to the 'Wild Coast' near French Guyana and Brazil with her father, brother, sister, and 350 other colonists. See R.M. Dekker, "Dutch Travel Journals from the Sixteenth to the Early Nineteenth Centuries," translated by Gerard T. Moran, *Lias: Sources and Documents relating to the Early Modern History of Ideas* 22 (1995), 6, 9 – 10, 277–300; Marijke Barend-van Haften, "Een mislukte kolonisatie aan de Oyapoc door vrouwenogen bezien: Het verslag van een reis naar de Wilde Kust door Elisabeth van der Woude (1676–1677)," *De zeventiende eeuw* 21 (2005), 91–98. Also Dúnlaith Bird, "Travel Writing and Gender," in Thompson (ed.), *The Routledge Companion to Travel Writing*, 35–45.
- 7 Cf. C.D. van Strien, "Thomas Penson: Precursor of the Sentimental Traveller," *Travel Fact and Travel Fiction: Studies on Fiction, Literary Tradition, Scholarly Discovery and Observation in Travel Writing*, edited by Zweder von Martels (Leiden: Brill, 1994), 194 – 206; Loredana Polezzi, "Between Gender and Genre: The Travels of Estella Canziani," in Hooper and Youngs (eds.), *Perspectives*, 121–37. Also Schellenberg, "Mobility and the Museum," 202, 204–6.
- 8 John B. Allcock and Antonia Young, "Preface to the Second Edition," and "Black Lambs and Grey Falcons: Outward and Inward Frontiers," in *Black Lambs & Grey Falcons*, xiv–xv, xxx–xxxii; Barend-van Haften, "Een mislukte kolonisatie," 93; Marjan Groot, "Inscribing Women and Gender into Histories and Reception of Design, Crafts, and Decorative Arts of Small-scale Extra-European Cultures," *Journal of Art Historiography* 12 (June 2015), 1–30, <https://arthistoriography.files.wordpress.com/2015/06/groot.pdf> (accessed July 20, 2018); Alison E. Martin, "'Fresh Fields of Exploration': Cultures of Scientific Knowledge and Ida Pfeiffer's Second Voyage round the World (1856)," in Martin, Missinne and Van Dam (eds.), *Travel Writing in Dutch and German*, 75–94, here 80–81, 90–91.

The houses are built in the European fashion, but are small and insignificant; most of them have only a ground-floor or single story, – two stories are rarely met with. Neither are there any terraces and verandahs adorned with elegant trellis-work and flowers, as there are in other warm countries. Ugly little balconies hang from the walls, while clumsy wooden shutters close up the windows, and prevent the smallest sunbeam from penetrating into the rooms, where everything is enveloped in almost perfect darkness. This, however, is a matter of the greatest indifference to the Brazilian ladies, who certainly never over-fatigue themselves with reading or working.⁹

Ida Pfeiffer traveled on her own and lived on writing travelogues and selling specimens of fish and insects to collectors or museums; her books, originally in German, were already very popular in her lifetime and translated into many languages. In her accounts she also observes women, as in the quotation, and she gains access to women's places.¹⁰

In Pfeiffer's time, that is around 1850, popular cultural tourism had grown after artists and architects first visited cities and their monuments when on their so-called Grand Tours during the eighteenth century in, mainly, Italy. Popular guides and books linked the Grand Tours' highbrow cultural tourism with mass tourism, which was to develop further from the late eighteenth century until 1914. Some travel routes by women even became blueprints for later travel guides and for touristic itineraries that we still follow today. These include routes in Italy that the British author Mariana Starke wrote about in her guidebooks – such as her *Letters from Italy, between the years 1792 and 1798* (1800), which were used by Murray, Baedeker, and Cook. Starke offered much practical advice, even giving instructions for invalids and families who could not afford a courier.¹¹ As travelling became more popular and more people had leisure time to spend, there appeared many themes for alternative itineraries and guidebooks. Not all of them were for mass tourism.¹²

A recent example of a travelogue with a more socio-cultural and anthropological focus offers an account about women in China and is by former Dutch table-tennis player Bettine Vriesekoop. That author visited China many times during the 1980s when practising her sport at the highest competitive level, facing Chinese players as opponents. In 2013, she revisited Beijing to write about how young Chinese women emancipate themselves as regards their attitude towards sexuality and marriage. Her narrative is an alternative travelogue round this theme, and, though not focusing on architecture as such, she sensitively weaves it into her story when she goes to meet a former prostitute, student, or business women for an interview. She mentions, for example, passing by the

impressive China Central Television (CCTV) building of 2004–08 by architects Rem Koolhaas and Ole Scheeren on her way to see a young Chinese woman who works for an internet company that sells sex toys, a booming trade in China. The interview takes place in a new office building, on the second floor, in the Trends Lounge, a coffee shop that sells books about architecture and art, and also postcards. The lounge is large and white and has round white book cases that structure the interior space into flowing islands. Together with furnishings of white tables and bucket-shaped seats, it reminds her of a Star-Trek spaceship interior. To interview a former prostitute who operates an NGO to support women in the trade, she travels to Tianjin, one of Beijing's satellite cities. This woman lives in a poor quarter; the dark entrance hall to the building housing her flat has concrete stairs covered with stickers and telephone numbers of carpenters, plumbers, financial advisers, and prostitutes, all offering their services. The woman's apartment has walls of rough grey concrete, there is a sofa covered by a worn-out plaid, and a small messy office for her NGO work. When the reporter and her Chinese travel assistant return on a high-speed train in the evening, they pass rows of high-rise flat buildings with up to fifty floors lighting up under the rooftops. Her companion associates them with miniature tower flats at Beijing's public Babaoshan cemetery, where the ashes of the deceased are bricked in the walls.¹³

This more anthropological fieldwork text scantily addresses cultural tourism and does not address architecture by women; rather, it reveals the contrast between the material culture and built environment women live in and the highbrow architecture by women architects featured in the *MoMoWo-Itinerary*. The ex-prostitute's dwelling in the example has unfinished concrete walls out of necessity, not to conform to an architect's statement. These accounts appear more sensitive towards affective associations between women and architecture than cultural tours or architectural itineraries that offer touristic routes discussing landscapes, heritage architecture, cities, and material culture in a factual manner. They are also less driven by the capitalist tourist industry and issues of economic inequality between tourists and indigenous inhabitants, as a result of which cultural tourism flourishes in morally questionable ways.¹⁴

Guidebooks and itineraries with a focus on modern and contemporary architecture only are relatively rare. In this genre, itinerary guidebooks with routes along work by women and largely written by women, such as the *MoMoWo-Itinerary*, are exceptions. It is important to note that most architectural guidebooks such as the *MoMoWo-Itinerary* have a considerable visual component, whereas travelogues have only a handful of drawings or photographs and few maps. That is what

9 Ida Pfeiffer, *A Woman's Journey round the World, from Vienna to Brazil, Chili, Tahiti, China, Hindostan, Persia, and Asia Minor: An Unabridged Translation from the German of Ida Pfeiffer (...)*, (London: N. Cooke, 1854, 4th edition), 16.

10 Much has been written about Pfeiffer. See recently Martin, "Fresh Fields of Exploration," 75–94.

11 David M. Bruce, "The Nineteenth-century 'Golden Age' of Cultural Tourism: How the Beaten Track of the Intellectuals became the Modern Tourist Trail," *The Routledge Handbook of Cultural Tourism*, edited by Melanie Smith and Greg Richards (Abingdon: Routledge, 2013), 11–18.

12 This is also illustrated by Irene Gaddo in the Annex in her paper "Off the Beaten Tracks: British Female Travelers and the Consumption of the Italian Alpine Territory".

13 Bettine Vriesekoop, *Dochters van Mulan: Hoe vrouwen China veranderen* (Amsterdam: Uitgeverij Brandt, 2015), 143–144, 153, 170–71. After her sports career Vriesekoop wrote several books about China and worked as a journalist for a Dutch newspaper. The anthropological nature of her text is, of course, different from participant observation of scholarly anthropological research that incorporates travel and analysis. Cf. Barbara Kerewsky-Halpern, "An Anthropologist in the Village," in Allcock and Young (eds.), *Black Lambs & Grey Falcons*, 187–207.

14 As discussed by Tim Youngs, "Where are we Going? Cross-border Approaches to Travel Writing," in Hooper and Youngs (eds.), *Perspectives*, 167–180.

is usually expected of architectural itineraries; besides informative photographs of exteriors and interiors, readers appreciate specialist information on plans and architectural facts, and everything presupposes an awareness of the division of architecture into historical periods. Besides the maps and images provided in guidebooks, the wider commercialisation of travel was visually supported by lectures with lanterns and slides since the late nineteenth century. Twentieth-century film and television turned travel documentaries into visual documentaries with male as well as female reporters as travel guides. In such documentaries, architecture is very important in combining travelling with art-historical and architectural topics.¹⁵

2. Women who write as armchair travellers without travelling themselves. This, in fact, also applies to writers of the entries in the *MoMoWo-Itinerary*. They did not see each and every building on the spot, and sometimes acted as armchair travellers when composing the routes. The definition of travel somewhat obscures this category. As scholars indicate when introducing volumes that include case studies of travel stories, travel literature mixes fiction, literary tradition, observation, and scholarly discovery in many ways. And it interacts with a broad range of historical periods and with the material culture thereof. Wholly fictional travel accounts exist as well.¹⁶ One can even argue that, strictly speaking, information in travelogues and itineraries makes most journeys into idealised fictional experiences from the start.

3. Women who travel to see architecture and design, or even modern architecture and design.

It more or less follows from the examples elaborated upon under 1) that women in category 3) belong to a tiny minority. They are likely to be informed by professional interest and their travelling is for aficionados and insiders. Referencing their visits to the newest architectural events or even buildings is even rarer than commenting on architecture in general.

Some women who were very sensitive to architecture in their travelogues, notably Kazimiera Alberti in 1950, are discussed in the Annex. In addition, I should like to add two historical testimonies of visits among unpublished letters that I came across when researching women and design between 1880 and 1940 in the Netherlands; when considering their journey, these women of 'modern travel' did not use a guide, but personal contact with professional friends.¹⁷ A Dutch artist called Bertha Bake, who practised Javanese batik textile dyeing, wanted to visit the first Werkbund-exhibition in Cologne, Germany, in the summer of 1914 and wrote to one of her female designer friends: 'We may

not miss Cologne, that exhibition must be very interesting for "our sort".¹⁸ She probably meant not just the organisation of the show but also the contribution by women; it was the first time German women had their own section in such a show, a 'Haus der Frau'. Hence, Dutch women colleagues could compare it to their own work. In 1934 a female Dutch interior decorator who admired modernism, Jo van Regteren Altena, wrote to the architect Willem M. Dudok for advice about the newest architecture she might go to see on an excursion to Frankfurt. He replied by mentioning the Siedlungen by Ernst May and the office of I.G. Farben by Hans Poelzig.¹⁹ Both complexes are now modernist heritage monuments, the I.G. Farben office, built between 1928 and 1930, perhaps being the less well known. This huge building in the strict so-called 'New-Objectivity' style was the largest office building in Europe until the 1950s.²⁰ It is noteworthy that these architectural complexes circulated in correspondence of the early 1910s and 1930s. Unfortunately, there is no record either of the designers visited them.

Continuing with the **reception** aspect involves three more categories:

4. Women who travel in the mind only by reading travelogues and/or by watching film and television series.

These formed the main consumer market for commercially published travelogues, offering adventurous narratives to be read without travelling. It has been stimulated by a growing market of readers since the nineteenth century, as well as by women travellers focusing on their audience of female readers. After 1945 especially, more specific routes were published for particular audiences, such as for single women. Film and television offered these consumers visual equivalents guided by male and female reporters exploring faraway places and landscapes as virtual travels.

5. Women who travel while guided by a published itinerary composed by others.

This audience might unjustly be thought of as uncreative mass tourists as opposed to the creative individual traveller. Popular tourist guidebooks facilitating travel emerged in the early nineteenth century, such as Baedeker in 1828, Murray in 1836–38, and later Thomas Cook in 1874 and Michelin in 1900.²¹ The guidebooks generated a body of mass tourist destinations with ever more places by focusing on historical heritage sites that referenced national art and architectural historical canons and offered

¹⁸ Marjan Groot, *Vrouwen in de vormgeving in Nederland 1880–1940* (Rotterdam: 010 publishers, 2007), 139 (quote from a handwritten letter by B. Bake, 12 July 1914, from personal archives deposited in the Netherlands Institute for Art History RKD in The Hague).

¹⁹ Groot, *Vrouwen*, 410 (handwritten letter by W.M. Dudok to J.Q. van Regteren Altena, 13 September 1934, from personal archives deposited in the Netherlands Institute for Art History RKD in The Hague).

²⁰ It now hosts part of Frankfurt's Johann Wolfgang Goethe-Universität and is listed in the ERIH (European Route of Industrial Heritage), a European project running since 2003. Ernst-May-Gesellschaft e.v., <https://ernst-may-gesellschaft.de/home.html>; https://en.wikipedia.org/wiki/IG_Farben_Building (all accessed 11 August 2018).

²¹ Bruce, "The Nineteenth-century 'Golden Age'"; Zoë Kinsley, "Travellers and Tourists," in Thompson (ed.), *The Routledge Companion to Travel Writing*, 237–45; Martin, Missinne, Van Dam, "Introduction," 7.

¹⁵ Michael Collins (ed.), *Journey: An Illustrated History of Travel* (London: Dorling Kindersley, 2017).

¹⁶ Zweder von Martels, "Introduction: The Eye and the Eye's Mind," *Travel Fact and Travel Fiction*, xi–xviii; Hooper and Youngs, "Introduction," *Perspectives*, 1–11. Jan Brom, "Defining Travel: On the Travel Book, Travel Writing and Terminology," in Hooper and Youngs (eds.), *Perspectives*, 13–26. Alison E. Martin, Lut Missinne, and Beatrix van Dam, "Introduction," *Travel Writing in Dutch and German, 1790–1930*, 1–15.

¹⁷ On the importance of personal contacts besides guidebooks and texts, see Anna P.H. Geurts, "Modern Travel: A Personal Affair," in Martin, Missinne, Van Dam (eds.), *Travel Writing in Dutch and German*, 214–33.

information about customs and manners, food, and geography, along with practical linguistic tips; they educated travellers beforehand. People who take on the role of tourists are informed how to get somewhere, what there is to see, and how they should encounter the population. There are also guidebooks that appear to distance themselves from mass touristic purposes by emphasising the individualism and exclusiveness of the traveller, yet, as Scott Laderman explains, these are not as different as they may seem.²²

6. Women who experience architecture on travelling without specifically aiming for it. Since the mid-nineteenth century, women travelling to expanding metropolises to shop for novelties would have experienced the most sophisticated architecture of the time in department stores, with impressive iron and glass-roofed so-called light halls and technical curiosities such as elevators. Likewise, when visiting museums they would have experienced the latest prestigious city architecture, reflecting the highbrow Neoclassicist *beaux-arts* idiom. The impact of mass consumerism on urban architecture and the creation of the stereotypical female consumption craze since around 1850 is well known from novels such as Émile Zola's *Au bonheur des dames* (1883). For many, the department store even replaced the museum as a cultural destination.²³ Shopping, culture, and tourism became entangled, and have been so in city tourism ever since. These commercial destinations often mapped the urban transport lines of today's city centres. Until the first decades of the twentieth century, industrialisation also marked the types of building in city centres, as may be seen from the *MoMoWo-Itinerary* of Barcelona, Lisbon, Paris, and Turin.²⁴ One may add that commercial architectural novelties were not the only stops for women. Following the argument by Lynne Walker about urban spaces explored by women in London's West End in the second half of the nineteenth century, women mapped routes between club buildings, libraries, restaurants, shops, family homes, offices of women's journals, and more, all as 'social maps'.²⁵

Socio-cultural places of interest were also marked by other means, for example by historical 'blue plaques' in London. These stem from 1867 and were initiated by the Society of Arts. They indicate places where famous people lived and/or worked, or where important events took place. Such markers do not focus on architecture *per se* but do identify many different buildings in various parts of the city. Initially, very few women were commemorated by a blue plaque. While the number has

now increased, the percentage of plaques commemorating women is still only 13%.²⁶ The plaques were important for later conservation of the buildings, and sometimes the places marked by them became house museums. Though not intended for this, the plaques also allow the construction of personal routes, for example along the homes of famous writers. One might designate the plaques as mediators of awareness.

In addition to production and reception aspects there is a mediation side. This is basically the function of any written and/or visual medium that supplies information to people.²⁷ Mediation is introduced here because several papers presented at the final symposium discussed women who work as guides for touristic routes today; for example women who are involved in the Guiding Architects Network, as explained by Cristina Emília Silva in the Annex. Similarly, architectural historian Natascha Drabbe from the Netherlands, who is the initiator of 'iconic houses', acts as mediator via a website of twentieth-century architects that she developed in 2012. This website wants to keep the houses alive by gathering them on the site and by organising opportunities to visit them. However, while presenting her website at the MoMoWo final symposium in June 2018, she admitted that unfortunately the network had hardly considered any iconic houses by women architects as of yet.²⁸ Mediators of another nature are the women archaeologists who preserved touristic heritage through their research; two of them are addressed in the Annex too.

II Counter-itinerary

The contributors to the *MoMoWo: Women - Architecture & Design Itineraries across Europe* (2016) meet all the production and reception aspects, as well as mediation, of the list above. The *Itinerary* is a mixture of itinerary and guidebook. It is not a travelogue, although, in between the lines, it tells readers about the routes that MoMoWo-partners together began to explore during the first phase of the project. Concretely, the *Itinerary* offers three routes composed for three geographical areas in each of the six partner countries mentioned, either in a city or in an entire country, with 19 to 23 stops in all. These destinations were not all visited by one and the same person and are not likely to be visited in one journey either. In its first life it would be an itinerary and guidebook for armchair travellers who like to travel in the mind before they visit the place itself. It is not an itinerary for the commercial and cultural touristic circuit and its widespread marketing. On the contrary, its concept

22 Scott Laderman, "Guidebooks," in Thompson (ed.), *The Routledge Companion to Travel Writing*, 258–68.

23 Rémy R. Saisselin, *Bricabracomania: The Bourgeois and the Bibelot* (London: Thames & Hudson, 1985).

24 Alain Bonnet, "Women architects in Paris," *MoMoWo: Women - Architecture & Design Itineraries across Europe*, edited by Sara L. Sacerdotti, Helena Seražin, Emilia Garda, and Caterina Franchini (Ljubljana: ZRC SAZU Publishing House, 2016), 78–79; Ana María Fernández-García, "Barcelona: A Modern City with Local Identity," in *Idem*, 16; Caterina Franchini, "Turin: From Industry to Culture," in *Idem*, 108; Maria Helena Souto, "Lisbon: Portuguese Modern Movement," in *Idem*, 46.

25 Lynne Walker, "Vistas of Pleasure: Women Consumers of Urban Space in the West End of London 1850–1900," *Women in the Victorian Art World*, edited by Clarissa Campbell Orr (Manchester: Manchester University Press, 1995), 70–85.

26 "The history of the blue plaques: English Heritage," <http://www.english-heritage.org.uk/visit/blue-plaques/about-blue-plaques/history-of-blue-plaques/> (accessed July 6, 2018); Allison Vale, "The amazing women forgotten by the blue plaque scheme," *Telegraph*, January 17, 2018, <https://www.telegraph.co.uk/women/> (accessed July 6, 2018).

27 Also for literary journals and material artifacts, as mentioned by Schellenberg, "Mobility and the Museum," 204–11; and Martin, Missinne, Van Dam, "Introduction," 7.

28 Iconic Houses, <https://www.iconichouses.org/> (accessed August 11, 2018).

is one of surprise, liberation, and conflict with existing itineraries and guidebooks.²⁹ This is owing to the main criterion for selection: the routes are formed to connect architecture and/or design by women, from the first examples after the end of the First World War in 1918 to the latest projects under construction in 2014. In this respect, *MoMoWo: Women - Architecture & Design Itineraries across Europe* is both a counter-itinerary and a counter-guidebook. It is not a guide to standard architectural highlights but to a host of different places such as nurseries, ski resorts, squares, small bars, power plants, student housing, and libraries. It brings an element of unexpectedness for future narratives that could be composed when actually following a route, and in this sense it also offers a counter-'tourismscape' to networks formed around tourism for one city or destination only.³⁰ The architecture is, however, generally highbrow in nature.

Imaginary geographies, intersecting histories: the value of comparison

From a historical perspective it is no exaggeration to say that the contents of the *Itinerary* are unique because of the combination of countries, time frame, and criteria for buildings selected. For practical reasons, four project partners focused on one city: Barcelona/Spain, Lisbon/Portugal, Paris/France, and Turin/Italy. The other two partners, from the Netherlands and Slovenia, designed routes that covered several regions within their entire country. As an ensemble the routes are therefore quite abstract: some cover huge distances, others are relatively short. Furthermore, the geographical position of the countries within Europe leads to an unexpected cartography: a roughly triangular concentration formed by the intersection of the northern regions of southern Europe in Turin (Italy) and Oviedo (Spain), slightly farther south-west to Lisbon in Portugal, with a horizontal stretch farther eastward up to Slovenia; and an upward stretch north to France, and still farther north to the Netherlands. Besides this unexpected cartography, there are considerable differences in the density of population and in political and economic circumstances. All these make this 'European' constellation far from a cohesive geographical unity and network. However, as Wendy Bracewell observes, the division of Europe into many different geographical zones was always a construct that produced imaginary geographies with different effects.³¹ Even so, we may still make a comparison of the routes.

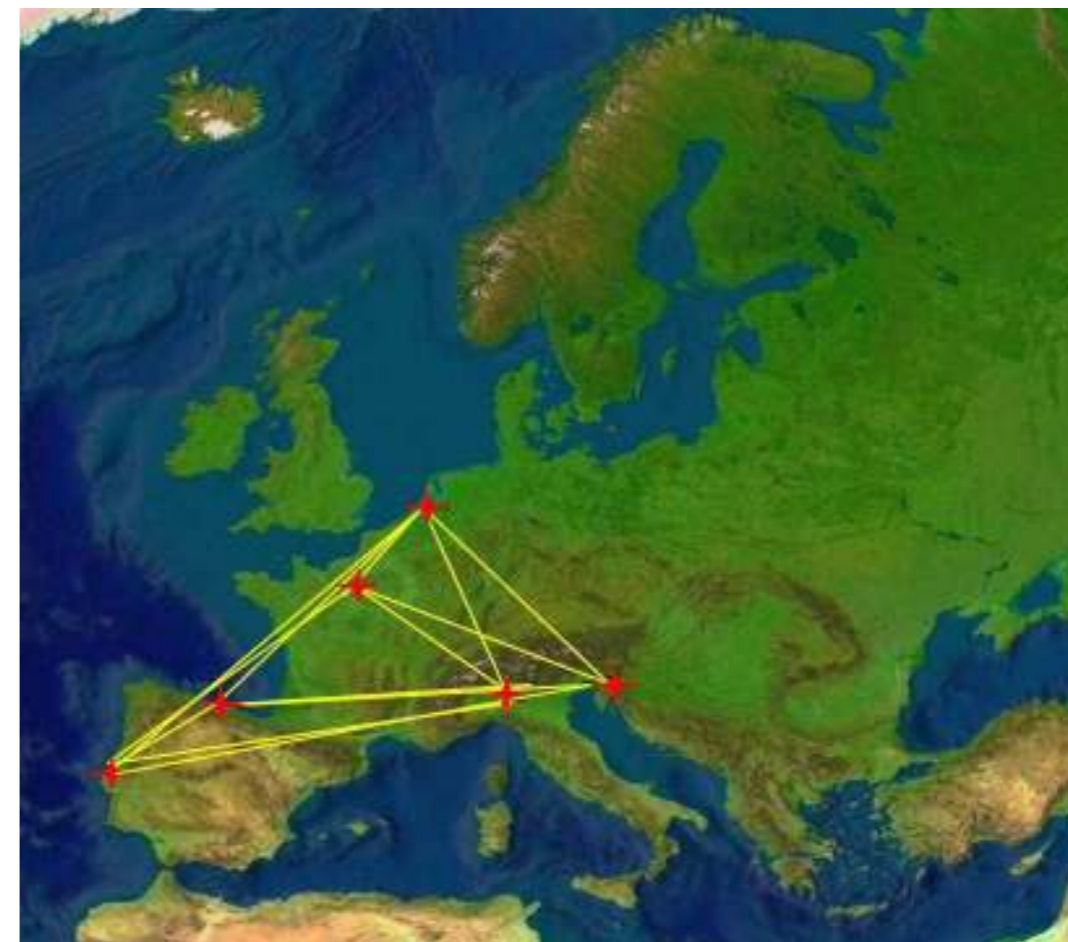


Fig. 1. *MoMoWo-Itineraries* across Europe connecting geographies of Turin/Italy, Oviedo/Spain, Lisbon/Portugal, Ljubljana/Slovenia, Paris/France and Amsterdam/the Netherlands. Photo-shopped map by the author, 2018.

One of the most valuable methods of analysis in a collaborative project such as MoMoWo is that of comparison. The gathering of data about previously unknown works and names of women designers, engineers, and architects between 1918 and 2018 allows the drawing of comparisons with improved insight and in many new ways. Besides the many perspectives of papers presented at the three conference-workshops in Leiden (2015), Ljubljana (2016), Oviedo (2017), and the MoMoWo final symposium in Turin (June 2018), the MoMoWo-project generated a significant amount of data while simultaneously contextualising these findings within socio-historical perspectives for each of the six countries involved, as in the descriptions of buildings in the *MoMoWo-Itinerary*. Although data collecting is often criticised as the antiquarian approach of the first feminist-related histories that wanted to make women visible besides men, it has its own values.

29 Compare with Bird, "Travel Writing and Gender," 42-3; Laderman, "Guidebooks."

30 Compare with Kevin J. James, " 'Doing the Gap': Sociability and Tourism Networks at Killarny, 1850-1915," *Cultural Histories of Sociabilities, Spaces, and Mobilities: Studies for the International Society for Cultural History*, Vol. 7, edited by Colin Divall (London: Pickering & Chatto, 2015), 151-163.

31 Wendy Bracewell, "Europe," in Thompson (ed.), *The Routledge Companion to Travel Writing*, 341-50.

MoMoWo-partner	Population in millions 2017–18	Size in km ²	Population per km ²
France (partner until 1/8/17) Paris	65.2 2.22	549,087 105.4	118 21.347
Italy Turin	59.8 0.88 (880,000)	301,340 130.2	198 6.822
Spain Barcelona	46.1 1.62	505,940 101.9	91 15.992
Netherlands	17.1	41,540	411
Portugal Lisbon	10.2 0.5 (505,600)	92,225 100	111 5,090
Slovenia	2.0	20,373	102
Slovakia* (partner from 1/8/17)	5.4	49,035	110

*Slovakia was not included in the *MoMoWo-Itinerary*.

Tab. 1. Inhabitants and size of MoMoWo-partner countries. Source: PopulationPyramid.net, <https://www.populationpyramid.net/>, and various other web statistics between 2015 and 1 January 2018 (all accessed between 10 and 20 August 2018). ©Author

Comparing the partner countries in terms of territorial size and demography in **Table 1** shows that France is the largest country in size and by average population per km², followed by Spain. Paris, however, is very densely populated within a relatively small area. The Netherlands is the second smallest country, after Slovenia, but has the highest population per km² of all the countries shown. Spain with 46.1 million inhabitants is second in size after France, yet has the lowest population per km². Though it may seem inappropriate to compare the population in Spain with the mere 17.1 million inhabitants of the Netherlands (about one-third of that of Spain), the size and population of Barcelona, the city featuring in the *Itinerary*, is only a small fraction of that of the Netherlands. The city of Turin is larger than Paris and Barcelona and relatively densely populated, while Italy comes second after France in the size of its population although it is less than half the size. Slovakia replaced France as MoMoWo-partner in August 2017, but it is included in Table 1 in order to suggest making a future comparison of its women architects and designers with those in other European countries.

Geographical characteristics may restrict building activities in combination with size and population density. Building in the Netherlands is restricted only by water, and has no climate extremes such as those experienced in the warmer and mountainous zones of Spain, Portugal, Slovenia, and Italy. Slovenia measures about half the size of the Netherlands but has only a ninth of the latter's inhabitants. Portugal is more than double the size of the Netherlands, with a third fewer

inhabitants, and it is over 4.5 times the size of Slovenia. This means that although the Netherlands is a small country, demand for building activities may be relatively high, which possibly contributes to favourable opportunities for women architects.

Most countries actively construct historical narratives about their past to create particular values for their citizens to live by. They do the same for architecture and design. Art, design, and architectural histories –as well as itineraries and travelogues– have since long been classified by region, country, and peoples, even when the constellation of nation states was different from those we have now (Italy, for example, was not unified politically prior to 1861). But, like geographical areas, such classifications are arbitrary and complicated.³² Slovenia (until 1990 part of the Yugoslavian federation, and between 1918 and 1945 partly Italian and Yugoslavian), Croatia (until 1991 part of Yugoslavia), and Serbia (until 2006 part of Yugoslavia) are former socialist countries that are now constructing a history for 1918 to the 1990s, and a post-1990s history. The same applies to countries that were formerly in the Russian or Czechoslovakian federations.³³ Geographical and political borders do not always coincide with the architecture in these countries. Furthermore, architecture and buildings do not always represent their geographical location in the absence of any other context by which it may be judged. This applies in particular to International Modernism as understood in architecture and design.

The main factor determining the position of women in architecture and design in the former Yugoslavian countries may well be political in nature; socialist ideologies, despite restrictions in democratic rights, offered women the opportunity to practise their skills as architects earlier than they were able to in Spain or Portugal. It therefore seems to make sense to classify according to impact of political constellations rather than by geographical borderlines.

There is also a multitude of languages involved, which is especially apparent when the continent of Europe is compared with Britain and the USA. In spite of all this, language differences, customs, and regions may lead to an exchange of ideas and designs that somehow incorporate shared values. This, at least, emerges from comparing the data of the *Itinerary*. We may therefore overrule geographies and scale when comparing buildings and artefacts. Factors for comparison are, for example, pioneering women architects, the first women architects to graduate, and the style and types of their buildings. Some of these are shown in **Table 2**.

³² Also Martin, Missinne, Van Dam, "Introduction," 3–4.

³³ See also Allcock and Young, "Black Lambs and Grey Falcons: Outward and Inward Frontiers," xxiii–xxiv.

MoMoWo-partner	Earliest two mentioned works/buildings by women deduced from the <i>MoMoWo-Itinerary</i>	First two women architects and/or designers
Netherlands	1913, interior 'House 1913' – Margaret Kropholler (pseudonym Greta Derlinge) 1918, villa – Margaret Kropholler	1908-10, Margaret Kropholler 1926, Jakoba Mulder
Paris* – France (partner until 1/8/17)	1919, interior flat Rue de Lota, Mme Mathieu Lévy – Eileen Gray 1927, Bar sous le Toit; 1929, furnishings and fittings for Villa Church and Villa La Roche – Charlotte Perriand	1902, Julia Morgan, worked in California 1925, Charlotte Perriand
Slovenia	1922, Cooperative Business Bank – Helena Vurnik 1935, Celebratory Stands of the Stadium for Orel Catholic Sport Association – Gizela Šuklje	1932, Dušana Šantel 1932, Gizela Šuklje
Turin – Italy	1929, linoleum design – Ada Bursi 1957, 1966, church and parish complex Santa Teresa di Gesù Bambino – Studio Zuccotti (Maria Carla Lenti, Giovanna Maria Zuccotti)	1930, Giuseppa Audisio 1939, Ada Bursi
Lisbon – Portugal	1942, graphic design; 1956–58 tile panel 'O Mar' – Maria Keil 1972, atelier Conceição Silva – Maria João Eloy	1942, in Lisbon, Maria José Estanco 1943, in Oporto, Maria José Marques da Silva
Barcelona – Spain	1973, social housing 'Walden 7' – Anna Bofill and others 1984-90, Joan Miró Library – Beth Galí and others	1936, in Madrid, Matilde Ucelay 1964, in Barcelona, Mercedes Serra Barenys
Slovakia** (partner from 1/8/17)	1958, Apartment block, Bratislava – Mária Krukovská 1965-85, The Housing Estate Dúbravka, Bratislava – Irina Kedrová	1950, Viera Floriánová, Magdaléna Andrejská Klaučová, Agnesa Zibrínová, and Laura Žideková

* Note that Louis Brachet, suggested to be the earliest women architect in France (Bonnet, 2016, 79, with a building dated 1903), is likely to be male, and that I personally added Eileen Gray who was educated in London and Paris. Also note that not all women were the single creator of the work, as indicated by 'and others'. **Slovakia was not included in the *MoMoWo-Itinerary*.

Tab. 2. Overview in chronological order of pioneering women designers and/or architects of MoMoWo-partner countries, deduced from the *MoMoWo-Itinerary*. ©Author

From Table 2 it is evident that the Netherlands, France (Paris), and Slovenia had the earliest realised projects or buildings by **pioneering** women. There is a considerable time lapse with Turin, and even more so with Portugal (Lisbon) and Spain (Barcelona), most probably owing to national political regimes and economic circumstances. Surprisingly, France – with its reputation for *grand* architecture, design and decorative art – is relatively late with opportunities for French women

other than the Irish emigrée-designer Eileen Gray, who lived and worked in Paris from 1913.³⁴ An immediate comment would be that this situation is obscured and perhaps compensated for by the star status assigned to the interior designer Charlotte Perriand, who is the French pioneer of the *MoMoWo-Itinerary*. Also surprisingly, the Netherlands comes out as the earliest country with a practising women architect before 1920. At the turn of the twenty-first century, when roughly comparing the activities of the first reform women designers at about the year 1900 in the Netherlands to those in other countries, I surmised that women in Germany and Britain would be earlier. This is certainly so for craftswomen and **designers** in Britain, Scotland, and Germany; and, equally important, for those engaged in handicraft and organisations in Scandinavian countries.³⁵ However, recent research into women architects by our British colleagues seems to indicate that the first buildings in England realised in a contemporary modern idiom date from after the early 1920s, though earlier British women designed in a historicist idiom – for example Sophia Warton Gray, who probably assisted with the design of Neo-Gothic churches in South Africa from the 1850s already.³⁶ Research into women architects on the web has increased their visibility, and we now find the name of Signe Ida Katarina Hornborg from Finland, who graduated at Helsinki Polytechnic Institute in 1890 and designed the Signelinna (Newander House) in Pori in 1892.³⁷ In addition, a few women architects from former eastern European countries were practising early, as is indicated by Maria Bostenaru Dan in the Annex.

In the context of the MoMoWo-project, the **styles** of the earliest buildings by women architects in the Netherlands and Slovenia are typically local, respectively vernacular expressionist Amsterdam School and vernacular folk tradition (in Ljubljana). Both advocate a decorative nostalgia, but at the time this was certainly a contemporary 'modern' alternative to historicism. This also applies to some extent to Eileen Gray, who first worked in an Art-Deco idiom that reminded of *ébénisterie* in its sheer

34 Alain Bonnet, "Women Architects in Paris," 78–79; Stéphanie Mesnage, "Women and Their Professional Activities in Architecture: France 1918–1945," in *MoMoWo: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot, Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC SAZU Publishing House, 2017), 118–30, here 124, Series Women's Creativity, Vol. 1.

35 Groot, *Vrouwen*, 45–48. For Germany, 306, I then mentioned Emilie Winkelmann (1875–1951) and her design for a *Haus der Frau* at the *Ausstellung für Graphik und Buchgewerbe* in Leipzig in 1914. She is now reasonably well documented on the web. She started an architecture practice in 1908 in Berlin and designed a considerable number of works which were also realised. See "Emilie Winkelmann, Architektin," *Lexikon: Charlottenburg-Wilmersdorf von A bis Z*, Bezirksamt Charlottenburg-Wilmersdorf, <https://www.berlin.de/ba-charlottenburg-wilmersdorf/ueber-den-bezirk/> (accessed August 9, 2018) and "Frauenorte Brandenburg: Emilie Winkelmann," *FrauenOrte im Land Brandenburg*, www.frauenorte-brandenburg.de (accessed August 9, 2018).

36 *AA Women in Architecture 1917–2017*, edited by Lynne Walker and Elizabeth Darling (London: Architectural Association, 2017); "Modern women," RIBA Architecture.com (posted February 21, 2018), <https://www.architecture.com/knowledge-and-resources/knowledge-landing-page/women-and-modernism> (accessed August 6, 2018). Gray has been mentioned since the 1970s. See the reference list at "Gray, Sophia (Sophie) Wharton Myddleton," *ArteFacts.co.za* <http://artefacts.co.za/main/Buildings/archframes.php?archid=643> (accessed August 9, 2018).

37 The reference, in Finnish: "Perustaminen: Nainen arkitehtina," *Architecta*, <https://archive.is/20120720035650/http://www.architecta.fi/sivu.php?sivu=historia> (accessed August 9, 2018).

luxuriousness. While acknowledging that the style criterion for architectural modernism is gender biased as such, the *Itinerary* includes only two buildings by women architects in the international modernist idiom between the mid-1920s and late 1930s, and these are in the Netherlands: the Rietveld-Schröder House and a first flat block by Lotte Stam-Beese. Modernist works after 1945 in the *Itinerary* are more numerous in all countries, and still show a universal modernism that seems to deny any specific geographical or climatologic situation; there are examples in Barcelona, Lisbon, and many in Paris. Some still later buildings show an international expressionist-postmodernist interest, for example in Barcelona, Paris, and Slovenia.³⁸

As regards the **number** of women architects who could realise one or more of their works, bringing them together in the *Itinerary* suggests there were quite a lot of them between 1918 and 2014. The *Itinerary* makes visibility operative for the MoMoWo-project goals in relation to geography and cartography. Table 3 lists the chronological distribution of buildings designed by women architects in order to compare the partners. In all locations, the highest number of buildings dates after the year 2000. Slovenia appears to have had a veritable boom in activities by female architects then, perhaps thereby helping to establish its status as young nation. It is followed by the Netherlands and directly after by Barcelona, Lisbon, and Turin. According to the data used here, Paris stays a bit behind.

MoMoWo-partner and no. of entries and (no.) of restoration, refurbishment, heritage redevelopment	1918-30	1930-50	1950-80	1980-2000	2000-14
Slovenia – 22 entries (8)	1	–	3	1	17
Netherlands – 23 entries (2)	2	3	1	2	15
Barcelona – 19 entries (5)	–	–	1	4	14
Lisbon – 19 entries (9)	–	–	3	2	14
Turin – 23 entries (16)	–	–	3	7	13
Paris – 19 entries* (2)	–	–	3	7	9

* Note that Paris has 4 artefacts among these entries.

Tab. 3. Chronological overview of number of described buildings in MoMoWo-partner countries designed or co-designed by women in the *MoMoWo-Itinerary*. ©Author

A significant number of buildings involving women architects are recent renovation or refurbishment projects of existing architectural and heritage monuments; many of these projects were also

38 *MoMoWo-Itinerary*, **Modernist numbers**: Paris 2.5, 2.6, 3.3, 3.4; Slovenia 2.3; **Postmodernist numbers**: Paris 3.1, 3.2; Slovenia 2.8, 3.3.

realised after 2000. With 16 out of 23, Turin has by far the largest number of these redevelopments, especially in its former industrial areas; it is followed by Lisbon (9) and Slovenia (8). Such activities are important in stimulating cultural city tourism today, when cities need to develop specific quarters and improve liveability both in their centres and in former industrial or growth areas to create a better social and more sustainable future for their residents. Also, it must be noted that it would make sense to use other geographical criteria, for example comparing one of the larger cities in the Netherlands, such as Amsterdam, Rotterdam or The Hague, with Lisbon, Barcelona or Turin. From the earliest works, the buildings by women architects have an interesting variety of **building types**. There are country villas, sport facilities, shop interiors, restaurants and bars, museum buildings, parks, and even power plants. Table 4 distinguishes the following nine typological categories: 1) Public culture; 2) Commercial leisure; 3) Housing (social or commercial, public or private); 4) Outdoor environment (including site-specific artworks); 5) Public services; 6) Office and bank; 7) Sports; 8) Transport and power plant; 9) Object and artefact. Comparing the typologies and chronology of the buildings, the three largest fields of activity are 'Public culture', 'Commercial leisure', and 'Housing'. The relatively great initiatives directed at Public culture suggest increased investment in community life. In view of ever growing city marketing and touristic leisure, and the fashionable nature of interiors of hotels, restaurants, bars, and shops, it is not surprising that the category of Commercial leisure is among the leading fields. Building related to housing is most prominent for the Netherlands and Paris.

Type and MoMoWo-partner	Total	1918-30	1930-50	1950-80	1980-2000	2000-14
1) Public culture: museum, theatre, archive, library – 27						
Lisbon – Portugal	6					6
Turin – Italy	5				3	2
Barcelona – Spain	4				2	2
Netherlands	4				1	3
Paris – France	4				2	2
Slovenia	4					4
2) Commercial leisure: hotel, shop, bar, restaurant – 25						
Lisbon – Portugal	7			2		5
Turin – Italy	5				1	4
Barcelona – Spain	4					4

Type and MoMoWo-partner	Total	1918-30	1930-50	1950-80	1980-2000	2000-14
Slovenia	4					4
Netherlands	3					3
Paris - France	2					2
3) Housing: social, residential block, single villa - 24						
Netherlands	8	2	1	1	1	3
Paris - France	7				4	3
Barcelona - Spain	4			1		3
Turin - Italy	3			1	1	1
Slovenia	1					1
Lisbon	1				1	
4) Outdoor environment: square, promenade, park, garden - 14						
Barcelona - Spain	5				2	3
Turin - Italy	3				2	1
Lisbon - Portugal	2			1		1
Netherlands	2		2			
Slovenia	2			1		1
5) Public services: education, crèche, hospital, church - 13						
Slovenia	6			2		4
Netherlands	3					3
Turin - Italy	2			1		1
Lisbon - Portugal	1					1
Paris - France	1					1
6) Office, bank - 8						
Barcelona - Spain	2					2
Turin - Italy	2			1		1
Lisbon - Portugal	1				1	
Netherlands	1					1
Paris - France	1					1
Slovenia	1	1				
7) Sports - 5						
Slovenia	3					3
Turin - Italy	2					2

Type and MoMoWo-partner	Total	1918-30	1930-50	1950-80	1980-2000	2000-14
8) Transport, power plant - 5						
Netherlands	2					2
Lisbon - Portugal	1					1
Slovenia	1					1
Turin - Italy	1					1
9) Object, artefact - 4						
Paris - France	4			3	1	

Tab. 4. Typological overview in chronological order of buildings in MoMoWo-partner countries designed by women, deduced from the *MoMoWo-Itinerary*. ©Author

Dissemination and appropriation

The reception of the *MoMoWo-Itinerary* by an audience may be evaluated by the number of copies distributed by all the partners and the number of views posted on the MoMoWo-website. Since its printed publication in June 2016 with a run of 3000, all copies were distributed between 1 July 2016 and 8 January 2018. The number of views of the online version on the MoMoWo-website has been mapped since its publication by MoMoWo collaborative partner SiTI (Istituto Superiore sui Sistemi Territoriali per l'Innovazione, Turin).³⁹ This conceptual exercise of views is quantified in Figure 2, which is an overview between 1 March 2017 and 3 July 2018 on the scale of 15 to 30 views. View peaks are visible in April, May, and October 2017, and in March, May, and June 2018. The figure indicates that on 10 March 2018, the *MoMoWo-Itinerary* scored twenty-six views. Perhaps this is due to the International Women's Day falling on 8 March, when MoMoWo-countries organised such activities as an open day of ateliers/workshops by women architects and designers in Slovenia, Oviedo, and Turin.

Neither the distribution of the *Itinerary* nor the number of online views reveals whether people visited any of the buildings; for that we need other types of testimony, perhaps a post-touristic travelogue or a personal discussion. To go to see the places on the suggested routes – especially those routes covering entire countries – will take more effort, though it is not impossible to achieve. Visits and impressions will be greatly affected by the means of transport: by aeroplane, car, bus, train, tram or metro, or on foot; this will make for new, unexpected and other sociabilities and

³⁹ "Cultural-Touristic Itineraries Guidebook," MoMoWo – Women's Creativity since the Modern Movement, <http://www.momowo.eu/cultural-touristic-itineraries-guide-book/> (accessed July 5, 2018).

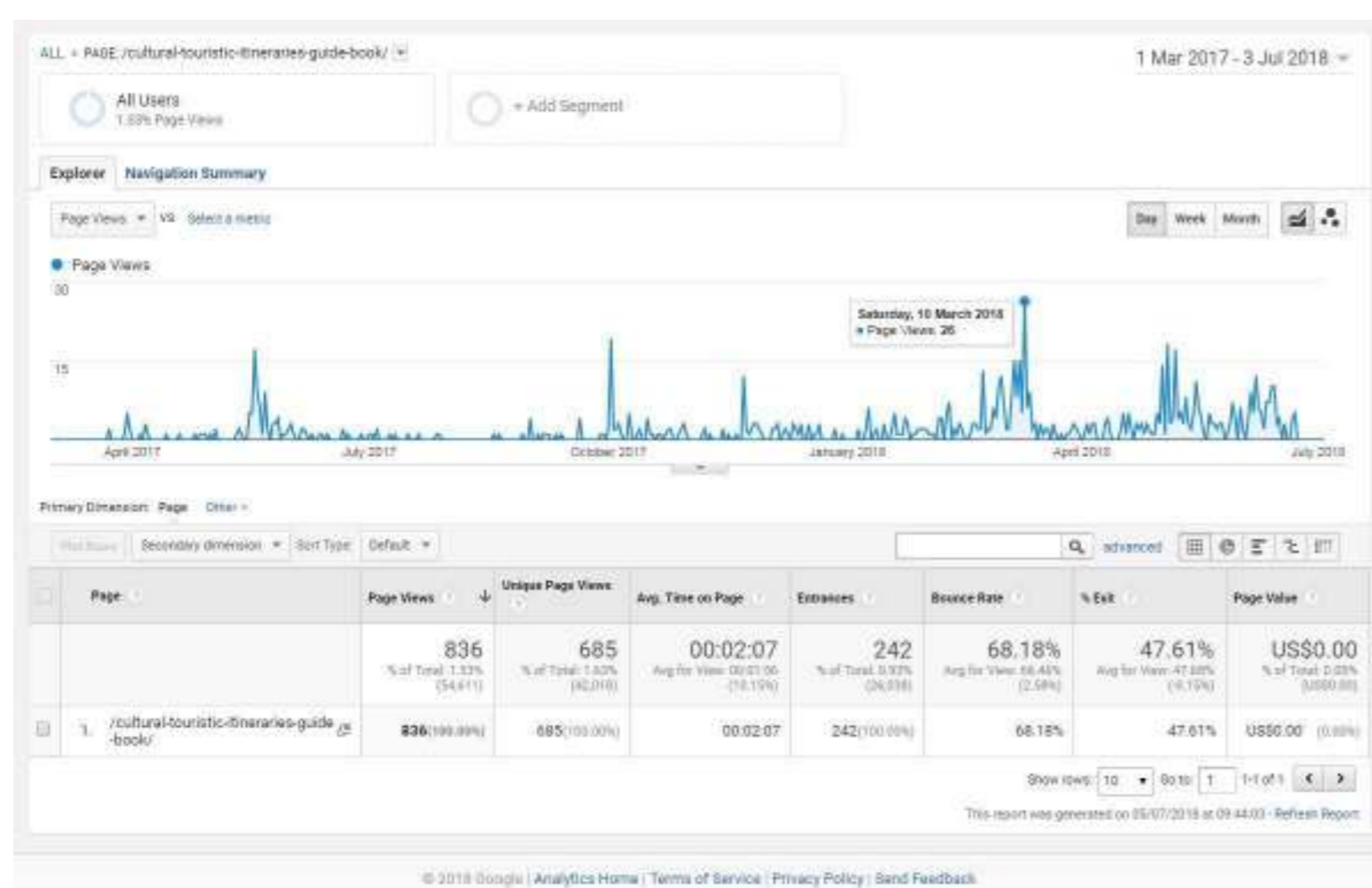


Fig. 2. Online views of the MoMoWo: Women - Architecture & Design Itineraries across Europe, between 1 March 2017 and 3 July 2018. ©SiTI on behalf of MoMoWo, 2018.

encounters.⁴⁰ However, the *Itinerary* is just as much a concept of travelling and an armchair itinerary for alternative tourism as a guide to travelling itself. Reading the introductions and the entries for buildings, and comparing the photographs of buildings, will hopefully map a counter-route of architecture and design by women in the reader's mind that will be contextualised or framed with existing knowledge. In addition, their journey can become a musical experience, accompanied by the MoMoWo sound composed by Giulio Castagnoli.⁴¹

III Annex

Various aspects addressed in this introductory essay are further illustrated in this Annex, which presents the papers of the final MoMoWo-symposium held in Turin in June 2018. It increases

⁴⁰ The effect of transport on travel and tourism is, for example, indicated by Colin Divall, "Introduction: Cultural Histories of Sociabilities, Spaces, and Mobilities," in Colin Divall (ed.), *Cultural Histories of Sociabilities*, 3–15.

⁴¹ "MoMoWo Sound by Giulio Castagnoli | Il suono di MoMoWo di Giulio," YouTube, video edited by Caterina Franchini and Emilia Garda (released July 7, 2017), <https://www.youtube.com/watch?v=FIVQWhW5ZwU> (accessed August 21, 2018).

our insight into women and tourism by discussing case studies from different time periods and geographical regions. Cristina Emília Silva, a Portuguese member of the Guiding Architects Network, addresses the popularity of contemporary architecture tours in cities of local members of the network, which was informally launched in 1996 by Thomas Krüger in Berlin and Hans Geilinger in Barcelona before being officially founded in 2004 in Zurich. Though the network has been very successful and has been appreciated by visitors, and while women are active as guides, the author notes that the inclusion of buildings by women architects needs attention.

Next come two historical papers about women who travelled to the farthest north and the farthest south parts of Italy: the Italian Alps and Calabria. Both are examples of the production side of categories 1) and 3). Irene Gaddo discusses a number of British women who travelled in the Italian Alps during the last quarter of the nineteenth century and the beginning of the twentieth century. In addition to regular tourists, there were among others a feminist, a painter and botanist, and they shared an ethnographic interest in the local inhabitants and their customs. One of them, Eliza Lynch, even became entrepreneurial by trying to stimulate the sale of women's crafts from northern Piedmont in shops in London and Brussels. Italy's extreme south, 'the soul of Calabria', is addressed by Maria Rossana Caniglia through the travelogue of 1950 by the Polish poet Kazimiera Alberti. Together with her first husband, Stanislaw Alberti, Kazimiera was active in literary Polish circles from the end of the 1920s through to the 1930s. During the Second World War she was imprisoned in the concentration camp of Ravensbrück. After her liberation she was expatriated to Italy in 1945 and, at the age of 50, she then travelled through Calabria using various means of local transport and on foot – one journey being from Reggio Calabria to Scilla. She captured the spirit of Calabria by noting the landscape as well as the histories of its buildings. These reflect centuries of cultural exchange between antiquity and modernity, as well as resurrection after geographical disasters. Greek, Roman, Byzantine-Norman, and medieval come together in towns and buildings rebuilt after earthquakes in 1738 and 1908 in art nouveau style as well as in the rationalist architecture of the then contemporary museum of Magna Grecia in 1932. She is a fine example of category 3).

After this, Maria Bostenaru Dan challenges the geographies, chronologies, and typologies of Figure 1 and Tables 1, 2, and 3 above by considering works by women architects and patrons from former eastern European countries such as Romania, Estonia, and Poland, in support of a joined cohesive overview of eastern and western European female architects. Many women were active in architecture in these countries from about 1902 onwards, and the author draws attention to early works and works from the 1920s and 1930s until today, also mentioning women architects who were involved with architecture related to water – such as baths, fountains, and seaside villas or resorts.

Selena Bagnara Milan then takes us to North America by focusing on the enterprising German-born American architect and builder Poldi Hirsch, who began practising as an architect in 1962 in the small town of Havre de Grace in Maryland, USA. Believing that good public housing was vital for people's health – a conviction that fits both women's views on health improvement towards the end of the nineteenth century and the ideals of the 1920s Modern Movement within which

she was educated – Hirsch designed many townhouse duplexes, apartment complexes, and small residences, all tuned to practical domestic family living⁴². While her first designs were modernist, they turned to vernacular during the 1970s. Many of her buildings still exist and, having seen them herself in 2015 in Havre de Grace during Docomomo US, Selena Bagnara Milan argues that the works deserve a cultural tour and itinerary on their own.

The next two papers highlight the achievements of two mid-twentieth-century female archaeologists of the same generation, one from Turkey and one from France, who supported the preservation of the ancient cultural heritage at sites that today are open for tourists to enjoy. Pelin Bolca and Derya Karadağ follow the achievements of Halet Çambel, who was one of the first female archaeologists in the still young modern Turkish republic established in 1923. Working between 1946 and 1961 on the excavation and conservation of the heritage site of eighth-century-BC Karatepe-Aslantaş in south Turkey, with its Hittite stone reliefs, she was ahead of her time in supporting its authentic and natural location as an open-air museum for future tourists to experience. Michaela Mezzano writes about the French Egyptologist Christiane Desroches-Noblecourt who, in the male world of Egyptology specialists of her time, worked from 1934 at the Louvre to preserve the remembrance of the Egyptian cultural heritage and helped the foundation of a documentation centre for this purpose on the banks of the river Nile in 1955.

Last but not least, the Annex ends with a contemporary project by Stefania Dassi, who initiated itineraries along artists' studios so that people could experience personally the work of these artists in various parts of the city of Turin. Routes of open ateliers have been organised annually since 2014 and contribute to city marketing and tourism interests as well. Similar is done in many other European cities and contributes to commercial intersection of tourism, city marketing and art.

42 British plans for model dwellings for the poor even go back to the late eighteenth to mid-nineteenth century, for example by architect Henry Roberts. See James Stevens Curl, *The Life and Work of Henry Roberts (1803-76), Architect: The Evangelical Conscience and the Campaign for Model Housing and Healthy Nations* (Chichester: Phillimore & Co. Ltd., 1983).

Annex

Cristina Emília Silva

Guiding Architects Network

Contemporary Architecture Leading the Way: The Guiding Architects Network

Guiding Architects' History

The network Guiding Architects has started as an idea shared and cherished by two architects and friends: Thomas Krüger and Hans Geilinger. In the year of 1996, they met in a bar in Berlin, and from then on they have been collaborating as an informal network. Both had already started doing tours on architecture: the German Thomas in Berlin, in 1995, and the Swiss Hans in Barcelona, where he has been living since 1993. Since that year, they have been meeting with other persons who they knew that were doing tours on contemporary architecture in other cities, too. Their eagerness for traveling has made them search actively for people, too. In this way the network has grown. In the year of 2000, a non-official meeting took place in Paris, both founders and people from Moscow, London, Oslo, Austria, among others, were there. In 2004, there was the so-called founding meeting in Zurich where the network earned the name: 'Guiding Architects' and the website was launched. Since then the meetings have been taking place annually in countries where member are from: in 2005, in Berlin; then in Vienna, Porto, Rome, Rhein-Ruhr, Barcelona, Athens, Dubai, Istanbul, Copenhagen, Turin, Santiago de Compostela, Venice and this year of 2018, in Budapest. Whilst this informal network of friends has been growing the need for a formal structure has increased. In 2011, Guiding Architects converted into 'Guiding Architects Association', a formal Association under Swiss Law, based in Zurich, with its own Statutes and Rules, and entities: Board and Auditor.

That's how the history of Guiding Architects can be briefly told up to now. Although some members have left, new ones have joined, and at present it has a membership of thirty-six, all working in more than 45 cities. In Europe: Amsterdam / Rotterdam, Barcelona, Belgrade, Berlin, Bilbao, Brussels,

GUIDING
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ARCHITECTSwww.guiding-architects.net
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Fig. 1. Guiding Architects Flyer 2018. (Copyright free).

Budapest, Cologne / Bonn, Copenhagen / Malmö, Frankfurt, Glasgow, Granada / Andalusia, Graz / Ljubljana, Hamburg, Madrid, Milan, Moscow, Munich, Oslo, Paris, Porto / Lisbon, Prague, Santiago de Compostela, Stuttgart, Turin, Valencia, Venice / Veneto, Vienna, Zurich / Basel; in North America: New York; in South America: Rio de Janeiro and Santiago de Chile; in Middle East: Doha, Dubai / Abu Dhabi, Istanbul and in Australia, Sydney (Fig. 1).

Guiding Architects' in Figures

Together, these thirty-six independent companies guided in the last year, 2017, more than thirty-six thousand people, which is the highest number since there are records. While the number of guided people has suffered some variations, the number of half-day tours has been constantly increasing, reaching three thousand last year.

In spite of being different scales, these figures go hand in hand with the general tendency of growth of tourism in the world, which was one billion tourists in 2012, and 1.235 billion in 2016.¹ Moreover, the Guiding architects figures from 2016 to 2017 suffered the same increment that the worldwide tourism figures did: 7%.²

It's worth to highlight that a quarter of the Guiding Architects' clients are non-professionals. We mean that obviously, the biggest number of guided people are architects or do have professions related with the field of architecture, like engineering, urban design, construction, real estate, housing, product manufacturing. Having said that, these are only three-quarters of the GA clients' world; which is remarkable if we take into consideration that these are niche tours, i.e. tours that are done by architects, architectural historians or journalists about a very specific field of culture like architecture, moreover, mostly contemporary architecture.

All in all, the Guiding Architects' clients are what is commonly designated as cultural tourists, defined as travellers who take part in a cultural visit during their stay. According to the World Tourism Organization (UNWTO) cultural tourism is growing gradually in comparison to overall international arrivals. A survey done in 2015 by the UNWTO, found that 40% of tourists are 'cultural ones'.³

Grand Tour / 'Historic' Architecture Versus Cultural Tourism / Contemporary Architecture

It goes without saying that the cultural heritage has always played one of the main roles in cultural tourism, being architecture one of the most important cultural attractions. Nevertheless, the architecture that used to draw attention was 'historic architecture', meaning buildings that were built in former times, in the past centuries.

1 "International Tourist Arrivals 1950 – 2030," World Tourism Organization (UNWTO), http://media.unwto.org/sites/all/files/inf_timeline-01.png (accessed February 20, 2018).

2 "Turismo em excesso preocupa: Setor propõe soluções," Sapo Viagens, <https://viagens.sapo.pt/viajar/noticias-viajar/artigos/turismo-em-excesso-preocupa-setor-propoe-solucoes> (accessed March 5, 2018).

3 "Survey on Big Data and Cultural Tourism," World Tourism Organization (or UNWTO), <http://www2.unwto.org/webform/survey-big-data-and-cultural-tourism> (accessed March 12, 2018).

The present appreciation of Contemporary Architecture as a tourist attraction is a milestone in tourism's history. Other past major changes were carried out by the architects of the Modern Movement during the first two decades of XX century, in comparison to their predecessors of the Grand Tour of the XVII to XIX centuries. Although probably undertaking the same routes, they've focused their attention in a different way to the historical buildings visited during their long journeys abroad by questioning them about their own needs, as if they were contemporary.⁴ The growing globalization of tourism provided by increasing income and technology increments, making trips more frequent and shorter, has allowed contemporary architecture to gain its own ('historical') value.

Somewhat Contradictorily the Global Cultural Travellers Seek for Local Uniqueness

Guiding Architects, in their activity of promoting and disseminating contemporary architecture, promote variety based on local expertise. This common brand is a sign for easy identification of the provided services and a guarantee of high-quality service, wherever it's hired. It's not a company with franchise branches in other cities and the same standardized model services everywhere, nor a centralized service provider with punctual contacts abroad. Each member and their collaborators live and work in the places where they host their clients. This is its greatest strength: the individuality of each one of its members; which is the only way to convey the diversity of contemporary architecture.

On the other hand, the greatest added value of being a member of the Guiding Architects network is to have a common forum where each member's concern can be discussed, shared and moreover enriched by each member's unique experience. The annual meetings are the privileged place and time for it. During these meetings the issues of the network are discussed, as well as workshops on subjects related with each member's activity, lectures on architecture, and visits in the host city. This is also the time for strengthening the relationships between the members, which will continue to support the yearlong activity of each one.

Creative Tourism: Further Opportunities

As said above, in spite of the fast globalization, contemporary architecture still means variety. The reason for this is its unique answer to different geographic, cultural, political and sociological

contexts given by different authors/architects. Moreover, each country has different institutions and laws that influence the way the architect acts. Therefore, the main objectives shared by all the members of Guiding-Architects are to convey the architecture and the urbanism of the cities they live in and offer the clients relevant up-to-date information and unique insights.⁵ In order to do this, each member continuously builds up a local network with the local administrators, professionals, academics, promoters, which allow opening the doors of interesting buildings, visiting construction sites, and organizing conferences and meetings with the main local actors. The main goal is to meet the interests of the clients. The large majority of the members and their collaborators are professionals, too, so when they guide they are talking about their own activity. More than guiding is sharing an experience, to teach and to learn something with the people who visit the city.

We believe this activity fits the definition of Creative Tourism by Crispin Raymond and Greg Richards, 2000:

Tourism which offers visitors the opportunity to develop their creative potential through active participation in courses and learning experiences, which are characteristic of the holiday destination where they are taken.⁶

Creative tourism requires the collaboration with creative industries, which encompasses architecture, design, arts, technology, science, among others.⁷ Once more, architecture as a creative activity plays a significant role in the actual tendencies of tourism.

Simultaneously, creative tourism is crucial for deepening the promotion and safeguard of contemporary architecture itself. As mentioned before, almost everyone is aware of the value of the 'historic' architecture, to which we are sure that the tourism since XVII century has contributed decisively, but not everyone appreciates contemporary architecture, perhaps with the exception of some iconic architectural pieces broadly disseminated. Only by visiting it and living it people can start to understand its intrinsic quality and be aware of the need of taking care of it. This movement creates a double effect: the tourists will bring back this knowledge and sensitivity to their homes and cities, while they had at least intrigued the inhabitants about the reason of their trips to their own places. We must add that many of Guiding Architects' members have been assuming the mission of dissemination of contemporary architecture in their own cities by taking part in local public initiatives like days of architecture, cooperation with city departments or with local cultural institutions, among others. These Guiding Architects' members don't expect a profit, but do expect

⁴ José F. Gonçalves, "A Viagem na Arquitectura Portuguesa do século XX," Resdomus, <http://resdomus.blogspot.pt/2011/05/viagem-na-arquitectura-portuguesa-do.html> (accessed March 7, 2018).

⁵ Zeynep Kuban, *The Guiding Architects Network stands for*, flyer.

⁶ "About the Creative Tourism," Creative Tourism Network, <http://www.creativetourismnetwork.org/about/> (accessed January 19, 2018).

⁷ "International Congress on World Civilizations and Creative Tourism," UNWTO, <http://europe.unwto.org/event/international-congress-world-civilizations-and-creative-tourism> (accessed February 20, 2018).

respect for contemporary architecture instead.

Maybe creative tourism will provoke the same effect on contemporary architecture that the 'Grand Tour's epoch did on historic architecture, which is the acknowledgment of its own value.

Guiding Architects and Gender

However, I'm afraid that the cultural itineraries for tourists are dominated by works done by male architects. Unfortunately, it reproduces the world of architecture, which is male-dominated. At least this is what I can tell from my experience in Portugal. We only visit on a regular basis, buildings of three women architects, namely the Portuguese Cristina Guedes, in the historic city centre of Porto, and Patrícias Barbas, in Lisbon, both working in partnership with male architects, and recently Amanda Leveté, the author of Museum of Art, Architecture and Technology in Lisbon. The hope may lay on the deepening of creative tourism that will require visits and themes beyond the obvious.

Similarly, Guiding Architect members reflect, to a certain extent the strong presence of women in the tourism workforce. In spite of women not being the majority in Guiding Architects Network, like in the overall tourism sector, they are 44% of the members. We must underline that these women are the managers of the enterprises, which is a better rate in comparison to the fact that women tend to be concentrated in the lowest paid and lowest status jobs in overall tourism.⁸ On the other hand it reinforces the conclusion that women make up a high proportion of own-account workers in tourism.⁹

In 2017, its business value was even a little bit higher than the oil, food and automobile exports¹⁰, it meant 10% of the world's GDP (Gross Domestic Product) and 1 in 10 jobs were tourism related.¹¹ These are some indicators of the vitality of the sector that is expected to continue growing and reach 1.8 billion in 2030.¹² The fact is that tourism represents a great opportunity that must be taken advantage of.

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Off the Beaten Tracks: British Female Travelers and the Consumption of the Italian Alpine Territory

Introduction

For centuries women have been ruled out from various forms of mobility as exclusive male experience: voyages of discoveries, expeditions of conquest, information-gathering explorations, and educational journeys had been pursued by men only.¹ Whenever they did, women travelled for a set of different purposes, two for all: marriage or work, depending on their social status. Even if some ladies of the upper classes happened to travel for formative and educational goals, their experience differed from the traditional male *Bildungsreisen*, a codified and ritualized practice for the scions of noble families, namely the Grand Tour, whose main aim was to broaden education, mark the end of childhood and refine manners and social graces.²

As acknowledged in the academic literature as a social practice, travelling –and its subset, tourism– is not a neutral activity, whatever performed or imagined it is. Travelling is a gendered practice, depending on social and cultural factors: values and ideals, norms and principles, stereotypes and conventions act upon behaviours of different groups of people, including travellers and tourists.³

8 "Gender and Tourism," UNWTO, <http://ethics.unwto.org/content/gender-and-tourism> (accessed December 28, 2017).

9 "Global Report on Women in Tourism 2010," UNWTO, <http://ethics.unwto.org/en/content/global-report-women-tourism-2010> (accessed December 28, 2017).

10 "Why Tourism," UNWTO, http://www2.unwto.org/content/why-tourism_ (accessed November 30, 2017).

11 "Infographics," UNWTO, <http://media.unwto.org/content/infographics> (accessed November 30, 2017).

12 Ibid.

1 Peter Whitfield, *Travel: A Literary History* (Oxford: Bodleian Library, 2011).

2 Dinora Corsi (ed.), *Altrove: Viaggi di donne dall'antichità al Novecento* (Roma: Viella, 2006); Rita Mazzei (ed.), *Donne in viaggio viaggi di donne: Uno sguardo nel lungo periodo* (Firenze: Lettere, 2009); Cesare De Seta (ed.), *Grand Tour: Viaggi narrati e dipinti* (Napoli: Electa, 2001).

3 For a definition of gender, Margaret Swain, "Gender in Tourism," *Annals of Tourism Research* 22 (1995), 247–66, here 258–9: 'A system of culturally constructed identities, expressed in ideologies of masculinity and femininity, interacting with socially structured relationships in divisions of labors and leisure, sexuality, and power between women and men'. On the topic, also: Elena dell'Agnese and Elisabetta Ruspini (eds.), *Turismo al maschile turismo al femminile: L'esperienza del viaggio, il mercato del lavoro, il turismo sessuale* (Padova: CEDAM, 2005); Annette Pritchard, "Gender and Feminist Perspectives in Tourism Research," *The Wiley Blackwell Companion to Tourism*, edited by Alan A. Lew, C. Michael Hall, and Allan M. Williams (Malden; Oxford; Chichester: Wiley-Blackwell, 2014), 314–24.

Only in the nineteenth century women began to move more systematically and developed their own experiences of the outer world. Initially the change took place in Great Britain where a number of new social conditions were favoured by the so-called industrial revolution: demographic changes, advances in infrastructure and transports (e.g., railways), urbanization, but also improvements in social and labour rights, growing real income and widening consumer demands. All these factors opened up new leisure and holidaying opportunities to larger sections of wealthy middle-class population. Moreover, spending time on visiting foreign countries and touring the continent from the classical sites of Italy to European main cities became fashionable and more attractive to the educated bourgeoisie, now able to afford the costs of longer trips in order to experience nature, culture and art directly on the spot. From the last decades of the century, therefore, the culture of travel began more popularized, involving increasing parts of the middle-class population, women included.⁴

In the earlier stage of mass travel booming, women started to make journeys more extensively and to keep records of them on diaries, sketch- or travel-books, as their male companions had done. Furthermore, from the mid-nineteenth century they began to publish their notes in articles and books in order to present their experience to other women, potentially new tourists themselves, filling a void in the publishing market of travel literature and guidebooks with publications by women for women. From the second half of the nineteenth century on, writings by women appeared in women's journals and specialized reviews, and female travel books showed off on bookstores' shelves, meeting the demands of a sector then monopolized by male authors by proposing a different narrative of, and a new gaze upon, travel experience.⁵

As we will see, initially women hardly created original forms of narration free from the standardized format of travelogue: they just worked out traditional (male) motives, conventions and stereotypes of the genre. Generally, they described their experience on the basis of previous literature, offering some kinds of 'tips' for female travellers to-be, from equipment and luggage to local inns and itineraries, along the patterns of the famous guidebooks of the time, such as 'the Baedeker', the Murray's 'Red Book', and for the alpine regions Samuel King's accounts.⁶ It took time to develop invention and authenticity, but with the turning of the century, along with the atmosphere of

excitement and novelty of the *Belle époque*, women were capable of more creative forms of expression and representation of their perception of the outer world and their role in it.

'Doing the Alps': Women on the Tracks

Conventions and stereotypes were particularly tenacious in contexts perceived as properly masculine as the Alps. In the mountain literature and by the mountain practitioners the alpine region was conceived an exclusive 'playground' where men could perform their abilities and put their strength, endurance, courage and determination to the test. In the course of nineteenth century, men such as Leslie Stephen (1832–1904) and his fellows did contribute to the rise of modern mountaineering and the birth of professional organizations, like the first Alpine Club established in London in 1857.⁷ The great success of the mountain accounts made mountaineering highly fashionable and attractive to a vast clientele; besides, from the 1870s the alpine destinations became more accessible by the opening of first mountain railway tracks. Among the new flock of tourists, women toured the Alps and their valleys too, first accompanied by husbands, relatives or friends, then alone or with other female fellows, each bringing their own motivations and interests.

At the time the Irish writer Frederica Plunket (1822–1886), a regular visitor of the Alps herself, sketched a brilliant and ironic portrait of the various typologies of early visitors coming from Britain within the first wave of the so-called 'touristisation' of the Alps.⁸

From the indistinct mass of tourists, swarming from England southwards 'laden with bags of every size and shape, with sticks, umbrellas, parasols, railway rugs, brandy flasks, sandwiches, Murrays, Bradshaws, newspapers, shilling novels', she picked up three characters, epitomizing the typical practitioners of the Alps of the middle-class travellers. The first is a young lawyer, representative of the freelance professionals and white-collar workers eager to escape from their daily routine and to experience some thrill and adventure among the alpine peaks and valleys. About this type, the authoress writes:

He is a young man, strong muscle, lithe of limb, with a face still pale from London air, and the stuffy atmosphere in some little court of the Temple; in six weeks you would not know him

4 Ueli Gyr, "The History of Tourism: Structures on the Path to Modernity," *European History Online (EGO)* edited by Ruth-Elisabeth Mohrmann (Mainz: Institute of European History (IEG), 2010-12-03), 1–35, URL: <http://www.ieg-ego.eu/gyru-2010-en> (accessed January 11, 2018).

5 For instance, Jane Robinson (ed.), *Unsuitable for Ladies: An Anthology of Women Travellers* (Oxford; New York: Oxford University press, 1995).

6 The German writer and publisher Karl Baedeker (1801–1859) wrote several guidebooks soon translated in English; John Murray (1808–1892) established his publishing house in London and specialized in travel-books. Scientist and inveterate traveler, Samuel King (1821–1868) was the author of the successful *The Italian Valleys of the Pennine Alps: A Tour through all the Romantic and Less-Frequented 'Vals' of Northern Piedmont, from the Tarentaise to the Gries: With Illustrations from the Author's Sketches, Maps ecc.* (London: John Murray, 1858).

7 Arch-famous writer and critic, Leslie Stephen is also renowned as a skilled mountaineer, as well as Virginia Wolf's father. A leading figure of the so-called 'golden age of alpinism', Stephen's most popular book is *The Playground of Europe* (London: Longmans, Green, 1871), considered one of the landmark books of mountaineering literature.

8 Frederica Plunket, *Here and There among the Alps* (London: Longmans, Green & Co., 1875). Citations in the text are from pages 7–11. The term 'touristisation' comes from Gyr, "The History of Tourism: Structures on the Path to Modernity," 20.

again. Hardy, healthy, weather-beaten, with throat and hands scarlet, and nose bereft of skin [...] he will have lost his sleep by night and his rest by day, and yet strange to say he will have laid in a stock of health, strength, and happiness, the effects of which he will still feel next winter, through the densest of London fogs.

The second character represents a key figure of the middle-class entrepreneurial strata of industrialized Britain. A cheerful-looking man, he is imagined strolling about, looking for a good and abundant lunch rather than adventures, 'doing the Alps –Plunket figures out– in a mild way and at the end of his short holiday will return to his business in the city a healthier, happier, and perhaps also, a better man for this little respite from his daily toil; this breathing tome, in which he has, as it were, stood still in the great race after wealth, and forgotten for a moment, amidst the solitudes of the mountains, his hard service of that golden idol', i.e. the profit.

The third category is formed by women. Specifically, the authoress detects three ladies, a mother and her two daughters. She dwells upon the two girls' description:

The girls are pretty and young, but they look pale and jaded; they too have been working hard, but in a different way; they have gone through a London season. They have been at it, literally, morning, noon, and night; they have spent hours in the 'Row', they have spent sums in the shops, they have driven miles in the streets; they have left cards in hundreds, and written notes in scores; they have drunk innumerable cups of tea with innumerable friends, and they have been to dinners, theatres, operas, concerts, crushes, dances, and balls all through the sultry summer nights.

From the exhausting 'London season' they need to have a rest, that is why, the authoress explains, they came to the Alps, 'to breathe the pure air, and to recruit their strength'. Nonetheless, even on holyday, they did not forget the rules of fashion and good manners: they brought with themselves 'the prettiest and fashionable of travelling customs' and 'vast piles of luggage'. Their motivations are clearly stated: 'they do not think much about the scenery, and care a great deal more for their own appearance than for the Alps. On the whole, they prefer a pretty pink and white dress to a pink and white mountain, and do not let the sunset interfere with their dinner'. The portrait of the girls betrays a hint of scorn for such a vain attitude in front of the majestic alpine view, a kind of behaviour the authoress supposedly blamed many of her contemporaries for; nevertheless, at the end she is less harsh towards her characters, who benefitted from their experience abroad. They accomplished what they came for:

[...] they have laughed a great deal, and have gained a real appetite for their breakfast. The spirit of the mountains has breathed upon them, be it ever so slightly, so let us hope that they, too, will be the better for their [...] tour, and go home in the autumn with strengthened constitutions and improved complexions to their native land.

Ready for the next social season, to be sure.

Apart from such a parodist representation of reality conceived for amusing the reader, as far as late-Victorian period is concerned, in their travels women bore a range of motivations, ideals and needs, which they came to be more aware of; surely among them some sort of escapism (from ordinary life with its system of social obligations) played a role, but it was not the only reason. Artists like Alice Green in the 1880s decided to visit the alpine valleys to find inspiration for her paintings, leaving naturalistic descriptions in a prose of deeply poetic glance.⁹ The botanist Marianne North (1830–1890), a friend of Charles Darwin, toured the Alps and searched specimens of local flora, which she collected and recorded in her oil paintings.¹⁰ Anna Pigeon (1833–1917) came with her sister for mountaineering, first women to climb and cross mount Cervino, causing a long debate among the official (male) organizations.¹¹

New Century, New Gazes: The Cultural Creators

At the turn of the century women travelled southwards for more professional reasons: writers, journalists, entrepreneurs, researchers and artists journeyed through the Alps on more unbeaten tracks, leaving written records of impressions, feelings and views raised in them by the encounter with peoples and traditions less known. Mere descriptive narratives of what they saw –so typical in early travel writers such as Eliza Cole (1819–1877),¹² Elizabeth Tuckett (1837–1872), or the aforementioned Frederica Plunket–gave way to a more analytical kind of writing, based on the will of understanding local conditions and, through a reflective mechanism, gaining a better understanding and awareness of one's self.

One case in point is that of the journalists and writers Helen Zimmern (1846–1934) and Bertha Thomas (1845–1918).¹³ Both trekked across the Alps and wrote down articles for British newspapers and monthly magazines. On less beaten routes and among remote villages, they accounted to the readers beyond the Channel for local artistic expressions, traditional ceremonies, habits and

9 Riccardo Cerri and Laura Osella Crevaroli (eds.), *The Queen of the Alps: Girovagando a Sud del Monte Rosa: Escursionisti, alpinisti e turisti inglesi dell'Ottocento in Valsesia e dintorni* (Magenta: Zeisciu, 1998), 343–9.

10 Cerri and Crevaroli, *The Queen of the Alps*, 269–72. Marianne North's collection of paintings was housed at Kew Gardens, the royal botanic gardens near London, where a dedicated gallery displays her 833 works.

11 Ann C. Colley, *Victorians in the Mountains: Sinking the Sublime* (Farnham: Ashgate, 2010), 133–6. In 1910, Anna Pigeon was also nominated vice president of the Ladies' Alpine Club, founded in London just a couple of years before. See: Cerri and Crevaroli, *The Queen of the Alps*, 300–10.

12 Cerri and Crevaroli, *The Queen of the Alps*, 187–252. Eliza Cole, *A Lady's Tour around the Monte Rosa* (London: Longman and Co., 1859) was the first book published by a woman on that alpine region specifically for female readers.

13 Cerri and Crevaroli, *The Queen of the Alps*, 328–40.

customs. Far from simple folklore or mere curiosity, in their papers Zimmern and Thomas caught various aspects of rather archaic but still lively inhabitants' daily existence, almost untouched – thankfully, in their words – by progress and modernity. Stressing the genuineness of local ways of life and traditions they both suggested a negative parallel to their own nation, the great and developed Britain, where the ongoing process of industrialization was now showing its dark side, with deleterious effects on the weaker members of society.

To give her compatriots a better understanding of Italy and a glimpse of 'real life and civilization, [...] the impulses, the aims, the hopes, the ambitions that cause the heart of this land to pulsate with energy' Helen Zimmern published *Italy of the Italians*, a reprint of articles previously published on the *Cornhill Magazine* and the *Fortnightly Review*.¹⁴

Zimmern pursued her goal through a set of chapters on various aspects of Italian culture at large. Literature, painting, sculpture and architecture, plays, science and invention, philosophy, agriculture, industry and commerce, music, are all treated through the examples of contemporary prominent figures in their own field. She also devoted a chapter upon cultural and archaeological heritage, its management and related government policies. From the general argumentation of the book what emerges is the idea that Italy, a country laden with history and material remains of the past, has to look forward since she can develop as a great nation only as long as she does not remain stuck in her past, trapped by the nostalgia of her ancient glories and achievements. For instance, this is what was happening, Zimmern states, in the field of contemporary architecture, where the burden of the past prevented from meeting modern demands and needs. Even though she appreciates some contemporary architects (she names Luca Beltrami, Camillo Boito, and Alfredo d'Andrade) and prizes the Italian excellence in restoration technique, in fact she writes:

In no branch of artistic expression is less originality shown than in that of architecture. Here even more than in other departments the Italians are held in the bondage of their splendid past. No wonder, therefore, that her contemporary architects immerse themselves in the study of the past, and become lost in the process to modern demands. A few, however, have known how to bend and adapt the older splendid examples to latter-day needs.¹⁵

Nonetheless, throughout the book her admiration and love for Italy are evident, as she wholeheartedly admits, so that she cannot but feel optimistic about Italy's future:

Italy of the Italians is a land pulsating with hope and promise – a land that in a brief fifty years by its own ability and energy, from a congeries of little State [...] has raised itself by its own

unaided efforts to the rank of a first-class power [...]. Italy is a young nation, and will work through her difficulties as other nations have done. With her long seaboard, her fertile soil, her keenly intelligent population, she has beyond all doubt a rich future before her; the third Italy, in her more modern manner, will yet be a worthy successor of the two great Italies of the past.¹⁶

Even Eliza Matilde Lynch (1846–1917) was confident about Italy's future. In particular, she focused on the role of women, having been touched by their work and temperament in such poor and harsh living conditions as those of the alpine valleys. At home Eliza Lynch was a stalwart of the women's rights movement: she acted as chairman of the 'Beckenham Suffrage Society', delivered lectures and took actively part in the campaign in different parts of England.¹⁷ For the cause of women, she wrote articles for monthly magazines and daily newspapers, but she also published books and novels. After a tour of the Alps, where she came with her husband because of his health, she had been so impressed by women's craftwork that she decided to help them starting up a commercial enterprise to sell their products. In particular, she came up to invest in *puncetto*, the typical kind of embroidery of Valsesia, a lateral valley of Northern Piedmont.¹⁸

It has to be noted that this kind of enterprise in one of the remotest district was unsuccessful in the end. Initially Eliza Lynch gained some success by opening shops in London and Brussels and planning a partnership with Irish linen industries, too; but the local women soon withdrew for it proved to be little profit in an extra work which they were used to do in wintertime during the pause of ordinary farming activities. In spite of its final fiasco, this attempt shows how the traveller's ideals, her expectations, hopes and mentality, reflected upon and interacted with the visited place, its people and culture.

If Eliza Lynch, in her struggle for emancipation and freedom for women, did not pay too much attention to their specific role in a traditional peasant society with its proper way and pace of life, a different case is that of Estella Canziani (1887–1964) and Eleanour Rhode (1881–1950).¹⁹

Together they strolled through remote alpine villages; the first, a trained painter, was interested in habits, customs and lifestyle, the latter in plants and herbs, being a horticultural writer and garden designer. Among the two travellers, Estella Canziani is better known, given the success of her writings which gained her membership to the Royal Geographical Society and the Folklore

¹⁶ Zimmern, *Italy of the Italians*, 277.

¹⁷ Elizabeth Crawford, *The Women's Suffrage Movement in Britain and Ireland: A Regional Survey* (New York: Routledge, 2006), 85, 102.

¹⁸ Modesta dell'Oro Hermil, "Valle Vogna e Puncetto," *Vita Femminile Italiana* (1907); Cerri and Crevaroli, *The Queen of Alps*, 369–81 (here the name Emily Lynch is not correct; read Eliza instead); Jeanine Robertson, "Valsesian Puncetto Needle Lace," *Piecework* 23 (2015), 30–5.

¹⁹ Cerri and Crevaroli, *The Queen of the Alps*, 418–28.

¹⁴ Helen Zimmern, *Italy of the Italians* (London: Isaac Pitman and Sons, 1906). See also: C.A. Creffield, "Helen Zimmern," in *Oxford Dictionary of National Biography* (Oxford: OUP, 2004), 996–7.

¹⁵ Zimmern, *Italy of the Italians*, 139.

Society as well. During her frequent visits, Estella Canziani stayed with local people and got to know them well, having conversations about traditional rites, tales, and beliefs. All she experienced and heard was put down in writings and pictorial records, which she processed in several publications supplied with her own sketches and paintings in bold and bright colours. In Canziani's works, narration of places and natural landscape is intertwined with the description of local life and cultural heritage, recounting stories and memories, local legends and superstitions, chants and folk-songs, describing things and customs from the lively voices of the locals she met with. Due to her interests and sensitivity, her travel narrative stems from an original combination of traditional descriptive prose, personal impressions and scientific, ethnographic interests; within this set of motives the pictorial apparatus plays not a marginal neither a cursory part, but it is co-textual and supportive of the narrative with the suggestiveness of vivid images.²⁰

Conclusion

As we have argued, from the limited access to forms of mobility they used to have, between the final decades of the nineteenth century and the first half of the twentieth century women gained freedom to roam the world, as professional travellers and regular tourists.

All the women we have considered avoided the traditional Grand Tour destinations; they chose to go beyond the beaten tracks and visit remote villages in the alpine valleys. Their motivations, needs and expectations could vary, depending on different factors: education, interests, attitude and temper, among others. They all left written records of their experience and published their travel accounts for a larger readership; as the century went on, they increasingly found original and creative modes of giving significance to the world they were experiencing in their own peculiar ways: from mere consumers of cultural artefacts and knowledge they turned to be producers of alternative and original patterns of 'consuming the territory'. Their testimony is not to be dismissed as secondary or unoriginal: in a time urging for more sustainable and qualitative forms of tourism, travel as a cultural, emotional and formative experience can (or maybe should) be reconsidered as one feasible and worthwhile option.²¹

²⁰ Loredana Polezzi, "Between Gender and Genre: The Travels of Estella Canziani," *Perspectives on Travel Writing*, edited by Glenn Hooper and Tim Youngs (Aldershot: Ashgate Publishing, 2004), 121–37; Piercarlo Grimaldi and Davide Porporato, "Il Piemonte di Estella Canziani," *Labito tradizionale europeo: Una risorsa per la società postmoderna*, edited by Piercarlo Grimaldi and Marinella Rapetti (Torino: Omega, 2004); Paul Guichonnet and Francois Forray (eds.), *Il mondo alpino di Estella Canziani: Piemonte, Savoia, Valle D'Aosta* (Ivrea: Priuli & Verlucca, 2005).

²¹ Ezio Marra and Elisabetta Ruspini (eds.), *Altri turismi: Viaggi, esperienze, emozioni* (Milano: Angeli, 2010); Francesco Grillo, "Turismo: Dobbiamo tornare alla dimensione classica," *Corriere della sera*, July 26, 2017.

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Kazimiera Alberti's Calabria: Reportage of a Journey in the Mid-Twentieth Century

Introduction

In the second half of sixteenth century, Italy became the prime destination for countless trips by European artists, philosophers, and scientists, particularly French and English travellers who crossed the peninsula tracing itineraries, following the festive liturgical calendar in often obligatory stages. Over the course of the eighteenth century these itineraries began to change, unravelling and overlapping. Indeed, the *touristes* would undertake voyages continually further to the South, up until they arrived in Sicily. Thus, the *Grand Tour* became the quintessential trip, almost a rite. This formative experience would largely involve men, and it would be necessary to wait until the second half of the nineteenth century and the beginnings of the twentieth century before travels taken up by woman would no longer be individual exceptions. Women traveled both in Italy and abroad either for work or with their families, husbands, or governesses and ladies-in-waiting. Only a few of them left personal writings, such as the *femmes de lettres*, travelers who recorded their experiences through letters and diaries. Particularly notable amongst these women are Paolina Secco Suardo Grismondi (1746–1801) who traveled in Liguria and Tuscany in autumn 1788,¹ and Isabella Teotochi Albrizzi (1760–1836) who, in the company of her husband and father, visited Tuscany in search of artwork and monuments in September 1798.

Over the course of the nineteenth century, women's trips would be influenced by a range of factors, such as many female travelers' voluntary and solitary decision to go and the possibility of publishing reports of their accomplishments in the pages of newspapers and magazines, a modern voyage 'based on the freedom of

¹ Paolina Secco Suardo Grismondi, "Viaggio di Genova e di Toscana," in *Poesie* (Bergamo: Stamperia Mazzoleni, 1822), 171–180.

choice to see the world and talk about it,' and a necessary tool for the dissemination of cultural tourism.² In June 1840, Sicilian Cecilia Stazzone De Gregorio began her trip toward Campania, visiting Napoli and the surrounding area before continuing on to Northern Italy. *Rimembranze di un viaggetto in Italia*, published in 1847, is the memoir of an exceedingly important trip, likely holding the record of being the longest such work completed by a woman in Italy.³ The Florentine noblewoman Cesira Pozzolini Siciliani (1839–1914) published articles between 1878 and 1879 in the *Nuova Antologia* describing the story of her travel experience, which would later be collected in the volume *Napoli e dintorni: Impressioni e ricordi*.

Naples represented the final stop of the trip in the South, an almost impassable border that only a few restless travellers, pushed by a strong spirit of adventure, managed to overcome. Southern Italy, stereotyped as an inhospitable and uncivil territory because of the presence of bandits, was reachable only through an uncomfortable voyage due to the rough and shoddy transport networks. Travelers who chose paths through Abruzzo, Apulia, and especially Calabria –defined up to that point as a mysterious and untamed land– wanted not only to discover unknown places, but also use new interpretations to reconsider the jealously guarded architectural, historical, and landscape heritage. In 1778, Jean-Claude Richard Abbé de Saint-Non organized a trip to Southern Italy from Campania to Apulia, Basilicata to Calabria and down to Sicily. Dominique Vivant Denon led the expedition of designers Claude-Louis Châtelet, Louis-Jean Desprez e Jean-Augustin Renard who would make numerous engravings and drawings that still today represent the principal iconographical fount of eighteenth century Calabria.⁴

The English brothers Edward and Robert-Henry Cheney would cross Campania, Calabria, and Sicily between 1823 and 1825 in search of the much-celebrated 'classical landscape.' They drew around 160 sights, from which emerged the strong desire that the reality of the architecture and places visited would become the key to reading and rediscovering the classicism of the landscape.⁵

In these same years, many different Italian and foreign female travellers decided to undertake the much 'feared' voyage into Calabrian territory. With deep sensitivity and keen attention, they observed the historical, cultural, social, and economic conditions and, by means of their diaries and travel notebooks, contributed –perhaps more than their male counterparts– to the 'discovery' of the value of these places. An example of this work is the volume *In Calabria* by writer Caterina Pigorini Beri (1845–1924) from

Emilia-Romagna, published in 1892, which tells of a trip in traditions, rituals, the female condition, architecture, and landscapes.⁶

In the twentieth century, further itineraries would be pursued, the same as or moving away from those already undertaken. Norman Douglas (1868–1952) visited Calabria in 1907 and 1911 and wrote *Old Calabria* (1915) upon the return from his second journey, which, in addition to being a travel book, has also been recognized as an excellent tool for the popularization of Calabria. Lombard writer Maria Brandon Albini (1904–1995) would return more than once to Calabria; she published *Calabre* from her 1954 trip, a diary of reflections on the continual contrasts between antiquity and modernity typical of this area.⁷

These travellers represent only a small part of the many writers and artists who traversed Italy all the way to the ever-mysterious Calabria, following itineraries that today represent an important historical, architectural, and social testimonial. Traveling that was almost taken for granted for men became the endpoint of a lengthy battle for women. Female travelers 'immersed' themselves in the places, cities, and cultures they came across, in different periods and for various reasons, according to their moods and with an almost clinical observation of the details. These factors, comprised of infinite variations, created a different way of seeing and proposing travelling: women as true consumers of a priceless cultural heritage.

L'Anima della Calabria

Kazimiera Alberti was a fifty-year-old woman when she expatriated in 1945 to Italy, a country she had once known and dedicated poems and verses to before spending several years in silence and without writing while in a German concentration camp.⁸

6 Caterina Pigorini Beri, *In Calabria: Il vallone di Rovito - Gli Albanesi - Sila - Stregonerie - Fra i due mari - Dal Ionio al Tirreno* (Torino: Casanova, 1892).

7 Maria Brandon Albini, *Calabria*, translated by Antonio Coltellaro (Soveria Mannelli: Rubbettino Editore, 2008).

8 Kazimiera Alberti was born in 1898 in Bolechów (in present-day Ukraine) into the Szymański family, members of Polish gentry. After graduating secondary school in 1917, she studied Polish philology at the University of Jana Kazimierza. During the same period, she became part of the neo-Romantic Young Poland movement. She published her first volume of poetry in 1927, followed by the novel *Tatry, narty, miłosc* (*The Tatra, Skis, Love*) the next year. Kazimiera married Pole Stanisław Alberti, a veteran of the First World War, lawyer, philosopher, essayist, translator, and mayor of Bielsko-Biała; there, they would frequent the most important literary circles and subsequently turn their own apartment into a literary salon where they hosted writers, poets, and artists. In these years she would write and publish numerous volumes of poetry, essays, and novels, such as *The Doomed Ghetto* (1931), a novel describing the poverty of Jewish families; and *Usta Italji* (1936), or *The Mouth of Italy*, verses dedicated to Italy. After the outbreak of World War II, the German occupation, and the death of her husband (presumably in Katyn in 1940), Kazimiera was arrested and sent to the Ravensbrück concentration camp, known as 'the women's hell.' In 1945, unable to return to Poland, she requested help from the Jewish community and moved to Bari, Italy. She married Italian writer Alfo Cocola and spent her years in exile writing essays and reports, such as *Secrets of Apulia* (1951), *Ligurian Magic* (1952), *Campaign, Great Theater* (1953), and *On Sicilian Cart* (1953). She died in Bari in May 1962.

2 Federica Frediani et al., "Introduzione a tre voci," *Spazi, segni, parole: Percorsi di viaggiatrici italiane*, edited by Federica Frediani, Ricciarda Ricorda and Luisa Rossi (Milano: FrancoAngeli, 2012), 8.

3 Cecilia Stazzone De Gregorio, *Rimembranze di un viaggetto in Italia scritte da una signora siciliana*, edited by Ricciarda Ricorda (Vicenza: Il Poligrafo, 2009).

4 J.C. Richard de Saint-Non, *Voyage pittoresque ou description des royaumes de Naples et de Sicile* (Paris: Clousier, 1781–1786).

5 Maria Rossana Caniglia, "L'Italia meridionale nei disegni di Edward e Robert-Henry Cheney (1823–1825)," *La città, il viaggio, il turismo: Percezione, produzione e trasformazione*, edited by Gemma Belli, Francesca Capano and Maria Ines Pascariello (Napoli: CIRICE, 2017), 695–701.

In 1949 she decided with her husband, Alfo Cocola, to go on a trip and purposefully chose Calabria as the destination, that famous yet unknown and neglected land where 'The Southern Question,' with its prejudices and clichés, had hidden and gotten the better of everything else.⁹ Even if Kazimiera was very familiar with the conditions of extreme social and economic backwardness of the region at that time, she makes no reference to it and focuses rather on elegance, beauty, dynamism, intelligence, tranquillity, and silence.

Alberti explored Calabria for around six months, stopping in numerous cities. The plans for the trip were not all the same as some legs were travelled by foot, as was done by the travellers of the eighteenth and nineteenth centuries or pilgrims and merchants, while others were done through the diverse locomotive means available. The journey began in April with a visit to the Shrine of Saint Francis of Paola in the province of Cosenza, and it ended in September with a stay in the city of Reggio Calabria, though the volume follows a non-linear structure according to territory rather than time.¹⁰ Alberti went from Paola to Cosenza and other towns in the province. Still in April, she went along the Ionian Coast to Santa Severina and took a bus to Catanzaro, where she remained for a few days visiting the surrounding towns. From Catanzaro, she went to Sila and then toward Crotona, by which point it was May. She arrived in Stilo in the first days of June. From Reggio Calabria, she continued on foot along the Violet Coast, visiting the cities of Scilla and Bagnara in the July heat. She continued by car along the Tyrrhenian Coast and arrived in Palmi via Pizzo Calabro and Vibo Valentia. From Bagnara she crossed the Gioia Tauro plain, dividing Calabria into two, and arrived in Locri along the Ionian Coast. She returned to Reggio and took the bus to Gambarie in the Aspromonte. Cities immersed in or surrounded by the many landscapes of this territory –striking, unique, evocative, mythological, legendary, and ever-changing– where nature enchants with the fragrance of bergamot, oleander, and lemon, and the beauty of centuries-old olive groves.

The story of places visited is not static and linear, but continually enriched and almost contaminated by other 'stories' that intertwine with it. The story of Calabria is the fruit of a succession of extraordinary events that –with various rulers, from the Greeks to the Bourbons, up to the Second

World War– determined the birth and development or decline of many cities. Locri, Sibari, and Capo Colonna along the Ionian Coast and Rosarno (formerly Medma), Palmi (formerly Tauriana), and Gioia Tauro (formerly Metauros) along the Tyrrhenian Coast are a few cities in which Magna-Grecian architecture is present, with archeological remains of entire urban environments or of single buildings, temples, churches, and tombs. After visiting Crotona, Kazimiera went by boat toward Capo Colonna, where from a distance she already discerned the Doric column of the sanctuary of Hera Lacinia, the only evidence of what must have been one of the largest temples built by the Achaeans in Italy and perhaps also in Greece. After imagining finding herself in front of the peripteral hexastyle composed of forty-eight columns placed in two lines, the roof in slabs of marble and the altar richly decorated with frescos, she asserted:

I have rested in the shadows of many Greek temples. Some were almost whole and could offer a complete painting, the Theseion and the Parthenon in Athens, Paestum and Agrigento, Segesta and Selinunte. But this lone column today, along the shore of the sea, in this corner of land jutting into the Ionian, made an impression altogether surprising.¹¹

In the small city of Santa Severina in the province of Crotona, Kazimiera dove into another atmosphere where 'the Byzantine atmosphere still breathes in the streets'.¹² There, Santa Filomena Church, constructed between the eleventh and twelfth centuries, is one of the few examples of sacred Byzantine-Norman architecture: the circular Byzantine baptistery with an umbrella-shaped cupola was situated on the northern side of the reconstructed cathedral between 1274 and 1295 according to the will of Bishop Ruggero di Stefanunzia; the large Norman castle, named for Robert Guiscard, appears in front of this, also built atop pre-existing Byzantine and Greek structures.

As soon as Kazimiera arrived in Reggio Calabria, she perceived that it was a different kind of city to those she had visited up to that point: a contemporary city, with a special charm and elegance that jealously guarded 'its wealth of Roman licenses, Norman decrees, Angevin and Aragonese titles, the letters and stamps of Charles V, Garibaldi's correspondence'.¹³

Reggio Calabria, after having sustained various catastrophes –especially the earthquake of 1908– was rebuilt almost as a completely new city designed on an orthogonal scheme interrupted only by the presence of the Aragonese Castle. Moving along the main street, Alberti could not help but admire the numerous buildings in the liberty style (Art Nouveau style) that followed one after another, such as the municipal building made by Ernesto Basile in 1918, the State House planned by engineer Gino Zani, and the Provincial House by architect Camillo Autore, both built in 1921.

¹¹ Alberti, *L'Anima*, 97.

¹² Alberti, *L'Anima*, 171.

¹³ Alberti, *L'Anima*, 150.

⁹ Guido Pescosolido, "La questione meridionale," Treccani (2010), http://www.treccani.it/enciclopedia/la-questione-meridionale_%28Dizionario-di-Storia%29/ (accessed December 14, 2017): 'The expression "The Southern Question" indicates the sum of the problems posed by the existence in Southern Italy from 1861 to today of low levels of economic development, a different and somewhat backward system of social relations, and a weaker development of many important aspects of civil life with respect to the Central and Northern regions.'

¹⁰ Kazimiera Alberti, *L'Anima della Calabria*, translated by Alfo Cocola (Napoli: Conte Editore, 1950), 5. The English translations of the anthological pieces of the volume *L'Anima della Calabria* were done by the author. Kazimiera wrote her travel diary in Polish, and it was then translated into Italian by Alfo Cocola. In her narration, the author omits perhaps voluntarily to give complete dates like an attentive and exact diary. She made exceptions for certain cities, where we can find references to months in the planting or harvesting periods, the perfumes in the air, and the seasonal cycle from the dryness of rivers.

Another example is the Community Theatre dedicated to musician Francesco Cilea, a native of the city of Palmi, constructed between 1921 and 1930 by architect Francesco De Simone. Not to be forgotten is the Temple of San Giorgio alla Vittoria, classically inspired and built by Camillo Autore between 1927 and 1935, and the cathedral, which was rebuilt in 1917 based on a new project from an eclectic style that reinterpreted elements of Romanesque and Gothic architecture. At the end of this long walk Kazimiera found herself in front of what she herself defined as 'one of the most beautiful stations (I have) ever seen in Europe'.¹⁴ The modernist and rationalist structure with marked horizontality was carried out by engineer Angiolo Mazzoni in 1937.

On the opposite end of the main street from the train station is the National Museum of Magna Grecia, designed by Marcello Piacentini in 1932, an example of monumental architecture for civil buildings from the beginning of Italian rationalism. Kazimiera was particularly fascinated by the museum, observing and investigating in detail; describing the methods of construction and design, the materials used, and the harmony of the forms; and proving that 'all these elements used according to the laws of contemporary techniques have created one of the most beautiful museums in Italy'.¹⁵ Beyond these buildings opens the view of the Strait of Messina 'between reality and the Fata Morgana,' a one-of-a-kind panorama where it is possible to admire Sicily, Messina, the Peloritani mountains and, further south, Mount Etna.¹⁶

The life of poets, writers, scientists, and artists, born or adopted by this land, have determined and even changed their destinies and those of the places they lived, creating a necessary and eternal link. Crotona is inseparable from Pythagoras, Paola from Saint Francis, Taverna from Mattia Preti, Squillace from Cassiodorus. Each of them 'bestowed their opinions, their names, and their personal liberty'.¹⁷

Kazimiera traveled all the way to Stilo in search of Tommaso Campanella, whom she defined as the 'greatest son of this territory'.¹⁸ Dominican monk, theorist, sociologist, precursor to the avant-garde, but above all the architect of the utopian City of the Sun.¹⁹ Stepping off of the bus, however, she met an unexpected view of the Cattolica (Church), a 'stone flower' almost clinging the side

14 Alberti, *L'Anima*, 153.

15 Alberti, *L'Anima*, 155.

16 Alberti, *L'Anima*, 154.

17 Alberti, *L'Anima*, 271.

18 Alberti, *L'Anima*, 187.

19 An ideal city in shape of a circle, enclosed by seven walls identified with the seven planets. Totally unassailable, it can be accessed only through four doors arranged in the four cardinal points. The circular temple of the Sun is found at the highest point. The organization of the city is based on a rational method where inhabitants know no form of violence or war with respect to the rest of the world. The excessive discipline almost completely destroys individual liberty in all aspects of human life.



Fig. 1. Alessandro De Luca, *The Castle of Scilla, Chianalea and the Strait of Messina*, 2017. Courtesy of the artist (Copyright free).



Fig. 2. Alessandro De Luca, *Scilla from the sea*, 2017. Courtesy of the artist (Copyright free).

of the mountain.²⁰ A cube of five towers, five cupolas, and three apses placed along one of the sides, providing the only point of entry. Here the sensations and suggestions followed quickly after one another; Kazimiera contemplated the 'greatness' of the architecture, reflected that 'how the architect could have, in a square of six by fifteen meters, contain the entire church and three aisles, remains truly a mystery'.²¹

The journey by foot from Reggio Calabria to Scilla was a continuous flood of emotions. Kazimiera was fascinated and awestruck by the lemon trees that ran along the road and out of sight up the slopes of the Violet Coast. Gardens of lemons, celebrated in the verses of Virgil, that act as the backdrop for the mythological landscape of the Strait of Messina with the Eolian Islands dotting the horizon. From the detailed description of these trees, the colour and form of their fruits and leaves, the writer transports the reader into a story brimming with details, memories, and splendour. Suddenly the road –which up to that point had been hidden– opens up to the long white beach lined with rows of houses and lapped by the waves of the sea that break against the great rock where the Castle of Scilla sits. Kazimiera had arrived to her destination! (Figs. 1 and 2).

Scilla, like many other cities in Calabria, was the stage for one of the most recognized and recited stories of Greek mythology, told and celebrated by Homer, Pliny, and Virgil, and taken on further by modern poets and contemporary writers. Scylla and Charybdis, a frightening monster capable of taking on multiple forms and a whirlpool of invisible and imperceptible sections, both representations of the stormy sea where Scylla 'tears' and 'rips' and Charybdis 'swallows' and 'spits.' Beyond heroically battling Scylla and Charybdis, Ulysses built a temple dedicated to Minerva on the

20 Alberti, *L'Anima*, 187.

21 Ibid.

highest cliff of the highest promontory at the entrance of the Strait, presumably in the same place where today one finds Ruffo Castle, in a dominant and strategic position that faces both the city and the sea.²² The lines of houses climbing up its slopes arrive up to the beach of the of the large marina; after the rock of the castle, we find Chianalea, a small fishing village constructed between the land and sea and where the waves lap the houses and find refuge between one alley and the next, with views that allow one to admire and reflect on the uniqueness of this place as Kazimiera did. From the high point of the castle the vision appears different: 'I have the impression that these boat-houses are rocking [...] beneath my eyes Chianalea [...] composed of moving material.'²³

As soon as she arrived in Bagnara, Alberti decided to stay longer than she had planned. She observed the city with that "spiritus movens" that is found in the female figure, from the poets of Locri Nossis and Teano up to the portrayal of the 'bagnarote', the true driving force of Calabrian life.²⁴

In the early hours of dawn the city seemed static and immobile, but when the clock of the church began to ring out the time Bagnara began to awake. The women brought the streets to life, walking with their baskets full of vegetables, fruit, and fish on their heads to sell to the highest bidder. Traveling, they take care of their families and children: 'man lives in her shadow [...] it is the woman who is in the foreground'.²⁵

From the terrace of the castle, the highest point of the historic city amongst the remains of medieval walls and Norman buildings, Kazimiera discerned that the houses were organized in large semicircles, built one behind another from the beach to the mountain. She knew that this was not Roger II of Sicily's city, but the new Bagnara of 1788, reconstructed with an orthogonal design after being completely destroyed in the 1783 earthquake.

Kazimiera did not limit herself only to describing the trip taken with simple yet wise language, but also developed a true, intrinsic and evocative narrative of places. She stressed the sensations, thoughts, and emotions that arose inside her when she succeeded in perceiving and understanding the infinite and subtle souls of the Calabrian territory: the history, architecture, landscape, mythology, saints, artists, and women.

It was truly *L'Anima della Calabria* that 'guided' Alberti to undergo this one-of-a-kind, unrepeatable journey and at the same time find her own soul, which had been lost during the years of war and her imprisonment. The volume, published in 1950, is a *reportage* of cultural tourism, impressions of a voyage that recount, by way of a new perspective, a Calabria that is almost hidden or perhaps forgotten; indeed, as the author herself explains, 'I did not want to discover "a new Calabria." I wanted to savor it just as it is'.²⁶

The itinerary examined here does not pretend to be exhaustive, it is only a piece of what the author describes with her volume, which is in turn only a small part of her travels, 'which does not mean that (she has) not seen all of Calabria'.²⁷

22 The castle, already having been used by the Etruscans, would be armed with defensive structures by Anaxilas, tyrant of Reggio, during the Magna Graecia period. Around the middle of the ninth century, Basilian priests erected the monastery of San Pancrazio to defend against Saracen incursions. In 1060 Robert Guiscard decided to build a military garrison, and the fortifications would be continued by Charles I of Anjou in the thirteenth century up to 1469, at which point Gutierre De Nava would execute new operations for expansion and restoration. In 1533 the castle was bought by Paolo Ruffo, who undertook new restorations that included the baronial annex. The entire complex suffered substantial damage during the 1783 and 1908 earthquakes, followed by various restoration projects.

23 Alberti, *L'Anima*, 22–23.

24 Alberti, *L'Anima*, 36.

25 Ibid.

26 Alberti, *L'Anima*, 5.

27 Alberti, *L'Anima*, 6.

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Pioneer Woman Architects in Romania and Italy

The research was looking to architecture of women but not only, also at its connection with water as this introduction shows.

This research was preceded by a former research in Hungary, interviewing experts such as Pál Ritók from DOCOMOMO on Hungarian woman architects and civil engineers of the interwar time, Zsolt Mészáros on pioneer woman architects around 1900 in Transilvania, and consulting works of Mariann Simon on woman architects in the socialist time. Hungary also displays lakeside architecture connected to women such as villa Blaha Luiza dedicated to an actress in Balatonfüred to baroque time.

Later conversations were carried out with Iris Meder from Vienna which built the incentives for a programme where gender differences were clear, namely the research on thermal bathes,¹ but also looking to women landscape architects,² a line we will follow in this research.

The first woman architect of Romania, Virginia Andreescu Haret (who also designed thermal bathes such as in Govora) studied also in Italy.³ Another pioneer woman architect in Romania was

1 Iris Meder, *Badefreuden: Eine Reise zu den außergewöhnlichsten Bädern in Mitteleuropa* (Vienna: Metroverlag, 2012).

2 Iris Meder and Ulrike Krippner, "Viennese Modernism and Landscape Architecture," *Planning and Designing Sustainable and Resilient Landscapes*, edited by Cerasella Crăciun and Maria Bostenaru Dan (Dordrecht: Springer, 2014).

3 Maria Bostenaru Dan, "Virginia Haret - The First Woman Architect in the World," *Review of European Studies* 5, no. 5 (2013), 172–186.

Henrietta Delavrancea-Gibory, who designed villas meeting traditional and modern in the seaside resort of Balchik and had as mecene queen Mary of Romania. The palace of Mogoșoaia, on the lakeside of the Colentina Emerald necklace had a woman mecene as well, Marta Bibescu. Another architecture of women connected to water in Romania is the fountain of Miorița with decorations of Milița Pătrașcu.

In Italy we looked at Elena Luzzato, Atillia Travaglio Vaglieri, Stefania Filo Speciale, all of them architects and at Maria Teresa Parpagliolo, landscape architect. Romanian nobilewomen, such as Jeanne Ghyka princess and queen mother Elena had villas in Florence with water plays. Last but not least Eileen Gray with Romanian partner Jean Badovici built the seaside villa in France *E1027*.

In other countries we also looked at gender sensitive programmes such as religious architecture and school architecture.

Women were seen in the research from the point of view of participation to decision. From the point of view of water, research also concerns decision if a risk related to water occurs. A second step is to look at women as models of leadership, as in Marie Curie Association seminars.

The result is a decision tree for women:

- Women as planners (architects, landscape architects),
- Women as investors/mecenes,
- Women as users (gender sensitive programmes).

All of these encompass a story of the profession.

Apart of housing, the projects regard public spaces such as:

- Spiritual places,
- Gardens,
- Water and leisure.

Women are more vulnerable, and as such the gender dimension was introduced in Horizon 2020 evaluations, considered also in climate change. Cristina Posner affirms that women put more problems in case of risk. Sue Tapsell told in the UK National flood forum only women lead as they are more collegial. This is because women stay more at home given their role, and this influences the housing programme as we will see later. Also the cleaning after disaster is based on women. They can move things in safe places.

But also the architecture of women is vulnerable, as we will see; some landmarks built by women were demolished or not built at all.

An aspect to be considered is the mobility of women – as we saw they brought the Modern Movement between countries. As such, they were predecessors of the Marie Curie research mobility like that of the author.⁴

Women as Maecens

Here we considered several examples:

- Villa Gamberaia in Florence (Settignano), with the maecen Princess Jeanne Ghyka, Romanian noblewomen who designed the original water surfaces in the gardens which influenced Italian landscape architecture. The father of Pietro Porcinai, who founded landscape architecture of the twentieth century in Italy was gardener there.⁵ The American Academy in Rome performed drawings of the garden, which can be consulted in the Digital Humanities Centre.
- Villa Sparta in Florence (Settignano, close to the European University Institute) of the Queen Mother of Romania, Elena, in the exile from Romania. Like the former, this influenced the landscape architecture of Maria Teresa Parpagiolo and Pietro Porcinai, pioneer landscape architects of Italy, founders of the modern profession. Pietro Porcinai designed the water play in the garden of this villa.⁶ The original design of the garden of the villa was done by Cecil Ross Pinsent, British garden designer, and also this gives tribute to Gamberaia.⁷
- Balchik palace and garden on the now Bulgarian then Romanian seaside of Queen Mary. One building in the garden (palace of the guards) was designed by Henrietta Delavrancea-Gibory. The architect of the garden was Jules Jannin from Switzerland for whom a commemorative plate exists. Archive sources can be found apart of the National archives which we consulted in Castle in Balcic.⁸
- Pelișor castle in Sinaia, Romania, decorated in Art Nouveau after the taste of Queen Mary.
- Mogoșoaia palace near Bucharest with maecen Marta Bibesco. The palace was restored by

the Italian architect Domenico Rupolo from Venice.⁹ As the dissertation of Paolo Tomasella shows,¹⁰ the time around 1912 when the restoration happened was marked by the immigration of architects from Venice, these including also Italian architect emigrated to Romania Victor Asquini who designed numerous houses and a construction code in Bucharest of the interwar time. The gardens of the palace were recently restored by Nicolas Triboi, taking into account the importance of the Emerald necklace of Colentina, shaped to a chain of lakes during the interwar time and which has been recently subject of speculative building.

- The sculpture complex, monumental assembly *Way of the Heroes* (1938), UNESCO tentative list, in Târgu Jiu, Romania, of Constantin Brâncuși, the world renowned sculptor later emigrated to France, erected by a task of the women in war (dedicated to the heroes of the First World War) commission, the maecen being Arethia Tătărescu.

More close to our time, Phyllis Lambert, the director of the Canadian Centre for Architecture, was the maecen of Mies van der Rohe and she received for this role the Golden Lion at the Biennale di Venezia 2014. The *Farnsworth house* by Mies van der Rohe (1950–51) also featured a woman maecen (Edith Farnsworth, a doctor of Chicago).

Connected to the research presented in this paper, Richard Bordenache, Pârvan fellow in Rome did a house project for Ana Tzigara-Samurcaș, fellow colleague, in 1935, for Bucharest, a house later demolished when blocks of flats were erected near the Emerald necklace of Northern lakes. We did archive research to find the original plans.

Women as Planers

We start with Katherine Briçonnet who contributed at the building of the castle in Chenonceau (1513–21). In the time considered in this work, the early twentieth century, we have again a few examples. We divided the research in:

- The East (Romania/Bulgaria, Hungary, Poland, Estonia, Czech Republic),
- The West (Italy – with Romanian connection, Germany, Austria).

Henrietta Delavrancea-Gibory was an architect working mainly in Bucharest and in Balchik (then

4 Maria Bostenaru Dan "Architecture Programmes, the Issues of Women and Water as Hazard and Water as Heritage in the First Half of the 20th Century," *Contemporary Problems of Architecture and Construction*, edited by Stefano Bertocci and Paola Puma (Napoli: La scuola di Pitagora, 2015), 231–234.

5 Patricia Osmond (ed.) *Revisiting the Gamberaia: An Anthology of Essays* (Firenze: Centro Di, 2014).

6 Ines Romitti, *Pietro Porcinai: L'identità dei giardini fiesolani: Il paesaggio come immenso giardino* (Firenze: Edizioni Polistampa, 2011).

7 Ethne Clarke, *Cecil Ross Pinsent: An English Architect in the Italian Landscape: An Infinity of Graces* (New York: W. W. Norton & Company, 2013).

8 *Casele de vis ale Reginei Maria - Castelul Balcic* (Sinaia: Muzeul Național Peleş, 2013).

9 Raffaella Portieri, *Domenico Rupolo architetto* (Pordenone: Unione Provinciale Cooperative Friulane [u.a.]: 2001), Series Storia, cultura, arte, economia, 18.

10 Paolo Tomasella, "Emigranti dal Veneto e dal Friuli nella vita economica e culturale della Romania (1848–1948)," (PhD dissertation, Università degli studi di Trieste; Universitatea 'Babeș – Bolyai' Cluj Napoca, 2014).

Romania, now Bulgaria).¹¹ She lived a long life and built both interwar and post-war. She was among the first graduates in Romania. The Architects Order in Romania (equivalent of the Architect's chamber) elaborated a tourist guide with map for her works in both these cities.¹² The works are characterized by a combination between traditional and modern, keeping the stone component from the peasant house combined with the white washed façade of Modernism. We did archive research for a couple of her buildings such as the palace of frontier man in the garden of the castle in Balchik (1936), the Cantuniari villa in Bucharest (1937) which retains the style of the villas in Balchik, and the villa Prager (1936) in Bucharest in the same style, demolished 2009 (Fig. 1). Her own house was built 1925 not in the style of Modernism but New-Romanian, a Romanian style contemporary with Art Nouveau. Apart of the works in the seaside resort of Balchik, Henrietta Delavrancea-Gibory also built the royal palace in Snagov, later used by the Ceaușescu nomenclature.



Fig. 1. Henrietta Delavrancea-Gibory, Villa Prager (1936) now demolished.. Property of the author.

Virginia Andreescu Haret, married to a civil engineer, was the first Romanian woman to graduate in architecture. After graduation she studied decorative arts in Italy, and participated later on at some congresses there.¹³ Her built work is impressive¹⁴ and the author first gave an interview to the radio on her in 2011. In 2013 a guided tour for tourists was developed.¹⁵ She worked with Nicolae Ghika-Budești on doing drawings of the Curtea de Argeș old church for the volume *Evoluția arhitecturii în Muntenia*¹⁶ and painted numerous aquarelles since her uncle was known Romanian painter Ion



Fig. 2. Virginia Haret ' Tinerimea Română' palace (1924-27), historic monument code in Romania cod LMI B-II-m-B-18891. Property of the author.

Andreescu. The author collaborated with a number of colleagues in doing a tourist brochure on her numerous works in Bucharest. Also the works of Virginia Haret are in danger, as already during the research the House Rosetti-Solești (1928) was partially demolished. Remarkable about her work is the Bloc of flats on Frumoasă Street (1922), which, although in neither of her styles, New-Romanian or Modernism was the first block in reinforced concrete in Romania. She built two own houses, in 1931 and in 1926, for which we did archive research. The most important work is the Tinerimea Română palace (1924-27) (Fig. 2). Connected to water is also the demolished water tower. Outside Bucharest, she was in charge of building school buildings.

Another pioneer Romanian architect was Ada Zăgănescu, for whom we researched in the archive the own house from 1927.¹⁷

Milița Pătrașcu, sculptor, did 1936 the mosaics for the fountain designed by architect Octav Doicescu. The fountain shapes the space around the Băneasa railway station, which was also researched in the archive.

Elsie Lazăr designed together with Italian architect Gio Ponti the villa Tătaru in Cluj-Napoca, Romania (Transylvania) in the interwar time.¹⁸ She was a student in Vienna under the mentorship of Oskar Strnad.

Among the remarkable early woman architects in Transylvania were Erika Paulas (from Switzerland, connected to Bistrița), who built a school in Cluj-Napoca for the reformed church (1902), a hospital in Mediaș in the same year, and whose work was selected for the sylvic construction in Bistrița, but at the end not built, as she was a woman. She is considered the first woman architect of Hungary as that time Transylvania belonged to Hungary. Other early woman architects from the Region are Ilona Preda (from Bistrița) and Szerén Erdélyi (from Budapest).¹⁹

11 Militza Sion, *Henrieta Delavrancea Gibory - Arhitectura 1930-1940* (Bucharest: Simetria, 2009).

12 Phil Smith, "Walking-Based Arts: A Resource for the Guided Tour?" *Scandinavian Journal of Hospitality and Tourism* 13, no. 2 (2013), 103-114.

13 Marcia Feuerstein and Milka Bliznakov, "New Acquisitions: Women Architects in Romania," *IAWA* (International Archive of Women in Architecture Virginia Polytechnic Institute and State University) *newsletter*, 12 (2000), 1-4.

14 Radu S. Haret, "Virginia Sp. Haret (Andreescu) prima arhitectă care a activat în România (1894-1962)," *Arhitectura* 24, no. 5/162 (1976), 33-41; Maria Bostenaru Dan, "Virginia Haret - The First Woman Architect in the World," *Review of European Studies* 5, no. 5 (2013), 172-186.

15 Răzvan Lăcraru, Maria Bostenaru Dan, Mihaela Lăcraru and Elena-Codina Dușoiu, "Virginia Andreescu Haret architecture tour" (2013), <http://virginiaharet.blogspot.ro/> (accessed May 16, 2018).

16 Nicolae Ghika-Budești, *Evolution of architecture in Muntenia*, Vol. 1, Fasc. 53-54, Pl. XV-fig-44 to Pl.XVI-fig. 45, edited in 1927.

17 Maria Bostenaru Dan, "Pioneer Women in Architecture," *ReUSO Pavia conference*, 2016.

18 "Villa in Romania (arch. E. Lazar)," *Domus* 1no. 36 (1939), 37-41; "Due progetti per la villa del Prof. Tataru a Cluj in Romania," *Domus* no. 111 (1937), 12-14.

19 Zsolt Mészáros, "...haladásunk legújabb tanúsítója: az asszony építész: Magyar női építészek a múlt századelőn", *Táguló horizont: Tanulmányok a fiatal művészettörténészek marosvásárhelyi konferenciájának előadásából*, edited by Kovács Zsolt and Orbán János (Marosvásárhely; Kolozsvár: Erdélyi Múzeum Egyesület; Maros Megyei Múzeum; Entz Géza Művelődéstörténeti Alapítvány, 2013), 187-197 (trans. of the article's title "...the latest proof of our progress is that women can be architects: Hungarian Women Architects at the Turn of the Last Century").

In Hungary there were a couple of later woman architects and civil engineers of interwar time such as:

- in civil engineering Eszter Pécsi who built among others a villa with József Fischer,
- decorative arts Zsuzsa Bánki, documented by András Ferkai,²⁰ Zsuzsa Kovács (1939)/ architect Imre Vámos, house of Lienerth Aladárné, sz. Kormos Margit,
- architecture: Franciska Bettelheim (Lédermann Lászlóné) a villa on the Gellért mountain and Etelka Fleischl (a boat place on Margit island), as well as Marianne Várnay (Sternberg) in Szeged.

If we talked about the stone elements in the architecture of Henrietta Delavrancea-Gibory, we must note that Estonia was the country to best use the stone heritage tradition in both Art Nouveau and Modernist architecture buildings, the later called limestone functionalism. Also in Estonia we have a pioneer mobile architect, Wivi Lönn, mobile between Finland and Estonia, who built the theatre in Tallinn (1913) in the time of Art Nouveau.

Another country from the East is Poland, where the involvement of women featured pairs of architects (husband and wife) as we found out during our tourist tour in Warsaw (documentation based on a seminar on *Neues Bauen* (New building) in Eastern Europe at Prof. Dr. Wulf Schirmer in Karlsruhe 1997, university internal guide):

- house (1927) and WSM (Warsawska spoldzielnia mieszkaniowa) colony (1929–34) by Barbara and Stanislaw Brukalski, the colony featuring spaces like the Hof in Vienna which we will later see, involving also women,
- House (1932) by Jadwiga Dobrzynska and Zygmunt Loboda,
- Block of flats (1937) as well as WSM Rakowec (1930) by Helena and Szmon Syrkus.

For Italy as the first Western country notable female architects were: for landscape Maria Teresa Parpagliolo,²¹ for architecture: Elena Luzzato, her mother Ana Luzzato, Attilia Travaglio Vaglieri (author of a church in Northern Italy). Lina Bo Bardi (maybe the best known, mobile between Italy and Brazil, with the main work in Brazil, architect and designer, the reference shows a project for

Italy),²² Stephania Filo Speziale and Ada Bursi.²³ Among the constructions of Elena Luzzato is Piazza Alessandria, Rome (1935) as well as a palace on viale Romania close to it also in Rome. But we would like to emphasize the works in landscape namely landscape of cemeteries. One of these is Flaminio cemetery in Rome by Elena Luzzatto. Stefania Filo Speziale designed in interwar time at *Mostra d'Oltremare*, Napoli, 1937. With Maria Teresa Parpagliolo, who made a notable career during fascist time despite exclusion of women generally we mention the landscape of the *EUR* (Esposizione Universale Roma) (1942) including the exhibition of Italian garden and the Ninfeo. The position of the lake in the exhibition is inspired from villa d'Este in Tivoli, a masterpiece of Italian historic gardens of the Renaissance. Considering the original plans right now there are works to place an aquarium under the lake. She also worked with Elena Luzzatto on the French military cemetery in Rome (1944). Italian women landscape architects also inspired the landscape architecture in the USA such as that of the Dumberton Oaks gardens in Washington D.C., also by a woman landscape architect, Beatrix Farrand, about whom we read in the book on women in history of the profession in the USA,²⁴ who was the US counterpart of Maria Theresa Parpagliolo in Italy, and contributed to the founding of the society of landscape architects.

A connection between the West and the East were the *Werkbund Siedlungen* (Werkbund settlements). We find Margarete Schütte-Lihotzky – *Werkbundsiedlung Wien* (Vienna) designing houses 61 and 62 (1932) and *Haus Suk* (Baba Siedlung/Werkbund, 1932) in Czech Republic by Hana Kučerová-Záveská. Interior design in Vienna was performed by a number of other female architects, for example Ilse Bernheimer did the interior design of a villa in *Werbundsiedlung Wien* (Vienna) (furnished house no.15 by Anton Brenner) before emigrating as an artist (painter) to Venice. Also in Vienna some of the *Hofs*, related to the architecture typology in Poland of social housing, were designed by female architects, such as *Pestalozzi Hof* (1925–26) by Ella Briggs, who later emigrated to the UK. A number of Viennese female interior designers studied arts because of the restrictions to study architecture.

We close with Eileen Gray house *E 1027* (1929) on the seaside of Roquebrune – Cap Martin on which recently more films were done, both artistic (“The price of desire,” 2015 with Orla Brady) and documentary (“Talking house” by Elisabeth Lennard 2016, the life of Eileen Gray), following the dialogues between the two architects (in the first documentary) or the love triangle with Le Corbusier (in the artistic film). Also a computer game was designed.

²⁰ András Ferkai, *Pest építésze a két világháború között* (Budapest: Pipacs Könyvek, 2001), (trans. of the title *The Architecture of Pest between the World Wars*).

²¹ Sonja Dümpelmann, *Maria Teresa Parpagliolo Shephard (1903–1974): Ein Beitrag zur Entwicklung der Gartenkultur in Italien im 20. Jahrhundert* (Weimar: VDG, 2004); Sonja Dümpelmann, “Maria Teresa Parpagliolo Shephard (1903–74): Her Development as a Landscape Architect between Tradition and Modernism,” *Garden History* 30, no. 1 (2002), 49–73; Sonja Dümpelmann and John Beardsley (eds.), *Women, Modernity, and Landscape Architecture* (London: Routledge, 2015).

²² “Casa sul mare di Sicilia Lina Bo C Pagani,” *Domus* no. 152 (1940), 30–35.

²³ Anna Maria Speckel, “Architettura moderna e donne architetto,” *Almanacco della donna italiana* (1935), 120–134.

²⁴ Thaisa Way, *Unbounded Practice: Women and Landscape Architecture in the Early Twentieth Century* (University of Virginia Press, 2009).

We mention that the author also designed a house with water mirror in the interior of the living room.

Women planners in our time

Gender sensitive programmes considered were: spiritual places, thermal bathes, housing, schools, and gardens.

Virginia Haret designed a church in Ghencea quarter, Bucharest (1927–34) with Jean Pompilian. Attilia Travaglio Vaglieri with her husband Umberto Travaglio designed a church in Recco (1951), Italy. Enrico Miralles and Carmen Pinos office designed also a cemetery, the Iqualda (1984), near Barcelona, Spain. The office of Enrico Miralles features a female partner also now, Benedetta Tagliabue. The *Jewish Museum* in Berlin, this kind of tribute, was designed by Daniel and Nina Libeskind, 2001.

Other museums designed by woman architects in Italy are *Maxxi Museum* (2009) by Zaha Hadid²⁵ and *Macro* of Odile Decq (1999)²⁶, both in Rome.

Zaha Hadid also designed housing in Vienna, close to the garbish crematorium Spittelau redesigned by Friedensreich Hundertwasser.

In Romania women of our time include:

- Maria Cotescu who designed the North railway station in Bucharest,
- Florica Vasilescu who designed the bishop palace in Craiova,
- Cleopatra Alifanti designed the building of the Bucharest Academy of Economics,
- Ioana Grigorescu restored the monastery of Sucevița in Northern Moldavia, UNESCO heritage of the churches painted outside,
- Eugenia Greceanu restored the monastery of Neamț in Moldavia,
- Elena Voinescu + Filipeanu designed the building of the "Ion Mincu" University of architecture and urbanism new building wing in Bucharest.

Women as Users

We already mentioned the pioneer women users such as the actress Luiza Blaha in Balatonfüred, Hungary.

In Germany, participative planning involving women in all roles was performed in IBA 1990–2000 (*Internationale Bauausstellung Emscher Park*).²⁷ IBAs are international building exhibitions held regularly in the German speaking space, but the one for Emscher Park, held in order to revitalise the former industrial area of the Ruhr zone was exceptionally held over a decade.

For spiritual places – research on spaces for women communities we looked at typical monasteries in Hungary (monastery in Érd by Budapest) and Belgium (*beguinages*, World Heritage). The issue of such spaces for women was discussed at the genderSTE COST network meeting in Rome in 2014 and builds the subject of a doctoral thesis in Madrid under the supervision of Ines Sanchez de Madariaga. The separation of women is also important in thermal bathes, on which we did extensive research with student work and archive in Hungary. Budapest in Hungary features both Turkish bathes and bathes of Art Nouveau. Bathes of Modernism we find in Vienna (*Amalienbad* in the Hof). In Sibiu, Romania, we find another bathes of Art Nouveau. Roman bathes served as model, but they are not anymore in use, as in the building survey done in Nierstein on the Rhine or the bath still featuring water in Bath, the UK.²⁸ For contemporary bathes we looked at those of Nedár and Dóczy office in Budapest and Kiskunfélegyháza, Hungary.

For the school programme, we remind of those designed by Erika Paulas and Virginia Haret in Romania, but also of the remarkable contemporary buildings, landmarks of Vienna by Carmen Pinos and Zaha Hadid on the campus of the University of Economics. But apart of having schools designed by women the school is also a programme where gender separation was important in time, with the schools for girls. In Bucharest, there is a landmark, the Central School for girls by architect Ion Mincu (1890), and in Câmpulung Muscel the Carol I school by architect Ion Socolescu (1892).

In housing Margarete Schütte-Lihotzky the first woman architect in Austria invented the Frankfurter kitchen, to ease the work of women in house work. A replica of the kitchen can be found in the

25 Igea Troiani, "Zaha: An Image of 'The Woman Architect'," *Architectural Theory Review* 17, no. 2–3 (2012), 346–364.

26 Françoise Bliet, Paola Del Gallo and Pietro De Simoni, *Roma in millenio: 32 progetti in architettura* (Milan: Hoepli, 2012).

27 Hartmut Häußermann and Walter Siebel, "Wandel von Planungsaufgaben und Wandel der Planungsstrategie – Das Beispiel der IBA Emscher Park," *Jahrbuch Stadterneuerung: Beiträge aus Lehre und Forschung an deutschsprachigen Hochschulen* (Berlin: Institut für Stadt- und Regionalplanung der TU Berlin, 1993), 141–151 ; *Internationale Bauausstellung Emscher Park GmbH (IBA) (Hrsg.), "Frauen Planen Bauen Wohnen," Katalog zur Ausstellung der Internationalen Bauausstellung Emscher Park* (Dortmund: Montania, 1991).

28 Jill Bouratoglou et al., "Research by design in the architecture of spa-s," *Argument* 7 (2015).

Badisches Landesmuseum (am Markt) in Karlsruhe, among others. Other authors dealt with the role of women in the house.²⁹

In Vienna, B.R.O.T. by Ottokar Uhl was a participative housing project from 1985–90 to bring together more generations in a block and help women in taking care of children.³⁰ The work of Uhl, professor in Karlsruhe, was marked by cooperation in the field of sociology of architecture.

Discussion and conclusions

Participation is an open research question taking into account also demolition or not building of works by woman architects and also the approach in IBA Emscher Park or Ottokar Uhl.

Another open question is the relation between women and power. This affects the involvement of women in the expos in Italy, but also the fact that pioneer women architects belonged to the upper to middle class.

A conclusion regards the differences between countries.³¹ The mobility of architects, also women architects, leads to some equality. But there are also differences in the approaches to restoration in different countries. Also, mobility was influenced by the shown networks between the architects, for example for Margarete Schütte-Lihotzky,³² and it would be a subject to see analyse the networks with dedicated network analysis tools.³³

For future work we aim at conclusions for the history of teaching. A method for a comparative research between the countries has to be developed. This regards among others the comparison between the East and the West. It has been touched, but it needs further research, how the

considered aspects are involved in the Horizon 2020 work programme. We approached water and landscape; from here conclusions can be drawn for blue-green infrastructure.

DonnArchitettura deals with women portraits both historical and contemporary as we presented in this paper.³⁴

Acknowledgements

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29 Mark Llewellyn, "Designed by Women and Designing Women: Gender, Planning and the Geographies of the Kitchen in Britain 1917–1946," *Cultural Geographies* 10 (2004), 42–60; Sabine Pollak, *Leere Räume: Weiblichkeit und Wohnen in der Moderne* (Wien: Sonderzahl 2005), Special edition; Katrin Cosseta, *Ragione e sentimento dell'abitare: La casa e l'architettura nel pensiero femminile tra le due guerre* (Milan: Franco Angeli, 2000); Katharina Bonnevier, *Behind Straight Curtains* (Axl Books, 2007); Gisella Bassanini, *Tracce silenziose dell'abitare: La donna e la casa* (Milano: Franco Angeli, 1995).

30 Barbara Leichtle, *Partizipatives Bau-Planen: Möglichkeiten kooperativen Handelns im Planungsprozeß am Beispiel zweier Wohnprojekte* (Karlsruhe: Dissertations-Druck Fakultät für Architektur Universität Karlsruhe, 1994).

31 Naomi Stead, "'Resigned Accommodation' and 'Usurpatory Strategies': Introduction to a Special Issue on Women in Architecture," *Architectural Theory Review* 17, no. 2–3 (2012), 191–8.

32 Iris Meder, Azra Charbonnier, Suzanne Krizenecky and Gabriele Ruff (eds.), *Lifting the Curtain: Architekturnetzwerke in Mitteleuropa: Central European Architectural Networks* (Salzburg: Mery Salzmann, 2015).

33 Yanan Sun, "The Social Network behind an Architectural Style over Space and Time," *Space and Time Visualisation*, edited by Maria Bostenaru Dan and Cerasella Crăciun (Char: Springer International, 2016), 79–96.

34 Maria Grazia Eccheli and Mina Tamborrino (eds.), *DonnArchitettura: Pensieri, idee, forme al femminile* (Milano: Franco Angeli, 2014).

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The 'Built' Legacy of Poldi Hirsch: An European Architect Who Became an American Pioneer of the Modern Movement

Introduction

The contribution of Poldi Hirsch to the architectural discourse on 'early women in architecture' is inextricably linked to her enthralling personal story. Born in 1926 as Poldi Rothenberg, she spent her childhood in Remscheid, Germany to flee to Palestine in 1939 during World War II.¹ In Tel Aviv, she met her future husband, Günther Hirsch, during high school, and completed two years of a three year Architecture program at the Hebrew Technical College in Haifa. After moving in 1948 to Switzerland, where she joined and, soon after, marry Günther, who was a medical student, Poldi attended the *École d'Architecture* in Geneva (1948–1949) and the *Uni-École Polytechnique* of Lausanne (1949–1953), receiving her *Diplome d'Architect* (Diploma in architecture), followed by the professional license to practice architecture. In 1953, she immigrated with her family to the United States, in Sewickley, near Pittsburgh, Pennsylvania; there, she worked for an H. Bradley–Patterson & Burgner Architects as a model maker, while Günther completed his medical residency and obtained a Master in Public Health. In 1955, the Hirsch Family relocated to Havre de Grace, Maryland, where both spouses established their professional practice. In 1962, she was granted reciprocal license to practice architecture by the State of Maryland.²

1 On the history of Jewish immigration between 1939 and 1948 to the territory of the British Mandate see: "Immigration to Israel: Aliyah Bet," Jewish Virtual Library, <http://www.jewishvirtuallibrary.org/aliyah-bet-1939-1948> (accessed January 15, 2018).

2 For a complete timeline see the website of the AIA exhibition on Early Women of Architecture in Maryland: "Poldi Hirsch," Early Women of Architecture in Maryland (WAM), <http://www.aiawam.com/poldi-hirsch.html> (accessed January 11, 2018). For a recollection of Poldi's professional life, see also her husband's publication Günther Hirsch, *Sick!: "Patients First": A Refreshing Dose of the Right Medicine for an Ailing Medical System* (Raleigh, NC: Outer Banks Publishing Group, 2012).

As the author will articulate in this paper, Poldi Hirsch was an architect/builder, that is, her perspective on architecture was constructive. She was focused on the social and ethical implications of the organizational functions of residential buildings, with particular emphasis on the social institution of the family. From the starter communities of the 1950s to the more established families of the 1970s, Poldi designed buildings for people with different backgrounds, needs, and means, but all stirred by the same aspiration, the making of the 'American Dream'.³

Primary Sources and Literature Review

This contribution draws from the participation to an architectural tour promoted in the fall of 2015 by Docomomo US in north-eastern Maryland, to explore the innovative work of mid-century architect Poldi Hirsch in Havre de Grace: from her iconic residence to the well-designed townhouses duplexes and apartment complexes.⁴ The visit was arranged and coordinated by the Women in Architecture Committee (WIA) of the Baltimore Chapter of the American Institute of Architects (AIA), and conducted by Jillian Storms, also curator of the traveling exhibit 'Early Women of Architecture in Maryland' illustrating –thanks to the exhibit's designer, Sadie Dempsey– the stories of 12 women architects and designers who uniquely contributed to the shaping of the Modern Movement in Maryland from 1920 to the 1960s.⁵ One of these extraordinary women who practiced architecture between the World Wars and the Great Depression was Poldi Hirsch,⁶ whose life and projects were revealed in one of the sections of the traveling exhibit: from the original inauguration at the AIA Maryland Gallery in Annapolis in 2015,⁷ to the most recent display at the AIA Headquarters in Washington, DC at the end of 2017.⁸

The study refers to the work of Gournay⁹ on the development of the Modern Movement in Maryland for the identification of the socio-political and economic context in which the architectural

3 For a panoramic view of the post-war economic growth in USA and its social implications see: Ruth Rosen, *The World Split Open: How the Modern Women's Movement Changed America* (New York, NY: Viking Penguin, 2000), 3–36.

4 "The Modern Projects of Architect Poldi Hirsch," Docomomo US, <http://www.docomomo-us.org/events/tour-day/2015-tour-day> (accessed January 11, 2018).

5 "Early Women of Architecture in Maryland," WAM, <http://www.aiawam.com/about.html> (accessed January 11, 2018).

6 WAM, <http://www.aiawam.com/poldi-hirsch.html> (accessed January 11, 2018).

7 "Early Women of Architecture Maryland Exhibit Opening Reception," AIA Baltimore, <http://www.aiabaltimore.org/events/early-women-of-architecture-in-maryland-exhibit-opening-reception/> (accessed January 11, 2018).

8 "Early Women of Architecture in Maryland Exhibit at AIA National," WAM, <https://www.facebook.com/events/165077704053313/> (accessed January 11, 2018).

9 Isabelle Gournay, "Context Essay, I: Modern Movement in Maryland" (Research, University of Maryland, October 14, 2005), <http://mahdc.org/ma/wp-content/uploads/2017/02/Historic-Context-Modern-Movement-in-Maryland.pdf> (accessed January 3, 2018).

production of Poldi Hirsch took place. It integrates biographical notes from the 2012 publication of Dr Gunther Hirsch,¹⁰ who revealed the couple's mutual ideas and vision on public housing.

Aims of the Study and Methodological Approach

The research paper aims at presenting the work of Poldi Hirsch and her approach to architecture, specifically to collective living, exploring the significance within the Modern Movement of the buildings in the *oeuvre* of the architect, the evolution and specific traits of her 'non-canonical' production.

Since there is not a body of literature regarding the architect, the purpose of this research is exploratory through qualitative data collection –using a variety of sources, from autobiographical writing materials to building plans of the selected case studies– with the objective of identifying the *leitmotifs* of Poldi's architectural endeavour. In the author's view, her vision contemplated a new holistic social approach to modern living, in terms of well-being and quality of life, by intersecting and transcending different disciplines and research fields –such as the one of Public Health– in an interdisciplinary approach to architecture.

Discussion

Modern Movement in Maryland: An Overview of Poldi's Production

Between 1947 and 1965, according to a general trend in the US post-war modernization, Maryland –in our case, the Greater Baltimore Area– experienced an extraordinary economic development that changed its cultural landscape forever. The significant improvement in material prosperity was characterized by a booming in the number of suburban homes, shopping centres, and subdivisions, which testified, 'the ubiquitous dream of individually owning one's house and garden'.¹¹ Modern domestic architecture assumed different connotations: from the many variations of minimalist design, well recognized by their exteriors emphasizing ideas of functionality, hygiene, and efficiency, to the modern versions of vernacular architecture with many indoor amenities and aesthetic features.¹²

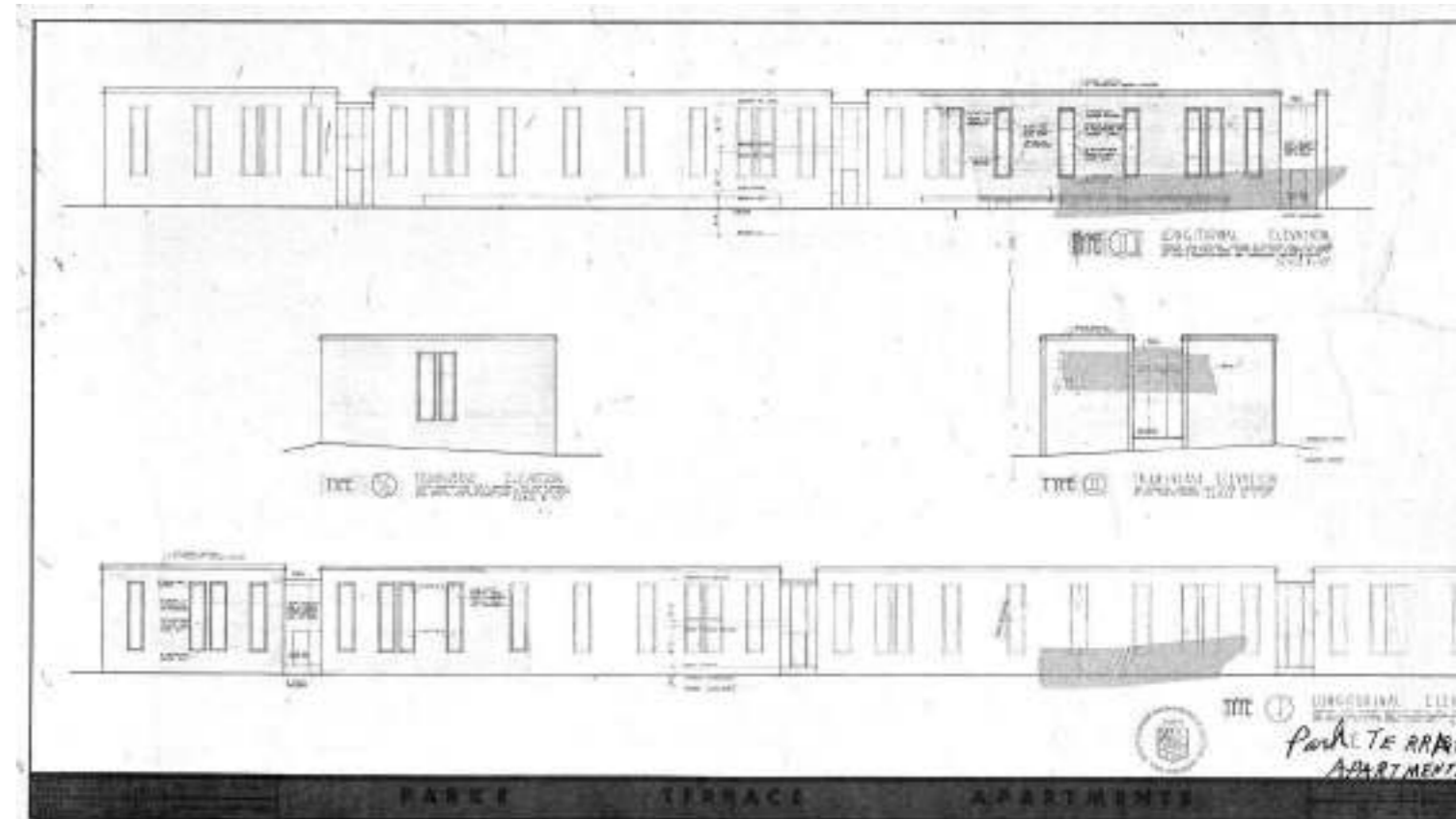


Fig. 1. Poldi Hirsch Architect & Associates, Project for Parke Terrace Apartments: Longitudinal and Transverse Elevations (Type I/II), (May 1963). Source: City of Aberdeen electronic database, Aberdeen, Maryland (Copyright free).

During the late 1960s and very early 1970s, with the relocation of many industries –due to the establishment of Interstate 95 and the final reorganization of Aberdeen Proving Ground military installation¹³– the eastern part of Harford County underwent an important transformation, which led to an increase in suburban densities characterized by single-family homes, many designed by architects as 'demonstration homes for themselves'.¹⁴

Unfortunately, it is not possible to find any documentation related to the authorizations of the buildings in Havre de Grace: as indicated by the local Permit Clerk,¹⁵ the City did not retain the original building permit applications submitted prior to 1976. Conversely, the neighbouring City of Aberdeen –which adopted its first Zoning Ordinance on September 12, 1957¹⁶– retained the

13 Cf. Kathrine Grandine, William R. Henry, Jr and Irene Jackson Henry, *Historic Building Inventory – Aberdeen Proving Ground, Maryland* (Aberdeen Proving Ground: HABS/HAER/NPS, 1982), 32–3, <http://www.dtic.mil/dtic/tr/fulltext/u2/a175843.pdf>, (accessed, 12 January 2018).

14 Gournay, "Context Essay," 54.

15 Colleen F. Critzer (City of Havre de Grace - Permits Clerk) in discussion with the author, 17 January 2018.

16 The State of Maryland created a State Planning Department in 1959. Cf. Gournay, "Context Essay," 39.

10 Hirsch, *Sick!*

11 Analysis of the urban landscape in North America by architect Moshe Safdie in 1959. Cf. Wade Graham, *Dream Cities: Seven Urban Ideas That Shape the World* (New York, NY: Harper Collins Publishers, 2016), 262.

12 Cf. Gournay, "Context Essay," 37–45.

project file on the Parke Terrace Apartments¹⁷ built in 1965, and provided the electronic copies of the original plans¹⁸ produced in 1963 (Fig. 1).

The drawings provided to the participants of the Docomomo US tour in 2015, still retained by the various owners, are Poldi's original architectural studies and presentations: namely, elevations, sketches and diagrams to develop the logic of design, and colour schemes. Considering that Poldi Hirsch acted as both architect and builder on most of her residential undertakings, thus acting as general contractor –indeed, she was the first woman registered as a corporate member of the AIA Baltimore Chapter–, it would be of great interest to find working drawings and specifications conveying a clarification of the buildings' components and methods of assembly.

From Affordable Housing to Vernacular Architecture: Poldi's Main Residential Projects

As recalled by Dr Hirsch, Poldi was the one who chose the city of Havre de Grace as the future family nest and starting point for the professional practice of both spouses, after travelling up and down the State of Maryland looking for the ideal place:¹⁹

Poldi liked the fact that Havre de Grace was on the water (Chesapeake Bay) and close to major highways – Route 40 in Havre de Grace (no Interstate 95 yet). [...] It was a real planned city laid out in a grid, with sidewalks, schools, a hospital, a humming main street on dollar day, parks and a Howard Johnson Restaurant.²⁰

The town is located at the confluence of the Susquehanna River and the Chesapeake Bay, and with its charming and tranquil seaport it certainly reminded Poldi –like it did for historic figures such as General Lafayette to whom the tradition connects the name of the town, meaning 'Harbour of Grace,' after the French port city of *Le Havre*²¹– of the beautiful European cities where she grew up and also studied architecture. Moreover, the fact that the city was planned in a grid and at a human

scale,²² allowed the architect to use her composition skills within the urban landscape to create different situations and articulations –from the public settings to more intimate or semi-private spots as in the case of Hirsch Residence on Giles Street– within the key urban design concepts of theme and variation; but also to give rise to design statements such as the Medical Arts Building²³ along the central Union Avenue, with its unconventional entrance canopy.

In the 1950s, downtown Havre de Grace was prospering as a place to rest for travellers, with a few hotels, churches, and stately homes; while the rest of the territory was essentially farmland. Only in the 1980s, the city began to undergo extensive redevelopment with the construction of new houses and townhouse communities.²⁴ Therefore, this waterfront settlement was the ideal place to start a professional practice, providing ample opportunities for growth, but also for experimentation. The author believes that the latter consideration is crucial in the overall anamnesis of Poldi's contribution in light of the fact that, before moving to Maryland, the young Hirsch couple received a refusal by a prominent medical academic institution –the 'School of Public Health at Pittsburgh'²⁵–, which apparently did not contemplate the possibility of expanding and/or advancing the field of public health activity by further exploring the relationship between housing environment and health; hence deciding not to offer any scholarly research opportunity for the implementation of a project on this topic, as testified and repeatedly restated by Dr Hirsch in his publication about the medical system:

Mind you, this was 1955 and public health didn't think outside the box, public housing was not what they were teaching. [...] Naïve as I was, I explained that my wife was an architect and together we planned to design better affordable housing for the people. Good housing would promote better health. [...] From there I was told that housing had nothing to do with good or bad health. [...] Our dream, Poldi's and mine, never came to fruition. We thought we could establish a new branch of public health combining practical, inexpensive ideas of housing to provide a healthy environment.²⁶

The principal purpose of public health is to ensure conditions that promote health, as indicated by Rosen in his masterly contribution: 'the major problems of health that men faced have been concerned with community life, for instance [...] the control and improvement of the physical environment.'²⁷ Although the American Public Health Association (APHA) formed the first Committee on Hygiene of Housing for 'the examination of the components of healthy housing in terms of

17 Phyllis G. Grover (City of Aberdeen – Director of Planning and Community Development) in electronic correspondence with the author, 24 January 2018.

18 The files provided that are original drawings by Poldi Hirsch & Associates (with the State of Maryland stamp indicating the registration n. 1619) are the following ones: (1) Location Plan (with Kitchen Cabinet Elevation); (2) Floor Plan (Type I/II); (3) Unit Floor Plans (Type A/B) with First and Second Floor Entry; (4) Longitudinal and Transverse Elevations (Type I/II); (5) Stair Section (Typical); (6) Foundation Plan (Type I/II); (7) Plans and Elevations: (7a) Typical Stair Elevation; (7b) Recreation Room Plan; (7c) Typical Window Elevation. Monica A. Correll (City of Aberdeen – City Clerk) in electronic correspondence with the author, 25 January 2018.

19 Cf. Hirsch, *Sick!*, 47–56.

20 Hirsch, *Sick!*, 51–2.

21 Cf. Linda Noll, *Havre de Grace* (Charleston, SC: Arcadia Pub., 2012), ix.

22 The original lay-out was commissioned in 1782 as an imitation of the city of Philadelphia. Cf. "Local History: Street Names," City of Havre de Grace, <https://havredegracemd.gov/street-names/> (accessed January 22, 2018).

23 Cf. Hirsch, *Sick!*, 81.

24 Cf. Noll, *Havre de Grace*, ix.

25 Cf. Hirsch, *Sick!*, 35.

26 Ibid, 35–9.

27 George Rosen, *A History of Public Health*, rev. ed. (Baltimore: Johns Hopkins University Press, 2015), 1.

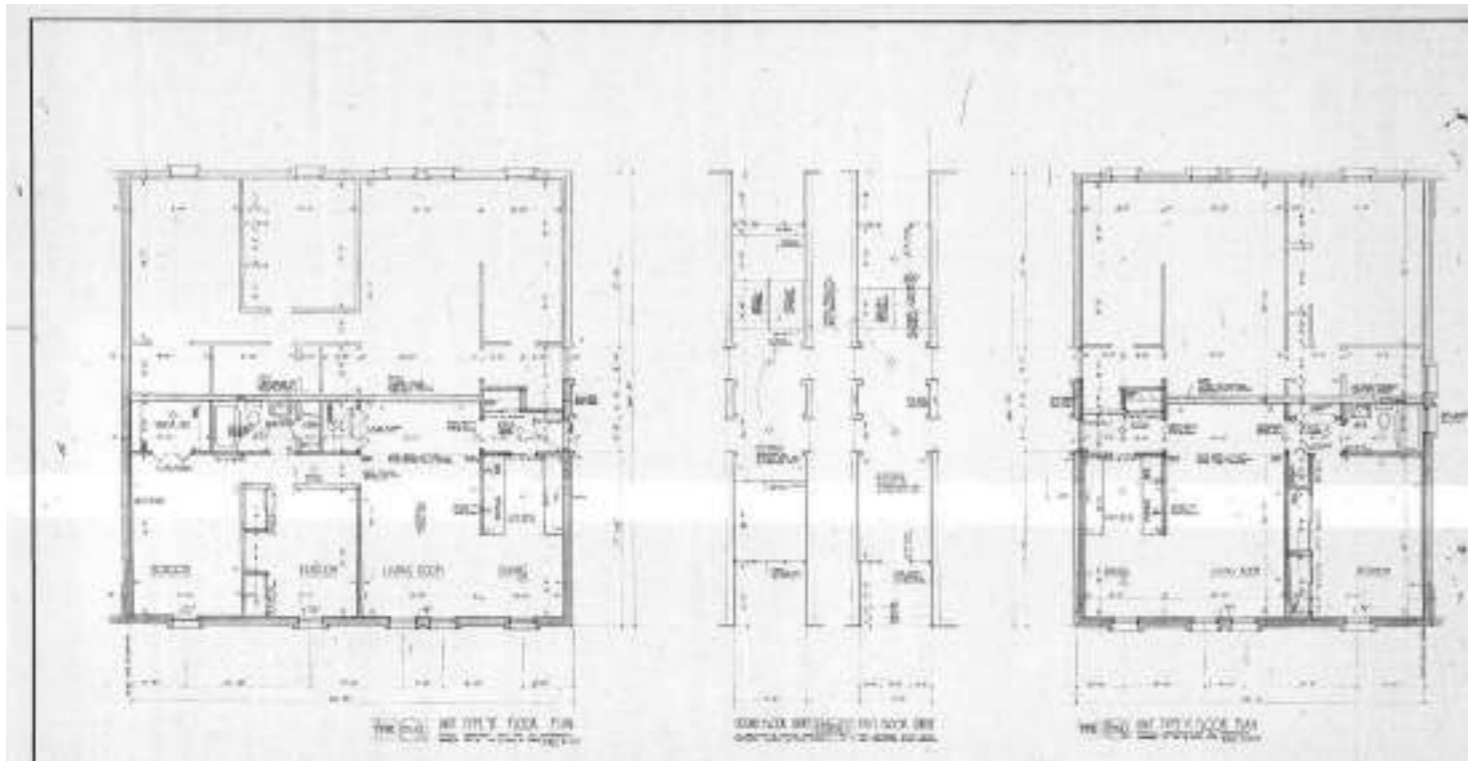


Fig. 2. Poldi Hirsch Architect & Associates, Project for Parke Terrace Apartments: Unit Floor Plans (Type "A" and "B"), (May 1963). Source: City of Aberdeen electronic database, Aberdeen, Maryland (Copyright free).

physical, physiological, and psychological needs²⁸ in 1937, the paradigm 'housing as a determinant of health'²⁹ will emerge clearly only in the following decades, and will expand its interest to new housing more recently with the release of the 1999 and 2000 policy statements.³⁰

Notwithstanding the dismissal suffered during those early years spent in Pennsylvania, Poldi maintained that progressive approach and commitment towards the social aspects of her profession, and persevered, offering interesting architectural solutions to the local communities. Following that original intuition of 'housing and health', during her first fifteen years of practice she designed and built numerous townhouse duplexes, building apartments, and small detached residences that combined affordable housing with high standards of living. The design was innovative, blending a minimalist look with the functions of a traditional home: from the allocation of space within a system of integrated relations, to the selection of durable materials and the exposure to sunlight of both 'service' and living rooms, everything was intended to provide a healthier and more gratifying housing environment at a low cost. Indeed, the first model duplex was designed and built in 1962–

28 James Krieger and Donna L. Higgins, "Housing and Health: Time Again for Public Health Action," *American Journal of Public Health* 92, no. 5 (2002), 762.

29 Krieger and Higgins, "Housing and Health," 758.

30 Ibid, 762.

63 and occupied soon after by the Hirsch Family, serving as the home residence for many years.³¹

With the design and construction of the Apartment Building on Lewis Street in 1967,³² it is the author's opinion that Poldi consolidated the concepts she had been developing around the ideas of modern living, well-being and affordability, progressing into a more sophisticated design: the narrow flats equipped with built-in furniture, are served by a central staircase and are arranged as two-storey duplexes with a double-height living room at one end facing a balcony with street view. In their conception, they are unambiguously inspired by the design principles and solutions developed by Le Corbusier for the *Unité d'habitation*, in particular for the *Cité Radieuse* in Marseille, France.

The Parke Apartments in the city of Aberdeen is a two-storey residential development composed of sixty units of 850-900 ft² –24 type I units (46 ft by 214 ft) and 18 type II units (46 ft by 240 ft)– arranged on two parallel rows between Plater and South Parke Street, with a parking lot and adjacent recreation area in-between. It is the largest residential project Poldi completes in the 1960s, offering one bedroom (type 'A' unit) or two bedroom (type 'B' unit) apartments, with balcony and patio (Fig. 2).

During the 1970s, Poldi designed her most astonishing residences, in which she embraced the so called 'vernacular style,' combining geometry with bold colours and organic elements. She fused technology with tradition and craft, bringing to the design of her interiors a regional flavour, taking advantage of site, natural light, and ventilation. In this new making, the author reads the influence of eminent architects such as Wright³³ and Aalto,³⁴ who softened the modernist 'machine aesthetics'³⁵ and offered stimulating outcomes in the study of the 'nature of materials'³⁶ and their application to architecture.

The Hirsch Residence³⁷ illustrated Poldi's conception of beauty, characterized by functionalism interwoven with rhythm, light, and colour to create a vital and dynamic experience. The house, which floorplan is organized with a strong connection with the exterior, offers moments of relax

31 Cf. Hirsch, *Sick!*, 75.

32 Cf. "Early Women of Architecture in Maryland."

33 About Wright's philosophical thinking see: Norris K. Smith, *Frank Lloyd Wright: A Study in Architectural Content* (Englewood Cliffs, NJ: Spectrum, 1966), 35–53.

34 About Aalto's contribution see: Martin Filler, *Makers of Modern Architecture: From Frank Lloyd Wright to Frank Gehry* (New York, NY: nyrb, 2007), 91–102.

35 Ibid, 94.

36 Cf. Frank Lloyd Wright, *An Autobiography*, 2nd ed. (New York: Duell, Sloane, and Pearce, 1943), 148.

37 The house was built in 1970 and featured on local daily newspapers in 1973: the *Bel Air Aegis* (March 1) and the *Baltimore Sun* (December 16). Cf. "Early Women of Architecture in Maryland."

and privacy using traditional architectural elements in a new way,³⁸ but also hosts a doctor's office for Dr Hirsch, and becomes the place for establishing her professional practice –Poldi Hirsch AIA & Associates– which will remain, to quote a classic in women's literature, 'a room of her own'.³⁹

Cultural Tourism in Havre de Grace

Since their construction, Poldi Hirsch's buildings have been continuously occupied: the iconic residences in Giles and Lafayette Streets were built for family purposes, accommodating not only Poldi's family, but also her father's and brother's. The townhouse duplexes and apartment buildings, having been well-maintained and preserved along the years, are still in good shape and structurally sound: the occupant families confirm their satisfaction as tenants about the high level of habitability and adequacy to their actual needs of these low-cost units, which were built with a rigorous organization and distribution of space areas, considering the important functions and needs of modern living. Of Poldi's projects in Havre de Grace and Aberdeen,⁴⁰ 21 properties are still standing and can be visited previous permission of the actual titleholders. In Havre de Grace: (1) Medical Arts Building & (2) Surgical Clinic, S. Union Ave; (3) Residence, 117 Francis St.; (4/5) Rothenberg & Hirsch Residence, Giles St.; (6/7/8/9) Houses, 819, 732, 729, & 736 Tydings Rd; (10/11) Apartment Building & Townhouse Duplex, 710, 715–719 Lewis St.; (12) Gast Residence, Davis Dr.; (13) Townhouse Duplex, 651–653 Alliance St.; (14/15/16/17) Townhouse Duplexes, 714–716, 902–904, 906–908, & 932–934 Chesapeake Dr; (18) Sommer Residence, Lafayette St.; (19) Huber Corporation Office Addition, 907 Revolution St. (20) Witt Residence. In Aberdeen: (21) Parke Apartments, S. Parke St. & Plater St.

Having had a recent exchange with the Visitor Office Counter Clerk,⁴¹ it was once again confirmed that there are no cultural tours involving the visit of any of Poldi Hirsch's residencies or townhouse duplexes. Moreover, Havre de Grace's tourism official website⁴² do not contain any reference to the buildings designed the modernist architect as tourist attractions.

Conclusion

The intuition and analysis of Poldi Hirsch about creating much-needed houses incorporating solid principles of functionality and economy –without lacking in spatial richness– was the expression of a sensibility towards the definition of new forms and modalities in domestic design and urban development that began to circulate in Europe in the 1920s, and that affected the United States during the quarter century after 1910 with a deep concern for 'the house of moderate cost,' well enlightened in Frank L. Wright's autobiography.⁴³

Although much has to be investigated and evaluated, we can agree that Poldi's was not a fully successful story, also due to the fact that she had to scale back her architectural practice in 1980 due to illness.⁴⁴ Nevertheless, it reflected a great desire to intervene in the architectural and building process in the making of modern society; and showed how a young woman architect with a forward-looking approach to architecture tried to capitalize on a particular moment of American history. Furthermore, the author believes that if that effort had been properly recognized, codified and methodized in the long term, thus involving the collaboration of public institutions and third parties, it could have had a much larger resonance and application.

In an era in which professional women architects were considered incompatible with mainstream architecture⁴⁵ as they 'rarely fulfil conventional success criteria,'⁴⁶ hence deemed unsuited to the job, Poldi Hirsch (and her many female peers) became part of a narrative of unrelenting negligence and exclusion. Fortunately, this vacuum –which refers to the conundrum faced by scholars of architectural history– has recently emerged and treated thanks to the efforts of new generations of women architects,⁴⁷ who are creating a system of support, recognition, and celebration of past talents and efforts that otherwise would be lost forever. Brick by brick, they are helping lying the foundation of a legacy that was 'built' with dedication and perseverance long time ago.

43 Cf. Wright, *An Autobiography*, 490–3.

44 Cf. "Early Women of Architecture in Maryland."

45 Cf. Julie Willis, "Invisible Contributions: The Problem of History and Women Architects," *Architectural Theory Review* 3, no. 2 (1998), 57–68, <http://www.tandfonline.com/doi/pdf/10.1080/13264829809478345>, (accessed January 16, 2018).

46 Willis, "Invisible Contributions," 65.

47 In the most recent years, various projects have explored the contribution of women architects as well as the way their stories have been interpreted and divulged. See, for example: "Introduction," *Pioneering Women of American Architecture*, <https://pioneeringwomen.bwaf.org/> (accessed January 13, 2018).

38 See, for example, the balcony of the master bedroom, which with its unusual height kept indiscrete eyes away. Dr Dahlia Hirsch (Poldi's daughter) in discussion with the participants of the Docomomo Tour, 10 October 2015.

39 Cf. Virginia Woolf, *A Room of One's Own* (New York: Harcourt Brace & Co., 1989).

40 For the full list of projects and proposals, Cf. "Early Women of Architecture in Maryland."

41 City of Havre de Grace Visitor Center Clerk in discussion with the author, 25 January 2018.

42 "Museums and History," Explore Havre de Grace, <http://www.explorehavredegrace.com/museums-and-history/> (accessed January 18, 2018).

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Woman Pioneer in Archeology and Conservation in Turkey: Halet Çambel

Introduction

The fate of Turkish history changed with the end of the Ottoman Empire period. In 1923, Ottoman Empire collapsed and the Republic of Turkey was founded under the leadership of Mustafa Kemal Atatürk. This new period was the starting point of a modernization process. This 'modern movement' has led to making a series of Republican reforms in order to change the country's political and social structure such as figures and symbols of the Ottoman Empire and their replacement with secular values for the new nation-state.¹

The Ottoman society based on Islamic rules was formed with gender discrimination by placing men world on a privileged level. In short, the sharia rules were preventing women from being involved in the public daily life. Although these rules were alleviated in the Late Ottoman Period, the place of women in the male-dominated society was still limited. On the contrary of Ottoman Empire, women's rights had a privileged position for the Republican authorities. This priority has emerged with a Republican reform as 'equality of women and men' and was became a legislation in 1926. The reform includes the parity of the genders for several rights such as education, conjugal rights, voting right etc. Considering, for some European countries this equality entered into force in 1940s, it should be emphasized that the Republic of Turkey have a farsighted and modern ideology.² This parity was

1 Sibel Bozdoğan and Reşat Kasaba (eds.), *Rethinking Modernity and National Identity in Turkey* (Washington, DC: University of Washington Press, 1997).

2 As an example, in Italy, the women had gained the gender equality in 1948 (Italian Constitution 1948).

also regarded as a representation of the modernization of young Republic in all spheres. By this means, the achievements of women have been getting visible since the foundation of the Republic.

Halet Çambel (**Fig. 1**) was one of the pioneers of getting women's achievements visible in professional and public daily life.³ She was born in 1916 and was raised by an elite Ottoman family. During that time, they were living in Berlin. Her father,⁴ Hasan Cemil Bey, was an active and motivated figure to develop the Republican ideology; he also was a close friend of Atatürk.⁵ Her mother, Remziye Hanım, advocated women's rights since she met with feminism ideology in Berlin.⁶ In this framework, it can be said that Çambel's family life has led her to grow within a modern and intellectual atmosphere that gives a privileged place to Turkish women.

Considering the Turkish history, the initial studies on the archaeology started in the 19th century. Although in the Last Period of Ottoman Empire, the prevalence of archaeology was understood, archaeological research still had a limited place in the architectural context. Besides, in this period, the great majority of the research in Anatolia was carried out by foreign professionals.⁷ The awareness of the intrinsic value that Turkey has in all spheres and its development through these values were the crucial order of the new nation-state. Atatürk was aware of the capacity and value of Anatolian Cultural Heritage. In 1930, Turkish Historical Society (Türk Tarih Kurumu) was established in line with the Atatürk's order. The main of the society was to follow the Turkish trace by searching the roots in Anatolia. Accordingly, many excavations were held in Anatolia with the



Fig. 1. Halet Çambel in 1940s. Source: Archive of Halet Çambel at Halet Çambel-Nail Çakırhan Research Centre for Archaeology, Vernacular Architecture and History. Courtesy of Boğaziçi Uni-versity, Halet Çambel-Nail Çakırhan Research Centre for Archaeology, Vernacular Architecture and History.

3 Erik J. Zürcher, *Turkey: A Modern History* (London : IB Tauris, 2004).

4 Her father was serving as the ambassador of the Ottoman Empire in Berlin.

5 Melih Güneş, *Halet Çambel ile Buluşma* (İstanbul: Chamber of Architects İstanbul Branch, 2012), 15

6 İsa Küçük, *Halet Abıa Destanı* (İstanbul: Arkeoloji ve Sanat Yayınları, 2010), 34

7 Wendy MK Shaw, *Possessors and Possessed: Museums, Archaeology, and the Visualization of History in the Late Ottoman Empire* (Oakland CA: University of California Press, 2003).

support of the Society.⁸ It can be said that these initiatives were a turning point for archaeological research in the Turkish history.

By the modern movement, it was attached particular importance to the education of Turkish youth. In the process of the secularism and the adoption of the values of the Republic, the youth who are well-trained in art, technique, and science was needed to awaken and develop the social structure. Therefore, the youth were encouraged to study in Europe by specializing in various fields. In fact, the young students were sent to Europe for education in the Last Period of Ottoman Empire, as well. Nevertheless, this possibility was not available for the women. After 1923, under the 'equality of women and men' reform, the 'modern movement' paved the way for the education of Turkish women. But, it was difficult to reverse traditional habits in an instant. Although Atatürk has worked for adaptation of this situation, he has not been able to achieve this goal in every segment of the society. At this juncture, the daughters of the elite families formed the first generation to benefit from the reform. As a result, they presented the role model as a 'modern Turkish woman' for the women from urban middle classes and rural areas.

Halet Çambel was one of the first beneficiaries of the reform. In 1935, she won a scholarship from the French Government and started her high degree education by studying of archaeology and Near Eastern cultures and languages at Sorbonne University in Paris. The fact that Çambel's father was one of the founders of Turkish Historical Society affected her interest in the field of archaeology.⁹ Çambel took lessons from world famous professionals.¹⁰ She carried out her studies in Paris until the start of the Second World War. In 1940, she had to return to Turkey and began to work with Professor Helmuth. Theodor Bossert as his assistant at newly founded Archaeology Department of İstanbul University.

Halet Çambel and Karatepe

Çambel's high reputation was shaped by Karatepe-Aslantaş works. Karatepe (Black Hill) is a Late Hittite Site from 8th BC period and located in the southern Turkey. In 1946, she started to work Karatepe-Aslantaş excavation under the Professor Bossert's directorship. Among the archaeological expeditions of the unknown Iron Age Kingdom, a bilingual inscription in Hittite Luwian hieroglyphic

script was discovered.¹¹ The discovery of the Hittite language had begun in 1834 when Charles Texier came to Boğazköy. By Karatepe archaeological find, the discovery was completed in 1949. Today, Karatepe-Aslantaş Site is known as the site where Hittite hieroglyphs had become understandable.¹² Bossert had lead the excavations until 1952 when he decided that there was nothing more to work in Karatepe. The decision of Bossert means to leave Karatepe her fate. But, Çambel had thought differently than his professor: she suggested that the archeological finds and in-situ remains must be preserved and be exhibited. Thus, Çambel has decided to stay and lead the restoration project by herself. It was the starting point of dedication her life to Karatepe.

During that time, the commonly used preservation approach was to transport the finds and individual assets, and to exhibit them at museums. As a visionary archaeologist who follows the developments in the world, she had a quiet different opinion from the general protection perception. The restoration project of Karatepe was based to run an in-situ preservation approach. By the Çambel's communication with Cesare Brandi, the Central Institute of Restoration (Istituto Centrale del Restauro)¹³ provided a team of experts from Italy. Çambel together with the team has started to work in 1952. Brandi came to Karatepe and examined the site.¹⁴ The personal contribution of Brandi was the significant turning point to shape the future of Karatepe. As soon as the architect indicated that the superficies of the remains had to be covered, a temporary roof system was established. Meanwhile, an open-air museum project has also emerged from Brandi and Çambel's studies. On the advice of Brandi, Franco Minissi has designed the preliminary project of the museum. But, the fact that Minissi had prepared it without coming to the Karatepe, the project was incompatible with the particular topography of the site. Therefore, on the advice of Çambel, the elaborated-final project was prepared by Turkish architect Turgut Cansever.¹⁵

After the long war period, it was difficult to facilitate a construction project on a densely forested hilltop without a road connection. As a result, although the construction started, the contractor quitted the job. Thus, Halet Çambel and her husband, Nail Çakırhan have taken the responsibility

8 Mehmet Özdoğan, "Halet Çambel," *Proceedings Of American Philosophical Society* 161 (2017), 3.

9 Özdoğan, "Halet Çambel."

10 Charles Picard (classical archaeology and Hellenistic art history), M. Louis Delaporte (Hittite language), René Labat Asurca and Eduard P. Dhorme (Hebraic), Georges Contenau (archeology of Asia Minor).

11 Halet Çambel, "Karatepe: An Archeological Introduction to a Recently Discovered Hittite Site in Southern Anatolia," *Oriens* 1, no. 2 (1948), 147–162.

12 Çambel, "Karatepe."

13 Today's Istituto superiore per la conservazione ed il restauro.

14 During that time, the director of the institute was Cesare Brandi (1906–1988) who was a very leading figure for the formation of the theory of restoration. His studies had great influence to instigate deep cultural changes. Brandi is also known with the construction of the first shelter for an open-air museum in Italy, Sicily.

15 Halet Çambel, "The Open-air Museum of Karatepe-Aslantaş: A Many Sided Project," *TÜBA-KED -Turkish academy of sciences journal of cultural inventory* 8, no. 8 (2010), 131–136.



Fig. 2. Karatepe open-air museum.
Source: Mehmet Özdoğan-Zeynep Eres, "Protection and Presentation of Prehistoric Sites: A Historic Survey from Turkey," *Origini* 34 (2012), 474.
(Copy-right: Mehmet Özdoğan and Zeynep Eres)

of the implementation of the open-air museum.¹⁶ They started to work under hard conditions and restricted feasibility (with the building materials transported by them on horseback). Meanwhile, she had started to work for protecting the site with their cultural landscape. In 1958, the declaration of Karatepe-Aslantaş National Park (The area covers a land of approximately 7715 hectares) was accomplished. It is the first national park in Turkey and has generated a model to following national parks. In 1961 the construction of the museum was completed by the remarkable efforts of Çambel and Çakırhan (Fig. 2). Since then, the finds are preserved and exhibited in their authentic and natural location. Thus, Çambel became the first archaeologist in Turkey who accomplished the 'in-situ preservation' approach as a model.

Halet Çambel was aware that besides the importance of in situ preservation with its context, it was important to ensure collaboration with the local community for sustainable protection. She states her opinion as 'Without informing the public, you cannot maintain a museum in an empty space, on a void (*Halkı bilgilendirmesenz bir hiç içinde bir boşluk içinde bir müzeyi ayakta tutamazsınız*)'.¹⁷ In other words, her preservation approach was not only based on a range of rules, but was based on generating solutions for social problems.

During that time, the principal livelihood of inhabitants at Karatepe was the forestry products. Çambel had ensured other job opportunities to prevent harming the forest. In doing so, she gave

¹⁶ It should be underlined that during that time, Nail Çakırhan (1910–2008) was a poet without any construction experience. But, after the Karatepe implementation, he has continued to work with Turgut Cansever as an architect. In 1983, he won Aga Khan Award for Architecture for leading the environmental friendly architecture by using wood instead of concrete.

¹⁷ "Toroşlardan Bir Efsane: Halet Çambel," Documentation (2003), UCTEA Istanbul Branch .

importance to the possibilities existing in the local community tradition, rather than giving new jobs. She has opened courses to improve skills of carpentry, forging, in particular, kilim weaving.¹⁸

The description of the process with her words as follows:

Firstly, it is necessary to provide a job opportunity for the community.... There is a remarkable tradition of kilim weaving. But, they always use dyes that cannot withstand water.... We have encouraged a woman and within 4 years, a kilim has weaved with natural dyes. Then everybody became interested.... And this has now become a handcraft. (... *İnsanlara evvela bir meslek, bir iş olanağı sağlamak lazım... oranın çok iyi bir kilimcilik geleneği var. Fakat kilimcilik geleneğinde hep suya dayanamayan ve boyası akan boyalar kullanıyorlar.. bir kadını özendirdik ve 4 sene içinde ilk doğal boyalarla bir kilim dokundu. Ondan sonra herkes merak saldı.... Ve bu artık orda bir elişi haline geldi*).¹⁹

As a requirement of the modern movement, it was important to increase the rate of literacy all around the country. One of the Republican reforms was Alphabet Reform (the change of the alphabet from Arabic to Latin script) in order to acceptance of usage the Latin characters. The majority in Karatepe was illiterate and a lack of education places existed.²⁰ Çambel has initiated the collaboration with Republican authorities to bring the facility of education. But, limited funds of the Republic were not sufficient. Like all the Turkish youth living in the first years of the Republic, Çambel had contributed to develop the country as a fundamental duty by believing in the Republican ideology. Therefore, she has organized the inhabitants to make them build their own schools. As a result of the problem of finding teachers for the new schools, she has undertaken this task herself by having help from her friends. In this period, famous Turkish figures in different fields of specialization²¹ came to Karatepe and contributed the dissemination of Turkish language. By this contribution, Turkish culture has gained important literature works. Çambel's initiatives in the modernization framework dominated Turkey were not limited to the language. She also gave importance to the ethnographic research the folk culture which was being lost. Therefore, the local narratives, myths, folk songs, cradle-songs and toponyms have been collected and documented.²²

Considering the intangible cultural heritage was defined by UNESCO in 2003, Çambel's attention for the intangible assets that were achieved in the 1940s shows us her vision was ahead of her time. Her preservation approach was based on the preservation of the individual tangible assets with

¹⁸ The world famous kilims known as the 'Karatepe Kilims' are the results of this effort.

¹⁹ "Toroşlardan Bir Efsane: Halet Çambel," Documentation.

²⁰ "Toroşlardan Bir Efsane: Halet Çambel," Documentation.

²¹ Aşık Veysel (folk poet), Sabahattin Eyüboğlu (writer, academician), Yaşar Kemal (writer), Pertev Naili Boratav (writer, folklorist), Füreyâ Koral (the first Turkish professional female ceramic artist), Ruhi Su (folk music artist).

²² As an outcome of these works, in 2006, a book consisting the local narratives *Karatepeli Fıkraları* and a dialect dictionary *Türkmen Ağzı Sözlüğü* were published.

intangible contexts. Briefly, tangible and intangible cultural heritage were always inseparable and interlocking approaches to Çambel's vision.

As mentioned above, under the framework of the modern movement, it was important to contribute to the development of the country and disseminate the Republican reforms. Nevertheless, it was difficult to eradicate the traditional perspectives of the community, in particular, the rural areas. According to historians, Halet Çambel was not only an archaeologist but also was an effective figure of republicanism.²³ In other words, she has been a role model at Karatepe for the creation of public awareness of modern Turkey as well as of the modern Republic women in the terms of equality of women and men. The local community has been calling her as Halet Abla.²⁴ During her funeral, a villager from Karatepe said 'Halet Çambel was maybe an academican for you, but for us she was the mother of Karatepe (Halet Çambel sizin için belki bir akademisyendi ama bizim için Karatepe'nin anasıydı)'.²⁵ These are the evidences of how they sincerely adopted her personality and the importance of the region.

Halet Çambel As An Academician

In the Early Republican Period of Turkey, scientific institutions and universities with modern education have been established, and the youth have been provided to work there. In 1950, Istanbul University Prehistoric Department was established by Çambel together with Kurt Bittel.²⁶ The lessons given to the students by Çambel have been related to the analysis, the principles of scientific work and literature review.²⁷ But, her program was based an indissoluble bond with the academy and professional practice. Thus, field surveys and implementations have always been the main focus of Çambel's academic program. She has worked with a team consisting the students and she has always taken into consideration the on-site learning approach.

In continuation time of the Karatepe implementations, Çambel has participated and worked on several projects, in particular, focused on Anatolian research.²⁸ In addition, Çambel has followed the

changes of the technology and has collaborated with the leading research institutes of the world. Aiming to transfer of knowledge and skills to Turkey, Çambel has provided collaboration with the Professor Robert J. Braidwood and Linda Braidwood from the Oriental Institute of the University of Chicago. Between 1963 and 1972, they have carried out the 'Southeast Anatolian Joint Prehistoric Project'.²⁹ Within the scope of the project, the first comprehensive surface survey was carried out in Turkey (from the foothills of Toros Mountains to Mardin and Urfa). By the efforts of Braidwood, the specialists from the fields of archaeobotany, archaeozoology, geoarchaeology, environmental archaeology and archaeometry (the fields which have newly begun to develop in the western world) have participated the joint project.³⁰ While the project was continuing, they also have lectured at the Istanbul University. The project, which was accomplished using new methods, has an important place in Turkish archaeology.

During the Early Republican Period, it was clear that it was necessary to have an institutional structuring in order to ensure the permanence of the new methods used. Nevertheless, in those years the amount of the specialist who believed in the importance of archaeometry was inadequate. The specialists came together by the efforts of Çambel with the support of Ufuk Esin. In this way, the 'Archaeometry Unit' was established in 1976. Since then, the unit continues to research studies.

By the beginning of Çambel's professional life, she has gained a reputation, both for the national and international stage. In 1954, she was awarded with a membership by The International Union of Prehistoric and Protohistoric Sciences (Union Internationale des Sciences Préhistoriques et Protohistoriques – UISPP), and in 1964 German Archaeological Institute (Deutsches Archäologisches Institut – DAI). In 1979 she became the first Turkish member of the American Philosophical Society. In 1986, she received the Italian Adelaide Ristori Award.³¹ On the other hand, her achievements as a woman were not limited to archaeology word. In 1936, she participated to Berlin Olympic Games by representing Turkey in the branch of fencing. By attending the Games, she became one of the first two Turkish women (with Suat Fetgeri Aseni) to take part in the Olympics.³²

23 Mehmet Özdoğan, "Halet Çambel: Arkeoloji, Bilim ve Çağdaşlaşma," (speech at the conference in İstanbul Pera Museum, İstanbul, Turkey, January 24, 2014), <https://www.youtube.com/watch?v=OcqH68KilHU> (accessed January 19, 2018).

24 In Turkish language *Abla* means elder sister. In colloquial, it is used for people who are adopted as a part of the family.

25 Özdoğan, "Halet Çambel."

26 Official website of the department <http://edebiyat.istanbul.edu.tr/prehistorya/?p=6607> (accessed January 19, 2018)

27 "Toroslardan Bir Efsane: Halet Çambel," Documentation.

28 Özdoğan, "Halet Çambel."

29 "Prehistoric Research in Southeastern Anatolia - Güneydoğu Anadolu Tarihöncesi Araştırmaları Halet Cambel and Robert J. Braidwood," Online Archive of Oriental Institute of the University of Chicago, <https://oi.uchicago.edu> (accessed January 19, 2018).

30 J. Harlan B. Lawrance, W. Van Zeist, A. Jelineck and B. Howe.

31 "Halet Çambel," Women's Museum İstanbul, <http://www.istanbulkadinmuzesi.org/halet-cambel/> (accessed January 19, 2018).

32 During the Games, Halet Çambel was invited by Adolf Hitler. But she refused Hitler's invitation by saying that she would not meet without Turkish Government's permission.

Conclusion

The personality and biography of Halet Çambel confirm the changing process of women place in the social structure by the modern movement of Republicanism. She was the leading figure of the foundation and development of prehistoric archaeology of Anatolia. As it can be understood from Karatepe phase, she laid the foundation of the combination of tangible and intangible cultural heritage of Turkey. Additionally, during her life, she always felt responsible to contribute the dissemination the reforms of young Republic. By doing so, she became a role model for other women who had different social and cultural backgrounds. Her research activities and productivity never ceased until the end of her life in 2014. Besides, she had donated her mansion (Kırmızı Yalı) on the Bosphorus shores to Boğaziçi University in İstanbul. The mansion was restored by the university. In 2014 it was brought into service as a research centre by honouring their names: Halet Çambel-Nail Çakırhan Research Centre for Archaeology, Vernacular Architecture and History (Halet Çambel - Nail Çakırhan Arkeoloji, Geleneksel Mimarlık Ve Tarih Uygulama Ve Araştırma Merkezi). Currently, there are many successful women archaeologist who follows Çambel's legacy. Despite the women do still face various forms of discrimination; Çambel's legacy is still a role model for women of Turkey.

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Cre-Action for Cultural Heritage: The project of a World-Wide Focus on Architecture at Risk Conceived by a Professional Woman

Christiane Desroches Noblecourt is considered one of the first female Egyptologists at a time when this nascent science was the prerogative of men and exclusively a man's field of work.¹

During her long career, she is known for her important scientific contributions, not only in the sense of her large production of books and scientific articles, which certainly are essential, but especially for her active role spent preserving the memory and the Egyptian cultural heritage.

She was born at the beginning of the twentieth century, in 1913, intrigued since 1922 by the discovery of Tutankhamen's tomb by Carter, who immediately learned with fervour during the reading of newspapers, despite her very young age.

She had a deep passion of this culture growing up, and on many occasions and in interviews, she declared that her fervour for Egypt rather than other ancient civilizations, was in part due to the vision of the Scribe preserved in the Louvre museum, every time, she always manages to get excited, in the vitreous eye is enclosed an entire civilization.²

1 Anne Marie Romer, "La mort de Christiane Desroches-Noblecourt," *Le Figaro*, June 24, 2011.

2 Christiane Desroches Noblecourt, *Sous le regard des dieux: Entretiens avec Catherine David, Isabelle Franco et Jean-Philippe de Tonnac* (Paris: Albin Michel, 2003), 10–12.

During her life, a passion for the civilization of the ancient pharaohs became a true vocation, thanks to the encouragement from her first professor of Egyptology, Father Drioton³ at the Catholic Institute. He also held the chair of neo-Egyptian and that of the Coptic of Christian Egypt.⁴

At the beginning of the 1930s, at the time as her humanities studies, she also applied at the *École du Louvre* (School of Louvre) the art history course, lasting three years and covering all countries in order to give an opportunity to students to choose the area for specializing their studies. She didn't have doubts; for her it was Egyptology.

Certainly, she was lucky to be born in Paris at that time, there was already a vast panorama of knowledge in the city then.

At the same time, she was also studying classical Egyptian grammar at the *École Pratique des Hautes Etudes de la Sorbonne* (Practical School of Advanced Studies at the Sorbonne), having enrolled in Gustave Lefebvre's course.⁵ She also attended the courses of Alexandre Morret⁶ at the *Hautes Études* (Advanced Studies) and at Collège de France.

Immediately after her graduation, in 1934 when she was 21 years old, her great dedication to knowledge led her to work as a volunteer at Louvre Museum, under the supervision of the chief curator Charles Boreux. She was missionary in the Department of Egyptian Antiquities until 1938.

This incredible woman spent her entire life continuing to work at the Conservation of National Museums and at the Egyptian Antiquities department of the Louvre, where she was the first woman curator. She was also responsible for numerous missions, a sign of great wisdom as well as a strong personality for a woman during this period.⁷

In 1938 she was nominated *pensionnaire* (scientific member) of the French Institute of Archaeology in Cairo. Obviously this event, did not facilitate friendships and collaborations with her many male colleagues, because did not view her highly.

3 Étienne Marie-Félix Drioton was French catholic canon, Egyptologist, archaeologist. He was an assistant in the department of Egyptian antiquities of the Louvre Museum in Paris and in 1936 he became general director of Egyptian Antiquities in the Museum of Egyptian Antiquities in Cairo, later becoming Chief Curator of the Louvre and director of research at CNRS. He participated also in the foundation of Coptic archeology. Drioton was the author of numerous books first among everything *Notion élémentaires de Grammaire Egyptienne*, 1920–1921.

4 Christiane Desroches Noblecourt, *Sous le regard des dieux: Entretiens avec Catherine David, Isabelle Franco et Jean-Philippe de Tonnac* (Paris: Albin Michel, 2003), 21–22.

5 Gustave Lefebvre Egyptologist, Hellenist and grammarian. He was Director of Studies of Egyptian Philology at the *École Pratique des Hautes Etudes* since 1928. Chief Curator of the Cairo Museum (1919–27), Member of the French School of Athens (1900–04), member of the Institute Academy of inscriptions and belles-lettres, associate of grammar and doctor of letters.

6 Alexandre Moret was a French Egyptologist and he was curator of the Musée Guimet, in 1923 he became Professor of Egyptology at the Collège de France, specialist of the Amenophis III period.

7 Christiane Desroches Noblecourt, *Curriculum Vitae*, October 1, 1971, Archives Nationales, Paris.

During the Second World War, there is further proof of temperament and unquestionably of the visceral passion that the young scholar nurtured towards the Egyptian world. At the outbreak of the tragic event, the young Noblecourt joined the French Resistance movement in order to save the treasures of the beloved museum, and this sacrifice earned her numerous honours. She became *Chevalier de la Résistance à titre militaire*.

Only after the situation calmed down, she had the possibility to return to her loved pharaohs land.

While she was in Egypt, she had the opportunity to meet Mustafa Amer, who had taken the place of Drioton at the Service des Antiquités. They made the decision of creating the CEDAE, Centre d'études et de documentation sur l'Histoire de l'art et la civilisation de l'Égypte Ancienne (Centre for Studies and Documentation on the History of Art and the Civilization of Ancient Egypt). It is possible that Mrs. Noblecourt played the leading actor in this decision.

Since 1955 this centre gathered scientific figures of excellence, such as Egyptologists but also, archaeologists, specialized designers, architects of monuments, surveyors, and photographers, experts who can 'capture' historical artefacts with a scientific vision.⁸ One of the peculiarities of this project was to include local scientific experts, an element not to be underestimated for the cultural growth of the country, giving them the opportunity to train themselves.⁹

Mrs. Noblecourt set up a report to be submitted to UNESCO to explain the importance and necessity of creating this type of fulcrum in Egypt.

The aim of this ambitious project was precisely that of constituting a documentary collection to preserve the memory. In fact at that time there was not enough proof of documentation relating to the sites or simply to the local collections.

Initially CEDAE was considered fundamental not only for Egypt in the strictest sense, but for a need for world knowledge. For the first time the importance of creating an archive of documentation useful for the conservation of sources and testimonies for Egyptian civilization was considered, above all in a very sensitive period for the history of this country.¹⁰

In August 1955, Egypt officially asked for help in the creation of the documentation centre, to be created on the banks of the Nile River.

8 Christiane Desroches Noblecourt, *La Gande Nubiade: Le parcours d'une égyptologue* (Paris: Stock Pernoud, 1992), 125.

9 Above all because at that time there was discrimination even at the level of consideration of the training of local experts compared to those who had studied in West.

10 Christiane Desroches Noblecourt, "Rapport sur la nécessité de créer un centre de documentation sur l'Histoire de l'art et de la civilisation de l'Égypte ancienne" (Paris: Archives Nationales, 1955).

The context in which the creation of this centre is located is extremely interesting and at the same time extremely sensitive: as a matter of fact, these are the years of the Nubia Campaign.¹¹

During this time she was also involved as UNESCO council member.

The case of the Nubian campaign is seen from a certain point of view as a warning example in responding to future needs in the event of a threatened heritage.¹²

In conclusion, reading the role of this pioneering woman can delineate in the modern era, the great power and willpower of an individual who has fought against a very arduous scientific and cultural context, always emphasizing the importance of the transmission of heritage and cultural values.

Indeed an interesting factor is the context in which she spends her career between France and Egypt; certainly an adventurous experience, above all because Egypt had passed through various changes. She has had first-hand experience with this change.

Although she spent a large part of her life involved in her career, it should be noted that she was accomplished in her private life, having been married to the engineer André Noblecourt with whom she had a son. Christiane Noblecourt developed a sense of conservation that had not been implemented prior to her work.

Thanks to the many roles she played during her life, she had the sensitivity to deal with different scales of detail: from the relics in the museum to the larger scale monuments; she was a scientific expert all around.

Certainly the great activities that Mrs Noblecourt had played during her life contributed to the spread of knowledge of the extraordinary civilization of Egypt, thus contributing to full knowledge and global dissemination exciting the curiosity of tourists to visit part of one of the biggest 'museum an plain aire'.¹³

Stefania Dassi

Ministry of Cultural Heritage and Activities and Tourism, Turin | Italy

Studi d'Artista: From Contemporary to the Future

Images photographed through the eyes of a deep artist. Few words that draw a path of life, expression of the passion of an expert well translated in English.¹ Through these elements, we entered the place of art in Torino and we returned in this work to an audience I hope more. This is the result of a real team work. The intent was still spreading knowledge of cultural contemporary heritage and its entrance into the future, which should present some breaking down ideological barriers. Studies seem strange places; this feeling is amplified as much as you move away from the knowledge of the culture that created them. To know these spaces is oriented to the preservation of the identity of places. The components of studies are tangible and intangible including the ideas in embryo and the final creative work. The project *Circuito Studi d'Artista* maintains the intent to open the studies to the public to promote in the future new scenarios of use. *Studi d'Artista* represents another signal and another challenge to the ability of the Ministry of the Cultural Heritage and Tourism to act on the local system and promote opportunities for reinterpretation of our cultural heritage.²

Within the actions undertaken in Italy by MiBACT for the Plan of Contemporary Art, among the principal lines of development, we found the protection and the enhancement of artist's studies to which refers particularly the project *Circuito Studi d'Artista*, designed by the author of this contribution and proposed by Regional Secretariat of MiBACT for Piemonte of which I belong.

11 Rosa Tamborrino and Willeke Wendrich, "Cultural Heritage in Context: The Temples of Nubia, Digital Technologies and the Future of Conservation," *Journal of the Institute of Conservation* 40, no. 2 (2017), 168–182, <http://www.tandfonline.com/doi/abs/10.1080/19455224.2017.1321562> (accessed May 16, 2018).

12 Poul Duedahl (ed.), *A History of UNESCO: Global Actions and Impacts* (Basingstoke: Palgrave Macmillan, 2016), 285.

13 Christiane Desroches Noblecour, "Menaces sur le plus grand musée de plain air du monde," *Campagne internationale pour la sauvegarde des monuments de la Nubie*, Vol. 3 (Paris: UNESCO Press, 1960), 13

1 Translation by Sarah Cuminetti.

2 From now MiBACT.

Circuito Studi d'Artista is a project aimed to the development and the promotion of knowledge the world of contemporary art in Torino. The project aims to enhance the artist's studios as place of art production and privileged environments in which the bonds between artist, art works, fabrics and materials acquires an extraordinary value to showcase the creative process in a simple direct way.

The project focuses on the possibility to bring the public to the artist's studios –thus closer to the contemporary art world– and to create a direct relationship with the artists and their work. The experience that encourages participation by overcoming the mistrust towards and lack of familiarity with these forms of art. In order to investigate the Torino's art scene, it decided to start with an exploration of the studios located in the Vanchiglia district, than in San Salvario and last in the city across the Dora river, as it presented guided tour those are both unusual and innovative to the places where art is produced today.

In comparison to the artistic phenomena of the past, or than considered such because firmly historical, the language of contemporaneity, that spreads through all the creative expressions, is undoubtedly more difficulty and more distant. But importance to be contemporary goes together with the cultural growth of the society, it means to live the present and to turn the look toward the future, to have projects, to look over. Francesco Rutelli, during a symposium, called his speech "The contemporary art, measure of vitality of the society and economy."³ In the same convention Luca Dal Pozzolo⁴ said '...we must hold us worthy to create new heritage. Contemporary art is one of the enzymes to train the look of the different one'.

The contemporary is by now therefore to the centre of every debate, the conscience of its social and economic role is engaged, but what labours to take off they are proposed beyond the great projects.

The opening of the stage of the culture to a broad public is far more and more the result of politics that it departs from. For example, Priorità Cultura Association,⁵ whose President F. Rutelli, argues that from the birth of the Republic to today, the politics for the culture have

known extraordinary evolutions: the awareness of the economic potentialities is grown, for the liveability and the social cohesion created by the patrimony by the cultural activities and by the creative industries. Cultural tourism is a phenomenon of mass with demands and increasing potentiality.

3 Francesco Rutelli, "The contemporary art, measure of vitality of the society and economy" (paper presented at Symposium The importance to be contemporary: Contemporary art and cultural districts among public politics and private resources, Sandretto Re Rebaudengo Foundation, Turin, Italy, September 23, 2014).

4 Luca Dal Pozzolo is Director of Cultural Monitoring Centre of Piemonte.

5 Priorità Cultura is association which intends to promote the development of the culture, to protect the landscape and the historical and artistic heritage according to the art. 9 of the Italian Constitution.

One of the issue of the contemporary art remains its difficult fruition from a general public and the offer needs choices directed to approach and to capture the curious one, the occasional visitor, the tourist, over that the expert and the employee. Today the tourism and the cultural districts range from public policies and private resource and the role of MiBACT in Italy is to support also initiative whose the art creates it, teaches it and spreads it to local level over than national.

With criterions and well defined initial intents this project is developed in three different editions that analysed different districts of the city, particularly meaningful for the presence of creative activities: Vanchiglia, San Salvario and in the city across the river Dora, Barriera di Milano e Aurora.

The first edition is of 2014 and it's developed in the district Vanchiglia, a triangle supported to the river Po and it licks up an other river, Dora, between riverfront Po Macchiavelli, and Regina Margherita and San Maurizio avenue. The first year the project developed in two directions: the main the recognition of the artist's studies and the second the promotion of the open studies starting from the experience of ACCA Cultural Association. The last action is concretized in the meeting in Torino June 2014 to Palazzo Chiabrese, center of MiBACT in Piemonte, on the occasion of the event ACCA Atelier. During the meeting energies and local resource are compared with foreign experiences.⁶

The aim for the diffusion of the results of this search has been since immediately the editing of a guide. That could accompany to the places of production of the art, the studios and, in appendix, to the places of diffusion of the art, the galleries, chosen publishing to approach the public to the contemporary art proposing an unusual itinerary inside the cultural offer of the city.

Vanchiglia was the pilot project of a guide for a different proposal of cultural tourism for contemporary art in Torino. Vanchiglia is a district occupied historically by shops and small manufactures partly reverts to the commerce and, in characterizing measure, in vocation places creative. The guide, crossing the streets of the district, accompanying the visitor inside the studios of the artists those open the doors to approach the public to their artistic experience, to the place where the artistic production born and to themselves, those disclose them beyond their creations.

The guide wants to induce the public to discover a new experience in the place of production of art thought photos of an artist (Carlo Gloria with studio in Vanchiglia) and Carla Testore's unusual texts;⁷ the tourist visitor will be brought to go to see personally the illustrated places.

The experimental good work done for the first guide was repeated in other two districts of the city of Turin. The team Stefania Dassi/Carla Testore conducted the job for the two following editions

6 Marseille, Ouvertures d'Ateliers d'Artistes, Château de Servières; Lisbon, Abertura Ateliers de Artistas, Associação Castelo d'If; Berlin, BLO-studios, BLO-Ateliers; Buenos Aires, Estudio Abierto, Cultura Abasto.

7 Carla Testore is an experienced impassioned journalist of contemporary art.



Fig. 1. Stefano Giorgi's and Cristiano Piccinelli's studios, Torino/San Salvario, photo by Silvia Reichenbach (2015).
Property of the author for MiBACT SR-PIE.

with the same method, recognition of the studies and knowledge of the artists and choice of an artist photographer with studio in the district for the photograph project. Every time is formed an impassioned group in which there are compared with ourselves and with our intents. And it did.

For the second edition we went in San Salvario, historical district of Turin that was built in the late 19th century on project of the architect Carlo Promis. It extends from Bramante Avenue to Vittorio Emanuele II Avenue and in the line East-West is delimited from the river Po and the railway line among the stations of Porta Nuova and Lingotto. It is one of the greenest districts in town for the presence of Valentino's park and characterized by narrow streets and low-rise buildings.

Different street from those of the centre of the city, a project for multi-ethnic and multi-religious district what begins from *Statuto Albertino*.⁸ With it, in 1848, Carlo Alberto recognized and gave tolerance to the different 'I believe' present religious in the city allowing building of different cult as a Waldesian Temple, an Orthodox church, a Synagogue and the little church of Salvatore di Campagna from which has taken the name ill district.

Today San Salvario remains an inspiring crossroads of Italian Liberty and Moorish styles, where handicraft shops alternate with modern stores and fair trade shops, a picturesque suburb, perfect to inspire the artistic production. Various they are also the typologies of spaces in which the artists seek their own expression: there is who alive in the house-studio, who has need of 'to feel the road' and who prefers to put the studio in showcases more or less camouflaged or in the inside

⁸ The Statute of the Kingdom or Fundamental Statute of the Monarchy of Savoia of March 4, 1622, known as *Statuto Albertino* from the name of the king that promulgated it Carlo Alberto of Savoia, were the constitution adopted by the Kingdom of Sardinia March 4, 1848 to Turin.

courtyard of calm beauty. For someone the choice has a more modern formula and the studio become a space of co-working, a working style that implicates the sharing of the workplace, often to the ground floor, maintaining an independent activity. People who do co-working, especially young, autonomously work but they share common values and they are interested to the synergies that can be created to contact with talented people. Not surprisingly, it is also home to many artist studios that reflect the same diversity, providing a sanctuary of tolerance and peaceful coexistence.

A recognition of the artists' studios in San Salvario has revealed different artists that work with a transgenerational approach that differ radically one from another. In the small streets of this quarter you can meet artists still tied to a traditional way if artwork. Their studies are full of brushes and colours and the spirit that hovers there takes the visitor back to the art workshops of our imagination, although their works express a feeling strongly influenced by the contemporary world. Among the artists of this new generation, born in the digital age, a group adapted their art to the new technologies and beginning to use the mouse to create. In their studies, you will not find tablet dirty with colours, glue and solvents, there are work tools, but computers, scanners, printers and many electrical wires. These appeal as just like any other workplace. Art does not produce noise any more, no longer smells; now it takes up less space and artists can meet and produce in shared places to cope with costs. What was once a place dedicated to artistic creation has been stripped of its specific characteristics, it is no longer a place of classical romantic memory, but a real lab. We are witnessing the dematerialisation of the art-production site, because the work can be produced wherever there is a computer and an internet connection. His 'evaporation' of the place dedicated to artistic creation does not affect at all the substance of artistic work. The technological revolution and cultural, instead, develop new ideas and unthinkable exploits. The archetype of the artist's studio is dying, but not art.

Silvia Reichenbach, the artist photographer with studio in the district and creator of photographic project for the second edition, wrote of San Salvario:

When I'm not traveling this is my district, by choice. Centre of my daily life, the house, the studio, the market in Piazza Madama, the small shops, the park and the river, the meetings on the street. I love the multi-ethnicity expressing, its different cultural environments. I cannot deny that the change that it's going through in the last years, the new premises opening in place of old stores and the swell of the night hours, makes to live here more arduous. The studies that lay at the basis of this collection signify a deep knowledge and discovery of a new aspect of my district's richness. Every atelier is a world of its own. While the first place of an artist's reflection is the soul, the imagination, the mind, with each moment of creation and elaboration it encompasses, the atelier is the physical place where the work of an artist takes shape and comes to fruition. Entering such a private and intimate space - never a random

construction but the subjective result of a slow layering of signs, thoughts and histories - I listened, observed and let my attention dwell where my glance was directed. Both the overview and the details came into existence by respecting, in most cases, the arrangement of the objects and the different presence of natural and artificial light. As for the portraits I used a different approach choosing to take them outside, nearby or in the entrance of the studio, both to provide some context through architectural details (a courtyard, a landing, a staircase) and to enhance the intensity of the visual contact, the small movements, a tilted face, people's spontaneity or shyness in having their photograph taken. Remembering George Bernard Shaw: You use a glass mirror to see your face, you use works of art to see your soul.

In 2017, the year of last edition, I have decided to go beyond.

In Turin, the Dora Riparia River follows a winding path that crosses the city from the West and the Val di Susa and flows into the Po River to the East. It marks a separation between the city centre to the South and the *periferia*, the periphery with its complex social landscape, to the North, like a border setting the limit between the city and what lies beyond. A borderline – a concept that translates into a number of meanings, also pertaining to the sphere of perception and the senses.

The time has come to reflect on the term periphery⁹ and to try to provide a different meaning for a term that carries with it a negative connotation for the outskirts of a town. The periphery offers plenty of opportunities for those willing to embrace it without prejudice, and it should be viewed as an opportunity also by its inhabitants, marginalized by the centre and implacably dismissed as a heap of negativity. While the negative component cannot be denied, it can certainly be addressed constructively. What can be done for the periphery is planning a transformation that meets the needs of vast communities living in critical conditions, enabling them to build on the potential that issues from that very community dimension, to benefit everyone for the common good. The renewal and revival of these spaces requires the active participation of all those who live there. It is a challenge that can be won only if the winners are first and primarily the protagonists of everyday life, and it is only later that one can expect to attract others willing to go beyond limits and boundaries, bringing down barriers and opening up free pathways.

This third edition of *Studi d'Artista* focused on the creative activities that take place in the periphery, in the city districts that are found across the river Dora. It presented through the photos of an artist who is himself 'a local', Nicolò Taglia and the texts, once again, expression of the passion of the experienced one that I have had close to me in this trip since the beginning, Carla Testore. In this

9 From the Oxford English Dictionary: Late 16th century (denoting a line that forms the boundary of something): from Greek *periphēreia* 'circumference', from *periphērēs* 'revolving around', from *peri-* 'around' + *pherein* 'to bear'. 1. The outer limits or edge of an area or object. 1.1. A marginal or secondary position in, or aspect of, a group, subject, or sphere of activity.



Fig. 2. Alessandro Bulgini's, Pierluigi Pusole's and Daniele Galliano's studios, Torino/The city across the Dora, photo by Nicolò Taglia (2017). Property of the author for MiBACT SR-PIE.

edition I have found hard to find the photographer that convinced me for this job. However, when I have met Nicolò I had no doubts that he had to be the artist for the project.

Nicolò wrote:

Turin is my home, to which I have dedicated several photographic projects that document its magical energy and transformative power, with natural light in black and white. This project focused on a particularly stimulating area of town in constant evolution. Artist studios are a wonderful starting point to tell a story of resistance and hope for the future.

With the project, we have gone to the city across river Dora where there are districts rich in history today become new area of meetings multicultural where all the languages of the art can be compared for planning new representations of a world in continuous evolution. Across the Dora, only two kilometres from Piazza Castello, there is another Turin, dating back to the late 19th century and originally home to the city's customs wall. It was here that customs duties were paid to enter the city. There were various gates where this toll was paid that were called 'barriers' (*barriere*) and the most important one was the Milan barrier in piazza Crespi, granting access from the Lombard capital, hence the name of one of Turin's main districts across the Dora: *Barriera di Milano*. The working class legacy of this industrial district is still evident today in the ever-changing scenario where new projects and redevelopments make up a colourful mosaic full of surprises. This part of town is still home to old houses, liberty buildings, housing projects built for factory workers, an array of shops, and most notably decommissioned railroad facilities and industrial areas. These include the Docks Dora area along via Valprato, that evolved from a railroad and shipping yard to an evocative complex where the abandoned rail tracks run into nightlife spots, showrooms, architecture and art studios.

Between 1912 and 1914 the *Società Anonima Cooperativa dei Docks Torino-Dora* commissioned the construction of the new customs depots in the *Barriera di Milano* district, across the Dora River to the North. The Docks made up a markedly industrial area comprising foundries, iron and steel works connected to the local railroad network, located between the customs walls from 1853 and 1912 and regulated by the Expansion Plan approved in 1908 and subsequent additions.

The Docks are based on a project by the engineer E. Fantini and were built by the company G. A. Porcheddu, the only authorized construction company in Italy to use the *Système Hennebique*, that is to say reinforced concrete integrated with iron elements. The complex consists of several two-story buildings with an underground level and direct access to a railroad platform, in a herringbone pattern that runs the perimeter of an irregular plot of land with an open area at the center. Their architectural appearance is revealing of their intended use: office space with a manned reception area and customs guards at the entrance in Valprato Street, warehouses and facilities for product sale and food production to the North. The structure is essential and flexible, with wide brightly lit spaces and functional areas, made of reinforced concrete and exposed bricks, a double ceiling in reinforced concrete and glass for the central hall where the three main buildings converged. The Docks Dora, one of the most productive areas of the time in Turin, would later be abandoned in the mid-1900s, but in spite of the modifications that followed to add floors and rethink the overall layout, the complex has maintained the formal and functional unity of the original plan, that coexists today with the new use of these facilities. The warehouses, the property of a single owner, have been converted to places of creative activities: artist studios, architecture and design studios, cultural associations, artisanal workshops, showrooms, night spots which have all maintained the connections between the complex's aspect, the history of the city, its social relevance and the variety of the activities that it hosts. Bearing witness to the artistic and cultural ferment of the Docks, they are also home to the main office of Association The Others, that organizes the contemporary art festival *The Others*, along with *Artissima*, and a project by Association Il Mercante di Nuvole which, since the creation of the digital museum archives of Studio65 under the scientific supervision of G. Angelini, aims to launch a cultural research and training centre on design, a 'smart community' devoted to creative design that will be accessible to a vast public both on and offline.

Among the places of art creation across the Dora, the Docks are crucial as a site that is integrated in the fabric of the city where it is easy to share artistic experiences, an area that evolved from a railroad station in the *Barriera di Milano* district to a multifunctional meeting point that attracts creative activities. The rooms with their exposed brick walls, some whitewashed, with concrete floors, mezzanines connected to the lower floors by iron staircases, and the wide skylights have won over with their charm many artists from all walks of life, who have chosen this site as the ideal setting for their creative production.

Also MEF – Museo Ettore Fico in via Cigna is housed in a former mechanical and electrical factory and the 2000 m² surface is now used as an exhibition and cultural space and a gathering spot. Other cultural initiatives in the area include the multidisciplinary experimental space Bunker, located in an air-raid shelter from the Great War, Cascina Marchesa, and Bagni Pubblici Agliè. Strolling down the large avenues or the smaller streets across the river, one is struck by the persisting charm of the industrial boom years accompanied by modern and unexpected additions:

the thirteen. Mural paintings by Millo on the windowless sides of buildings in the streets between Barriera and Borgo Rossini, two more by the street artist Kreiss in via Vercelli, a building dressed up in artistic awnings celebrating dance; *Opera viva* by Alessandro Bulgini, who adopted the streets of the Barriera district as his personal *atelier en plain air*, and the *Stolpersteine* (memorial cobblestones) scattered around on the pavement as a tribute to the victims of the Holocaust.

Carla Testore wrote

Across the Dora ... there are streets permeated with history that have turned into multicultural hubs, where all the languages of art can dialogue to define new representations of a constantly evolving world.

At the third edition of *Studi d'Artista* we can try to trace a first summary report of this project. The experience is characterizing really in the evolution, the vivacity and the diffused presence of real 'periods' artistic in kept places unjustly out of the great turn of the shows and the expo. The districts that we have known along this walk, the city over river Dora perhaps more than the others, as experimental laboratory of artistic production and element will be proposed able to create a reality 'short circuit' with the city, stimulating the activation of new runs of cultural growth.

The proposal to individualize runs that feed experience inside every single district has the ambition to create a real city network that can properly interact with so many places of the traditional culture that risk to remain excluded inside old logics if deprived of the necessary lifeblood of the contemporary. This represents a stimulus for the cultural growth of a community to make alive and actual in their entirety.

Paving the way to greater participation of the public in general, these places inhabited by artists contribute to the evolution of the contemporary artistic production process. The *Circuito Studi d'Artista* project promotes awareness of their work and intends to open up these spaces to the public, celebrating their relevance and shifting the focus towards new landscapes of cultural tourism, inviting visitors to experience first-hand the art production of the periphery, going beyond the mere perception of the artwork. The project *Circuito Studi d'Artista* also intends to delineate new opportunities of cultural aggregation in the auspice that the initiative keeps on soliciting further synergistic interactions.

Chapter E

Women's Achievements and Professional Attainments: Moving Boundaries

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Women's Achievements and Professional Attainments: Moving Boundaries

Society remains imbued by pervasive masculinity through deeply embedded epistemological and institutional phenomenon. The question of equality and recognition of women does not persist on account of the ill will of men or the level of trust of woman, but in the nature of the institutional structures and in the vision of the reality that it imposes. The lack of awareness regarding the representational character of women in contemporary architecture and design is part of a larger absence of women, among those responsible for these representations with regards to the 'asymmetrical' nature of the world.

In October 2014, the Association of Collegiate Schools of Architecture (ACSA) published a short survey asking: "Where Are the Women? Measuring Progress on Gender in Architecture,"¹ in which Lian Chikako Chang (ACSA Director of Research and Information) points out that 'women have been increasingly recognized since the 1980s' but, in the case of some prestigious prizes, 'significantly, even in the most recent years since 2010, fewer than one in five of these awards have gone to women.' Two years later, architectural historian Despina Stratigakos deliberately posed the same issue by paraphrasing the title in her book, *Where Are the Women Architects?*² One of the questions she addresses is why women are 'so rarely sighted on the podium when the profession bestows its most coveted awards'.³

1 Lian Chikako Chang, "Where Are the Women? Measuring Progress on Gender in Architecture," Association of Collegiate Schools of Architecture (ACSA), <http://www.acsa-arch.org/resources/data-resources/women> (accessed May 3, 2018).

2 Despina Stratigakos, *Where Are the Women Architects?* (Princeton: Princeton University Press, 2016).

3 Ibid, 3.

We can observe the paradigmatic case of the Pritzker Architecture Prize: between 1979 and 2003, this most prestigious award in architecture was consistently awarded to men. In 1991 the joint work of Denise Scott Brown (b. in 1931) and her partner and husband, Robert Venturi (b. in 1925) was recognized, but the Pritzker was awarded only to Venturi and Scott Brown did not attend the ceremony as a form of protest. Only in the new millennium, did the first woman architect receive this award: Zaha Hadid (1950–2016) in 2004. In 2010, Kazuyo Sejima (b. in 1956) was the winner in partnership with Ryue Nishizawa (b. in 1966) and in 2017, Carme Pigem (b. in 1962) was the winner in partnership with Rafael Aranda (b. in 1961) and Ramon Vilalta (b. in 1960). We can conclude that partnerships with male architects increase the likelihood that female architects are recognized by the Pritzker, but only one woman has received this prize on her own.

If we consider another case, specifically related to Europe, the European Union Prize for Contemporary Architecture - Mies van der Rohe Award (created in 1987 as equal partnerships between the European Commission, the European Parliament and the Fundació Mies van der Rohe), the scenario remains: only one woman architect received this award, Zaha Hadid in 2003,⁴ a year before receiving the Pritzker and in 2016, Hadid once more became a pioneer by being the first woman awarded with the RIBA Gold Medal⁵ in her own right.

If we extend this analysis to the 'Emerging Architect Special Mention' category, two women architects received this distinction between 2001 and 2017, but both obtained it in partnership: in 2011,⁶ Bet Capdeferro (b. in 1970) with Ramon Bosch (b. in 1974) from *bosch.capdeferro arquitectura* (a Spanish studio founded in 2003 in their hometown of Girona), and in 2013,⁷ María Langarita (b. in 1979) with Víctor Navarro (b. in 1979) from *Langarita-Navarro arquitectos* (another Spanish studio, based in Madrid where they have been working together since 2005).

These difficult paths of women in search of professional recognition do not erase the achievements they have made since the first woman architect in the world, Signe Hornborg (1862–1916), graduated in 1890 in Finland. The new millennium is bringing interpellations in favour of parity and the trace they have left in the evolution of the profession is progressively being highlighted: for instance, in 2014 the American architect Julia Morgan (1872–1957) became the first woman to receive the AIA Gold Medal,⁸ a posthumous recognition for her career and determination to graduate in architecture

at the prestigious *École des Beaux Arts* in Paris in the late nineteenth century, a time when women were reluctantly admitted to this school.

If the Pritzker Jury was able to deny Denise Scott Brown a retroactive reward, women continue their fight to improve and create quality architecture but no longer silently, as the 2013 on-line petition for the recognition of Scott Brown reveals.⁹ In addition, an expressive number of women architects have also received recognition for their achievements in recent years. In 2007, the German architect Anna Heringer (b. in 1977) was one of the winners¹⁰ of the Aga Khan Award for Architecture for her METI Handmade School built with bamboo and other local materials in Rudrapur, Dinajpur, Bangladesh. Example of sustainable architecture, the project was praised not only for its simple, humane approach and beauty, but also for the level of cooperation achieved between architects, craftsmen, clients and users.

The highest recognition awarded by the Union Internationale des Architectes (UIA), the UIA Gold Medal created in 1984 (awarded every three years), was never granted to a woman architect. However, one of the UIA Prizes, the Sir Robert Matthew Prize 2017 for the Improvement of the Quality of Human Settlements¹¹ went to South African architect Carin Smuts (b. in 1960). She established CS Studio Architects in Cape Town South Africa with Urs Schmid in 1989, during the height of the apartheid. From then on, the goal of the company's projects was a result of a dynamic participatory process with the aim to restore human dignity and accommodate cultural diversity.

Another representative achievement inscribed for future memory was produced in 2017, when the French architect Manuelle Gautrand (b. in 1961) was the first woman to receive the European Prize for Architecture,¹² established in 2010 by the European Centre for Architecture Art Design and Urban Studies and the Chicago Athenaeum: Museum of Architecture, being awarded annually. Manuelle Gautrand is the President of the French Academy of Architecture since 2016 and she received this award in recognition of the richness by the whole of her work.

Seeking to explore how memory plays a key role in cultural recognition and the importance of mapping these professional 'geographies', from elite prizes dominated by men to the erasure of women creators, session E of MoMoWo Symposium 2018 – 'Women's Achievements and Professional

4 See "Home," EUmiesaward, <http://www.miesarch.com/> (accessed May 20, 2018).

5 See "Royal Gold Medal," RIBA Architecture.com, <https://www.architecture.com/awards-and-competitions-landing-page/awards/royal-gold-medal> (accessed May 20, 2018).

6 See "Results," EUmiesaward, <http://www.miesarch.com/edition/2011/results> (accessed May 20, 2018).

7 See "Results," EUmiesaward, <http://www.miesarch.com/edition/2013/results> (accessed May 20, 2018).

8 See "Gold Medal," AIA, <https://www.aia.org/awards/7046-gold-medal> (accessed May 20, 2018).

9 Stratigakos, *Where Are the Women Architects?*, 2.

10 See "Press Release," AKDN, <http://www.akdn.org/press-release/nine-projects-receive-2007-aga-khan-award-architecture> (accessed May 20, 2018).

11 See "2017 UIA Gold Medal & Prizes: Winners," International Union of Architects, <http://www.uia-architectes.org/webApi/en/news/test> (accessed May 20, 2018).

12 See "European Prize for Architecture – Nomination," The European Centre, <http://www.europeanarch.eu/european-prize-for-architecture-nominations/> (accessed May 20, 2018).

Attainments - Moving Boundaries'-, introduces the critical debate surrounding women's cultural representation, highlighting the themes which form the basic tenets of this discussion.

For this debate, we have received contributions that cross geographies in an increasingly broad register, which also identify the crucial role of migrant women. The circulation and transfer of knowledge allowed women to be inscribed in the emergence of various contemporary modernist tendencies in architecture and design.

In "Going for gold: looking at the gender imbalance of recipients of major architectural awards and prizes," Liz Walder traces these difficult paths and considers 'why female architects tend to be in second place for the majority of the top five architectural awards'- considering that the 'Oscars' are 'the American Institute of Architects (AIA) Gold Medal, the Royal Institute of British Architects (RIBA) Royal Gold Medal, the Praemium Imperiale, the Pritzker Prize, and the Union Internationale des Architectes (UIA) Gold Medal'-, as she also examines 'retrospective claims for women to win.'

Mapping professional 'geographies', Alfons Puigarnau and Tanja Poppelreuter perceive cases of female architects rewarded during the course of their lives, which accompanied the vicissitudes of the development of the Modern Movement and the complex circulation of knowledge and transcultural exchanges during the 1940s, 1950s and 1960s.

Puigarnau, amongst other contributions, puts out the professional curriculum of Margaret Schütte-Lihotzky (1897–2000), which appears in the annex of the letter sent by her in 1933 to the Catalan architect Josep Lluís Sert (1902–1983). This unpublished document is 'a real "Professional Geography" of the "historically invisible" woman architect Margarete Lihotzky', known since 1926 for her 'Frankfurt Kitchen'. Also, Puigarnau discusses and contextualises the cultural and political situation that has supported or hindered Grete Lihotzky through the troubled times of the twentieth century.

As part of a larger research project, Tanja Poppelreuter observes the cases of six "German-speaking Refugee Women Architects before World War II" –Marie Frommer (1890–1976), Liane Zimmler (1892–1987), Elsa Gidoni (1901–1978), Karola Bloch (1905–1994) Hilde Reiss (1909–2002) and Elisabeth Scheu Close (1912–2011)– who were exiled to the USA. By putting in context the background of these women and the transcultural exchanges that prevailed between Europe and the USA, Poppelreuter pursues 'the complex networks within which they operated', which enlisted their names in the development of Modernism.

Continuing on this path of circulation and transfer of knowledge, Deepika Gandhi unveils the contributions of Urmila Eulie Chowdhury (1923–1995) for the transnational development of Modernism. One of the first women architects of Asia, Chowdhury took 'an important part of Corbusier's team during the planning, design and construction of Chandigarh from 1951–63 and is credited with many institutional and residential buildings.' Also, she was the Indian architect

'correspondent for the internationally known English magazine Architectural Digest for several years' and she herself wrote regularly to several newspapers.

In the field of industrial design, Chiara Lecce and Anna Mazzanti present the steps from craftsmanship to industrialization made by Anita Pittoni (1905–1982) and Fede Cheti (1905–1979) in the 1930s and 1940s. Lecce and Mazzanti bring together their knowledge on the work of these Italian designers working in the renewal of textile creations, and also analysing inspirations from the Bauhaus textile products, as well as women affirmation on this school against misogynistic sensibilities.

With Silvia Fernández, we emerge in another transnational case through the role played by the CIDI (Industrial Design Research Centre) in the development of industrial design in Argentina between the 1960s and the 1980s. Fernández presents a comparative gender research on 'the participation of women in the CIDI in leading positions (composition of committees), the integration of personal, their intervention/participation in competitions and exhibitions' and also underlines the graphic work of María Luisa Colmenero (1933–2011), who designed both the visual identity of CIDI and prizes, being also responsible for the design and implementation of both the permanent and travelling exhibitions dating from 1966 to 1972.

Lorena Alessio and Milène Guermont present their own cases, which introduce the critical debate around women's cultural representation on the emergence of various contemporary tendencies in architecture.

Alessio begins by underlining that 'Being an architect is what I have chosen to be. Being Italian is representing my root. Being a woman is letting me have a specific point of view and sensitiveness'; with the same clarity of this statement, you can read how 'Leadership in architecture is hard for women' and accompany her as an architect and urban designer blurring boundaries working in Asia.

In our era of continuous scientific and technological progress, which implies a constant acceleration of time, while being bound by daily digital communications, delivered in immaterial ways, Guermont trusts in the 'material revival', because 'Nothing can replace touch.' From the genesis of the creation of her projects, the author, in a self-referential paper on the integration of art in architecture, deepens the relationship between matter, materials and the shape of sculpture with the architecture and the space. By the merit of her undoubtedly creative work, she won in 2017 the Art Prize of NOVA XX (international competition of women artists using hi-tech).

We can also follow the equally noteworthy path of the architect Caterina Tiazzoldi, who contributed as an Invited Speaker along with the architect Ana Tostões, Chair of Docomomo International and Full Professor at the Civil Engineering and Architecture Department of the Instituto Superior Técnico - Lisbon University, and Bárbara Coutinho, art historian and Director of the Museum of Design and Fashion – MUDE (Lisbon, Portugal).

Caterina Tiazzoldi, award-winning Italian architect, will give us her vision 'to develop innovative design solutions through the strong interaction between her international professional practice and the research developed in the academic environment'. Through a series of case studies evolved by the Caterina Tiazzoldi Studio, she presents how the design methodology, designated as 'Combinatorial Architecture', is 'developed to integrate in the design process the tangible and intangible dimensions of architecture.'

In her lecture, Ana Tostões speaks about 'Women in Power beyond Europe', presenting 'three cases of women architects that, by different circumstances, followed their path overseas, from Europe to the world, in three different continents: Lina Bo Bardi (1914–1992), from Italy to Brasil; Jane Drew (1911–1996), from UK to India; Rute Bota (b. in 1932), from Portugal to Mozambique', underlining the importance of migrants and migrations for the circulation of cross-cultural knowledge exchange and for the global expansion of modernist development.

Bárbara Coutinho presents her lecture on "How Many Women Had One-Person Exhibition at (Design) Museums over the Last Ten Years? The Male Historical Discourse and the Endless Work to Give Voice to the Female Vision" where she analyses MUDE's collection 'to evaluate the representativeness of women', highlighting how 'many women have played a relevant role in design practice, theory and pedagogy, but few are properly recognised, since design history has been written by men, just as museological institutions have been reigned by them.'

All of these recent studies presented by the MoMoWo Symposium 2018 pave the way for a new writing of architecture and design history, which celebrate without hindrance, women's achievements and creativity. It is essential to advocate the ideals of Annette Fisher,¹³ former 'president of the RIBA [Royal Institute of British Architects] Council in London as well as running her own practices, has championed the cause of both women and minority architects'¹⁴ by significantly contributing to 'breaking the glass ceiling' suspended above these groups.

That is why rebalancing history, art history and design & architecture history is so important. By constructing a more even narrative of women and men activities during the modern movement, an infrastructure of taste, reputation and prestige will be built. In the end, it will conduct to a fairer appreciation of contemporary works.

A genealogy of women masters, women disciples, women influences and determinant masterpieces will certainly help to throw some light and interest in the actual women production.

History is one of the greater institutions of modernity and like other powerful institutions of that period, was devised and folded around men. Also Modernism, in Architecture, promoted buildings as 'Grand Narratives' that concealed the sensitive work of women qualifying it as minor and subsidiary. Re-writing the History of this period is, therefore, manifold and crucial to create a brighter future for gender equilibrium in Architecture and Design prizes and awards.

¹³ Annette Fisher is an award-winning architect, who has been working in the field of sustainable buildings since the early 1980s. She was born in the UK of Nigerian and Sierra Leonean parents and raised in Lagos, until the age of 17, when she left to attend University in Britain and stayed on to work there. She has practiced in the UK, USA and Africa. In 1997 she formed Fisher Associates. She was a founding Group board member of the Diversity Board at Places for People housing association, as well as Chairman of the Kush Board its then subsidiary (Cf. "Annete Fischer – Contact: Trustees," Commonwealth Association of Architects, <http://www.comarchitect.org/contacts-trustees/name/annette-fisher/> (accessed May 20, 2018)).

¹⁴ Maggie Toy (ed.), *The Architect: Women in Contemporary Architecture* (Chichester: Wiley-Academy, 2001), 9.

Annex

Caterina Tiazzoldi

Xi'an Jiaotong-Liverpool University | China; Caterina Tiazzoldi Studio, Turin | Italy

Capturing the Intangible

Local Know-How for Global Innovation

Introduction

The author, Caterina Tiazzoldi is an architect, researcher, and educator. She is an associate professor at Xi'an Jiaotong-Liverpool University (XJTLU) in China and co-founder of the research lab Non Linear Solutions Unit at the Graduate School of Architecture, Planning and Preservation (GSAPP). Her approach is characterized by combining a humanistic approach with a scientific approach, making it possible to connect a global vision with specificity or a technical response.

She was born in Torino, where her father Alessandro Tiazzoldi, was a navy engineer and later one of the first neural network designers at Olivetti; her mother, Laura Rolle was a Doctor in Law. Both share a passion for history, cultural history and sciences.

Their particular interest focused on the question of 'Why and How' paradigm shifts happened at specific moments of history. Tacitus, Braudel, Kuhn, Cage, Bela Bartok, Segovia... Why could the Phoenicians navigate the Mediterranean better than anybody else in the second and first millennia before Christ?

Why did a given city become a 'hub' at a given moment of history? Why and how did Christian Dior and Armani define a new style for the working woman?

In both her professional practice and theoretical research her interest has always been focused on understanding why a specific shift happened. Was it driven by the invention of a given technique (the compass, spices, the silicious, and coins), history or religions, and how will the agglomeration of a given geography, technology and culture create a historical shift. How does innovation happen?

What is the relation between geography, culture, science, religion and the intangible set of relations that transform a given culture at a given historical moment? How can we use the capacity to find

new solutions for new problems? Between 1998 and 2008, she supported her studies by working as a store designer for the retailers GB Sportelli and Catherine Klee. She realized more than 60 stores. By working directly with manufacturers under strong budget and time constraints, she had the chance to draw up a taxonomy recording how narrow variations such as site, space, materials and lighting can transform people's behaviour in the spaces.

What is the relation between the tangible and intangible in architecture and design?

Tangible and Intangible, Measurable and Non-Measurable,

Objective and Subjective

The relation between tangible and intangible, qualitative and quantitative approaches to architectural and urban design is historically well rooted in the disciplinary debate. On the one hand, architecture seems to be rooted in the research of a pure autonomy, deriving from a system of quantitative rules (such as the 'Golden Section'), regulating the form and performances of spaces. On the other hand, architecture seems to rely on qualitative performance deriving from a phenomenological approach, which includes feelings and emotions.

In his article "The Ghost of Architecture,"¹ the architectural historian Antoine Picon affirms that all artistic disciplines are related with a system of objective rules, which are embedded within their practice.

Such position can also be found in the work of the American architect Peter Eisenman,² who states that architecture has always been regulated by rules and codes. The fact that many of the aspects of contemporary professional practice are implemented through a series of rules and regulations (whether they are formal, aesthetic, social, legal, ethical, technological, or structural) demonstrates the importance of such code-based procedures in architectural practice.

Contrariwise, Jose Antonio Coderch (1961) states that architecture is not a rules-based practice. According to the Spanish architect, linear equation cause-effect type rules can drive only mathematics.³

The question would be what is the relationship between a project that is generated by objective rules, and a project that is based on subjective input? What is the relation between quantitative and qualitative input, and between objective data and input deriving from a perceptive phenomenological approach?

In Le Corbusier's writings, these two dimensions seem to coexist. In *Towards a New Architecture*,⁴ the theme of the relation between subjectivity and objectivity in architectural design is explored from a dichotomist perspective: architecture is associated with a 'state of pure objectivity—expressed through a series of irrefutable rules';⁵ at the same time, the Swiss architect states that 'architecture exists only where there is a poetic / intangible emotion'.⁶

How does poetry apply to architecture? How do we create an intangible atmosphere: an intangible condition having the capacity to influence the feelings of those who experience it? This means creating an impalpable condition through the execution of a series of specific operations: spatial, geometrical, sound acoustic and climatic. It signifies the transformation of something that cannot be described into a list of commands that will be executed by a manufacturer or contractor. To capture the intangible, it is necessary to transform the idea of sensations into a list of operational directions. This operation signifies the transformation of the qualitative into the quantitative. The question remains: 'What are the tools that permit the design of a space capturing the intangible?'.⁷

What is qualitative and what is quantitative, what is measurable and non-measurable, tangible and intangible?

A New Field of Tangibility

In 2003, Tiazzoldi started a PhD in the Architecture Department of the the Politecnico di Torino,⁸ Non Linear Design Strategies, 'exploring how the paradigm shift between the Classical Sciences and the Sciences of Complexity addressed the relation between objectivity and subjectivity from a completely new perspective'. This change affected also the relevancy of the role of the relation between tangible and intangible approaches in architectural and urban design.

4 Le Corbusier, *Towards a New Architecture* (New York, NY: Dover Publications, Inc., 1931).

5 Ibid, 212.

6 Ibid, 215.

7 Caterina Tiazzoldi, "Notational Tools," *Ambiances in action / Ambiances en acte(s): Proceedings of the 2nd International Congress on Ambiances*, edited by Jean-Paul Thibaud and Daniel Siret (Montreal: International Ambiances Network, 2012), 663–668, <https://halshs.archives-ouvertes.fr/halshs-00745859/document> (accessed May 18, 2018).

8 Tutor: Pierre Alain Croset.

1 Antoine Picon, Emmanuel J. Petit and Lucia Allais, "The Ghost of Architecture: The Project and Its Codification," *Perspecta* 35 (Buildings codes, 2004), 8–19.

2 Peter Eisenman, *Diagram Diaries* (London: Thames & Hudson, 1999).

3 Jose Antonio Coderch, "No son genios lo que necesitamos ahora," *Domus*, no. 384 (1961), 1–10.

The next paragraph will briefly retrace the key moments of this paradigm shift that can be found in history.

In *A la rencontre du complexe*, the Nobel Prize winner Ilya Prigogine states that the transition from the determinist paradigm to the framework of the sciences of complexity implies a radical attenuation of the distinction between hard sciences (mathematics and physics) and soft sciences (biology, social sciences, and architecture), between a quantitative and qualitative approach.⁹ According to Prigogine, in a first phase the program of classical sciences (such as in Newtonian physics) seemed not to detect particular shortcomings: the fundamental level which deterministic laws offered seemed right. At the beginning of the twentieth century, physicists were unanimous in declaring that the laws of the universe were deterministic and reversible. Yet, each time that errors or problems that falsified the proper functioning of these rules occurred, such situation was conceived as an exception in a broader family of laws. In order to be useful, rules had to be subjected to large variations and approximations, but were unable to grasp the fundamental laws explaining some of the phenomena of nature. At the end of the nineteenth century, scientists began to question the laws that were at the basis of classical physics, their elementary interactions, and their helplessness in responding to problems.¹⁰

Henri Poincaré and Ludwig Boltzmann¹¹ introduced in mathematics and physics, the idea of a chaotic deterministic system and statistical mechanics, in which rules were not absolute but were dependent on a specific observer. The impossibility of presuming a pure objectivity, which could be independent from the role of an external observer, radically shifted the existing distinction between the objectivity of hard sciences and the subjectivity of soft sciences.

This change transformed all disciplinary research and also implied a need to review the equilibrium between rule-based and perception-based architecture and urban design.

The exclusion of the possibility of a purely objective approach in favour of a new form of subjective relativism blurred the relation between what is measurable and non-measurable, and between quantitative and qualitative input in the scientific field.

Tiazzoldi was awarded by the Piemonte Region with the Post-Doctoral Fellowship Program for Italian Researchers Abroad from the Politecnico di Torino for her research on "Transfer of Methodology from Science of Complexity to Architecture."¹²

In 2005 she received a Fellowship from Santa Fe Institute, a centre focused on the Science of Complexity, with a grant supported by the NSF National Sciences Foundation. In 2008 the American Research Centers Consortium awarded her for her research work.

In the following years she investigated how the methodological transfer could be applied from the science of complexity to architecture, and how this could permit the introduction of a new procedure to merge perception and subjectivity in a rule-based approach.

Between 2005 and 2015 she developed the methodology 'Combinatorial Architecture' as director of the research lab Non Linear Solutions Unit (NSU) at the Graduate School (GSAPP) at Columbia University. The aim was to respond to the digital / parametric research that had been developing in the international scene in the 1990s and early 2000s (Tchumi, Lynn, Chu, Cache, Fraser).

The vision of the mission is to challenge the boundary between what is tangible and what is intangible; between the measurable and non-measurable, between the quantitative and qualitative and between innovation and traditions.

The method adopts the logic of a "creative reductionism" initially developed by the cognitive scientist John Holland.¹³ According to the American scientist, "any human can, with the greatest of ease, parse an unfamiliar scene into familiar objects – trees, buildings, automobiles, other humans, specific animals, and so on."¹⁴ To fragment a non-measurable intangible entity into objective tangible data and to identify the logic connecting them, means to transform what is non-measurable into something that is measurable. It is a creative act unfolding new fields of the measurable.

In architecture, this operation consists of decomposing a given reality into a set of elementary units (wall, windows, openings, fibres) and their attributes (thickness, length, rotation, scale, reflectivity, transparency, porosity, sound absorbance...) connected by a set of rules (rhythm, relative positions, geometry, proportion, alignments, relative size...) affecting the perception of space (light, sound, visual dynamics). The developed method consists of the "reduction" or modelisation of a given space through a list of attributes that can be manipulated and edited. In the most radical experimentations, design problems are deconstructed and represented exclusively by numerical data (length, size, depth, porosity, flexibility, colour saturation, frequency...). By identifying a set of properties or attributes that can be manipulated, NSU explored the relationship between representation tools and architectural design. The following paragraphs will present a series of case studies in which the modelisation of a design problem

9 Grégoire Nicolis and Ilya Prigogine, *A la rencontre du complexe* (Vendome: Presse Universitaire de France, 1992).

10 Caterina Tiazzoldi, "NSU Report," *Abstract* May 6, 2006.

11 Tiazzoldi, "NSU Report."

12 Tiazzoldi, "Transfer of Methodology from Science of Complexity to Architecture".

13 John H. Holland is a professor of Psychology and of Computer Science and Engineering at the University of Michigan; he is also an external professor and member of the Board of the Santa Fe Institute.

14 "Emergence from Chaos to Order," Bactra, bactra.org/reviews/holland-on-emergence/ (accessed May 18, 2018).

through a list of spatial attributes permits the definition of a design solution that affects the general atmosphere of the space.¹⁵

Between 2005 and 2007, Tiazzoldi started to apply to professional case studies research permitting the fostering of new frontiers between the qualitative and quantitative in architecture. This permitted her to develop several projects recognized by the international press as extremely innovative not only for their physical and technological resolution but also for their social innovation. These included Toolbox Co-working, The Social Cave, Illy Shop, Relae Mutua, the Whirlers, Salone Internazionale del Mobile, Base Milano, TIM, and National Park Services.

In 2008, she started to collaborate with the International Ambiances Network and since 2009 she has been a member of the scientific committee of Design for Numerical Architecture (DNA) at the *École Nationale Paris La Villette*.

Methodology

Case Study 1: Privacy Modulation – Toolbox Office Lab and Co-working

As finalist at the Renzo Piano Foundation for Young Italian Talent, she was awarded by the Turin Architect Chamber with the Architetture Rivelate Award and she was nominated for the Cooper Hewitt Museum National Design Award, as well as being featured in more than 30 national newspapers, 7 Google Scholar citations, 11 books, 30 magazines and 75,000 blogs.¹⁶

Toolbox is a co-working space and professional incubator realized in Torino in 2010.

The project was part of the strategic concept developed by Caterina Tiazzoldi between 2002 and 2010 for her clients Luigi and Giulio Milanese for the urban regeneration of an area which was a coachbuilding company founded in 1960 in Turin by former Ghia president Luigi Segre (1919–63) and Arrigo Olivetti (1889–1977) from the Fergat company, a manufacturer of automotive components.

It is within this context that the Toolbox project was commissioned in 2000 as a master plan for the industrial area of Ghia OSI, the acronym for Officine Stampaggi Industriali (literally "Industrial Stampings Workshops"). The aim of the project was to define a new use for a 12000 m², 3-storey office building located in a transformation area of 20000 m², in close proximity to downtown Turin and to the railroad station. The owners, Luigi and Giulio Milanese, requested

a study related to a possible new use of the area, in a city which was in a phase of deep transformation, and in which professional reality was increasingly represented by freelance workers whose professional future was not yet clear.

Based on her experience in the transformations that were occurring globally,¹⁷ Caterina Tiazzoldi proposed the concept of a professional incubator, as a space in which the users would actively (even if indirectly) contribute to the definition of a new professional identity for Turin. From a functional standpoint, the intervention consisted of transforming a traditional office (divided into rooms) into a vast open space with 44 individual workstations, interspersed with communal areas including meeting rooms, printer rooms and informal meeting spaces. The goal of this transformation was to keep the original industrial concrete structure as intact and visible as possible. The industrial block's main building is divided into two parts: the side along the windows is used for co-working workstations, while on the opposite side, a corridor connects 5 enclosed boxes that contain the functional common services (kitchen, meeting rooms, mailboxes, bar, etc.). The service areas have been conceived of as 'working tools'. The secondary industrial building houses the lounge, bar, and a relaxation area. In this newly developed area the double concrete beams were left exposed while the service spaces (e.g. the bar) were enclosed in functional boxes.¹⁸

How can we convey a new culture to a traditional space in the city? How can we take forward the creativity of the new vision of the city?

The goal of the project was to achieve equilibrium between promoting users' interaction –enhancing the production of new ideas and collaborations– and providing private individual spaces. The problem was how to measure and design different levels of privacy and interaction. How could an intangible condition, such as the idea of privacy, be codified in a set of editable data? The idea of privacy was connected to a series of variables (number of people, their relative distance, presence, height and width of visual or acoustic barriers, shading condition, etc.). Each component was designed and selected according to the relationship with their performance. By applying the combinatorial architecture methodology, it was possible to create a direct connection between the spatial components and their performative effects.

The idea of 'privacy modulation' also appeared in the design of co-workers' individual desks. The combined manipulation of a set of attributes facilitates the grading of privacy. In effect, the privacy/sharing level of the desks could vary from a very private condition (with individual desks and tall screens) to a collective condition (common tables without separating screens). The solution was

¹⁵ Tiazzoldi, 2008.

¹⁶ How did I manage to get published? Somebody discovered me? I have to thank my friend Valerie Viscardi who taught me how to do a press release. I started immediately to be published in the best newspapers. More tips during the presentation.

¹⁷ Tiazzoldi, 2008.

¹⁸ Caterina Tiazzoldi and Eduardo Benamor Duarte, "Toolbox – Adaptive Devices for a Professional Incubator," *IntAR, Interventions Adaptive Reuse*, Vol. 2, *Adapting Industrial Structures*, edited by M. Berger, H. Hermann, L. Wong (Providence: Rhode Island School of Design, 2011), 44–51.

achieved by combining some of the properties (attributes) of the two desk typologies. The result was a collection of desks with very short separation screens. The loss of privacy deriving from the reduction of the high screens was compensated for by an increase in the desk width, which augmented the relative distance between two users. This solution granted a sufficient level of privacy in an overall space that could be perceived as a collective environment.

After some years Toolbox stated to growth embedding the most innovative activities such as Fab Lab, Officine Arduino Casa Jasmina the Print Lab. This make me smile. I still remember when in 2001, walking in New York with Aurelio Balestra, my former line manager, at GB Sportelli, when we were looking at the Chelsea Market as an good practice of urban regeneration we could not imagine that we will transform the OSI area in Toolbox.

Case Study 2: Playfulness Modulation – Onion Pinch

Featured at the Paris Palais de Chaillot's Cité de l'Architecture et du Patrimoine in the Minimou show curated by Jean Louis Cohen designed in co-authorship with Eduardo Benamor Duarte, the cork installation Onion Pinch was designed for the *Experimenta Design* Biennale in Lisbon and is an example in which the manipulation of material attributes defined a design concept that transformed a subway station into a children's playground. How could we translate the idea of 'Playfulness' into a set of information that could be shared with a cork manufacturer? During the design process, cork was analysed as a list of physical properties and a set of attributes that could be manipulated almost like numerical data: texture, granularity, porosity, density, thickness, and flexibility. The concept that emerged exploited the cork's flexibility and its response to pressure to create a playful space. By exploring the ideas of tactility and flexibility, the project was achieved by folding 15 strips of cork and literally pinching them with a bolt. Shape and profile transformations were obtained by moving the bolt, i.e., moving it towards the ground made the shape close down. The attribute, or position on the Z-axis of the bolt, also affected the flexibility or level of vibration in response to pressure. If the bolt was in a lower position, the form would be more rigid and by moving the bolt vertically the rings would become more flexible. Approaching the installation, people slowed down from their everyday rhythm and looked at the installation, touched it, pushed it and tested the different reactions of the onion to body pressure. The displacement created by the presence of an extremely alive object, with its texture and with the oscillation of the onion rings, transformed an unfamiliar, cold space like the subway station into a lively oasis. Children entered the space and started to inhabit it.

Case Study 3: An Active Aegeneration of a Landfill for the Creation of an Unprecedented Atmosphere

Conceived as a wind turbine park in Staten Island, the Whirlers create an unprecedented form of hybrid between public spaces and renewable energy. The project was recognised as an example of a project connecting qualitative and measurable properties such as a performative response to wind flows with qualitative and non-measurable qualities such as a level of 'poetics' and 'inventiveness' in creating a vision for a land artwork. The project was recognised for its capacity to connect renewable energy with a public environment. In 2014, the Whirlers project was selected by UNESCO World Heritage as a special project to feature in the conference on renewable energies RENFORUS I RENISLA in El Hierro – UNESCO Biosphere Reserve (Canary Islands, Spain).¹⁹

Similarly to the previous case study analysis, this paper examines how the Whirlers are the result of a combinatorial architecture methodology. During the first phase, the turbines' heights and colours (attributes) could be scaled and distributed along a variable grid. In the second phase of the process, rotational factors were used as input to determine the orientation of the devices. In addition to its morphological rotation, each device was scaled in different heights to maximise wind power. The increase in density augmented the system's response to the different energy waves from the rotation of adjacent turbines. In addition, the heights and colours corresponded to a perceptive visual landscape in which homogeneous and diverse components would guide the users through a playful environment. Lastly, the third phase was adapted to the forestry in the landscape and spaced in response to the topography of the site, as a type of experience mixing.

By combining the physical properties of two types of spaces, it was possible to create a new spatial concept conceived as a whirling artificial forest, changing the visual and thermal perception of the land by combining natural and artificial elements.

The resulting park provides an unprecedented form of ambiance in which more than 10,000 colourful turbines spin following the ground and wind direction, creating an inebriating visual experience ranging in colour and scale that reminds viewers of a spinning forest.

¹⁹ RENISLA 2014 is one of the actions in partnership with the RENFORUS Initiative (Renewable Energy Futures for UNESCO Sites) of UNESCO. It aims to promote the use of UNESCO sites (Biosphere Reserves and World Heritage Sites) as field observatories on the sustainable use of renewable energy sources to mitigate climate change and to enhance and apply the climate change knowledge base for building green societies.

Conclusion

Caterina Tiazzoldi's impact as an architect, creative thinker and social innovator has been internationally recognized.

Her work and story have been featured in several national newspapers including *La Stampa*, *Repubblica*, *Sole 24 Ore*, the magazines *Domus*, *Abitare*, *Frame* and books of publishing houses Gestalten, Birkhäuser, Taschen and Thames & Hudson, and she has exhibited in subway systems in Lisbon and several Museums and Galleries including the Paris Museum Cité de l'Architecture et du Patrimoine, the Civic Gallery of Modern Art in Torino, the Boston Design Museum, Fondazione Lattes, Soho Digital Gallery and in the University of Memphis Art Museum.

Tiazzoldi's work has had a worldwide impact in the global cultural environment.

The National Park Service of the United States of America informed her of changes it had made to a national rule in response to some of the advice she provided.

She works for several NGOs or national institutions including the Metropolitan of Lisbon, First Street Green Art Space New York, the Department of the Interior of the United States of America, the Civic Gallery of Modern Art, Fondazione Bottari Lattes, as well as non-profit advocacy groups such as the Bronx River Art Center.

As a personal note, in a relatively female-unfriendly environment such as architecture, it is necessary to be brave, to be strong, to be ironic, sometimes to play dumb, but to read the rules and change them. My capacity is to identify and focus mostly on what is more important in a dimension that in the contemporary world would be called a circular economy, to address only what is really relevant for you and other people.

Perhaps, sometimes, these elements do not all come together. I have to thank my friend Valerie Viscardi for teaching me how to relate with the press.

It is important to work with leaders who have the capacity to see your real talents and who have an advanced vision, as does my former HoD Mark Wigley at Columbia University.

You need to be realistic, to be ready to be famous: to dream and to have a good layer. When you start to become famous it is normal they copy you or especially if you are a woman to take advantage from you. You understand that is normal is not personal. In a specific phase of your life you understand that you need to work with a good layer (I want to thank my friend Renata Caretta). This is a natural step in your growth.

From the professional and academic point of view, the next steps of my research will be to explore how to relate the potential application of the methodology in territories in transformation, in order to create intangible atmospheres in developing countries in which the population has increased and in which an in situ survey can no longer be the reference. What could be the tangible reference and

the source of the input to apply the combinatorial methodology when history, local memory, and environmental factors cannot be the reference? How to interact in the design of cities in which the population does not exist yet?

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The Whirlers (Project: C. Tiazzoldi and E. Benamor Duarte; Team: M. Bariolo and C. Francisca, presented at the conference of UNESCO Renisla 2014 – Non Linear Solutions Unit, GSAPP, Columbia University).

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Going for Gold: Looking at the Gender Imbalance of Recipients of Major Architectural Awards and Prizes

It is human nature to achieve the best in a particular field or profession and the architectural field is no exception. Here, there are five 'top' awards which are seen as the 'gold, or first prize achievement'. These are the American Institute of Architects (AIA) Gold Medal, the Royal Institute of British Architects (RIBA) Royal Gold Medal, the Praemium Imperiale, the Pritzker Prize, and the Union internationale des Architectes (UIA) Gold Medal. Each prize is, usually, awarded on an annual basis, at different times of the year. The oldest of these prizes is the RIBA Medal which was established in 1848 by the Royal Institute of British Architects, and, because of its age, is considered by many, to be the *crème de la crème* of the architectural prizes available. The 'youngest' of these prizes is the Japanese Praemium Imperiale, which was established in 1989.

None of these prizes are on the same international level of regard as the 'Nobel' prizes, yet individually, often the Pritzker Prize and the RIBA Medal are referred to as such. In fact, there is formally no Nobel Prize for architecture.

All of these 'top' prizes are decided by juries; some of which contain both male and female architects and lay persons who are nominated to serve within the jury on an annual basis. Notable females who have sat on the RIBA Medal jury have included Eva Jiricna, Despina Katsikakis and Amanda Levete. Past Pritzker Prize female jurors have included Kristin Feireiss, Ada Louise Huxtable and Karen Stein. Often the jury is chaired by the President or Chair of the organisation which is awarding the prize, and the RIBA has had three female Presidents¹ elected in recent years: therefore, it has been a female architect who has chaired the RIBA Medal jury on six occasions (each RIBA President

¹ Ruth Reed, RIBA President 2009–11; Angela Brady, RIBA President 2011–13; Jane Duncan, RIBA President 2015–17.

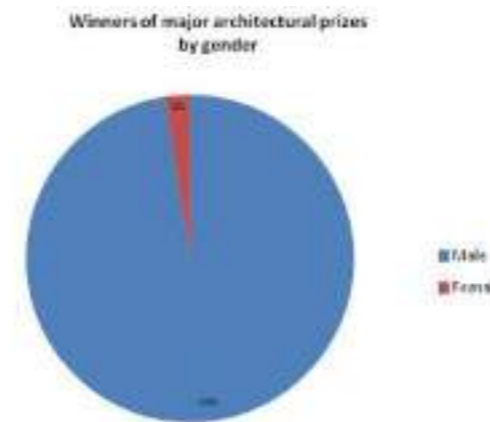


Fig. 1: Chart showing winners of major architectural prizes, by gender

is elected for a term of two years, and the Medal jury meets once a year). All of these prizes are all given to individuals, as opposed to those prizes awarded for achievements in building, such as the RIBA Stirling Prize for Architecture, which is awarded to the 'building that has made the greatest contribution to the evolution of architecture in the past year'.

Recipients of these five architectural prizes have been, for the majority, white, male, in architectural practice and in their mid-1960s. Nationality of recipients is irrelevant since winners of all the prizes have hailed from across the globe since their inception. (Fig. 1) gives an overall visual representation of the gender imbalance of architectural prize winners, 1848–2017.

Out of all the top five architectural prizes, it is only the AIA Gold Medal which is awarded posthumously. In fact, the rules of the RIBA Medal stipulate that recipients must be living. In a recent example of the awarding of this latter prize is that of the (male) US born architect Neave Brown. The announcement was made in September 2017 and the medal itself awarded in November 2017 – unusually early,² due to Brown's ill health.

Unusually, it is only the UIA Gold Medal amongst these top five architectural prizes that has never been awarded to a female architect. Furthermore, the RIBA Medal has only ever been awarded to a single female architect: Zaha Hadid in 2015. Prior to Hadid's win, women had only won the RIBA Medal, when in partnership with their architect husband and business partner. Hadid was a leading light, not only as a female architect but as a trail-blazing award winner, as she was the first female winner of the Pritzker Prize in 2004; and the first female to win the Praemium Imperiale, in 2009.

Even more unusual is the fact that the first female winner of the AIA Gold Medal was to Julia Morgan, who had been dead for 57 years when the award was announced in 2014. The architectural (and husband and wife) partnership of Robert Venturi and Denise Scott Brown won the AIA Gold Medal in 2016.

In a profession where men outnumber women by 4 to 1, it is strange that women do not reflect the same statistic as prize winners. An article in *ArchDaily* by Henry (2012) comments, 'No other profession *can* make the proverbial male measuring contest more visual and dramatic than architecture.'³

² The RIBA Medal ceremony is usually held in the February of the year in which it is given.

³ Christopher N. Henry, "Women in Architecture: We Need Them," *ArchDaily*, <https://www.archdaily.com/214742/women-in-architecture-we-need-them> (accessed January 20, 2018).

Consider for a moment the historical context of these prizes. All of them were established in the twentieth century (the AIA Gold Medal was started in 1907; the Pritzker Prize in 1979; the UIA Gold Medal in 1984; and the Praemium Imperiale in 1989), except for the RIBA Medal, which was founded in 1848, and so has a greater history. It is therefore appropriate to concentrate on the nominations of this longer-running prize to support the arguments within this paper.

The first female nominated for the RIBA Medal was Elisabeth Scott (1898–1972) who was nominated by T. Lawrence Dale in 1933 in recognition of her executed design for Stratford Memorial Theatre, which was completed 1928–32. Scott was the only woman to take part in the open competition for the theatre which had included submissions from Britain, Canada and the United States. At the time of her nomination, Scott was in partnership with Maurice Chesterton (1883–1962) having previously worked with Louis de Soissons (1890–1962), who was himself was nominated six times for the RIBA Medal between 1946 and 1952. Scott's nomination for the RIBA Medal proved to be unsuccessful. In 1933, it was unanimously awarded to the British architect Charles Reed Peers, for his work in 'preserving for us and for our children the irreplaceable heritage of great and lovely buildings... instead of seeking to add a new quota of his own'.⁴

Although not formally nominated for the RIBA Medal in the mid-1960s, it is generally thought that Edwin Maxwell Fry's award was in part accredited to his wife, Jane Drew's (1911–1996), contribution to their work in India and Africa, working alongside Le Corbusier and his cousin Pierre Jeanneret. Fry had been previously nominated for the RIBA Medal on seven occasions, whilst Drew's formal nominations did not start until the 1970s. Indeed, Fry's RIBA Medal, awarded in 1964, was 'not for any specific building he has designed, but for the contribution he has made to architecture throughout his life, particularly for the way he has led and inspired younger architects'.⁵ Fry acknowledged Drew in his acceptance speech by saying that 'the courageous decision to go to India was his wife's'. It is interesting that Drew is not mentioned in the nomination nor the citation, yet Perkin, refers to her as 'Drew, who, as everyone knows, has worked in partnership with him on all his projects'.⁶

Jane Drew was nominated for the RIBA Medal on five occasions. As well as running a busy architecture practice with her husband, Max Fry for over thirty years, Drew was the founding editor of *The Architects Yearbook* in 1945, President of the Architectural Association in 1969 and was the first woman to be elected to the Council of the RIBA in 1964.⁷ All of Drew's five nominations for the RIBA Medal were unsuccessful.

Other female nominations include sixteen for Denise Scott-Brown (b. 1931) jointly with her architect husband and business partner Robert Venturi (b. 1925) between 1991 and 2012; the Irish architectural partnership of husband and wife Mary and Peter Doyle (d. 1995) in 1996; three for the British architectural partnership of husband and wife Alison (1928–1993) and Peter Smithson (1923–2003) between 1991 and 2010.

It is naturally appropriate to discuss the issue of partnerships winning architectural prizes, in this instance, the partnership of a husband and wife working together. The three architectural partnerships who have won the RIBA Medal together are Ray Eames, with her husband Charles, in 1979; Patricia (Patti) Hopkins, with her husband Michael in 1994; and Sheila O'Donnell, with her husband John *Tuomey* in 2015.

Would either Charles Eames or Michael Hopkins would have received the RIBA Medal in their own right, perhaps not. Both men were unsuccessfully nominated for the Medal on previous occasions on their own: Charles Eames twice; and Michael Hopkins four times, and with *Tuomey not having any previous nominations*. Yet when teamed with their respective business partners and spouses, both Eames and Hopkins were successful at winning the RIBA Medal. Ray Eames brought theatre and understanding of the visual element to the partnership to complement Charles' architectural skills. MacCarthy suggests that the 'husband-and wife team put soul back into mass production, embracing design which was psychological, intuitive, emotional as well as function'⁸ - attributes which a woman would certainly have introduced. Equally, Amery argues that Michael and Patti Hopkins 'deserve equal recognition of their joint achievements' and that it is 'Patti's contribution which has made the practice more approachable and acceptable'.⁹ These two views would agree that the female influence in the partnership is important, specifically with regard to winning the RIBA Medal.

Yet this does ask a question of why there are so few female names appearing on the nomination papers for the RIBA Medal, and therefore, the other top architectural prizes. Career breaks for pregnancy and child-rearing must play a significant part, as does the expectation of maintaining professional competence in daily work when returning from maternity leave. As in many other professions, female architects have to work harder for professional recognition. Professor Charles Reilly, Professor at the School of Architecture and Building Engineering at the University of Liverpool from 1904–33 and himself awarded the RIBA Medal in 1943 had no problem with women in the profession but admitted that 'prejudice on the part of male colleagues might tend to restrict women

4 "The Royal Gold Medal: presentation to Sir Charles Reed Peers Kt., CBE, FBA, MA, FRIBA, President of the Society of Antiquaries," *Journal of the Royal Institute of British Architects*, April 8, 1933, 431.

5 "Presentation of the Royal Gold Medal, 1964 to Mr E. Maxwell Fry," *RIBA Journal* (May 1964), 187–190.

6 George Perkin, "Royal Gold Medal for Architecture to Maxwell Fry," *Concrete Quarterly* (April-June 1964), 3.

7 Drew served two terms for RIBA Council from 1964–1970 and from 1971–1974.

8 F. MacCarthy, "American dreamers," *The Guardian Weekend* (5 September 1998), 49.

9 Colin Amery, "A Knight without a Dame," *The Financial Times* (27 February 1995).

to a supporting role in the larger architectural practices'.¹⁰ It seemed that no one in the profession appeared to take women seriously, and Drew herself commented, 'it is nothing to be the first woman in the field: to be considered good is what matters'.¹¹

Did the male-oriented world of architecture discriminate against women by dissuading them from training in the profession? The British 'Act to amend the Law with respect to Disqualifications on account of Sex' was passed at the end of 1919 and led to women being allowed to enter other closed professions, such as accountancy and law. It is possible that the 1919 Sex Disqualification [Removal] Act prompted the RIBA to re-consider its position with regard to female architects.

This leads us to question whether or not there is a shortage of female architects from whom to nominate or award the top prizes. Using 'female architect' in a quick Google online search reveals over 300 names, of which under a third are deceased. This provides an audience from which nominations could be sought, but it does not explain why these names are not being either nominated or selected for the top architectural prizes.

The UK *Architects Journal* has recently introduced a new prize for the Woman Architect of the Year and the Emerging Woman Architect of the Year, with no shortage of nominees: both established female architects and newcomers to the profession. So why are these women not continuing and going on to win the top five prizes? Admittedly Hadid did, but her sacrifice was to have no children, and spend 24 hrs a day in her studio.

Women are definitely welcome in a practice. Norman Foster, a judge for the 2016 Emerging Woman Architect of the Year said that 'women bring a fresher, intangible approach to the profession'.¹² Yet successful architects such as, Alison Brooks, Odile Decq, Liz Diller, Eve Jiricna, Sadie Morgan, Neri Oxman, Annabelle Selldorf, and Sarah Wigglesworth do not feature on the nomination lists for the top awards.

An interesting viewpoint comes from the UK Financial Times journalist Eddie Heathcote, who said 'Architecture is such a macho profession, and perhaps men are more likely to self-promote than women'.¹³ Perhaps the time has come to give more encouragement to women at all stages of their career.

In the first year of architecture at the Welsh School of Architecture in 2017-18, there are 170 students, which are about 50:50 men to women. Multiply 85 (50%) by the 35 UK validated Schools of Architecture reveals that there are just under 3,000 female students studying for an Architecture degree in the UK every year. There is no problem in encouraging female into the profession. It seems to be keeping them and Jane Duncan, President of the RIBA 2015-17, is particularly concerned with the loss of women in the architectural profession at a certain age, commenting, 'In architecture, women disappear into almost a black hole by the time they are at child-bearing age'.¹⁴ This audience is likely to remember the occasion in March 2013, when the Harvard University Women in Design Group took on the Hyatt Foundation, which run the Pritzker Prize, with a petition to accept Denise Scott Brown as an equal winner of Robert Venturi's Pritzker Prize, which he won in 1991, and for which she would be honoured retrospectively.

Venturi's speech at the ceremony did credit business partner and wife, Scott Brown, 'All my experience representing appreciation, support, and learning from, would have been less than half as rich - without my partnership with my fellow artist, Denise Scott Brown'.¹⁵ Yet, despite the Pritzker Prize jury citation for 1991 mentioning Scott Brown as 'his talented partner, [Denise Scott Brown] with whom he has collaborated on both more writings and built works...'¹⁶, Venturi is named alone as the 1991 Pritzker Prize laureate, and Scott Brown boycotted her husband's ceremony as she was not credited by name.

Over 18,000 people signed the Harvard University Women in Design Group online petition, including Hadid and Herzog and de Meuron, and the issue was raised as an item of discussion at the meeting of the then Pritzker jury in June 2013, a meeting that was chaired by a woman: Martha Thorne, executive director of the Pritzker Architecture Prize. The decision to deny Scott Brown the joint retroactive honour came in a letter from Peter Palumbo, Chair of the Pritzker jury, addressed to Arielle Assouline-Lichten and Caroline James, two students in the Harvard University Women in Design Group, which commented, 'A later jury cannot re-open, or second guess the work of an earlier jury, and none has ever done so',¹⁷ thus establishing that there was no precedent to alter the

10 Charles Herbert Reilly, "Architecture as a Career for Men and Women," *Journal of Careers* (March 1931).

11 Interview with Jane Drew, "The architect is a lady," *The Daily Telegraph*, November 3, 1968.

12 Interview with Norman Foster, "Women in Architecture: 'There's a good message here, we need to amplify it,'" *Architects Journal*, <https://www.architectsjournal.co.uk/films/women-in-architecture-theres-a-good-message-here-we-need-to-amplify-it/10004999.article?blocktitle=2016-nominees&contentID=18199> (accessed January 20, 2018).

13 Interview with Eddie Heathcote, "Women in Architecture: 'There's a good message here, we need to amplify it,'" *Architects Journal*, <https://www.architectsjournal.co.uk/films/women-in-architecture-theres-a-good-message-here-we-need-to-amplify-it/10004999.article?blocktitle=2016-nominees&contentID=18199> (accessed January 20, 2018).

14 Elizabeth Hopkirk, "Incoming RIBA president launches women campaign on Twitter," *Building Design*, <http://www.bdonline.co.uk/incoming-riba-president-launches-women-campaign-on-twitter/5073097.article> (accessed January 9, 2015).

15 Acceptance speech of Robert Venturi, Pritzker Prize winner in 1991.

16 Jury citation for Robert Venturi, Pritzker Prize winner for 1991. The Pritzker Architecture Prize <https://www.pritzkerprize.com/laureates/1991> (accessed October 2011).

17 "A Letter from the Chair of the 2013 Jury of The Pritzker Architecture Prize on Behalf of the Jury," *Architectural Record*, June 14, 2013, <https://www.architecturalrecord.com/ext/resources/archives/news/2013/06/Pritzker-Letter.pdf> (accessed August 2013).

view of an earlier jury. Assouline-Lichten believes that the Pritzker Prize committee were unwilling to discuss their decision as no one from the Hyatt Foundation has commented further.

One outcome of the petition was that the AIA changed their criteria in 2014, with the national Board of Directors voting to allow the AIA Gold Medal to be awarded to one, '... or two individuals working together (but only if their collaborative efforts over time are recognized as having created a singular body of distinguished architectural work) are eligible to receive the Gold Medal'.¹⁸ This big step forward for the AIA resulted in first, the posthumous win of Julia Morgan, and secondly a win by Denise Scott Brown and Robert Venturi in 2016.

The gender of architectural prize winners is important, despite the need for both sexes to be recognised on an equal basis. Back in 2013, Farshid Moussavi commented to Caroline James at the Harvard University Graduate School of Design, 'I'm approached all the time by organizations wanting to give me an award for being a woman architect. I'm not a female architect – I'm an architect – and we want to play in the same field as everyone else'.¹⁹

In 2018, women have suddenly understood that equality does not necessarily equal a level playing field. The BBC's China editor Carrie Gracie resigned from her post, citing pay inequality with male colleagues. Wearing black clothes and TimesUp badges were displayed by over half of the attendees at the 2018 Golden Globes Awards in Beverley Hills. Almost overnight, sexual harassment allegations are being taken seriously with international reaction. This all has a bearing on women's achievements in other professions, like architecture.

In conclusion, it seems that the world, and the field of architecture is ready for change. Women are already entering the profession: we just need to offer them encouragement to stay. We have an international list of potential nominees for the top awards: none of which are barred to women. The time is ripe for more female architects to be recognised by their peers and win the top prizes, and with both sexes working in the profession, more questions will be raised if the prizes continue to be won only by middle-aged men.

The audience reading this paper can make that change happen. Nominate your female colleagues today to win the top architectural prizes and be part of the catalyst for change in the twenty-first century.

18 "Gold Medal," American Institute of Architects, <https://www.aia.org/awards/7046-gold-medal> (accessed May 20, 2018).

19 Laura Mirviss, "Viral in Action: The Women Behind the Denise Scott Brown Petition," Double Bees, April 9, 2013, <http://www.doublebees.co/?p=3534> (accessed 20 January 2018).

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The Woman Architect Grete Lihotzky

This paper is a commentary on the achievements and professional attainments of Margarete Schütte-Lihotzky (1897–2000) who became the first Austrian female student at the School of Applied Arts in Vienna where renowned artists such as the architect and designer Josef Hoffmann (1870–1956), the sculptor Anton Hanak (1875–1934) or the painter Oskar Kokoschka (1886–1980) were teaching. She was a pioneer as architect, as interior designer and especially as a woman in her attempt to escape from the danger of political dictatorship, historical uncertainty and professional failure.

A Letter to Josep Lluís Sert in Barcelona

There is a lot of secondary bibliographical sources which deal with the life and work of Grete Lihotzky¹ although I did not suspect to find primary sources on her in Barcelona, where I live and

1 Many bibliographical references on Grete deal with the Frankfurt Kitchen and the particular relationship between architecture and feminism: Peter Noever (ed.), *Margarete Schütte-Lihotzky: Soziale Architektur: Zeitzeugin eines Jahrhunderts* (Vienna: Böhlau, 1996); Susan R. Henderson, "A Revolution in the Woman's Sphere: Grete Lihotzky and the Frankfurt Kitchen," *Architecture and Feminism*, edited by Debra Coleman, Elizabeth Danze and Carol Henderson (New York: Princeton Architectural Press, 1996), 221–247; Alice T. Friedman, *Women and the Making of the Modern House: A Social and Architectural History* (New Haven: Yale University Press, 2006); Charles S. Chiu, *Women in the Shadows: Mileva Einstein-Marić, Margarete Jeanne Trakl, Lise Meitner, Milena Jesenská, and Margarete Schütte-Lihotzky*, Introduction and translation by Edith Borchardt (New York: Peter Lang, 2008); Mary McLeod, "Domestic Reform and European Modern Architecture: Charlotte Perriand, Grete Lihotzky, and Elizabeth Denby," *Modern Women: Women Artists at the Museum of Modern Art*, edited by Cornelia H. Butler and Alexandra Schwartz (New York, The Museum of Modern Art, 2010).

work since I was born. I only have a letter of 29 September 1933 where Grete and her husband Wilhem Schütte (1900–1968) asked the Catalan architect Josep Lluís Sert (1902–1983) for the possibility of developing projects in the field of schools and education. Attached to this letter they sent other materials including Grete's professional curriculum until April 1933. This letter and its annexes constitute a little literary corpus of 19 pages which can be useful to discover unknown details of the life of this especially talented woman architect.² I will try to use these materials in order to stress her work in the field of architecture and education as well as the awards she received until 1933. Although it was not until 1937 when she definitely moved outside the USSR, perhaps these documents reveal her first attempt to escape from the pressure of the Stalinist dictatorship authoritarian regime.

Studying architecture under Oskar Strnad (1879–1935), Grete won prizes for her designs even before her graduation. In 1926 she was called to the City Council of Frankfurt am Main by the architect and city planner Ernst May (1886–1970). Together with the rest of May's assembled architectural staff she successfully brought functional clarity and humanitarian values to thousands of the city's housing units.³ In 1930 the political situation in the Weimar Republic began to further deteriorate. Grete, once joined the team of seventeen architects led by May, was ready to travel to Moscow by train and follow the German architect and city planner to face new professional adventures.

The group was commissioned there to help realize the first of Stalin's five-year plans.⁴ Although the 'May Brigade'⁵ was credited with the construction of 20 cities in three years, the political conditions were bad and the results mixed. Ernst May himself left Russia in 1933 when his contract had expired. While Germany and Russia had turned into problematic places to work as an architect, Spain had welcomed the Second Republic in 1931 and Grete knew there may be new opportunities for professional development.

Expectations in the Spanish Second Republic

The Modern Movement in the field of architecture had reached Spain at the end of the 1920s. The German Pavillion designed by Mies van der Rohe for the Universal Exhibition in Barcelona was

erected in 1928–29 and marked a new era.⁶ Once finished the Exhibition, this foundational work of architectural Modernism was dismantled at the beginning of 1930. In October the Group of Spanish Artists and Technicians for the Progress of Contemporary Architecture (GATEPAC) was founded in a meeting celebrated at the Gran Hotel of Zaragoza (Aragon, Spain) as the Spanish branch of the CIAM organisation (International Congresses of Modern Architecture).⁷

The most relevant members of the GATEPAC were the Spanish architects José Manuel Aizpurúa, Antoni Bonet Castellana, Fernando García Mercadal, and the Catalans Josep Lluís Sert and Josep Torres Clavé. With the acronym GATCPAC ('C' for Catalonia instead of 'E' for Spain), the so called 'East Group' of GATEPAC was the basis of the Journal *A. C. Documentos de Actividad Contemporánea*⁸ in the city of Barcelona, and had an intense exchange with other international publications interested in the study and development of rationalism in architecture.⁹ They have also contacted with the Swiss architect Le Corbusier who had visited Spain for the first time in May 1928 with occasion of an invitation to speak in a conference organised by the *Residencia de Estudiantes* in Madrid.¹⁰ Thanks to his contact with the members of the GATCPAC he was later in 1933 committed by the President of Catalonia to design the Macià Urban Plan for the city of Barcelona.¹¹

Based in the Catalan Capital city, the architect Josep Lluís Sert and his GATCPAC movement had issued the number 9 of the Journal AC on the new approaches to architecture, schools and the new theoretical currents in children education.¹² The 29 September 1933 Sert received the letter from Grete sent from Moscow offering him her knowledge and expertise in school buildings and theoretical pedagogy too. This letter was written in German, signed both by her and her husband Wilhem¹³ and posted together with her *Lebenslauf* (Curriculum vitae) until April 1933¹⁴ and *Schulbau* (list of slides on schools).¹⁵ Within the same file in the GATCPAC archive there is also a translation

6 Sophia Psarra, *Architecture and Narrative: The Formation of Space and Cultural Meaning*. (London: Routledge, 2009).

7 Francisco Javier Monclús, "Planning and history in Spain," *Planning Perspective* 7, no. 1 (1992), 101–6.

8 Grupo de Arquitectos y Técnicos Españoles por el Progreso de la Arquitectura Contemporánea (GATEPAC): *AC Documentos de Actividad Contemporánea*, Barcelona: 1931–1937," *AC: Documentos de Actividad Contemporánea*, edited by Ignacio de Solá-Morales (Barcelona: Gustavo Gili, 1975), facsimile.

9 Mariona Ribalta, "Bibliografía del GATCPAC," *Cuadernos de arquitectura y urbanismo* 90 (1972), 48–50.

10 Álvaro Ribagorda, "The 'Comité Hispano-Inglés' and the 'Sociedad de Cursos y Conferencias' of the 'Residencia de Estudiantes' (1923–1936)," *Cuadernos de historia contemporánea* 30 (2008), 273–291.

11 Cf. Josep M. Rovira, *Sert, de la ciutat funcional al disseny urbà* (Barcelona: Univ. Politèc. de Catalunya, 2007).

12 Werner Moser, "La escuela como construcción funcional," *AC: Documentos de Actividad Contemporánea* 9 (1933), 23–26.

13 AHCOAC, C11/70.46 typewritten one double-sided folio.

14 AHCOAC, C11/70.49-54, typewritten six one-sided fols.

15 AHCOAC, C11/70, typewritten five one-sided fols.

2 Correspondència Revista AC (in forthcoming references AHCOAC), File 11, 70 (referenced as C11/70). GATCPAC Section, Historical Archive of the Professional Association of Architects in Catalonia, Barcelona.

3 Ibid.

4 Cf. Ernst May, "Moscow: City Building in the USSR," *El Lissitzky, Russia: An Architecture for World Revolution* (London: Lund Humphries, 1970).

5 Cf. Margarete Schütte-Lihotzky, *Warum ich Architektin wurde* (Salzburg: Residenz-Verlag, 2004).

of her letter into Spanish¹⁶ and the answering letter in French by Sert.¹⁷ These unknown documents constitute a real 'Professional Geography' of this talented woman.

The Spirit of the Functional City

Grete and Wilhem were close friends of the scientific philosopher Otto Neurath (1882–1945). This explains the terms of this letter: 'Dear Mr. Sert: Our friend Dr. Neurath told us about your impressions exchange during the trip with occasion of the Conference of Modern Architecture.'¹⁸ This conversation between Neurath and Sert happened during the celebration of the IV CIAM conference on the Functional City¹⁹ which took place on board the S. S. Patris, an ocean-going liner journeying from Marseilles to Athens in July 1933.²⁰

The spirit of this meeting was in connection with the social interests of Grete:

CIAM demanded that housing districts should occupy the best sites, and a minimum amount of solar exposure should be required in all dwellings. For hygienic reasons, buildings should not be built along transportation routes, and modern techniques should be used to construct apartment building spaces widely apart, to free the soil for large green parks.²¹

The context of this encounter was perfect for Neurath²² to recommend Sert the work of Grete on architecture, schools and pedagogy to be developed in Spain which was in need of building more than 27.000 new schools planned by the young government of the Spanish Second Republic.²³

16 AHCOAC, C11/70.47-48, two manuscripted double-sided fols.

17 AHCOAC, C11/70.60, one typewritten page.

18 AHCOAC, C11/70.46.

19 The fourth CIAM meeting in 1933 was to have been held in Moscow. The rejection of Le Corbusier's competition entry for the Palace of the Soviets, a watershed moment and an indication that the Soviets had abandoned CIAM's principles, changed those plans. Instead it was held on-board ship, the SS Patris II. The principles of 'The Functional City', broadened CIAM's scope from architecture into urban planning. Based on an analysis of thirty-three cities, CIAM proposed that the social problems faced by cities could be resolved by strict functional segregation, and the distribution of the population into tall apartment blocks at widely spaced intervals. These proceedings went unpublished from 1933 until 1943, when Le Corbusier, acting alone, published them in heavily edited form as the "Athens Charter." Cf. John R. Gold, "Creating the Charter of Athens: CIAM and the functional city, 1933–43," *Town Planning Review* 69, no. 3 (1998), 225ff.

20 William Curtis, *Modern Architecture since 1900* (London: Phaidon Press, 1986), 121.

21 Eric Mumford, *The CIAM Discourse on Urbanism, 1928-1960* (Cambridge-Massachusetts: The MIT Press, 2000), 85.

22 Cf. Enrico Chapel, "Otto Neurath and the CIAM: The International Pictorial Language as a notational system for town planning," in Elisabeth Nemeth and Friedrich Stadler (eds.), *Encyclopedia and utopia: the life and work of Otto Neurath (1882-1945)*. Vol. 4. (Berlin: Springer Science & Business Media, 1996).

23 Cf. Mariona Ribalta, "Participación en una polémica: el problema escolar," in *Cuadernos de arquitectura y urbanismo* 94 (1973), 28-29.

Grete was very aware of the privileged historical moment for Spain:

We observed the situation of architects in Spain and know about the difficulties of their professional activities (...). We also know about the great movement produced in Spain in order to reform the existing pedagogy until now as well as on the wide plans of schools' building for the future. We suppose Neurath mentioned you the fact we are specialised in the study of architecture of schools since several years ago. We worked in Germany (Frankfurt) for several years (...) both in the practical and theoretical fields (...).

Grete's Professional Curriculum

All this was in close connection with the past work of Grete. She wrote:

On our works we send you the attached notes, 'Lebenslaufs' (of Marg. Schütte Lihotzky) as well as a series of publications as: 'Ecoles' of Roger Poulain 1933, in the Journal 'Baumeister' XII. 1930, 'Monatshefte für Baukunst' VI. 1932, 'Schulhaus' several issues of 1930. Perhaps the organisation of one or several conferences with slides projections on schools and kindergarten would also be interesting (...) for our forthcoming trip in February or March.... These conferences should be given in the German language.

Since 1926 Lihotzky was known because of her 'Frankfurt Kitchen', the first serially produced fitted kitchen in the 1920s,²⁴ though in her curriculum it was clear her interest and experience in working with architecture and children education. In 1919 she received The Prize Lobmeyr from the College of Professors of the School of Art in Vienna²⁵ in recognition to 'the set of my drawings and architectural studies for the School-Period education, and especially for a big project for a House of Culture with museum, library, theater rooms, music concert halls, etc.'²⁶ The name of this Award

24 Her basic idea was the first consistent separation of kitchen and living / dining room, which was made possible by the fact that the stove was no longer fired with wood or coal and thus for the energy-saving heating of importance, but instead gas or later electric cookers could be installed. On the basis of her empirical studies on all the ways and means of doing her kitchen work, she developed a standard kitchen with fixed furniture of around 6.5 square meters. The model was the Mitropa dining car kitchen. The aim was to make it easier for the (working) woman to do the housework in terms of time and energy and to create the technical conditions for a progressive emancipation. It was also about improved hygiene. The earlier sources on this are: Anton Brenner, "Die Frankfurter Küche," *Bauwelt* 18, no. 9 (1927), 243–245; Margarete Schütte-Lihotzky, "Bauliche Anlage von Küchen in neuen Siedlungswohnungen," *Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnungswesen E.V. Mitteilungen*, no. 48, group II 6, no. 6 (September 1929), 1–24.

25 In another reference we read this award was given by the Gesellschaft zur Förderung der Kunstgewerbeschule (Association for the Advancement of the Arts and Crafts School), and it was the first time the prize went to a woman: "Jutta Zwilling, Margarete Schütte-Lihotzky," *Frankfurter Personenlexikon* (posted March 10, 2016), <http://frankfurter-personenlexikon.de/node/5038> (accessed February 7, 2018).

26 AHCOAC, C11/70.49.

came out of the famous Austrian glassware manufacturer Ludwig Lobmeyr (1829–1917)²⁷ whose company had entrusted Adolf Loos (1870–1933) the design of different glass pieces since 1929.²⁸ This award stressed the connection between industry and design which was at the basis of Grete architectural interests.

Already in the Soviet Union Lihotzky led until 1933 a department of the 'Brigade May' with 30 employees, who developed typified nurseries and kindergartens for the entire country. In the USSR Lihotzky was in charge of all architectural planning concerning children - including the design of furniture as well as of buildings and facilities for schools and day-care centers.²⁹

On all this Grete wrote to the Catalan architect:

With occasion of those works (in Frankfurt) we were appointed to the USSR together with May, Schmidt, Stamm and others. ... Here we built (...) in different cities: Magnitogorsk, Kusnetz and others with great attention to pedagogy (...) in collaboration with pedagogues and medicine doctors. Apart from these studies we had dealings with the Public Commission for Education and with the Institute for Children's Health Protection and Pedagogy Orientation. We think that probably in Spain these specialised works may be of interest.

Prizes to Rational Design and Industrial Standardisation

We understand even better the both creative and moral maturity of Grete when considering she had received the Max-Mauthner Prize in 1917 (two years before being given the Lobmeyr Award) for her design for a modern 'kitchen in the outer suburbs', one of her first architectural works. In this case the prize was delivered by the Chamber of Commerce and Industry of Vienna. As Ludwig Lobmeyr, Max-Mauthner (1832–1904) had been a manufacturer and industrialist as sole proprietor of the Wienersdorfer Malzfabrik Mauthner. He not only worked in various World Expo commissions, but also in the financial and social legislation for the workers' economic promotion and social

protection.³⁰ All this means that Grete Lihotzky was being awarded by institutions connected with design standardisation and the improvement of the quality of workers in their professional environment and material conditions.

I did not find in any bibliographical record of a new award received in 1920 clearly stated in the *Lebenslauf* sent to Sert:

I won a prize in the competition for a big construction of allotment gardens in the Shaftberg of Vienna given by the Austrian Horticultural Society (*Gartenstadtgesellschaft*). For this project I created all the drawings for arcades of the flats and associated collective buildings in a standardised construction. With occasion of an exhibition in the Town Hall of Vienna, this project received the especial acknowledgement of the City.³¹

She designed this in collaboration with the garden architect Alois Berger (1893–1970).

From March 1922 she worked in the office of the Österreichische Verband für Siedlungs- und Kleingartenwesen (Otto Neurath) and the City of Vienna (Adolf Loos). Further occupation with settlement construction and questions of rationalization of housekeeping. She also founded and managed the *Warentreuhand*. She was awarded with the Bronze Medal of Honor for the elaboration of part of the Viennese Exhibition of Small Gardens. In this case her design for a kitchenette or kitchen utensil was shown as a model 1:1.

In 1923 she received the Silver Medal of Honor of the City of Vienna for her elaboration of a big part of the exhibition on Building of Houses and Urban Design in the Town Hall Square where participated in the design, elaboration and construction including different types of core houses as models 1:1 including the *Type 7* which was fully furnished according to their designs with 'built-in furniture'. In 1926 or 1927 she was given the prize for an exhibition of weekend houses in Berlin.³²

In September 1931 my brigade received a prize for a 'especially high production and quality' of our works, and in May 1932 I personally was awarded because of my especial work efficiency with a journey to our different building sites.

Also, in 1933 Lihotzky had presented some of her work at the Chicago world's fair, Century of Progress.

27 Annette Jutta, "Surpassing the Beauty of Rock Crystal: Ludwig Lobmeyr, Glass Legend," *Studies in the Decorative Arts* 10, no. 2 (2003), 154–160.

28 Like the *Drinking Set no. 248* designed in 1931 for J. & L. Lobmeyr, Vienna (Peter Rath, *Lobmeyr 1823: Helles Glas und klares Licht* (Wien: Böhlau Verlag, 1998), 220). It is not by chance that Grete Lihotzky will collaborate with Adolf Loos in 1921 in his design for the Linz Zoo (Linzer Tiergarten).

29 Cf. Anatole Kopp, "Foreign Architects in the Soviet Union during the First Two Five-Year Plans," *Reshaping Russian Architecture: Western Technology, Utopian Dreams*, edited by William Brumfield (Cambridge: Woodrow Wilson International Center for Scholars and Cambridge University Press, 1990), 176–214.

30 Keynote speeches before the adoption of important laws, ie. Accident Insurance Law 1886, Health Insurance Law 1887, Workers' Housing Tax 1890, Introduction of a Personal Income Tax 1892. See, for example: Österreichischen Akademie der Wissenschaften, Österreichisches biographisches Lexikon 1815–1950 (Wien: Verlag der Österreichischen Akademie der Wissenschaften; Wien-Graz: Böhlau, 1954–); Anton Bettelheim (ed.), *Biographisches Jahrbuch und deutscher Nekrolog*, Vol. 10. (Berlin: G. Reimer, 1907).

31 AHCOAC, C11/70.49.

32 Design and Construction: weekend house, presented on the Exhibition *The Weekend* in Berlin, 1927 (with Wilhelm Schütte). Quoted in: "Schütte-Lihotzky, Margaret," *New German Biography*, <https://www.deutschebiographie.de/pnd118762141.html#ndbcontent> (accessed February 8, 2018).

The answer of Sert and the uncertain future

On the 30 October 1933 Josep Lluís Sert gave an answer to her letter:

My friend Doctor Neurath talked me about you during the Conference of Athens. I will be very happy to see you in Spain and to know on your date of arrival to Barcelona. I am sure your studies on schools, kindergarten, etc. will be very interesting.

For Sert it was difficult to do something useful for the school buildings because everything was depending on the Ministry of Public Instruction which had their own office of architects who controlled the stuff. The members of the GACTPAC only managed to do some propaganda on the new pedagogy principles in Madrid following the work done by Karl Moser (1860–1936) in Zürich. Grete's conferences could only be welcome if they were in French because in Spain very few people understood German.³³

In December 1933 Ernst May left Russia to East Africa. Grete was commissioned by the Moscow Academy of Architecture and from 1934 to 1936 she designed furniture for children of different ages according to the latest scientific and medical knowledge. She also planned two schools with her husband. In the years 1936 and 1937 she worked in different Kindergarten type designs on behalf of the People's Commissariat for Education and the establishment of the children's department in Stalingrad. With the exception of brief business trips and lecture tours to Japan and China, Lihotzky remained in the Soviet Union until 1937, when Stalin's Great Purge made life there intolerable and dangerous as well. She and her husband moved then first to London and later to Paris, France. When their passports threatened to expire, the spouses, in the face of increasing Stalinist repression of foreigners, decided to leave in August 1937.

Political Activities, 1938–1945

In 1938 Grete, together with her husband, was called to Istanbul, Turkey, to teach at the Academy of Fine Arts, and to reunite with exiled German architect Bruno Taut.³⁴ Lihotzky also designed kindergarten pavilions based on the ideas of Maria Montessori.³⁵ On the eve of World War II Istanbul was a safe meeting place for many exiled Europeans, a common destination for exiled Germans, and the Schüttes encountered artists such as the musicians Béla Bartók or Paul Hindemith.³⁶

In Istanbul Lihotzky also met fellow Austrian Herbert Eichholzer, an architect who at the time was busy organizing Communist resistance to the Nazi regime.³⁷ In 1939 she joined the Austrian Communist Party (KPÖ) and in December 1940, of her own free will, together with Eichholzer, travelled back to Vienna to secretly contact the Austrian Communist resistance movement. Schütte-Lihotzky agreed to meet a leading Resistance member nicknamed 'Gerber' Erwin Puschmann and help to set up a communications line with Istanbul. She met 'Gerber' at the Cafe Viktoria on 22 January 1941, where they were surprised and arrested by the Gestapo,³⁸ only 25 days after her arrival.³⁹ While Eichholzer and other resistance fighters, who had also been seized, were charged with high treason, sentenced to death by the *Volksgerichtshof* (People's Court) and executed in 1943, Schütte-Lihotzky was sentenced to 15 years of imprisonment and brought to a prison in Aichach, Bavaria, where she was eventually liberated by U.S. troops on 29 April 1945.

After the war, she went to work in Sofia, Bulgaria, eventually returning to her native Vienna in 1947. However, her strong political views –she remained a Communist– prevented her from receiving any major public commissions in post-war Austria, despite the fact that innumerable buildings all over the country had been destroyed and had to be rebuilt (*Wiederaufbau*). Consequently, apart from designing some private homes, Lihotzky worked as a consultant in China, Cuba and the German Democratic Republic. In 1951 she separated from her husband, Wilhelm Schütte.

Conclusion: The Three "Utopias"

The historical character of Grete Lihotzky is difficult to manipulate in favour of a superficial feminist ideology. She was not rejected professionally for just being "woman," and her most successful projects like the Frankfurt Kitchen were not feminist as such but helped the lives of millions of working women around the world. More difficult is to misuse the brilliant social dimension of her rationalisation, standardisation and industrialisation of housing especially in Germany and the Soviet Union. Because for her nobody was only reason, typology or machinery.

Belatedly, her accomplishments were officially recognized in Austria. She was first recognised for her non-architecture activities: in 1977 she received a medal for her peace work and in 1978, an

33 AHCOAC, C11/70.60.

34 Esra Akcan, "Civilizing Housewives versus Participatory Users: Margarete Schütte-Lihotzky in the Employ of the Turkish Nation State," *Cold War Kitchen* 194 (2009), 109–23.

35 Leonor Sáez Méndez, "Margarete Schütte-Lihotzky: Una arquitecta en la Viena de entre guerras," *Revista Internacional de Culturas y Literaturas* 20 (2017), 128.

36 Cf. David Damrosch, "Auerbach in Exile," *Comparative Literature* 47, no. 2 (1995), 97–117.

37 Cf. Heimo Halbrainer, "Herbert Eichholzer – Architektur und Widerstand," *Architektur & Bau Forum* 6. (1998).

38 Chiu, *Women in the Shadows*, 155–156.

39 "Margarete Schütte-Lihotzky: 'Sie haben gedacht, ich würde verhungern,'" *Die Standard.at*, January 18, 2005 (accessed February 4, 2018).

honour badge for her work in the Resistance.⁴⁰ Among many other late awards Grete Lihbotzky received honorary doctorates from the Technical Universities of Graz (1989), Munich (1992) and Berlin (1993), the Vienna University of Technology (1994) and the University of Innsbruck (1997). She also received the City of Vienna Prize for Architecture (1980), the Austrian Decoration for Science and Art (1992) and the Ring of Honour of the City of Vienna (1997). In Vienna's 21st district, a new public-housing structure on the Donaufelderstrasse was named the *Margarete-Schütte-Lihotzky-Hof*, a cluster of buildings officially designated as being 'by women, for women'.

But it is true: in her 103 years of existence she faced the frustration of the German National-Socialism, the disappointing Stalinist Communism and, as I demonstrated in this text, the danger of Spanish Republicanism which would finish in the horror of the Spanish Civil War (1936–39). All these three big professional promises finished in the historical impossibility of three little utopias. I am sure she ultimately felt herself as the real woman architect who was proud to serve others through the better understanding and organisation of human life.

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German-speaking Refugee Women Architects before the Second World War

Among the approximately 130,000 European refugees who fled to the United States between 1933 and 1945 were a small number of women architects, six of whom are the topic of this paper.¹ Marie Frommer (1890–1976) and Liane Zimblar (1892–1987, née Juliane Angela Fischer), belonged to the first generation of women architects and studied during the Imperial Era. Elsa Gidoni (1901–1978, née Mandelstamm), Karola Bloch (1905–1994, née Piotrkowska), Hilde M Reiss (1909–2002) and Elisabeth Close (1912–2011, née Scheu) studied after the First World War.

As part of a larger research project this paper introduces to a fragment of the multi-faceted careers of these architects but omits those women architects who arrived in the USA after the Second World War. It belongs with current studies on transnational exchanges between architects where the subject matter is not determined by geographical and cultural boundaries but is instead situated in complex networks. In outlining these networks, the individuals, groups and events who commissioned, supported, employed and collaborated with exiles can inform a further interrogation about the transformation and transfer of knowledge and ideas in between practitioners and places.²

There are some women architects recorded that have studied and practiced prior to the 1890s in Germany and Austria but the number of women who entered architecture and architecture schools

40 "Margarete Schutte-Lihotzky: Pioneering Architect," *Los Angeles Times*, January 22, 2000 (accessed February 5, 2018).

1 My special thanks go to the International Archives of Women in Architecture (IAWA) at Virginia Tech, Blacksburg, VA and to the Milka Bliznakov research prize that the author won in 2016. The prize and the content of the archives made this paper possible.

2 Stefanie Barron, *Exiles + Emigres* (Los Angeles: LACMA, 1997); Despina Stratigakos, "Reconstructing a Lost History," *Aufbau* 22 (October 2002), 14; Despina Stratigakos, "I Myself Want to Build: Women, Architectural Education and the Integration of Germany's Technical Colleges," *Pedagogica Historica* 43, no. 6 (2007), 727–56; Corinna I. Bauer, "Bauhaus- und Tessenow-Schülerinnen: Genderaspekte im Spannungsverhältnis von Tradition und Moderne" (PhD dissertation, University Kassel, 2006).

begun to increase from this time onwards. By the beginning of the Weimar Republic in 1918 a few women studied at Technical Universities (Technische Hochschulen, TH). Architecture schools here offered four-year courses towards a *Diplom-Ingenieur* (chartered engineer) degree.³ Marie Frommer enrolled in 1911 at the TH Berlin-Charlottenburg as one of three women and graduated in 1916 with a diploma. From 1917 to 1919 she wrote her doctoral thesis *River Courses and Urban Development* under Cornelius Gurlitt at TH Dresden and became the first women architect in Germany with a doctoral degree in this subject.⁴ Zimbler studied around 1912 at the School of Applied Arts (Kunstgewerbeschule) in Vienna (and perhaps also in Munich) and here possibly under Oskar Strnad who was a pivotal member of the Viennese School of Architecture (Wiener Schule der Architektur).

Prior to the First World War women had to find gaps in the system in order to enrol⁵ so it can be assumed that Frommer and Zimbler had support from their families and perhaps from within the universities when choosing this profession. During the Weimar Republic and in Austria after 1918 it was now permitted for women to study at a TH and several schools such as the TH in Berlin-Charlottenburg and the Bauhaus offered opportunities to study architecture.

Frommer, Gidoni, Bloch and Reiss studied at the TH Charlottenburg albeit at different times and for different length of time. Gidoni was born in Riga and had attended an art school in St Petersburg before enrolling here sometime before 1928 but she left without a degree.⁶ Hilde Reiss enrolled as an auditor for a short period in 1928 and Bloch began her studies at the TH Vienna and transferred to TH Charlottenburg in 1930. At the TH Charlottenburg well-known architects such as Hans Poelzig (between 1923 and 1935) and Bruno Taut (between 1930 and 1935) taught subjects such as structural engineering and public housing.

That four out of the six women in this study enrolled at TH Charlottenburg should not be misconstrued as a sign that this school was favoured by female students – it is instead indicative of the lack of research on female students at other architecture schools.

After studying in Vienna Zimbler run an independent practice since the beginning of the 1920s. She enrolled again at the TH Vienna in 1931 and in 1938 became the first woman in Austria with a degree in civil engineering. Scheu Close, who was 20 years younger, also studied around 1930 at TH Vienna. She studied architecture because of her family background. In 1912 her parents had

commissioned Adolf Loos to build their home and she had grown up in his Scheu House. Her family was connected internationally and with the support of Edward Filene –owner of the department store Filene's in Boston– Scheu Close left Vienna to study at MIT in Boston where she graduated in 1935 with a Masters Degree.⁷

Reiss was highly flexible and changed courses several times. After studying at TH Charlottenburg she first enrolled at the State University for Crafts and Architecture (Staatliche Hochschule für Handwerk und Baukunst) in Weimar and in 1930 at the Bauhaus in Dessau where she graduated with a diploma in 1932.⁸

Bloch finally, was a member of the Communist Party and after the Reichstag in Berlin was burned in 1933 she and her future husband, the philosopher Ernst Bloch, fled to Zürich where she received her diploma from the ETH in 1934.⁹

During the Weimar Republic Women graduates had, as demonstrated by Corinna I Bauer, some employment opportunities and changes in the law now permitted women to work for civil services.¹⁰ Frommer, for example, worked for several architectural offices after 1916 – an opportunity that at that time might also have arisen due to many men having been drafted during the First World War.¹¹ From 1917 to 1919 she also had a position at the Dresden Municipal Building Department while writing her doctoral thesis.

In 1925 Frommer set up an independent practice in Berlin that executed a broad variety of commissions such as the *Leiser Silk Store* (1927) and the *Villa Majestic* (1929) in Berlin as well as the *Textilia Department Store* (1928–30) in Ostrava.¹²

About Zimbler's practice in Vienna Ursula Prokop explains that the economic situation in Vienna after the First World War depressed the building industry and Zimbler focused on conversions and modernisations of existing homes. Her clients seemed predominantly to have been representatives

3 Stratigakos, "I Myself Want to Build," 728.

4 Bauer, *Bauhaus-und Tessenow-Schülerinnen*, 348.

5 Ibid, 19 ff and 33 ff.

6 Despina Stratigakos, "Gidoni, Elsa," Oxford Art Online, <http://www.oxfordartonline.com:80/subscriber/article/grove/art/T2271571> (accessed January 19, 2018).

7 Sandra Gutiérrez Poizat, "Elizabeth Scheu Close 1912–2011," *Un dia Una Arquitecta*, <https://undiaunaarquitecta.wordpress.com/2015/05/06/elizabeth-scheu-close-1912-2011/#more-1667> (accessed January 25, 2018); Elizabeth Scheu Close, "Oral history interview with Elizabeth Close," interview by Jane Hession, Minnesota Historical Society, June 26, 2000, transcript, 13, <http://collections.mnhs.org/cms/largerimage.php?irn=10279658&catirn=10447443&return> (accessed, January 29, 2018).

8 Bauer, *Bauhaus- und Tessenow-Schülerinnen*, 218, 387.

9 Karola Bloch, *Aus meinem Leben* (Pfullingen: Günther Neske, 1981); Christiane Droste, "Women Architects in West and East Berlin 1949–1969: Reconstructing the Difference" (PhD dissertation, University of Westminster, 2014), 153–156.

10 Bauer, *Bauhaus- und Tessenow-Schülerinnen*, 43.

11 Ines Sonder, "Marie Frommer: Projects between Berlin and Exile in New York," *Frau Architekt*, edited by Mary Pepchinski et al. (Frankfurt am Main: Deutsches Architekturmuseum; Berlin: Wasmuth Verlag, 2017), 141.

12 Ibid.

of the urban middle class and either employed married couples or single professional women.¹³ Her interiors were part of the then developing modern interior architecture in Vienna.¹⁴ Despite the depressed building industry Zimbler was prolific; in 1928 she opened a second office in Prague, published much of her work, and was an active public speaker as well as teacher; during the 1930s her activities were multifaceted and her practice operated internationally.

After graduating from ETH Zürich Bloch also worked briefly at Jacques Groag's office in Vienna. She moved to Paris where she worked for Auguste Perret before going to Prague in 1936 where she collaborated with the former Bauhaus student Friedl Dicker on as yet unidentified projects.¹⁵

Bloch's flexibility, albeit caused by political events, was not uncommon; the professional activities of women architects during the Weimar Republic were often diverse. Many worked within varied fields and were engaged with a range of clients. They were nevertheless seldom able to establish themselves within the field of architecture.¹⁶ It seems therefore significant that Frommer, Zimbler and Gidoni were able to establish independent practices, but it also gives an indication on how Bloch was able to find employment at established and renowned practices in Vienna and Paris. Where Reiss worked in the one year after graduating and before emigrating is to date not known.

Together with women entering architecture, their roles and the specificity of their contributions to architecture became a focus of debates during the 1920s. It is therefore not surprising that some of the women architects in this study engage with this topic. Frommer and Zimbler were members of the Soroptimist Club, an international organisation that had been founded in 1921 in Oakland, California by professional women. Frommer was among the founding members of the Berlin branch in 1930.¹⁷ Zimbler was also a member of several other similar associations in Vienna.¹⁸ In the 1930s she prepared the exhibition *How Do Women Visualise? (Wie sieht die Frau?)* (Fig. 1) that addressed gender specific ideas of aesthetics and women in the arts¹⁹ and that was part of the International Women's Congress in Vienna.

Bloch and Reiss were members of the Communist Party in Berlin and Bloch took courses at the 'Masch' (Marxist Labourer School) where she met the architects Hannes Meyer and Gyoergy Lukacs.

13 Ursula Prokop, "Liane Zimbler," *Architektenlexikon*, <http://www.architektenlexikon.at/de/727.htm> (accessed January 23, 2018).

14 Sabine Forsthuber, "Vom Kunstgewerbe zur Innenarchitektur," *Österreichische Zeitschrift für Kunst- und Denkmalpflege* 42 (1988, Special issue), 171 ff.

15 Bauer, *Bauhaus- und Tessenow-Schülerinnen*, 218, 339 and 387; Droste, *Women architects*, 153 ff.

16 Ibid, 48.

17 "History," Soroptimist International, <https://clubberlin.soroptimist.de/geschichte/> (accessed February 3, 2018); Sonder, "Marie Frommer," 143.

18 Forsthuber, "Vom Kunstgewerbe zur Innenarchitektur," 174 ff.

19 Ibid.



Fig. 1. Liane Zimbler, *Wie sieht die Frau*, Exhibition catalogue, Vienna, 1930.

Courtesy of IAWA, Blacksburg, VA. Ms1988-005, Box 1 Folder 12.

Due to her husband's work as a philosopher Walter Benjamin and Siegfried Kracauer also belonged to their circle of friends.

As members of the Communist Party Reiss and her friend Waldemar Alder, also a former Bauhaus student, distributed leaflets in Berlin that opposed the 1933 elections (*Reichstagswahlen*). After the Reichstag was burned her parents urged her to emigrate and Reiss fled from Berlin to New York.

With Hitler seizing power in 1933 the political situation in Germany changed dramatically.²⁰ Architects were affected when the 2653 members of the Association of German Architects (Bund Deutscher Architekten, BDA) were subsumed into the newly founded Reich Chamber of Fine Arts (Reichskammer der bildenden Künste). Well-known Jewish architects such as Erich Mendelsohn lost their membership immediately. Lesser known ones were included but from 1935 members were compelled to produce proof of Aryan ancestry after which they were gradually excluded for their 'lack in suitability and reliability'.²¹ The exclusion from the association was tantamount to an occupational ban.²²

20 Claus-Dieter Krohn, "Emigration 1933-1945/1950," *European History Online*, <http://www.ieg-ego.eu/krohnc-2011-en> (accessed January 10, 2018),

21 Anke Blümm, "Im Namen der Baukultur 1933-1945: Der BDA im Dritten Reich," *Bund Deutscher Architekten BDA, Aufbruch in den Untergang 1933-1945* (Berlin: Bund Deutscher Architekten, 2017), 11, https://bda-bund.de/wp-content/uploads/2017/01/BDA-Chronik_Band-04_1933-1945.pdf (accessed January 20, 2018).

22 Blümm, "Im Namen der Baukultur," 15.

Between 1933 and 1938 many, among them Bloch, found exile in neighbouring countries such as Czechoslovakia, France, Switzerland or the Netherlands.²³ Frommer fled to London in 1936, Gidoni fled to Tel Aviv in 1934, Bloch to Switzerland. The USA was for many their second or third exile and triggered in 1938 by events such as the annexation of Austria into Germany and the atrocities of the so-called *Reichskristallnacht*. As a result, the USA but also Latin America, South Africa and Shanghai – where no visa was required – became a destination for a great number of refugees.²⁴ In 1938 Bloch left Prague, Zimmler left Vienna, Gidoni left Palestine, Frommer left London in 1939 and they all went to the USA.

At that time, offers to come to the USA and the integration of refugees were supported by politics. Even though numbers of immigrants were limited each year, Claus-Dieter Krohn explains that such restrictions did not apply to scholars and intellectuals because of efforts to transform the country from a business-oriented one to a modern cultural nation.²⁵ Since Franklin D Roosevelt's economic program 'New Deal' foreign scholars were regarded as a valuable sources of knowledge.

Philanthropic organisations such as the Rockefeller Foundation supported the process, attracted displaced intellectuals and facilitated their integration.²⁶ Other networks such as the Soroptimist Club also aided refugees; Frommer, for example, gave the address of Marion JE Smith, a club member, as her first address in New York. Zimmler might also have received aid from the club as the Soroptimists in Vienna are said to have rescued refugees.²⁷

Among the places and initiatives that gave refugees opportunities was the New School for Social Research in New York where by 1945 more than 170 refugees had held teaching positions²⁸ – among them was Reiss who taught Interior Planning from 1938 to 1940.²⁹

Apart from Chicago, where some of the former Bauhaus Masters would establish the New Bauhaus in 1937, and Los Angeles, many exiles settled in the metropolitan area between New York and Boston.³⁰ Frommer and Gidoni would remain in New York; Bloch and Reiss worked here before opportunities in other cities arose.

Reiss, who was the first one to arrive in New York in May 1933, appears to have found work

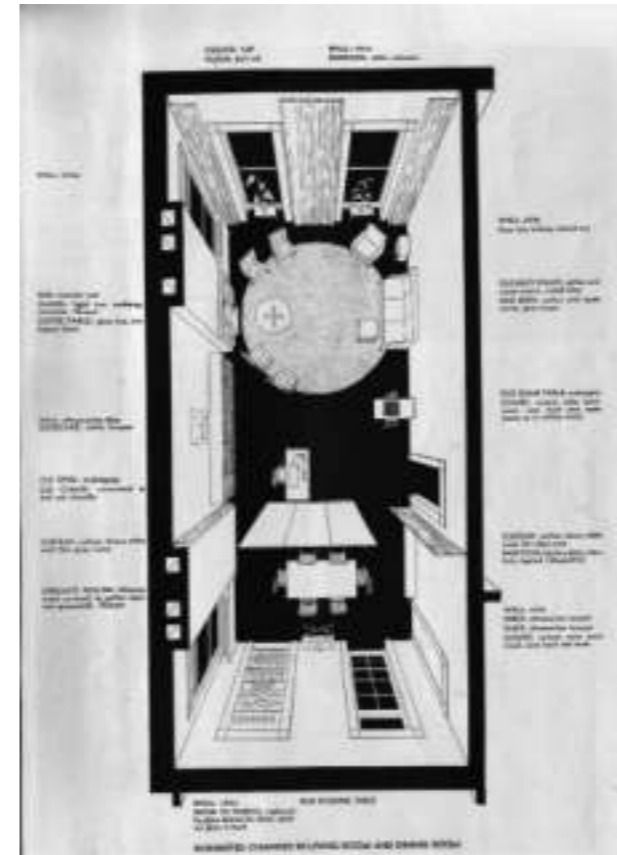


Fig. 2. Hilde Reiss and Lila Ulrich, Interior for a House in Brooklyn. Source: "A Century Intervenes," *Arts and Decoration* (March 1935), 15.

quickly. Before commencing her teaching positions at the Laboratory School of Industrial Design (1936) and at the New School of Social Research, she worked in the offices of Gilbert Rhode and Norman Bel Geddes and collaborated with the former Bauhaus student Lila Ulrich, who was an American citizen. In 1935 Reiss and Ulrich published the interior decoration for an apartment and plans for a house conversion in Brooklyn in the magazine *Arts and Decoration* (Fig. 2).

During the late 1930s Reiss worked with her American colleague William Friedman who also worked at Laboratory School and in 1938 they open a joint office as Industrial Designers on Lexington Avenue.³¹ Among their projects was the apartment for Frances M Pollak (1938) on Park Avenue that was published in *Interior Design and Decoration*³² and the *House Stein* in Pleasantville (1939) that the *Architectural Record*³³ (1939) published.

Gidoni came to New York in 1938 even though she had built an impressive portfolio of Modernist architecture during her four years in Tel Aviv.³⁴ In New York Gidoni, like Reiss, found work at Norman Bel Geddes' office and worked on his Futurama exhibit that was part of the General Motor's display for the 1939 World Fair. She then was employed at Fellheimer & Wagner and after the war worked for Kahn & Jacobs. By 1960 Gidoni was project designer at Kahn & Jacobs and responsible for large-scale projects such as the Travelers Insurance Co. building in Boston.³⁵

Not much is known about Frommer's practice during her early years in New York.³⁶ She was acquainted with Gidoni but it is not known if they collaborated on projects. Her architectural degrees were not recognised by New York State and she had to pass licencing exams which she obtained

23 Krohn, "Emigration 1933–1945/1950."

24 Ibid.

25 Ibid.

26 Ibid.

27 "History," *Soroptimist International*.

28 Krohn, "Emigration 1933–1945/1950."

29 Bauer, *Bauhaus- und Tessenow-Schülerinnen*, 387.

30 Krohn, "Emigration 1933–1945/1950."

31 Bauer, *Bauhaus- und Tessenow-Schülerinnen*, 219.

32 "Departure from the Conventional," *Interior Design and Decoration* (February 1939), 30–35.

33 "Plywood and Fieldstone Walls are Used in Same House," *Architectural Record* (March 1939), 44–48.

34 Stratigakos, "Gidoni, Elsa."

35 Stratigakos, "Reconstructing a Lost History," 14; Stratigakos, "Gidoni, Elsa"; Marilyn Hoffman, "Key Skills Linked: Huge Responsibility," *The Christian Science Monitor*, April 27, 1960, 10.

36 An exception is a 1944 project with Paul Bry. Sonder, "Marie Frommer," 143.

in 1946 –now aged 56– and opened a practice in Manhattan. Among her projects were shop fronts, offices, houses and a department store (Fig. 3).³⁷

Zimmler settled in Los Angeles in 1940 and first worked for, and later owned, the interior design firm Anita Toor that she maintained until 1975. Her work related to her practice in Vienna and she mainly executed conversions and interiors.³⁸

Bloch built a house in Andover, New Jersey in 1939 and was employed at the offices of Stone & Webster and Leland and Larsen in Boston. In 1949 she returned with her family to East Germany and moved again in 1961 to West Germany.³⁹

Reiss also worked in a variety of different settings in the USA before settling in Palo Alto, CA in 1952. Among them was the Idea House II that she built in 1947 as a temporary model house on the grounds of the Walker Art Centre in Minneapolis. After developing a travelling exhibition in San Francisco and working at Erich Mendelsohn's office in the early 1950s she opened a store for modern furniture and household goods in Palo Alto (1952) and in 1976 another such store in near Capitola.⁴⁰

Lastly Scheu Close, found her first position after graduating in 1935 at Kastner and Stronorov in Philadelphia⁴¹ and had a teaching position at the University of Minnesota before opening a practice with her husband Winston 'Win' A. Close in Minneapolis. It appears that among their first works was a design for a modern house for the Walker Art Centre. It may well have been that this was related to Reiss' Everyday Art Gallery for



Fig. 3. Marie Frommer, Speciality Shop 'Regina', New Rochelle, New York, 1946.

Source: "Inexpensive Design for Speciality Shop," *Progressive Architecture* (August 1946), 73.

which Reiss and Friedman built the *Idea House II* in 1947. Among Scheu and Close's work in the 1940s and 1950s were the 1940/41 cabin *Skywater*⁴² on a hillside above St Croix River in Minnesota, the 1947 Rood House in Lowry Hill, Minneapolis, and 14 houses on University Grove.⁴³

Although this account of the careers and networks is cursory and by no means comprehensive it demonstrates connections between exiled architects, their American colleagues, as well as the role of existing networks in integrating refugees. Architectural practices such as Bel Geddes', New School for Social Research and the Soroptimist Club warrant further scrutiny to understand their roles as 'nodes' that helped connect architects, clients and employers. Research on women refugee architects is still at the beginning and in order to arrive at meaningful and convincing hypotheses about the work opportunities of women in exile as well as their roles in the development of Modernism further research is necessary.

37 Ibid, 143–145.

38 Prokop, "Liane Zimmler."

39 Droste, *Women architects*, 153 ff.

40 Bauer, *Bauhaus- und Tessenow-Schülerinnen*, 232 and 387 ff.

41 Scheu Close, Interview, 13–14.

42 Gar Hargens, Close Associates, "A Look at Mid-century Modernist Homes through the Works of Close Associates," *The Minnesota Preservationist* (March/April 2010), 10–12.

43 "Cabin, St. Croix River, Minnesota," *Progressive Architecture* (December 1948), 78; "Elizabeth Close, FAIA, Gold Medal Winner," *Sparks* 15, no. 8 (September 8 2002), 1. The website closehomes.org by Scheu Close's grandson Winston W Close contains publications and images of their practice: Closehome.org, <http://www.closehomes.org> (accessed May 21, 2018).

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Chandigarh's U. E. Chowdhury: The Grande Dame of Modern Architecture in India

Architecture is verily called the 'mother of all arts' and hence its followers - the architects are usually expected to be intellectually developed and involved in creative ventures besides their core area of expertise. However, few architects can be credited with having the well-rounded and multi-faceted personality that this requires. Urmila Eulie Chowdhury (Fig. 1) was one such architect who moved the boundaries of what an architect should be and especially so being a woman in times when the profession of Architecture was still in its nascent stages in the newly independent country.¹ In the early 1950s there was very low visibility of women in the profession and the academia not just in India but all over the world. Most of the famous and celebrated architects were male with very few women in high positions such as heads of departments of architecture or principals in firms.²

Credited as being one of the first women architects of Asia, Chowdhury was an important part of Le Corbusier's team during the planning, design and construction of Chandigarh from 1951-63 creating many institutional and residential buildings of great architectural merit.³ She was also the first woman Chief Architect of Haryana and Chandigarh besides a brief stint as the Director of the School of Architecture of Delhi.

Since her father was a diplomat she travelled a lot and gained a multicultural and metropolitan outlook that made her the consummate woman of the Modern age. Her impressive educational background

started with earning a Cambridge School certificate in Kobe, Japan, followed by a degree in architecture from the University of Sydney, a course in music at the Conservatory of Music of the Julian Ashborn School of Art; to finally obtain a diploma in Ceramics in Englewood, New Jersey, United States.⁴ She did not just dabble in the arts as a hobby but pursued full-fledged accredited courses which was and is still very rare for a trained architect. No wonder then that her creativity extended from architecture to furniture design besides her forays into teaching and writing. She is one of the rare architects who even held an exhibition of her paintings in Chandigarh.

After spending some time working in the United States, she returned to India in 1951, joining the team in charge of the design and construction of the city of Chandigarh. She had been a part of the original team of Indian architects selected before the arrival of Corbusier in Chandigarh.⁵

Her expertise in French made her role especially significant as she became the sole connection between Corbusier, Jeanneret and the rest of the Indian architects and administrators. However, this role of a mediator and translator did not become her claim to fame and she won the trust and respect of the entire team due to her own talent and commitment to work.

In 1963 she briefly worked as the Director of the School of Architecture of Delhi - an assignment she had to relinquish as the easy-going faculty could not handle her passion for discipline and tremendous work ethic she imbibed!⁶ In 1970 she took the charge of the Chief Architect of the State of Haryana and between 1976 and 1981 of the State of Punjab. After her retirement from public service in 1981 she was involved in her private practice in Chandigarh and was culturally active in the city.



Fig. 1. Chowdhury with architect B. P. Mathur.
Courtesy of Archives Le Corbusier Centre

1 Madhavi Desai, *Women Architects and Modernism in India: Narratives and Contemporary Practices* (Oxon: Routledge India, 2017).

2 Ibid.

3 Bhatti, *Reflections*.

4 Desai, *Women Architects and Modernism in India*.

5 Bhatti, *Chandigarh*, 210.

6 Ibid.

Project Profile

Chowdhury worked on many projects in association with Corbusier and Jeanneret and also independently. With Corbusier she worked on the Extension of the High Court and the proposals for the Museum of Knowledge. Her association with Jeanneret was wider and longer having worked on many types of housing and a school with him.⁷

In Chandigarh Chowdhury is known mainly for high cost housing for Government officials but her projects of the Home Science College and Hostel, Women's polytechnic and later schools are equally worth mentioning. These projects showcase her strong sense of aesthetics wherein functional elements like staircases become sculptural elements in the buildings. Her sensitivity to context is evident in the planning of the Home Science College where the building is broken into separate wings in response to its siting at a corner of the sector facing a roundabout.⁸ However in this paper we shall discuss her residential architecture in detail to highlight her important contribution in the creation of a vocabulary that impacted the maximum number of people and also the urban morphology of the city.

Jeanneret and Chowdhury

The majority of the public housing, institutional buildings designed by Drew, Fry and Jeanneret exhibit the conscious application of a uniform urban vocabulary for the city using the limited palette of brick, concrete and stone.⁹ This seemingly left little scope for exploring and refining individual design sensibilities by the young Indian architects working with and under them. However, the later and independent works of B P Mathur, Jeet Malhotra, Aditya Prakash and Chowdhury among many others are testimony to the fact that they were not merely aping the masters but imbibing their tenets with a growing awareness of architecture and planning.

Chowdhury worked closely with Jeanneret on many projects and it is obvious that much of her design inclinations are derived from or based on his design philosophies. However, in the projects that she worked on there is an evidence of further evolution- an exploration of plan, form and detailing not always confirming to the style of Jeanneret. Her works are refined examples of modern architecture

in their own right with a subtle attention to detail and a sensitivity derived from her being an artist of merit with an already evolved personal aesthetics. These small deviations shall be highlighted in the paper to explore these shifts of perception by comparing Chowdhury's work with her mentors'. Like the rest of the team her work was deeply impacted by the concerns for climate, cost and the typical compact planning necessitated by the limited footprint of the structure.¹⁰

The Challenge of High Cost Housing on a Low Budget!

Before we discuss the residential projects of Chowdhury it is important to understand the context and challenges of these projects in Chandigarh. The complexity of the work was ably handled by Jeanneret, Fry and Drew and of course the Indian team of architects with far reaching impact on the domestic architecture of the city and region at large.

As Chowdhury elaborated in an article on high cost housing in Chandigarh: 'In the case of the Government housing the primary factor is economy. There is a fixed price for each house which it is virtually impossible to exceed'.¹¹ She adds

... within this cost the Government at the inception of the project fixed the number of rooms to be provided in each type and as was natural the room requirements were stretched to a maximum so that it is only with considerable ingenuity in planning and without any margin for extras such as big verandas, balconies, good quality floors and roofing that it is at all possible to remain within the budget.¹²

The second factor that was considered was the climate. The team had to balance the extreme winters and harsh summers with the sweltering monsoon thrown in between. While the winters required 'all living areas welcoming the sun during winters' the summers meant that the greater the glass area on the sunny side the hotter the house. As she wryly observed 'obviously it is impossible to meet all these requirements in one house without having three interconnected houses each to suit the three different climates'.¹³

Achieving economy through the judicious use of material and construction techniques was another factor in the design of these houses. As Chowdhury points out

7 U. E. Chowdhury, *Letter of U. E. Chowdhury to M S Randhawa, February 20,, 1967*, Randhawa Archives, Government Museum and Art Gallery, Chandigarh.

8 Bhatti, *Chandigarh*, 210.

9 E. Maxwell Fry, "Problems of Chandigarh Architecture," in Mulk Raj Anand, *Marg*, Vol. 15 (Chandigarh, Marg Publications, 1961), 21.

10 Fry, "Problems," 21.

11 U. E. Chowdhury, "High Cost Housing and Interiors," in Mulk Raj Anand, *Marg*, Vol. 15(Chandigarh, Marg Publications, 1961), 25-28.

12 Chowdhury, "High Cost," 25.

13 Chowdhury, "High Cost," 26.

the cheapest material in Chandigarh is brick.... Concrete and stone cost three or four times as much. Glazing and wood work cost seven times ore per square foot of wall than the same area in brick. This fact has an immediate and visible effect on the architecture of Chandigarh.

Thus, came about the Chandigarh style of housing defined by small openings strategically placed to ensure light and ventilation in the buildings. The unsuitability of using large areas of glass coupled with the structural limitations of puncturing load bearing brick walls gave rise to the aesthetic problem of large blank surfaces on the exteriors. Jeanneret and Chowdhury ably handled this challenge by a skilful use of materials and textures and the articulation of the small openings as elements of the façade. The team ably rose to the challenge as she sums up¹⁴

Apart from these practical bases for design there is the question of aesthetic expression. Here in Chandigarh for the first time this aesthetic expression and architectural philosophy has been applied on a large scale to bearing wall construction. Pioneer work has been done not only in making a given programme fit post war economy but also in the field of plastic expression.

The projects discussed here showcase the capable management of all these concerns in the work of Chowdhury and are hence discussed in detail regarding the planning and aesthetics achieved in each case.

Minister's House

Planning

A typical feature of the larger houses made in Chandigarh was the large size of the plot in which a building of a very limited footprint had to be accommodated. Despite the open space available to the architect a free plan with loosely connected spaces was not possible. Hence the architects had to find other means of adding a sense of luxury and spaciousness to the otherwise compact houses. These double storey houses are a variant of the single storey *House type 2J* by Jeanneret¹⁵ with a courtyard planning. Chowdhury's plan (Fig. 2) for the Ministers house revolved around the entrance lobby with the bedroom and living room projecting into the green lawns. Every living area had its own open space like the enclosed veranda common to the living and dining areas that opened onto a generous patio protruding into the lawn. All the living areas and the verandas face north east or north west for thermal comfort. The skilful design of the house wastes minimum

¹⁴ Chowdhury, "High Cost,"2.

¹⁵ Kiran Joshi, *Documenting Chandigarh: The Indian Architecture of Pierre Jeanneret*, Edwin Maxwell Fry, Jane Beverly Drew, Vol. 1 (Ahmedabad: Mapin Publishing, 1999), 48–49.

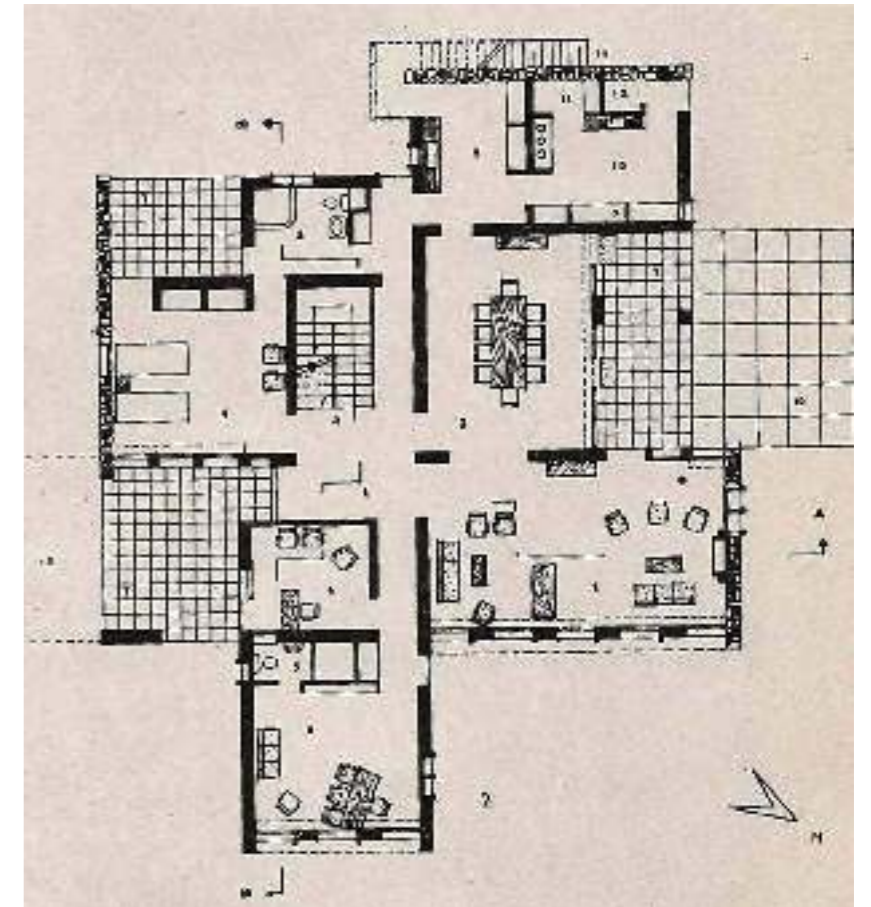


Fig 2. Ground floor plan of Ministers' Houses by Chowdhury, Marg Vol XV, Mulk Raj Anand (Chandigarh: Marg Publications, 1961).

circulation space while still ensuring a clear segregation of the semi-private and private areas. The office and formal living areas are directly connected to the entrance foyer without compromising on the privacy of the living areas and private verandas. The service areas were kept at the back along with the kitchen. The first floor accommodates three spacious bedrooms again with dedicated verandas and terraces. The houses catered to a modern way of living with the inclusion of areas such as the pantry with the kitchen, the provision of generous dressing areas along with the attached bathrooms, the mantles and fireplaces in the living areas. An outdoor staircase from the lawn to the first-floor rear terrace to the lawn connects the open areas besides providing a convenient to access the service areas without entering the house.

Façade and Elevation

The house is enlivened by the play of volumes and spaces with a strong emphasis on solid and void. The usual palette of stone, exposed brick and lime washed plastered surfaces is skilfully deployed to create interest in each façade of this house. In the exterior the large volumes are broken up into planes divided by strategically placed vertical slit windows and the use of different materials. The simple open staircase becomes a defining element of the elevation set against the stone wall with the interesting void connected by a lintel beam. The square windows used alone or

in a combination of 2 or 4 openings with the white washed concrete band around them enhance the abstract composition of the houses.

Deputy Ministers' House

Unlike the mainly rectilinear plans of Jeanneret with rooms projecting along the vertical and horizontal axis this house has a Y shaped plan with a clear cut functional segregation within the three wings housing the formal, private and service areas respectively. The house form gently unfolds onto and embraces the open areas towards the living areas which face north east to enable larger openings without too much heat gain. This house is a definite break from the other houses designed at that time.

Planning

Jeanneret's houses are almost always entered through a well-defined porch which became the identity of the house type. This house is however entered through a deliberately low scaled space that is more intimate and also connects the service areas to the main house. The porch is in fact a porous space that connects the front and rear lawns- adding visual relief to the built-up mass. This side way entrance perhaps also ensured privacy of the main entrance from the street and lawns. Economy of spaces is achieved through a common passage cum staircase lobby. However, owing to the linear planning of the house there is a constant connection of indoor spaces with complimentary outdoor spaces maintaining a feeling of luxury needed for houses of that level. All living areas on the ground floor open into a gently curving deck which is made intimate by the concave shape of the plan while the first-floor bedrooms are provided with generous terraces and covered verandas.

Since sanitary fittings were one of the most expensive items at that time for reasons of financial and space economy a common toilet at the end of the passage serves the bedroom and common areas.

Façade and Elevation

The gently sloping stone wall of the servant area is the only hint of the angles within the y shaped plan softening the impact of the largely orthogonal block. By keeping the two main blocks on the front at right angles to each other the street picture and orthogonality of the rest of the housing stock in Chandigarh is reflected here as well. The house again exhibits a play of textures like stone, brick and white plaster to create drama in the elevations.

The bold and austere treatment of the front double storey wall is offset and enhanced by the generous terrace with the continuous brick lattice parapet over the entrance and the garage linking

the two blocks. The slightly projecting low height garage with its white plaster acts as a break between the brick and stone surfaces while also maintaining a sense of continuity with the main double height wall. The placement of windows on the side wall with the staircase is a lot more restrained and formal than the other houses by Jeanneret and Chowdhury. The sculptural chimney structure further animates the skyline.

House Type 6J with Jeanneret

Planning

The house type 6 was originally designed by Jeanneret and this was a variation from the original with a visible difference in the planning and architectural expression. Unlike the house 6J⁶ this house called 6JB is more L shaped with one arm housing the living areas and the other the service areas again joined together by the low height porch. The garage and servant areas are more closely integrated with the house than in the previous design. An additional bedroom on the ground floor was provided by making the plan more compact and minimising the space for the entrance porch and rear veranda. The wing with the living areas typically has openings towards the north east and the staircase and toilet act as a buffer from the harsh south west sun. Interesting detailing can be seen in the servant areas with dedicated space for an outdoor kitchen and a subtle segregation of the utility areas for the servants. On the first floor the bedrooms are again placed on the NE side and the staircase lobby opens onto a generous terrace with the two chimneys that had become a hall mark of the skyline of most of Jeanneret's houses. Niches and details like the fireplace in the interiors enrich these humble houses.

Façade and Elevation

These compact houses were given a sense of scale in the vast site by deliberately projecting the tall double story blocks. The almost stark white plastered front façade of the main block was divided into two by a vertical row of recessed windows further emphasising the verticality and visually reducing the bulk of the structure. The house relies on the play of heights and volumes to create interest with the low porch and garage roof off set by the blocks behind with brick lattice parapets. Surprisingly the only use of stone is along one wall of the car garage which seems to be an appropriate terminating element for the low hanging, protruding porch and garage block. Except for the front walls the rest of the building is in exposed brick work articulated by the square windows

16 Joshi, *Documenting*, 68–69.

in various compositions. Thoughtful details like the brick lattice till the lintel level to protect the rear veranda from direct sun while allowing for ventilation, deeply recessed windows in the living areas and the controlled use of materials can be seen in this variant of the house 6J.

House Type 9 for Superintendents

Planning

These small houses on a site of 120 m² with the usual small footprint were constructed on narrow lots of land-oriented NE to SW as Jeanneret usually liked to ensure climatic advantage to the exposed areas.¹⁷ The double storey houses had a living- dining hall, kitchen and a small bedroom on the ground floor and two bedrooms with detached common toilets in keeping with the preference and life style of the occupants. Even in the small space there is a clear segregation of semiprivate and private areas with a single entrance providing separate access to both. Small details like the division between the living and dining, direct access to the rear courtyard which was in keeping with the outdoor lifestyle of this strata of inhabitants, detached toilet, and even the slight curvature in the living room wall at the entrance door show Chowdhury's sensitivity to the cultural and functional needs of the users. The simple structural system allowed for economy of construction while also becoming an integral part of the articulation of the façade.

Façade and Elevation

The most striking feature of these row houses is the brilliant articulation of the facades using textures and forms. The built-in cupboards of the first-floor bedroom project out as white lime washed surfaces against exposed brick surfaces. The recessed windows enhance the play of solid and void so skilfully achieved in a relatively flat façade. The terraces on the second floor used extensively for outdoor activities and for sleeping out in summers are screened by high brick lattice work parapets providing privacy without compromising on the ventilation of the enclosed roof.

Furniture

Chowdhury was the only architect from the original team of the Capital project Chandigarh who took up the design of furniture on the lines of Jeanneret.¹⁸ Corbusier had evolved a system of Modulor dimensions -an anthropometric scale of proportions based on the height of a man which became the basis of much of the planning and detailing of all his projects in Chandigarh. Initially the

Modulor Man's height was based on an average French man's height of 1.75 m (5 ft 9 in) but later Corbusier evolved another series based on the height of 1.83 m that would account for taller men.¹⁹ Jeanneret's furniture for Chandigarh was also based on this system of measurements. Chowdhury however designed and readapted some of Jeanneret's furniture to scale suitable for an Indian. These almost minuscule pieces of chairs were perhaps a result of the fact that she was herself a petite person and like most women must have struggled with the size- especially the height of most office and domestic use chairs designed for a tall American man! Even today we have very few designers who are sensitive to and take into account the anthropometrics suitable for women. It was only around 1980s that the first studies of male-female ratios for anthropometric dimensions began to appear. The chairs designed by Chowdhury are markedly similar to Jeanneret's and based on combining strong minimal forms and simple materials such as wood and cane but with proportions more suited to a man of a small physical stature or an average Indian woman. Her attempt to address the issue of furniture design appropriate to women has still not been given the due recognition that it deserved then and now.

A Woman of Words

Chowdhury was very articulate with a good command over English and French and wrote for many magazines and journals. She was the Indian correspondent for the internationally known English magazine Architectural Digest for several years besides her regular columns in newspapers. In a rare instance Corbusier gave her special permission to translate into English his treatise 'The Three human establishments' which was officially published by the Punjab Government,²⁰ Around 1963 she wrote Memories of Le Corbusier (*Those were the Days*), a collection of anecdotes about the time they worked together.

Cultural Contribution to the City

Alliance Française de Chandigarh

The connection Chandigarh with France had been made in its very creation and sealed forever with the association of Corbusier and Jeanneret with the city. It was strongly felt that this connection should

¹⁷ Joshi, *Documenting*, 86–87.

¹⁸ Bhatti, *Reflections*.

¹⁹ Le Corbusier, *The Modulor and Modulor 2* (Basel; Boston; Berlin: Birkhäuser, 2000).

²⁰ Bhatti, *Chandigarh*, 210.

somehow be kept alive and further strengthened. The French embassy was planning to expand in India and Chandigarh was an obvious choice. It was in this context that the Alliance Française de Chandigarh (AFC) was established with the active role of Chowdhury - her familiarity with French language being an added impetus. When the Alliance Française was established she went onto become its first president because she was the most 'French' one could find in Chandigarh!²¹ Her close working relation with Jeanneret and Corbusier must have further made her more perceptive to the French culture and society. With the efforts of Chowdhury and a few other dedicated people the Alliance came into being in March 1983. However, between 1983 and 1985 the Alliance Française was just a cultural club. Chowdhury kept the spirit of the group alive by regular screening of French movies at her house. 'She had a beautiful, plush house with long halls and perfect flooring. She would screen the movies in an air-conditioned hall and serve French wine' recalls Cecilia Anthony, the first teacher of AFC.²² It took two years of work by Chowdhury and her team between the French Embassy and the Chandigarh Administration before the Alliance could really start working as a language school in 1985. Chowdhury after helping set up the AFC did not involve herself with the running of the institute but remained an active member till her last days. She has immortalized herself by laying down the foundations of the Alliance Française 'Le Corbusier' de Chandigarh.

Theatre

Chowdhury along with two professors of English was instrumental in introducing the city to theatre by forming the Chandigarh Amateur Dramatic Society.²³ The trio staged only English plays and is credited with being the pioneers of this art form in the city.

Conclusions

Chowdhury symbolised the complete architect and creative human being. Chowdhury's contribution to the creation of Chandigarh as a modern vibrant city goes beyond just the architecture extending to the cultural sphere as well. She helped frame the body of the city and then infused the soul into it. Her polished and multi-dimensional personality has made her a role model for Indian women in a profession considered to be the domain of men as she contributed immensely to the perception of women as capable and creative architects who could command the same respect as men and further contribute to society through all their talents in various fields. Her empathy as a woman is

most obvious when one hears of anecdotes wherein she would play the mediator trying to resolve bitter struggles for recognition and promotions in the Indian team of architects.²⁴ There are also several mentions of her meticulous housekeeping, generous hospitality and thoughtful entertaining which reveal that she was indeed the well-rounded Modern woman who could handle home and work with equal aplomb. She broke the barriers of gender and profession-based limitations and set an example for the women of Chandigarh for the competent and confident new age woman.²⁵ Perhaps that explains the proliferation of women architects in Chandigarh who are contributing to the profession and society with the same zeal of Chowdhury.²⁶

21 Alliance Française Chandigarh, *'Le Corbusier' de Chandigarh*, Silver Jubilee 1983–2008, 2008.

22 A Chandigarh, *'Le Corbusier' de Chandigarh*.

23 Bhatti, *Chandigarh*, 399.

24 Interview with S. D. Sharma.

25 Chandigarh and the neighbouring states of Punjab and Haryana have had many women who have served as Chief Architects of the city or state—a position usually considered to be the domain of men.

26 Desai, *Women Architects and Modernism in India*.

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Artists of the Thread between the Thirties and the Sixties, from Artistic Craftsmanship to Industry: Two Exemplary Cases Anita Pittoni and Fede Cheti

Introduction

In 1924, an Italian silk industrialist, Carlo Piatti, wanted to launch a competition among artists, which had a remarkable success, to redevelop 'artistically' the design of a traditional feminine accessory, the shawl. At that time, focusing on 'art in the rescue of industry'¹ had been a courageous choice: a movement for redevelopment of production, to reaffirm the national tradition of craftsmanship quality, but oriented towards an organization of industrial work. For industry it was still intended a serial production, entrusted to the artistic design made with embroidery and hand procedures, by skilled workers, thus still ensuring the uniqueness of the product and a quality that justified prices not yet for everyone.

However, an era of transitions was opened, inextricably linked to contradictions. If many like Carlo Carrà and Roberto Papini², or Agnoldomenico Pica praised the overcoming of the old hypertrophic world for a modern beauty free from frills and more technological, others like Elisa Ricci, wife of art critic Corrado, wrote in 1925: women's hands 'have created graceful works of art such as the brutal speed of the machine will never do'.³ She was in defence of the manual ability overtaken by the

attraction for the anonymous modernity of the machine, capable of 'the miracle of giving beautiful things for everyone'. In the pages of Elisa Ricci, the eulogy to the industry from the mouth of a young female graduate at the Academy betrays the paradox, what the machine itself cannot replace: and coincides with what in the next two decades Anita Pittoni would have defended following two irrepressible urgencies: Creation and Independence.⁴

Her own age Fede Cheti rides similar fields during the Thirties till the end of the war with a significant contribution to the 'cause' of the feminine handwork in field of artistic textiles. Evidence of this direction can be confirmed by her presence among the artisans and artists involved by ENAPI (National Agency for Crafts and Small Industries) during that period.⁵ But close to end of the Forties she gradually embraced a modern vision oriented toward the industrial production (in dialogue with art), demonstrating her smartness and her spirit of adaptation to the unavoidable changings that were yet coming after the war.

Anita Pittoni and a New Textile Manual Industry

Anita Pittoni was born in Trieste (1905–1982) where her needle and crochet from symbols of forced domesticity, due to financial hardships of her family,⁶ become instruments of affirmation of her own creative process. After the early death of his father, Anita's guardian becomes his uncle Valentino - a Socialist deputy in the Parliament of Vienna, and founder of the Women Worker Cooperatives of Trieste, Istria and Friuli. From him she probably inherited the attention to protect her future laboratory's workers, respecting their domestic commitment in coexistence with work. Therefore between the 1930s and the 1940s in Italy, at the time of autarchy, she transformed governmental conditioning into creative ideas. Actually, in 1929 she opened her handwork textile laboratory for clothing, furnishings and exhibition displays, where had already habit to use national fibres before the beginning of autarchy⁷ that was adopted since 1934 following the economic sanctions imposed to Italy by its invasion of Ethiopia. She also was early involved in the renewal and enhancement

1 *Il concorso nazionale Carlo Piatti per la decorazione degli scialli di seta* (Milano: Galleria Pesaro, 1925); Anna Mazzanti, "Il manichino artistico e il suo allestimento: Marcello Nizzoli, da Monza al mondo," *Ricerche di S/Confine*, (2018). Anita Pittoni's fellow citizen and friend Maria Lupari (1901–1961) participated to Piatti's competition, while was attending Rosa Menni Giolli textile laboratory in Milan, and perhaps was one of the principle *traits-d'union* between Pittoni and the Milanese cultural circle. Michela Messina, "Anita Pittoni e Maria Luperi: Creazioni tessili tra le due guerre," *Ricordando Anita Pittoni: Atti della giornata di studio* (Trieste, November 22, 2012), edited by Walter Chiereghin (Trieste: Istituto giuliano di storia, cultura e documentazione, 2013), 93–106.

2 Carlo Carrà, *Il rinnovamento delle arti in Italia* (Milano: Il Balcone, 1945); Giovanni Papini, *Le arti d'oggi: Architettura e arti decorative in Europa* (Milano-Roma: Bestetti e Tuminelli, 1930).

3 Elisa Ricci, *Ricami Italiani: Antichi e moderni* (Firenze: Le Monnier, 1925), IX.

4 Bruno Maier, "Due scritti inediti di Anita Pittoni," *Archeografo triestino*, 53 (1993), 125.

5 "Il tappeto annodato a mano," *Domus*, 116 (August 1937), 20–21; "Gli italiani debbono innamorarsi della loro produzione artigianale," *Domus*, 151 (July 1940), 76–77.

6 After the premature death of the father engineer, the embroiderer mother was forced to sacrifice Anita's wishes of studying to allow education to her two brothers.

7 "Autarchia: Economia," Treccani - Enciclopedia Italiana Treccani, <http://www.treccani.it/enciclopedia/autarchia> (accessed May 21, 2018); "Materiali e tipi autarchici: La cultura del prodotto tra industria e artigianato nell'Italia dei primi anni quaranta," AIS/Design Storia e Ricerche, <http://www.aisdesign.org/aisd/category/studiericerche/numero-4-novembre-2014> (accessed February 6, 2018); Beppe Finessi (ed.), *Autarchia Austerità Autoproduzione*: (Mantova: Corraini s.r.l., 2015), Exhibition catalogue.

of ENAPI. In Pittoni Archive at Trieste is kept her report to ENAPI, dated 1931, about the artistic value of fashion and its role as product of the intellect to be protected. In support of the small business Pittoni seeks solutions to safeguard production in its artistic spirituality and technical perfection, calming costs and prices according to organized work. So, she promotes the design of paper patterns, samples of yarns and weaving to be entrusted to workers who develop the work as if it came from her hands. And she reflects on the markets and how not to succumb to their impositions, too.

Therefore, favourable coincidences contributed to her success and active militancy in support of a very modern Italian 'industrious' rather than 'industrial' handicraft. Otherwise, her 'autarkic' production was based on the enhancement of feminine dexterity, on the updating of traditions, on experimentation with 100% national fibres and on her optimism that guided to the certainty that every country can impose itself with its raw materials if it is rich in ideas,⁸ coinciding with the trends of autarkic culture promoted by the Fascism. On the other hand Anita was a figure of great autonomy, a free spirit dedicated to one's own creativity. She deeply believed in the active link between art and craftsmanship while the dominant male aesthetics of Croce associated the pure lyrical intuition (*intuizione lirica pura*) with the faculties of the artist, separated from the craftsmanship at the thresholds of the era of reproducibility.⁹ Never tired of repeating what a basic ideal: 'idea, matter and technique form an inseparable complex, proposing each other and using each other'. She still writes in 1962:

'Arte e vita non sono in me un binomio, ma una cosa sola: l'energia creatrice è nella vita di ogni giorno; è un'energia di cui la vita ha bisogno per avere un senso.'¹⁰

This interior rigor leads her to the organization of work and the school-workshop, called 'Studio d'arte decorativa' that she led from 1929 until 1947 in Trieste. Here the value of touch was the only priority against any type of machine, even the hand-woven textile frame, avoiding any industrialization encouraged by the government that she felt deny the operational and mental processes. Therefore, she is an example of the delicate and contradictory transition from arts and craft to design industry age coinciding with the establishment of a political Italian regime with which Pittoni had several affinities, but at the same time escaping from the control of the female role.

8 Anita Pittoni, *Industria tessile senza macchina* (1936), Fondo Pittoni, Archivio Diplomatico, Biblioteca Civica A.Hortis, Trieste, then merged in Anita Pittoni, "Industria tessile senza macchina," *Rassegna dell'Ente Nazionale della Moda*, Torino (May 15–31, 1939), 54–58.

9 Cristina Benussi, "Anita Pittoni: Per un'estetica," *Ricordando Anita Pittoni: Atti della giornata di studio* (Trieste, November 22, 2012), edited by Walter Chiereghin (Trieste: Istituto giuliano di storia, cultura e documentazione, 2013), 26–39.

10 Anita Pittoni, "Poesia e artigianato," *Notiziario dello Zibaldone* 34 (1962), 4.

Fibres/Fabrics/Techniques

As a designer of hand spinning techniques - she is responsible for the invention of a new interpretation of knitting and crochet techniques used until then only for lacework. Her 'dough of national fibres generated new original fabrics' mixed, natural and synthetic, able to tame the original improprieties. Every difficulty represented a new challenge to be overcome with creativity: she writes 'hemp is a coriaceous fibre, tough and rough',¹¹ as also remembered by newspapers, therefore difficult to work and repelling to the touch: before the autarkic recovery and the inventions by Anita Pittoni 'the word hemp had the same hard taste of the rough bread of the peasant, heavy and indigestible, albeit good and healthy'.¹² Even the broom is an irregular yarn, now resistant now soft, with unpredictable small fragments of wood fragments,¹³ a 'beautiful, [fiber], wild, dark in color, light in weight' said Pittoni, while copper and golden thread were sharp. Adding the most ductile synthetic yarns¹⁴ she found the way to mitigate natural improprieties and with innate instinct she chose the suitable points to enhance their characteristics (and also invented one 'il punto alto leggero ad intarzio'¹⁵). The knit stitches in form of ring made with the irons or crochet created elastic fabrics of a whole new nature: retain the characteristics of the fibres in perfect *cascatezza* for curtains, fabric furnishing or clothes as well designed to geometric patterns that do not mark the shapes but correct them. Pittoni textiles allowed to engage the threads of various colors so that they did not see each other the joints on the front and back, using also very few –as remember her fellow Ginevra Giannuzzi– because Anita preferred simple geometric shapes and for clothing unique pieces, as shown by the paper pattern models for simple, comfortable clothes, according to the needs of the modern woman in the city, in her sports, on the beach.

The numerous patterns for cloths kept in her archive they seem to be mathematical algorithms of an 'intellect open to the exact sciences', as said a close friend of her Claudio Grisancich,¹⁶ recalling

11 Anita Pittoni, *Arte, artigianato, tessuti: Le arti applicate*. (Conference typewritten proceeding, November 12, 1935); Anita Pittoni, *Appunti su una nuova industria manuale tessile*, 1936 in *Articoli lavoro e arte e relazioni*, 4: Attività Tessile, RP MS MISC 212/118.7, Fondo A.Pittoni, Archivio Diplomatico, Biblioteca Civica A.Hortis, Trieste.

12 "La canapa e l'arte: Tecniche nuove e materie nuove," *La Gazzetta del Mezzogiorno*, June 29, 1935.

13 Ginevra Giannuzzi, "Una maestra vulcanica e indimenticabile," *Anita Pittoni: Straccetti d'arte, stoffe di arredamento e moda di eccezione*, edited by Marilì Cammarata (Cinisello Balsamo: Silvana Editoriale, 1999), 100, Exhibition catalogue.

14 She often listed the fibers used: 'hemp - fishermen's yarn - natural colored or colored; the yarns Snia Viscosa like the *sniafiocco*, the pure flake, the lanital [fiber derived from milk casein through an industrial process]; the yarns of Cisa such as Angersol, Cisnivea, mixed hamp ribbon, Cisalfa; the broom' in Pittoni, *Appunti su una nuova industria manuale tessile*; Roberta Curtolo, "Anita Pittoni e i filati autarchici," *Anita Pittoni: Straccetti d'arte, stoffe di arredamento e moda di eccezione*, edited by Marilì Cammarata (Cinisello Balsamo: Silvana Editoriale, 1999), 9. "ples of the director was the "

15 Maier, "Due scritti," 125. Pittoni presented it the first time in 1931 in her first article published for *Domus*.

16 Claudio Grisancich, "Uno spazio per vivere e lavorare," *Anita Pittoni: Straccetti d'arte, stoffe di arredamento e moda di eccezione*, edited by Marilì Cammarata (Cinisello Balsamo: Silvana Editoriale, 1999), 103.



Anita's hands that move the wool needle or the hook (Fig.1) that reflect the programmatic clarity of her textures and numerous statements. She also produced programmatic texts, written to publish, now shared with Agnoldomenico Pica, which clearly summarize the principles and characteristics of her work. With the same clarity she transmitted technical and educational contents both in texts of instructions for use at distance and to pupils, perfectly responding to the educational needs of the ENAPI; was thus entrusted in 1931 with an artisan teaching workshop for 15 pupils after the growth of her notoriety thanks to the first personal exhibition at the Galleria Bragaglia in Rome (1929), where her work was noted by Gio Ponti, and the consequent call to the 1930 *IV Triennale di Monza delle Arti Decorative e Industriali Moderne*.

At the same 1931 dates the first short course for hand work illustrating the new *punto leggero* in the form of an article that inaugurates the collaboration of Anita Pittoni with *Domus*. In marrying the spirit of the magazine, with its optimism, Pittoni declares the intent to update the old female loves for art and thread, also suitable for the woman 'of today, busy more than ever in a thousand different things': proposes a simple and quick point for an artefact without 'flourishes or fringes', and then seizes the opportunity to receive indications on exact colors, to refer to her address, the 'Studio di arte decorativa'.¹⁷ Later, between 1933 and 1934, she curated five issues of the magazine *Lil* (*Lavori in Lana a mano*) by Turin's Borgosesia wool production, founding the Italian origin of the newspapers for *Practical school of modern Handwork In Wool*.

17 Anita Pittoni, "La donna moderna: La casa e il lavoro femminile," *Domus* 38 (February 1931), 66–67. At the time the laboratory was in Trieste, Corso Vittorio Emanuele III, 19, in the attics of sisters Wulz, Anita's guests, mannequins, and eccentric friends, owners of the photographic studio established in the city that was a springboard for Pittoni clothes.

The generous disposition of Anita Pittoni to spread the professional secrets in the name of the value that recognizes the female manual practice, is explained not only in a professional ethical ideal but betrays an underlying artistic, inimitable and individual disposition as we understand among the lines of the editorials pages in the same *Lil's* booklets.¹⁸ This confirms how much the personality of Pittoni cannot be integrated with the schemes: is not an artist, not an artisan, not an industrial designer but a bit of all these together.

The Artist

Anita Pittoni is resolute; art and machine are not asin accord as how much indeed art and craftsmanship are. She writes bluntly:

Una tale lavorazione non interessa solo il momento: essa sorge piuttosto come inventiva e segna il principio, nella produzione di stoffe artistiche, di nuove applicazioni tecniche che non comportano il minimo impianto di macchine (neanche telai a mano), sconvolgendo il tessuto nel suo intimo, donandogli una nuova architettura.¹⁹

She was considered an artist by critics as well architects from Pulitzer to Ponti, BBPR, Albin and others, who ask her for collaboration.²⁰

According to Raffaele Giolli, married to the designer of fabrics Rosa Menni, used to gathering the aesthetic value of textile innovations, the uniqueness of Pittoni's work, different from that woven to the loom, must be recognized in the manual skills of the Pittoni process: with 'l'agganciatura ad anello [hooping ring]' are obtained 'different fabrics in the pleated plastic and in the intimate design

18 Anita Pittoni, "Saper Guardare," *Lil* 3 (December 1933), 9; Pia Rimini, "Con Anita Pittoni fra lane e trame," *Lil* 5 (March 1934), 2; Anita Pittoni, "Il senso della materia," *Lil*, 5 (March 1934), 14. Thanks to Gabriella Norio for having facilitated my consultation of *Lil*.

19 Anita Pittoni, *Appunti su una nova industria manuale tessile*: 'Such a process does not only affect the moment: it arises rather as inventive and marks the principle, in the production of artistic fabrics, of new technical applications that do not involve the minimum planting of machines (even hand looms), upsetting the fabric in its intimate essence, giving it a new architecture'.

20 For detailed information on the numerous exhibits, collaborations like interior design, transatlantic, prestigious public and private commissions, see the catalog *Anita Pittoni: Straccetti d'arte*.

of weaving',²¹ articulated as 'the knits [...] of the ancient *cotte d'arme*'.²² In these new weaves, as evidenced by photographic documentation not so different from those Bauhaus that register as a lens the porosity of the plots, resided the aesthetic value of the materials highlighted by the 'abstract fantasies' (Fig.1). In this personal constructive poetics was recognized a surrealist vein, to which not only for geographic and gender contiguity can be associated the name of the artist Léonor Fini, but is Pittoni herself to indicate the plots as a trace of an 'inner life', of an intimate movement that determines the solutions of processing²³ (the surrealist style will also connote her future post-Second World War literary production); the thought runs to the art masters who, like Klee and Kandinsky, at the Bauhaus taught in the weaving workshop and painted similar representations of the world.

Even Pica called Pittoni 'painter', recognizing that 'her fabrics of musical harmony are like a great abstract painting', capable of creating 'the intimacy of an environment' or 'sheathing a smooth feminine body'.²⁴ Moreover the 'primordially' of the autarkic materials (also urged to use it by the second futurist Prampolini²⁵), harmonized with the essential forms of modern designs, according to Pica, 'more modern designs', and as seem to testify some images of the Pittoni clothes matched with African masks reproduced on *Lil* and on *L'Almanacco della donna moderna* between 1934 e 1935. In colonial times, if they declare the adhesion to the autarkic campaign 'Vestire italianamente', trace the attraction for overseas craft practices that produce objects that are never identical, never serial, and at the same time the result of a mysterious artistic vocation.²⁶

However, no folklore permeates the modern language of Anita Pittoni, agree her friends Maria Luperi, colleague from Trieste, and Julia Bertolotti²⁷ (wife of the architect Banfi).

Anita colours textile architecture with the lightness of a brush but at the same time respecting the purity of the lines (Fig.1). In a typewriting of the 1950s, saved in her archive with the title "È venuta l'ora dell'artista?" she outlines a remote self-portrait:

I think it can not do without the artist, but it is not easy convey him to the textile design, anyway exists a particular intermediary creature who, by instinct and by culture, possesses the comprehensive faculty of the artist's work and a sure technical knowledge.²⁸

Domestic Bauhaus

'It was well heated and we worked well there and with warm hands: sitting [...] on low chairs, especially made for not being affected by too many hours of sitting'.²⁹ These memories come from a worker from the last laboratory, the largest Anita had, in Via Cassa di Risparmio 1 in Trieste. Three laboratory-house had been taken over since 1929,³⁰ where Pittoni combined activities and private life, education and reception of clients. The last, the biggest declares the growth of production to which the participation in all the important national and international exhibitions dedicated to decorative arts must have contributed. The laboratory arrived to have up to 90 workers, although not all daily presences. One of the principles of the director was the 'value of the manodopera' that she guided on the execution of hard materials, through a process of 'rational employment':³¹ in short, fluid schedules to reconcile domestic occupations, so many could work at home following the impeccable clear and mathematical instructions of Anita; she calculated the average execution times for hard materials to work, to establish pay and calculation of the costs of the artefacts, no less important was the goal of updating the technical skills of modern workers.

Anita was iron, almost Calvinist, in the control of production. Tight rhythms left no space for dilettantism, so much that through patterns she could check the work and be sure of its uniformity. The productions so deserved two tags with the artist's signature and that of the laboratory, as well the Bauhaus textile products. Geometrical patterns and poor materials, and rhythms in planning the work recall the German applied arts school, but also its organization of work. In fact, Grisancich defines her rooms as a 'domestic Bauhaus'.

Otherwise the Bauhaus weaving workshop, was based on the machine to produce woven fabrics,

21 R. [Raffaele Giolli], "La mostra di Anita Pittoni," *Domus* 173 (May 1942), 203. Cover of the *Domus* 173's issue was dedicated to Pittoni's fabrics.

22 Agnoldomenico Pica, "Stoffe d'arte tessute a mano," 1, typewritten Italian translation of "Handgearbeitete Dekorationsstoffe," *Innendekoration; Mein Heim, mein Stolz* 50, no. 5 (August 1939), 277-279, <http://digi.ub.uni-heidelberg.de/diglit/innendekoration1939/0297> (accessed May 21, 2018).

23 Benussi, "Anita Pittoni," 29.

24 Agnoldomenico Pica, "Orientamenti autarchici: Stoffe d'arte italiane," *Il Popolo d'Italia*, November 24, 1939.

25 Enrico Prampolini, "Gli artisti per l'affermazione di un prodotto nazionale," *Stile futurista* (November 1935), 16.

26 Anna Mazzanti, "L'Africa italiana: Faccetta nera e primitivismo attraverso le Triennali 1933-1936," *Mondi a Milano: Culture ed esposizioni 1874-1950*, edited by Fulvio Irace et al. (Milano: Sole24 Ore, 2015), 206-211, Exhibition catalogue.

27 Julia Bertolotti, "I nuovi tessuti di Anita Pittoni," *Domus* 124, (April 1938), 42-43; same observation in Maria Luperi, "Anita Tosoni Pittoni e le sue opere d'arte," *Gazzettino di Venezia*, June 26, 1941.

28 Anita Pittoni, *È venuta l'ora dell'artista?*, s.d.[about1950], 3, Attività Tessile, RP MS MISC, Fondo A.Pittoni, Archivio Diplomatico, Biblioteca Civica A.Hortis, Trieste.

29 Ginevra Giannuzzi, "Una maestra vulcànica," 101.

30 The first studio was arranged between 1929-32 in the attic of the sisters Wanda and Marion Wulz, course V. Emanuele III 19, then the didactic commitment by the ENAPI in 1931 and the presence of 15 students leads to the transfer in via D'Annunzio 1. In 1932 the logo with thread passing from the cuna of a needle was designed. In 1935, at the height of success, the decorative art studio moved again. *Anita Pittoni. Straccetti d'arte*, 104.

31 Pica, "Stoffe d'arte tessute a mano," 1.

albeit manual, an indispensable tool for the development of prototypes for industries.³² Anyway at Weimer and then at Dessau laboratory were not banned needles and hands that can be visible in the photographs of the school, but as instrumental recall to the industry activity (Fig.1). Anita Pittoni never wanted to know nothing of repetitive and anonymous gestures of the means of production, denial of all the intimacy of the plots, lost in the threads stretched and combed every soul. So while the geometric pieces of the Bauhaus can be worn by dehumanized models, who wear masks like mechanical automatons as we see in the emblematic photo by Erich Consemüller, the wonderful Wulz sisters, wearing clothes by Anita Pittoni, spur an innate 'sensual wit'³³ anchored to an age in extinction.

Madame Fede Cheti

Fede Cheti (1905–1979) came from a textile industry owner family located in Liguria region in Italy.³⁴ She moved with her mother to Milan during the 1920s, here she started to produce handcrafted carpets and to design fabrics for an inner circle of aristocratic friends.³⁵

Soon after her work was presented at the *IV Triennale di Monza delle Arti Decorative e Industriali Moderne* in 1930³⁶ and at the *V Triennale* of Milan in 1933, she founded in 1936 her school of carpets called 'Scuola tappeti Fede Cheti' and based in via Manzoni 23 in Milan.³⁷ During the 1930s (arguably in occasion of these exhibitions) Fede Cheti met Gio Ponti, with whom she established a strong collaboration and a long-lasting friendship. The relation with Ponti let her to be introduced into the circle of Milanese architects, so the presence of Fede Cheti at the VI, VII and VIII Triennials (1936, 1940, 1947) is ascribable with a series of carpets and fabrics for furniture and living space

presented at these exhibitions.³⁸ One of her first collaboration took place for the *Mostra dell'Abitazione* during the VI Triennale in 1936, curated by Franco Albini and Ignazio Gardell.³⁹ Techniques and materials used by Fede Cheti during this period followed the minimalism of rationalist interiors: hand-knotted wool carpets with different thickness, characterized by monochromatic textures or simple geometrical patterns and fabrics covering for furniture upholstery realized with raw materials like hemp or wool. It is possible to affirm that the path of Fede Cheti's work runs parallel to Anita Pittoni's one till the end of the Second World War.

Toward the 1950s Industrialization

One of the first significant Fede Cheti's post-war roles was being part of the official committee of the *Convegno delle Arti Decorative e Industriali Moderne* organized in the margins of the VIII Triennale of Milano on June 1947. The conference included functions, limits and relationships between handcraft and industry among the field of applied arts, with a particular focus on social, economic, artistic and schools problems. In synthesis its goal was to define: industry's functions within decorative arts field; guidelines for the two types of production, both for the national and international market; characteristics and objectives of triennial exhibitions of decorative and industrial arts, also in relation to a new statute.⁴⁰

After the VIII Triennale experience other two important exhibitions were relevant for Fede Cheti during the post-war years: *Lo stile nell'arredamento moderno* (1948)⁴¹ and *Il mobile singolo* (1949).⁴² The first one was set up inside Fede Cheti headquarter in via Manzoni and involved architects and designer like: Franco Albini, Fabrizio Clerici, Gio Ponti, Carlo Mollino, Ettore Sottsass, Pietro Chiesa, Carlo Enrico Rava, Guglielmo Ulrich, Ico and Luisa Parisi, Giulio Minoletti and others. The relevance of Fede Cheti's figure among Milanese cultural environment is well explained by the words of Enrico Freyrie on *Domus* pages:

Questa mostra è stata ideata da Fede Cheti – impetuosa creatrice di tessuti di arredamento che tutti conoscono – come una prova di qualità: sotto un certo punto di vista di considerazione

32 Sifrid Wortmann Weltge, *I tessuti del Bauhaus: L'arte e l'artigianato di un laboratorio femminile* (Milano: Vallardi, 1993), 114.

33 Claudio Grisancich, "Uno spazio per vivere e lavorare," 107.

34 Fede Cheti was born in 1905 in Savona, daughter of Emanuele Cheti and Gemma Sansevero. Her grandfather, Giuseppe Sansevero, was the founder of a prestigious textile industry founded in 1880 near Genoa.

35 Flavia Folco, "Fede Cheti (1905–1979): Una savonese da riscoprire," *Sabazia* 22/23 (1997), 34.

36 Maria Vittoria Alfonsi, *Donne al vertice: Incontri con Maria Vittoria Alfonsi* (Bologna: Cappelli, 1975); Piera Antonelli, "Fede Cheti," *Dizionario biografico degli Italiani*, 34 (1988). http://www.treccani.it/enciclopedia/fede-cheti_ (accessed February 2, 2018); Folco, "Fede Cheti," 34; Anty Pansera (ed.), *Dal merletto alla motocicletta: Artigiane/artiste/designer nell'Italia del XX secolo* (Milano: Silvana Editrice, 2002); Emanuele Costamagna, "Storia della Triennale di Milano: Le sezioni del tessuto fra gli anni '30 e '50: Il caso Fede Cheti," (Masters dissertation, Università Ca'Foscari di Venezia, 2010).

37 Antonelli, "Fede Cheti."

38 Costamagna, "Storia della Triennale."

39 Together with: Renato Camus, Paolo Clausetti, Giuseppe Mazzoleni, Giulio Minoletti, Gabriele Mucchi, Giancarlo Palanti e Giovanni Romano.

40 "Fede Cheti: 1936–1975: Tracce di una storia italiana," AIS/Design Storia e Ricerche, <http://www.aisdesign.org/aisd/fede-cheti-1936-1975-tracce-di-una-storia-italiana> (accessed February 2, 2018).

41 Guglielmo Ulrich, *Arredatori contemporanei* (Milano: Gorlich, 1949).

42 Guglielmo Ulrich, *Arredamento, mobili e oggetti di arte decorativa* (Milano: Gorlich, 1950).

internazionale e nei riguardi di una esportazione (cioè di una diffusione e di un potenziamento del lavoro italiano) essa era dunque necessaria.⁴³

The second exhibition explicitly dedicated to the 'single furniture' define a common vision shared by both Fede Cheti and the Milanese architects involved into the event, which included two main concepts: the single piece of furniture must have its own 'personality' and functionality, strong enough to resist to any composition in order to release interior settings; and a particular attention to materials processing with a view to a modern industrial production.

This was the spirit and the ambition that will drive Fede Cheti through the next three decades of her carrier (and life): she smartly understood that it was the moment to move toward an industrialization process, maintaining at the same time her creative nature. Combining technical innovation in textile production and an always-recognizable design is undoubtedly Fede Cheti's main achievement.

The very first occasion of great visibility for Fede Cheti arrived during the IX Triennale of Milan in 1951 when she was included as one of the main firms into the textile section (curated by Cristina Boeri Mariani and Marco Zanuso), but also providing other settings with her creations.⁴⁴

The distinctiveness of Fede Cheti's textiles was not based on a predilection of certain themes more than others, or for a similarity of subjects: on the contrary, themes have an extraordinary difference of subject, style, manner (big flower motifs, reproduction of antique prints, mixed figurative drawing, striped patterns, watercolour technique and many more), materials and production processes. In 1953, for example, she launched a new collection called 'Collezione dei negri' based on the technique of printed tapestry canvas with big drawings. In this case her attention was dedicated to the 'matter' of textile.⁴⁵ Before, with chintz, the matter didn't have almost any weight, it was all about colour and drawing: the thin and smooth chintz surface kept back touch as a sense, giving more emphasis to the sight. Three years later, in 1956, it was the time for a new patent by Fede Cheti, a new textile called 'tessuto cinese', which had the aspect and 'freshness' of a straw textile, but it was a composition of nylon fibres: extremely strong, washable like plastic and foldable like clothes, suitable for curtains, furniture and walls upholstery, printable.⁴⁶

43 Enrico Freyrie, "Dimostrazione di qualità del nostro lavoro," *Domus*, 226, (July 1948), 56.

44 Lecce, "Fede Cheti: 1936-1975."

45 "La collezione i negri di Fede Cheti," *Domus* 281 (April 1953).

46 Fede Cheti, "Un nuovo tessuto stampato brevettato," *Domus* 315 (February 1956), 60-61.



Fede Cheti's International Resonance

These are just a few of Fede Cheti's contributions to the post-war Italian textile industry. No wonder if her artistic and entrepreneurial capacities brought her rapidly toward an international success. Fede Cheti's artistic fabrics had been exposed in 1937 in Paris, in 1938 in New York and in 1939 in Berlin.⁴⁷ Her international resonance was already confirmed in 1948 when the American photographer Irving Penn shot her portrait for *Vogue America* (Fig. 2).⁴⁸ The same year Fede Cheti was present inside the important exhibition titled *Italy at Work: Her Renaissance in Design Today* that under the coordination of Gio Ponti represented a crucial moment of contact between the Italian and the American market after the Second World War. Drapery fabrics and glazed chintz designed by Fede Cheti were exposed together with other renewed Italian firms of that time like: Arte Artigianato Tessile (Rome), Antonia Battini (Rome), Emilia Bellini (Florence), Geggia Bronzini (Venice), Quirica Dettori (Sardinia), Irene Kowaliska (Positano), Linificio & Canapificio Nazionale (Milan), M.I.T.A. (Genoa), just to name a few.⁴⁹

47 Antonelli, "Fede Cheti."

48 From May to June 1948 Irving Penn travelled across Italy. During his trip he took also several photos depicting Milanese architects that were later published inside the article written by Ernesto N. Rogers, "Milano: Design Renaissance," *Vogue America* 15 (September 1949), 152-157.

49 Meyric R. Rogers (ed.), *Italy at Work: Her Renaissance in Design Today* (Roma: Compagnia nazionale artigiana, 1950), 64-65.

In 1950 Fede Cheti had already several points of sale all over the main Italian cities and abroad in Zurich and New York. In the same year she got an important achievement when her textiles exposed at the Biennale of Venice were rewarded with the gold medal. But the most successful event dates to February 1960, when Fede Cheti was the only woman and the only Italian entrepreneur present in London to the centennial celebration of Sanderson department stores, the biggest English company of furnishing fabrics.⁵⁰ On this occasion *Domus* dedicated an article to her titled "La 'personale' di Fede Cheti a Londra," which well explains the relevance of this event, in particular mentioning her position as a successful 'woman':

Se è vero che oggi donne e uomini lavorano sullo stesso piano, mirano alle stesse mete e le raggiungono spesso, perché donne e uomini hanno le medesime possibilità e la stessa preparazione tecnica, anche a prescindere dalle particolari doti di genialità che gli uni come le altre possono possedere, è anche vero che non facilmente una donna riesce a imporsi con la forza della sua capacità, della sua preparazione e del suo gusto, sul piano nazionale prima ed internazionale poi. [...] Architetti, pittori, disegnatori la sentirono fraternamente vicina e lavorarono per lei che, modesta, ebbe l'intelligenza di capire come le sue idee potessero essere interpretate anche dalla sensibilità di altri artisti in modo da ottenere un gusto che, filtrato in questo modo, non sarebbe più stato solo un gusto Fede Cheti, ma piuttosto quello di un determinato periodo.⁵¹

To underline the high level of this exhibition, fabrics designed by Fede Cheti were exposed next to Frank Lloyd Wright's ones. Also the Italian newspaper *Il Giorno* reported the event with the headline 'Accoglienze entusiastiche a Londra ad una "personale" di Fede Cheti. È stata l'unica donna invitata ad esporre le sue originali stoffe d'arredamento'.⁵² And the magazine of the Italian National Association of Upholsterers, *Il tappezziere d'Italia* also titled "Nel centenario della Sanderson Una donna che vale cento uomini."⁵³

On September 1961 Cheti opened a new store at Madison Avenue number 877 in Manhattan, starting to design the interiors of the highest American personalities residencies of that time, including some houses located in Central Park area, and the famous so-called 'papyrus apartment' inside the Waldorf Astoria tower that *Harper's Bazaar* defined 'an absolute masterpiece'.⁵⁴ And also, the *New York Herald Tribune* celebrated her work into the article "Down With Contemporary... It's Bleak."⁵⁵

Also, her Country consecrated her success and talent in 1965, when the city of Milan gave her the gold medal of the 'Premio Città di Milano', for best Italian creator in the field of decorative arts (the same award was assigned to Lucio Fontana).⁵⁶ Lastly, in 1975, Fede Cheti, at the age of 65, was the first woman elected as Honorary Member of the U.I.S.T.A. (Unione Italiana Stampa Tessile e Abbigliamento).⁵⁷

The Seventies still saw her as a protagonist, but within a contest strongly mutated by a growing competition among the textile sector with which she had to deal with. In this regard it is interesting to read Fede Cheti's declarations to the fashion journalist Maria Vittoria Alfonsi, where her role as a woman emerges prominently as a proponent of an *ante litteram* feminism:

Lavoro esclusivamente con donne, sono ottime collaboratrici [...]. Ma sì! sono femminista: al cento per cento; anche se possiedo una buona dose di femminilità. [...] Perché la donna, indubbiamente, può dedicarsi a qualsiasi attività ritenuta "maschile" senza perderla, la propria femminilità. Ed oggi, in generale, è simpaticissima, emancipata, sa quello che vuole: abbiamo donne che possiamo portare ad esempio agli uomini.⁵⁸

She died on 18 November 1979 near Genoa and after her death the company was taken over by a group of people, one of them was Vittoria Toniolo, daughter of the strictest Fede Cheti's collaborator. Today Fede Cheti's atelier located in via Manzoni 23 is still open thanks to the work of Teresa Clerici and Alessia Fugazzola Zeni. Anyway, the atelier maintains only the name of 'Fede Cheti', in fact, they actually use other companies' textiles because all the rights of the original drawings are now propriety of Ratti S.p.A. Company.

50 Alfonsi, *Donne al vertice*.

51 "La 'personale' di Fede Cheti a Londra," *Domus*, 365, (April 1960), n.n.

52 *Il Giorno*, March 1, 1960. Fede Cheti's archive keeps several telegrams sent by friends and competitors with congratulations about the success of the London exhibition.

53 *Il tappezziere d'Italia* (March-April 1960).

54 Antonelli, "Fede Cheti," n.n.

55 *New York Herald Tribune*, February 22, 1961.

56 "Lucio Fontana e Fede Cheti premiati per il 1964-65," *Il Giorno*, June 24, 1965.

57 Folco, "Fede Cheti," 36.

58 Alfonsi, *Donne al vertice*.

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Women in the Industrial Design Research Centre - CIDI, Buenos Aires (1962-1988)

Synthesis of the History of the CIDI

The concept of industrial development became part of the economic policy in Argentina and the countries of the region during the decade of the 1950. It valued the contributions of technology and scientific research to the growth of the economy in the framework of the model of Import Substitution Policy (ISP). This approach to development was formulated within the Economic Commission for Latin America (CEPAL). It was a response to proposals of regional policies promoted by the UN and OAS (Organization of American States). The main mission consisted in planning the development of growth and the strengthening of local economies in production processes and technical education improving human resources. Within this framework in 1957 in Argentina were created decentralized institutions in the areas of nuclear energy, agricultural technology and the INTI (National Institute of Industrial Technology) linked to international organizations supporting these policies. These organizations convened government agencies, businessmen, universities and professional organizations for creating research centres in various areas. Within this specialized institutes has been founded the CIDI (Industrial Design Research Centre). The mentors of this project were the engineer Basilio Uribe and the architect Rodolfo Möller. Both participated in a network of institutions like ICSID (International Council of Societies of Industrial Design), the Ulm School for Design, local universities, professional organizations, technical departments of companies

and public entities.¹ Argentina from early on had a link to modernity and industrial design. Tomás Maldonado, as a member of the concrete art movement in Buenos Aires, as early as 1949 provided a definition of industrial design in the article "Diseño industrial y sociedad" in the journal *cea2* published by the student's council of the Architecture Department of the Buenos Aires University.² Maldonado's participation as staff member and director of the HfG Ulm has been maintained by an exchange with the CIDI. Companies such as SIAM, manufacturer of electrical appliances, and Olivetti (with headquarters in Buenos Aires) represented the avant-garde of design. Public agencies paid attention to design issues. Before the creation of CIDI existed two industrial design courses in public universities (influenced by the HfG Ulm), professorships for design such as *Visión* in the Faculty of Architecture in the University Buenos Aires, a research institute in the city Rosario and the Industrial Designers Association in Buenos Aires.

The CIDI did not escape the cyclical political and economic crises of the country that led to the closure of the Centre in 1988. During the twenty-six years of existence from 1962 CIDI passed three clearly defined periods: from 1962 to 1973 it had as objectives research, promotion and formation of human resources by organizing expositions, competitions, seminars, and the basis for the creation of education and research centres, oriented to industries, professionals and consumers. From 1973 under a populist government with priorities set on social issues, the policies of the original CIDI were subjected to a severe critique – they were considered elitist and oriented to 'luxury consumption'. The new authorities changed the focus on 'equipment with social value' and emphasized that products should be 'designed with the objective to maximize the use value'³ and amongst other objectives 'that the groups dedicated to the practice, promotion, education and research of industrial design should become aware of and define the political importance of industrial design'.⁴ They should favour the implementation of technologies independent from other considerations. From 1974 to 1976 the CIDI was dissolved and became an Industrial Design Department, under the direction of Gui Bonsiepe depending directly on the INTI.

A third cycle starting with the military government from 1976 to 1983, coincided with a deep structural change of the economic policy disarticulating the Import Substitution Industrialization that had been started in the decade of the 1930ies with cyclical attempts of implementation. The economic group that accompanied the military government imposed a restructuring of the economy

1 Javier De Ponti, *Diseño industrial y comunicación visual en Argentina* (Rosario: prohistoria ediciones, 2012), 161–198.

2 Javier De Ponti and Alejandra Gaudio, "Argentina," *Historia del diseño en América Latina y el Caribe*, edited by Silvia Fernández and Gui Bonsiepe (São Paulo: Blücher, 2008), 13.

3 José Rey, *Historia del CIDI: Un impulso del diseño en la industria argentina* (Buenos Aires: Centro Metropolitano de Diseño, 2009), 175.

4 Ibid.

based on the strengthening of the financial sector, on a closed local market and on the production of commodities with a clear emphasis on deindustrialization and on imports.⁵ Thus, the third cycle starting with the recreation of the CIDI in 1977 presented a change of objectives as formulated in the Working Plan:

In the sector of consumer goods and capital goods CIDI puts the focus mainly on forms that must serve to reach the objectives... whatever answer the industry is able to give... ends always with formal characteristics....⁶

In 1983 the democratic government that succeeded the military government implemented policies to revert the conditions imposed by the military. However, they were not sufficient and led to a deep economic crisis and anticipation of general elections. In this context institutions such as the CIDI lost their sense of existence. Adding continuously growing economic restrictions the following authorities tried to recover promotion and research programs without success. The suspension of activities occurred on January 14, 1988.

Women's Share in the CIDI

To show the inclusion of women in the management of CIDI on different levels the total cycle from 1962 to 1988 has been analysed. Information has been obtained from the session reports published in *Historia del CIDI* by José Rey and by consulting the present archive in the centre INTI/ Diseño Industrial. In general, an exclusion of women from top positions has been the rule. Women were relegated to subordinated jobs.

The budget of the CIDI as a semi-governmental institution was composed of a mix of sources from the INTI, associated companies and professional members. The foundational contract established that the government of the CIDI would be formed with an Executive Committee *ad honorem* and a Technical Management. The Committee was composed of representatives from the INTI, the universities, the associated companies and government agencies.

Executive Committee

1963–1973 [6] – [4] members, 100% men

1976–1985 [4] members, [3] men, [1] woman*

*In 1976 entered the first woman, Susi Aczel⁷ (she as furniture designer and business woman and became the only woman in the Committee during the history of the CIDI).

Men have always occupied the presidency of the Executive Committee. It had four presidents, the longest periods with the architect Rodolfo Möller from 1965 to 1972, and the businessman Francisco Masjuan from 1976 to 1985.

From 1963 on the CIDI had established contacts with the ICSID. During the IV Congress and Assembly in Vienna 1964 it became an official member of this organization, the first member from Latin America. Its last participation was in the XI Congress realized in Mexico City 1979. In 1968 the Committee organized in Buenos Aires the IV International Seminar of Industrial Design Education, with emphasis on the participation of Latin American countries.

CIDI as member of the ICSID. Representation in the general assembly

1964–1979 [1-2] members 100% men

1967 [1] woman*

*Marta del Castillo travels as representative to the V Assembly to Ottawa (the travel has been financed by the Fondo Nacional de las Artes).

The staff has been divided in administrative personnel and technical personnel. The number of staff members varied considerably each year. Women occupied during the period under investigation 100% of the administrative jobs. During the period from 1963 to 1967 one woman secretary and assistant worked in the CIDI. The largest number of women employees lasted from 1968 to 1971, 7 women were employed as: technical secretary, assistants, translator, archivist and promoter. During 1985 and 1986 only one secretary has been employed. The area of promotion and press existed from 1969 to 1973, in charge of one woman.

The technical staff, depending directly on the Director varied in number and specializations (industrial designers, mechanical engineers, technical personnel, support personnel, documentation specialists, draughtsmen, students). Part of the personnel was permanently employed, others

⁵ Marcelo Rouger and Martín Fiszbein, *La frustración de un proyecto económico* (Buenos Aires: Manantial, 2006), 224–225.

⁶ Rey, *Historia del CIDI*, 241.

⁷ Susi Aczel, born 1931 in Vienna. Studied technical drawing and took classes in interior design in Argentina. She entered in the Studio of Martin Eisler where she designed furniture. In 1953 she became partner and in 1959 the studio merged creating Interieur-Forma. In 1961 acquired the license of Knoll International and is today the company leader for office furniture in Argentina.

were contracted. From 1980 on students were integrated with scholarships. In 1966 María Luisa Colmenero is nominated in charge of the area for mounting exhibitions and taking care of graphic design. She designed also the visual identity and communication material of the CIDI. Her profile is presented below. She continued her work until quitting her job in 1972. In 1966 José Rey entered the CIDI staff as collaborator in the area of research and documentation. He became the last employee of the CIDI until 1988 when he became part of the staff of INTI. In 1974 when the CIDI became part of the industrial design sector depending directly on the INTI, the technical staff diversified and specialized, counting on the largest number of personnel, 100% men, in total 7. The number decreased in 1978 to two industrial designers: one man and one woman.

During twenty-six years of existence of CIDI participated as part of the technical staff 20 men as professionals and only 4 women industrial designers (data about architects and students of architecture that worked in the technical secretary have been quantified in this area).

Exhibitions and Awards

The participation of women in exhibitions and competitions of the CIDI focuses on the period from 1964 to 1979 because this period registers the mayor number of these activities.

The product exhibitions started early in 1963 with the International Exhibition of Industrial Design taking place in the Museum of Modern Art in Buenos Aires and the General San Martin Theatre, with participation of Germany, Belgium, USA, Finland, Italia and Sweden.

[400] products, [135] national industries, from [48] companies

[86] designers and [4] women designers, ([1] foreigner, [3] Argentinians)*

*Alicia Silman, carpets. Celina Castro, furniture. Clara Fast, textiles.

The show registered [55.000] visitors.

In 1966 the CIDI rented a space with 600 m² in the centre of Buenos Aires, for its offices and for the *Permanent Industrial Design* show room. The designer María Luisa Colmenero is nominated to manage this area. There are organized thematic exhibitions, in 1968 three exhibitions: *Good Design in the Office*, *Good Design in in the Home* and *Gifts of Good Design for the End of the Year*. In 1969 the exhibitions continue with five events: *Good Design in Packaging and Graphics*, *Good Design in the Home*, around the office, *Good Design in Corporate Image* and a new edition of gifts for the end of the year.

In 1970 discontinued the *Permanent Show*, for budget restrictions CIDI leaves the rented office space and starts a new promotion plan with the travelling exhibition *Argentinian Industrial Design*

Exhibition shown in Montevideo (Uruguay), Asunción (Paraguay) and in La Paz (Bolivia). In 1971 the exhibition is shown in Santiago (Chile) and Lima (Peru), in 1973 in São Paulo, Río de Janeiro and Caracas (Venezuela), in 1974 in Mexico City.

Argentinian Exhibition of Industrial Design

1970–1971 [138] products, [37] companies

1973 [208] products, [40] companies

In 1971 in the Museum of Modern Art in Buenos Aires is shown the *Exhibition of Industrial Design CIDI 71*. In 1973 is organized *CIDI 73*, in 1978 in La Plata. *CIDI 79* is shown in the building of the powerful Industries Association. It is the last exhibition of CIDI, national and international.

Exhibitions of Industrial Design

CIDI 71 [249] Argentinian products, [61] companies

CIDI 73 [218] products, [40] companies

CIDI 79 [97] products, [27] companies

With regard to competitions the main objective in the period under consideration are international competitions, with three categories: Silver, Copper and Good Design Label. There were more competitions organized by CIDI at the request of private industries. They are not taken into consideration in this context. The juries had 3–5 members, all men.

In 1964 were organized the *First and Second Industrial Design Competition*, in the Category Products [98] pieces were selected.

First Competition (products), Second Competition (projects). 1964

Silver [1] man (*Second Competition*: none)

Copper [5] men

Good Design Labels [36] men, [4] women*

*[3] from Argentina: Eva Neuman, furniture. Celina Castro (associated), furniture. María Teresa Havilio, glass. USA. Florence Knoll, furniture.

In 1965 the bases for what became called 'National Industrial Design Competitions CIDI', with participation of foreign designers were defined. The awards were given to the designer and to the company. Products with a mention were entitled to use the 'Good Design Label' at the point of sale and in exhibitions.

Competition CIDI 65

[142] products, [29] companies

Silver [1] man

Copper [5] men, [1] woman*

Good Design Labels [17] foreign, Argentinians [26] men, [7] women**

*Celina Castro (associated) Furniture.

**[4] Celina Castro (associated) furniture, [3] bags, Lida Neuman, Alicia Berlatsky and Martha Levisman.

In the *Competition CIDI 67* were established three product groups: 1) household appliances, 2) office equipment and office furniture, 3) textiles for curtains and upholstery, basketwork and wooden toys.

Competition CIDI 67 (Group 1, 2, 3)

Silver [3] men

Copper [4] men, [1] woman*

Good Design Labels [66] men y [6] women**

*Margarita Marotta, fabrics.

**Colette Boccara, ceramics. Susi Aczel, furniture. [2] Celina Castro (associated). Celina M. Wolanow (associated). Eszter Harazsty, USA, fabrics.

The competition was taken up again in 1979, with five categories: 1) Industry, science and technology, 2) Home and office: machines, appliances and artefacts, 3) Home and office: furniture, 4) Home, office and leisure: dinnerware, kitchenware, accessories, toys, sports equipment, hunting equipment, camping equipment, 5) Textiles: upholstery and decoration.

The National Competition was taken up in 1970. Five categories were established: 1) Industry, science and technology, 2) Home and office: machines, appliances and artefacts, 3) Home and office: furniture, 4) Home, office and leisure: tableware and kitchenware, accessories, toys, products for sports, hunting and camping, 5) Textiles: upholstery and decoration. There applied [260] products from [57] companies.

Competition CIDI 70

Silver none

Copper [7] men

Good Design Labels [33] men, [4] women*

*Liliana B. de Tomasov, products for babies. Delia Berú and Marta Viñals, fabric. Alicia Silman, carpets.

The following and last edition of the competition has been realized in 1973. It separated national and foreign participation, with eight categories. Completing the five categories from 1970 were added within the group Industry, science and technology: Machines, instruments and tools, in the

group Home and Office: Radiotelephony, television and similar, and a new category: Vehicles for air, sea and overland transport. There participated [253] products and [144] companies. In the following the Argentine products in all categories are listed:

Silver none

Copper [5] men, [1] woman*

Good Design Labels [20] men, [3] women**

*Noeli Freyre (associated), bed cover.

**Alicia Duffau de Riolfi (associated), toys. Delia Berú and Marta Viñals, fabrics.

During the period from 1963 to 1979 were exhibited [1907] products from [227] companies, designed by [192] male designers and [54] female designers living in Argentina. Women participated in the following categories: furniture [16], tableware and glassware [16], lightning and electrical components [2], equipment for children and toys [9], textiles [16], objects and crafts products, road signage systems [1]. Regarding the gender relation in the awards: [5] men received the Silver Award, no women. The Copper Award has been received by [26] men and [3] women, and the Good Design Labels were given to [181] men and [24] women.⁸

María Luisa Colmenero in the CIDI

The research reveals that women such as Alicia Silman, Susi Aczel, Colette Boccara and Celina Castro, Noeli Freyre, Margarita Marotta –the only three women that obtained the Copper Award– amongst others entered with their projects a male dominated universe. But it was María Luisa Colmenero (Buenos Aires 1933 - Barcelona 2011) who realized a significant contribution with the design for the CIDI, especially the coherent visual identity, with a working style far away from putting herself in the limelight. She was a member of the technical team from 1966 to 1972 when she resigned from her job (Fig. 1) Married to Julio Colmenero –industrial designer, a reference of design in Argentina from the 1960ies to midst 1970ies– and mother of three children. She finished her studies in Fine Arts and started to study architecture in the University of Buenos Aires, where she met her companion who also studied architecture. Between 1969 and 1962 the couple settled in the Northeast of Argentina working in a provincial programme providing support to crafts people

⁸ In products exhibited in competitions not only professionals participated, but also technical teams (employed in companies) without mentioning explicitly the names of the participants. For the quantification they have been added to the number of male participants, because with minor exceptions the integration continues the tendency towards male professionals.



Fig. 1. María Luisa Colmenero and Julio Colmenero in the Room of the Permanent Show of Industrial Design, around 1966. Courtesy of Silvia Fernández.



Fig. 2. María Luisa Colmenero, Good Design Label, Designed 1966. Courtesy of Silvia Fernández.

(weavers and potters), trying to add value to their products. For political reasons the programme was discontinued and they returned to Buenos Aires. Julio Colmenero entered the CIDI in 1963 and María Luisa Colmenero in 1966 'In charge of the set-up of the exhibitions and graphic design' with a salary of 50,000 Pesos – equivalent to 185 US Dollars (with the exchange rate of 1966).

She developed the corporate identity and complete graphic communication of the CIDI: printed matter, posters, catalogues, exhibition stands and the setting-up of the permanent and travelling exhibitions. It was not a redesign of a pre-established identity. The coherence of the components reveals her methodical, systematic and intelligent approach. Her first piece was the design of the 'Good Design Label' (Fig. 2) It shows an influence of the Swiss School. She identifies herself with the austerity of resources and a coherence that gave to the Centre a homogenous visual and memorable visual identity characterized by the use of the Helvetica, a particular format of the paper, the red-orange for the institutional printed matter and the white-black-silver, with image-synthesis in the promotion pieces. Her mayor effort she made with the exhibition design, the system with their components and the graphic design, and above all the travels –to Uruguay, Chile, Perú y Bolivia– for mounting the exhibitions 'Industrial Design in Argentina' accompanying and setting-up the travelling exhibitions that separated her from her family.

After leaving the CIDI she continued working as independent graphic designer and 'always alone'. She acknowledged the importance that film, literature and painting had in her life. She asserted:

Architecture and design have always fascinated me, but I have been a professional of 'the drawing board', furthermore always I tried to balance my family life and the work.⁹

⁹ Personal communication (March-November 2008).

Conclusions

To the question How the CIDI is identified in the history of design in Argentina? The answer is: It was an institution sufficiently known, recognized, legitimate and avant-garde – although it gave also motifs for ideological confrontations. With the focus put on the role of women in Argentinian Design, another question showed up: Which role women played in the CIDI? Taking into account that the core issue of CIDI was the project activity, can lead to the prejudiced, stereotyped and noncritical assumption that the project activity is practiced equally by men and women (architecture, design, crafts and others) and in this gender equality they met at the CIDI, however the research in all these categories contradicts this assumption except the jobs in the area of administration and technical secretary that were occupied 100% by women. They participated in decisions of the Executive Committee from 1976 on only in absolute minority. No woman occupied the Technical Management. In five General Assemblies of the ICSID in which the CIDI participated, only in one case a woman represented the CIDI (she travelled with resources that did not come from the official budget). No woman has been member of the juries.

The technical team has been formed 80% by men. Looking at the results of the analysis of the participation in exhibitions and competitions, 21% corresponded to women and 79% to men, and as far as awards are concerned: no woman obtained the Silver award, the Copper award has been received in 89,6 % by men and only 10,4% by women, the distribution of Good Design Labels shows that 88,3% were given to men and only 11,7% to women.

What has been CIDI observed in the gender perspective? A patriarchal-technical-design institution when looking at the results of this research. As counterpart María Luisa Colmenero with a persistent, almost domestic work, during the years as graphic designer of the CIDI and responsible for the mounting the exhibitions, achieved the visibility and a memorable coherent institutional image, with discretion and detail.

Lorena Alessio

Alessio Studio, Turin | Italy

Blurring Boundaries Working in Asia as Architect and Interior Designer

Being an architect, being Italian, being a woman; or being a woman, being Italian and being an architect; or being Italian, being woman and being architect.

For my profession I prefer the first case. Being an architect is what I have chosen to be. Being Italian is representing my root. Being woman is letting me have a specific point of view and sensibility. Being architect and the will to open up my mind and studies is what brought me to study in Italy, United States of America and Japan. Being Italian facilitated my profession abroad, since my country is well appreciated for design and creativity. Being a woman, ...well, not so many women are practicing as architects with their own offices. Leadership in architecture is hard for women.

According to a survey conducted by the 'Equity by Design (EQxD)' committee of AIA San Francisco in 2014, also known as 'The Missing 32% Project', and reported in *Equity by Design: Knowledge, Discussion, Action!*,

women make up 42 percent of graduates from programs accredited by the National Architecture Accrediting Board, but only 28 percent of architectural staff in AIA member-owned firms, 26 percent of licensed architects (who are not principals or partners), and 17 percent of principals and partners.¹

And in Italy, I would say is even worse. Just to give an example, for 'ARCHITETTURA: Energia per il Made in Italy. Uno strumento di promozione per l'internazionalizzazione della filiera dell'industria

edilizia italiana',² at the open call for the national competition to select projects with high quality and realized abroad, 341 projects were selected and only 16 were representing offices ruled by women architects.

Nevertheless, exposing myself to foreign education, culture and working at international level, allowed me to challenge my capabilities in design and leadership. Research and academic activities are fundamental sources for my professional activity and experience. Thanks to research I am continuously improving myself with new possibilities to explore the field of architecture.

But, my exposure to living in different countries stimulated the 'thinking of relativity in architectural design', always questioning how things have been thought and made. Life in Japan was, and still is, fundamental for developing my approach to design.

The title "Blurring boundaries" indicates the delicate balance between being global and being local by knowing and understanding where we are, the values and identities of a culture, of a place, of people. Still, the need to express in design myself with all my cultural background is what I feel important. And still, keeping the capability of looking more and more in my inner being allows me to express creativity.

Nothing should be taken for granted, this is what I mean in thinking about relativity, considering the values and cultural elements of the place where we design.

Japan has been the place where I learnt more about my own culture. By comparison, by learning from differences, by creating and defining a common ground with my Italian attitude to design. I also learnt to emphasize what is characterizing my being Italian architect.

I would like here to remind a very interesting exhibition I brought to Torino in 2006 named 'SENSAI', organized by the Japan Institute of Architects, JIA. As the architectural critic Shozo Baba states:

SENSAI is an important key word to understand Japanese culture. It is, however, difficult to translate the meaning into other languages. The English words 'fine', 'delicate', 'sophistication', 'elegance' and 'smart' correspond closely to it, but these words alone are not suffice to understand 'SENSAI', as it reflects Japan's unique traditional culture.³

And Ken Yokogawa:

In a worldwide context 'modernism' has become the standard language used to measure, explain and judge architectural work. However, while the classical principles co-existed

1 Wanda Lau, "Equity by Design: The Missing 32% Project Releases Complete Findings on Women in Architecture," *Architect*, posted May 18, 2015, http://www.architectmagazine.com/practice/equity-by-design-the-missing-32-project-releases-complete-findings-on-women-in-architecture_o (accessed May 21, 2018).

2 Emanuela Guerrucci (ed.), *Architettura: energia per il Made in Italy. Uno strumento di promozione per l'internazionalizzazione della filiera dell'industria edilizia italiana* (Roma: Ministero dello sviluppo economico (Italian Trade Agency), 2015).

3 JIA, *Sensai: Japanese architecture exhibition* (Japan: Sensai Exhibition, 2003),. 3.

uncomfortably with those of classical Japan, the concept of SENSAI never stopped being the core of our design aesthetic.⁴

With SENSAI exhibition, a group of ten Japanese architects were pointing out how Western modernism could not express subtle characteristics and spiritual elements of Japanese culture.

When visiting in Japan, masterpiece such as Katsura and Shugakuin Imperial Villas, I discovered a deep and refined culture expressed through architecture and its relation with landscape.

Moreover, when looking at the traditional urban fabric of cities in Japan, new and original patterns came out. In fact lately, more and more researchers have been pointing out the need of changing lenses for understanding urban design and architecture: less Western approach and more understanding of local identities.

In October 2016, I organized a Forum in Tokyo named "Japan/Italy – Design and Territory. The value of cultural differences." The Forum was held in occasion of the 150 year of Friendship between Italy and Japan at the Italian Institute of Culture in Tokyo.

I consider the Forum a milestone for my research in Architectural and Urban Design.

In the two days' conferences (28–29 October 2016), approaches to research and design were discussed, looking at issues such as memory of a place, identity and urban transformation, the use of the 'in-between spaces' connected to social interactions and the making of community. And, here the issues and the questions I keep in mind while designing. It is an ambitious task to answer them, but necessary to try it.

Memory of Place

When considering memory of place, as Paolo Ceccarelli coordinating a Forum session recalled, we should consider memory as a crucial element in human experience. Our experiences and our memory are strictly linked to human values, heritage, arts in a territory. Memory is both individual and collective, it changes in time, it can be preserved and cancelled and its meaning and role vary in different cultures.

The concept of place is similar: it is culturally bounded and its meanings and the functions change over time. How can the traditions and human experiences be understood through the analysis of their territories, their spatial organization and landscape?

⁴ JIA, *Sensai*, 4.

Identity and Urban Development

When experiencing a city, we try to grasp the specificity and the character of a place. What is it? Which are the elements in a city defining its identity? The theme of urban identity is quite complex to define. The city is subjected to continuous changing and re-adaptation, not only in the urban fabric and its architecture, but also in its uses, expressing needs, problems, expectations of people living in the city or going to. When talking about new urban developments, are new identities taking place? Identity is given by the growth of city in time. In condition of continuous change, and being the city stressed by contemporary needs, speculation and gentrification, how can we define identities and elements to be preserved?

How the global competition has modified the approach to the design of cities? And, how architects and town planners could define identity of cities? What elements characterized them? What to be changed? What to be kept?

The philosopher Watsuji Tetsuro⁵ created a neologism *fudosei*, underlying a phenomenological notion in which *fudosei* is the link between a society and its environment.

And in this link there is space for the human subjectivity, there is space for mediation.

Since ancient time, mediation in space and time is intrinsic in Japanese culture, as Raveri⁶ points out.

Mediation foresees a process of linking, which is the 'en' in Japanese language. Interestingly, the Japanese Pavilion at 15th Architecture Biennale in Venice was titled 'EN: the Art of Nexus'. 'Observe, talk, listen, smell' towards architecture and space emphasizing perception and sharing.

The focus was on the creation of spaces for human encounters, the 'en' space to be grasped between and with things. The interpretation of urban space through its own subjectivity brings up the importance of perception of different elements. It enlightens the importance of space where encounters take place, 'constructing particular spaces and times.'⁷ Architects, Urban Designers and Planners define the setting, the stage for encounters to take place. Users through their perceptions and experiences live the space. Thus, we need to examine urban spaces in Japan by considering the unique Japanese cultural climate, human relations and spatial anthropology.⁸

In fact being a foreigner to 'Make Yourself at Home' in a new city is taking several steps:

⁵ Tetsuro Watsuji, *Fudo : Le milieu humain* (Paris : CNRS Editions, 2011).

⁶ Massimo Raveri, *Il pensiero giapponese classico* (Torino: Einaudi, 2014).

⁷ Ash Amin and Nigel Thrift, *Cities: Reimagining the Urban* (Cambridge: Polity Press, 2002), 83.

⁸ Kengo Kuma and Hidenobu Jinnai, *Hiroba: All about "Public Spaces" in Japan* (Tokyo: Tankosha, 2015).

Walk the Land, Follow the Rhythm, Choose Your City, and Make Yourself at Home. The logic behind these steps is this: Before you can make yourself you have to know who you are. Then, to get a sense for where you are, you have to walk the land to know the land. Then, you need to discover the rhythms of time and how people inhabit them, before you can actually create your own city, and finally make yourself at home in it.⁹

The Use of 'in between Spaces'

Here the focus is on the space which are not clearly public and not clearly private in uses. Those spaces are generally not planned, but being used by people. They become fundamental point of a network for community life and social relations. Japanese old urban fabric present many of those areas, and their study could be inspiring to new form of urbanism.

From Research to Profession

During my professional experience I had the chance to start proposing answers to the above issues through design. One of the work realized in master planning is Mixity, a project for the City of Tainan in Taiwan. I lived in Taiwan, I met people and I tried to grasp the culture and give back my interpretation through design.

Mixity is an Urban Design Redevelopment Project at Tainan Main Station Area –International Competition in two Phases– Memorable Mention at the Second Phase Competition “Planning Analysis.”

The new Tainan Re-development Plan is based on a strong relation with the surroundings, thinking at the new Station Area as an enzyme which will start to bring new life to the city. Slowly, the site will be developing in all its aspects and will be a pleasant place for living, enjoying, studying, relaxing, being absorbed into culture.

Tainan has a strong cultural tradition and the new development will reinforce its peculiarities, thus in a new contemporary vision. The new development will become an icon both for its urban design, open to the city and for the environment, where many of the fabulous aspects of Tainan region will be revealed, focusing on the presence of biological diversity.

⁹ Edwin Gardner and Christiaan Fruneaux, *Tokyo Totem: A Guide to Tokyo* (Amsterdam: Monnik; Tokyo: Flick Studio, 2015), 23.

Mixity is looking for new balances among architecture, life, nature and culture. It will create an iconic landscape and skyline.

Mixity will stimulate relations and reinterpretations of the surrounding areas.

According to the environmental analysis, the new project will reinforce the concept of different areas of the city, characterized by interesting peculiarities and functions. The site enters into relations with: Neighborhoods living areas, Cultural and Educational living area, Cultural and Commercial district, Leisure Area, Arts living area.

Taking into account the cultural presence of several important Taiwanese monuments in Tainan, Mixity focuses on the relationships between the existing traditional areas and the new development.

Culture and innovation will find a blend with the presence of a new museum for History and Arts of Tainan. Moreover, cultural activities will be next to the Creative Industry Park, where an incubator for new creative industries will find place. The station itself will host an important cultural and touristic info-center.

Being Cheng Kung University Campus, a leading center for culture and creativity, next to it concert and congress halls will be displayed. Spaces for cultural activities will be next to the museum, which expands at second floor, while at the ground floor, the park opens towards the university.

The blue path in the diagram is a cultural/educational path linking all the main activities of the surrounding areas. On the West side, a 'Green Observatory' will host butterflies and flowers and will be an indoor glass house between two parks, the Tainan Park and the Old Rail Park of Mixity. Here, people could observe the beauty of Taiwan nature with plants, flowers, butterflies, etc.

The new Old Rail Tracks Parks enhances the ecosystem continuity with the surrounding green areas. The Park is both urban, being easily accessible, but it is also differentiated into five main parts. Being linear it finds different characteristics based on the surrounding functions.

Urban Park

The empty space where rail tracks are memories is transformed into an urban park.

Rail tracks create paths and green areas with pedestrian and bicycle paths, rice fields, flowers 'stripes', water basins, etc.

Bicycle and pedestrian path move from North to South and then connect with smaller paths East to West through the site. The stripes change in functions based on the functions of buildings.

From North to South we find:

- the 'emotional park' is next to more cultural activities, such as congress Centre, library, mediatheque. Here the chosen species are: rice fields, stripes of colored flowers, water basin.

- the 'tonic park' opens to public uses, for families, children playground: it is next to residential areas, to the Cultural Creative Industry Park.

Here open fields will permit people to play into the park, enjoying festival such as the Lantern Festival.

- the 'forest like park' has on the East side a roller-coaster, operating during the nights, filtered by a dense palm zone, with water basin and open fields. On the West side, still flower stripes.

- the 'urban activities park', where the green leaves the space to paved, when we arrive at the plaza, where several activities take place - ancillary to the Station, commercial, food corners, etc.

- the 'waiting and admiring park', continuing in fruit trees, such as mangos, and papayas, close to the bus terminal stations.

Intriguing bridges cross the park. They remind the traditional bridges, such as the Sanxiantai-Bridge in Taiwan.

Positioning "Mixity" in the Public Transport Network

With the support of expert consultant David Ta Wei Poo, several studies on the public transport network were provided.

Design Process

Considering the site as a unique opportunity to develop a strong vision for Tainan City, we started to think about a bulk, to be modified as a sculptor does with his raw material.

We thought about pre-existence as a tool of intervention.

Then, historical buildings will enter into relation with the new project. The Station and the platforms will be preserved with new added functions and activities.

The existing rail tracks become an integral part of the main void in the new site.

The void becomes the hearth of the project, full of memories of its previous functions.

Old and new architecture will create a new space balanced between tradition and contemporary

visions. In order to create new connections with the surrounding areas - from East to West - the bulk is broken into several parts.

A 'layered city' starts to be in place, through the creation of several vertical layers of development.

Keeping the height of 20 m as the main level for a new horizontal public path. From it, higher buildings host new functions, both cultural, tertiary and commercial ones.

Historical Monuments

The Tainan Station building will be maintained. It will be possible to have open areas around the buildings itself. The open areas will be covered by very high porches that create continuity in the site. They will be higher than the Station and they will create a balance with the old building, embracing it into a light contemporary structure, bringing shadows and repair from rain.

The existing platform will be reused, hosting functions beneath.

The Cultural Creative Industry Park will have preserved historical buildings that will match with newer structures, such as incubator for small enterprises. Some bridges high level will connect with the top roof at level + 20 m.

Massing and Design

The definition of massing and design are based on Tainan skyline, module and its multiple, historical references.

Considering the size of the project, we took into consideration the issue of dealing with big areas, thus creating pleasant human scale space to be in.

On one side we wanted to keep a strong identity of the place, offering opportunities to new sense of proportions based on traditional Taiwanese architecture, working on human scale diagrams, going from a unique vision to the details, which make rich the people' perception and involvement.

Tainan is mainly characterized by four stories high buildings. We wanted to create a relation with those buildings' scale and the new design.

We created two basic rules:

- A first layer of city will be developed in four stories. The roof will be a continuous slab. We used it as a new horizontal public plane for the new city.

There, on the top, many activities will take place: night market, swimming pool, open air auditorium, walk-ways with view to the city, restaurants, etc.

- The design will be based on modules. Analyzing the context, we considered a base module of 9 x 12 m.

Facades and Roof System

The facades are based on modules 3x3 m and its sub- multiples, as in the schemes. Vertical green facades are next to bus terminal stations. The roof top at level + 20 m, presents photovoltaic cells, colored in vivid colors as a palette of existing colors on roofs and urban landscape in Tainan City.

Mixity is based on the concept of interaction. Interaction between functions, both horizontally and vertically. From the following schemes, it is possible to see how residential is mixed to small commercial and offices at first levels. As, the night market moves on the top roof at +20 m, where entrances to new functions and open air public activities take place. The mixing of functions furnishes to the project a strong flexibility. Moreover, the mixing guarantees livable quarters.

Sustainability

The project had the expert professor Kazuo Iwamura consulting us for Sustainability issues.

According to the UN definition, 'Sustainability' should be constituted of the triple bottom line: 1) Environmental, 2) Economical and 3) Social issues.

Regarding 1) for instance, the IPCC (the Intergovernmental Panel on Climate Change) has been warning to the world to reduce emission of greenhouse gas including CO² to mitigate the critical global warming phenomenon. Consequently, some of developed countries have set a long term goal to reduce greenhouse gas emission by 50% of the current level by the year 2050.

Further to such a slogan, 'Carbon-neutralisation' became a relevant keyword beyond 'energy efficiency' or "Design for Environment (DfE)' within the architectural and urban design and planning.

In addition, the 'BACKCASTING' method (as opposed to the conventional 'FORECASTING' method) has been understood to be applied to architectural and urban/regional planning in terms of sustainability. It involves envisioning a future scenario first, and then tracing the needed steps

back to the present clarifying what and how to create the future sustainable model for our next generations. Such a method, based on time specific analysis, includes naturally the 'Life Cycle Analysis' including post occupancy evaluation and improvement.

Mixity, as the state of the art urban development modeling Tainan, has been elaborated conforming to the above requirements and new method from the beginning at each level of indoor and outdoor of buildings, landscaping, district as well as regional environment. Also vital design quality was the top priority to enhance the Quality of Life of Tainan people to combine joy and ethic of our time.

Among others, Mixity has been planned focusing on the followings, maximising:

- 1) The adoption of energy efficient solutions through the life cycle of buildings and landscaping
- 2) The use of renewable energy sources provided on-site and off –site
- 3) The use of eco-materials for the whole facilities
- 4) The comfort and health of users and visitors through green and passive solutions
- 5) The flexibility of the whole facilities for long-life and feasible usage
- 6) The bio-diversity even in the given central urban area
- 7) The cultural and region specific development preserving old and new heritages of the place
- 8) The convenience for users and visitors through a variety of transportation systems and the nodes
- 9) The social and economic benefits for the designated area and the neighboring areas

All those proposed initiatives have been selected and applied to the planning on the basis of minute investigations of the designated region, as the 'Pre-design', in terms of climate, geology, geography, water system, flora and fauna, industrial and economic activities, social activities of the adjacent communities, and etc.

Milène Guermont

Milène Guermont Studio, Paris | France

Arts & Innovation 'Inevitable Touch'

Genesis

My inspiration¹ comes from my own experience of the city. As described by Edward Bosley, Director of the Gamble House Museum (CA, USA) in 2012:

The genesis of Guermont's interest in the artistic possibilities of concrete stems from a visit to Switzerland more than a decade ago when the sound of the sea emerged from a concrete wall she was touching, a classic example of synaesthesia (stimulation of one sense provoking sensation in another). Since then, Guermont has sought to re-create through her work similar moments of discovery for others. She takes on faith that each of us is naturally curious for contact, interaction and experience, and no less so when it comes to art. In the typical museum setting, however, art lovers are frustrated in their desire for something to touch. And Guermont's work rewards the tactilely curious on more than one sensory level: when touched, many of her pieces respond with light and sound depending on the magnetic field of the person who is touching.

I transform my memory into artworks. As described by Émilie Bouvard, Art Historian and Curator at the Picasso Museum of Paris, in 2007:

Refining the material as a skin or forcing it into random forms, her work evokes emotion in that from which it should be absent. Therefore, the concrete becomes a kind of memory of sounds, tactile sensations, images, capable of reacting to the stimulus of spectators' bodies, and in turn inspiring their own associations and memories. It awakens the memory of the body,

stimulates the mind, and plays on our synesthetic abilities. Here are the *correspondances* of Baudelaire: if this rustling, quivering concrete can cause me to dream of the sea, it is because I remember the hard, wet smash of water which then withdraws, taking with it the sand from the beach.

Our collective sensitivity is memorial and spiritual; memory is a sensitive organ, and that's what interests Milène Guermont.

CAUSSE (high-performance concrete, optical fibres)²

The artwork *CAUSSE* is a new offer to the urban citizen. Three special authorizations were needed to install this piece in the classified area of the Montparnasse Cemetery. Open to the public and to the sky, this tomb interacts with the birds, clouds and visitors whose shadows switch off the emission of the sunlight's reflections by optical fibres. Modelling, fast prototyping, numerical cutting of all the parts of the mould (very delicate due to the angles and due to the concrete material, which requires perfect angles to avoid any leak) were necessary to create a cemetery tomb called *CAUSSE*.

This artwork made of high-performance fibre-reinforced concrete was ordered by an eminent scientist to be his last resting place. *CAUSSE* is formed by 12 facets, representing the 12 layers of the photo-electric cell with multiplied electrons invented by the scientist. Thanks to optical fibres embedded into the concrete, light goes from one facet to another, like the electrons in the photo-electric cell. When a cloud, a bird or a visitor passes in front of an optical fibre, it darkens a point of light on another facet.

Perfectly vertical, the longer side of *CAUSSE* anchors it powerfully in the ground and defines an ascending strength. The oblique of the sculpture come from this mark. The global tension of the lines creates infinite visual dynamics, a synthesis between nature and abstraction: a movement of



Fig. 1. Milène Guermont, *CAUSSE*, 2016. Courtesy of Lucie Cluzan.

¹ Milène, Guermont, *Mémoires Sensibles!*, Exhibition in National Archives of France, Paris, 2012..

² "Vernissage at the cemetery," Milène Guermont, <http://www.mileneguermont.com/en/news/vernissage-at-the-cemetery> (accessed December 14, 2017).

elevation to which a spiritual interpretation can be given. A passage from the Earth to the Sky, games with light and triangles, an installation in a conservation area, innovations and exceptional authorizations, *CAUSSE* bears similarities to the monumental sculpture *PHARES*, imagined at the same moment by Milène Guermont to create a dialogue with the obelisk on the *Place de la Concorde* in Paris.

PHARES (golden aluminium, headlights) & PYRAMIDION³

The topographic measures of the Place de la Concorde, which needed accuracy down to the millimetre, were done thanks to up-to-date very high-tech 3D scans.⁴ Two days were necessary for the treatment of these precious data. Then the very precise (not a single gap could be accepted) modelling and numerical cutting of the 300 different elements (for a total of 5 km of metres) were needed to create the monumental sculpture *PHARES*.⁵

Its genesis is the call for applications of the International Year of Light launched by UNESCO.⁶ It is a 'beacon of headlights' (*phare de phares* in French) that was located during six months next to the Concorde Obelisk, the oldest monument in Paris, in the place where, in 1843, the first public test of electric lighting happened in the world. This monumental work is a 29 m tall very fine aluminium lattice in the shape of a pyramid onto which LED lights are fixed. Its gold colour intensifies until it becomes the hue of the golden cap of the Obelisk to highlight the original symbolism of this 'stone Needle' as the passage from Earth to Sky. Light but resistant, monumental but energy-efficient, it illustrates the latest in conservation of energy and resources, possible today thanks to excellence, engagement and creativity. Fabricated in less than three months, it is only 2% of the Obelisk's weight. Its lamps consume 70% less energy than the previous generation. It is protected by a patented thorny lemon tree hedge. Due to its intrinsic qualities, it aims to encourage the energy transition. It has been given a seal of distinction by the international jury of the UNESCO "2015 International Year of Light," "Paris for the Climate" and "COP21/CMP11." It was also chosen from among 13,000 projects from 147 countries to be the artwork of the Final Report of the IYL-UNESCO.

After the terrorist attacks in Paris, *PHARES* was switched off during one week. Then, a cardiac sensor connected to *PHARES* offered to the public the possibility for each person to make it light up at the rhythm of her/his heartbeat. Moreover, the Eiffel Tower and the Montparnasse Tower also illuminated at the same heartbeat. So, a triangle of light spread throughout the city between these three monumental constructions.

The *PHARES* adventure continues now outside France with the patronage of the French National Commission for UNESCO and the label "2018, the European Year of Cultural Heritage." Symbolically, the lighting of *PHARES* starts again for European Heritage Days 2018. *PYRAMIDION* is the extension of *PHARES*, its missing peak. This pyramid, 4m high, offers new interactions. After Brussels, it visits other cities in Europe. Any visitor to *PYRAMIDION* can illuminate *PHARES* at a distance (and vice versa).

The origin of Europe's heritage is plural. Our project is played out at the level of the individual. The visitor is faced with a pyramid (a world heritage known by everybody but that no one European has made) that invites her/him to look differently at her/his environment and offers her/him the opportunity to interact with it through her/his own heartbeats transposed into plays of light in front of her/his eyes, those of her/his neighbours or those of other Europeans thousands of kilometres away.

M.D.R. (sonic Polysensual Concrete and Craters Concrete)⁷

A sensor to human magnetic fields and programming were developed to make the concrete of the artwork *M.D.R.*⁸ sensitive to the 'energy' of children of the Catholic girls' school Sainte-Marie de



Fig. 2. Milène Guermont, *PHARES*, 2016. Courtesy of Milène Guermont.

3 "PHARES," Milène Guermont, <http://www.mileneguermont.com/en/artworks/phares.html> (accessed December 14, 2017).

4 "PHARES: Coiffe de l'Obelisque sur la Place de la Concorde," Youtube, https://www.youtube.com/watch?v=FvoQTGT1Rnc&list=PLy7MO_49HqVMJqseExe5n1fyr3iGAeyAZ&index=5 (accessed December 14, 2017).

5 "PHARES," PHARES, <http://www.sculpturephares.com/en/> (accessed December 14, 2017).

6 "PHARES," 2015 International Year of Light and Light-Based Technologies, <http://www.light2015.org/Home/Event-Programme/2015/Other/France---L-RO---WOH---Waterfall-of-Headlights.html> (accessed December 14, 2017).

7 The Craters Concrete is the first patent by Milene Guermont on concrete.

8 "M.D.R.," Milène Guermont, <http://www.mileneguermont.com/en/artworks/m-d-r.html>, (accessed December 14, 2017).

Neuilly. This sculpture is formed of six modules integrated into exterior walls. Their skin is covered by craters to become unique, to emphasize the plays with water and light and to invite touching them. If you caress the third module, it emits the sound of the laugh of a child, according to your magnetic field.

AGUA & MINI AGUA

AGUA (6 x 20 ft. by 1.2 in. thick, blue high-performance fiber-concrete) is a sculpture imagined for the headquarters of GA, a French company, whose walls and ceilings contain tubes of water to regulate its thermal qualities.

The water gives 'life' and movement to these walls. *AGUA* exemplifies this with its plastic shape and its sounds. As the visitor enters the building, she/he perceives an excrescence, as if some water accumulated and deformed the wall. Then, she/he discovers more movements 'in' the wall, until it becomes like a veil, a fine sheet transforming to escape from the architecture. By its sensual forms, *AGUA* attracts the hand. If a visitor touches one of the bumps, *AGUA* emits, according to her/his magnetic field, a sound of water (rain, waterfall, lapping, wave, bubble, streaming).

MINI AGUA, the daughter of *AGUA*, is an interactive concrete creation (8.2 x 3.3 feet by only 1 inch thick). Economizing the material to the extreme and putting the human being at the heart of the process, it is selected to be the artwork shown at the French Pavilion of the International Exhibition ASTANA 2017 (June 10 - September 10, 2017), whose overall theme is "Energy of the Future." To create 'a breath' in this huge show, a Parisian-style apartment is created with the portraits of the inventor of artificial cement, Louis Vicat, and the architect, Le Corbusier. You can also discover *MINI AGUA*, a thin sculpture made of Polysensual Concrete that emits sounds if you touch it.

The sensitive zone of this Polysensual Concrete sheet moves into it. If, by brushing against it, you manage to catch it, *MINI AGUA* will emit a sound of water according to your magnetic field. This fine unpredictable sheet seems to warp. *MINI AGUA* defies comprehension.

MINI AGUA fits perfectly the sentiments expressed by Annette Ardisson, editor-in-chief of Radio France, in 2011:

We speak about the soul of violins. Will we speak one day of the soul of walls... The soul of the walls of Milène Guermont? Like everyone, I often "talk to a brick wall," regrettably! But never has a wall spoken to me. Milène told me to touch it, so I brushed it and it began shouting! A cry for help like these spirit prisoners of materiality? No, finally it was a rustle, a confidence that came from dozens of microprocessors inserted into the concrete. Sounds of waves from inside a shell? A breath of fresh air into trees? Droplets of water which speak under your fingers? It is the sound of a cloud,

says the artist. Inanimate objects? Milène Guermont gives life to the most thankless material, the one that we would never imagine to be able to sharpen all our senses: concrete!

INSTANTS

Commissioned by the General Council of La Manche, *INSTANTS* celebrates the 70th anniversary of the Normandy landing in the breach number 00 (which is a classified site) of the 'Atlantic Wall'. From the front view, the sculpture materializes this 'opening' by three modules shaping 'Polaroids', thus making a reference to the 'instant photographs' of the eponymous American company.

Inside each module of *INSTANTS*, landing veterans' hand prints are engraved in the concrete to symbolize the breakthrough which they opened *INSTANTS* draws the link between past and present by illustrating, in a contemporary and permanent way, this key episode of the Second World War. The art critic Vincent Delaury says about this permanent artwork

Milène Guermont is a «scientific artist» who likes making the largest number discover her artworks, in particular within the public place.

(...) Always in this idea to dialogue with unpublished spaces, she has realized a very symbolic state commission: *INSTANTS*, a long-lasting sculpture conceived for the 70th anniversary of the Normandy Landing. Installed in the breach number 00 of Utah Beach, this artwork is formed by several modules shaping "Polaroids" that each offers a sea view. Inside each one, veterans' handprints are engraved in the concrete. They suggest the historic breakthrough of the Allies while giving the beautiful part to the power of the poetic imagination of the author. For Guermont the art is a place for exchanges, conversational and interactive. The concrete is for her a boatman of feelings and of questions.

Her artworks push material to its limits and really give a strange impression of lightness. If they are frequently technological exploits, they are not less poetic.

NEVER MORE

A flexible concrete was developed to create this work that is composed of three parts. Creased, crumpled, to forget... What is this mail wasting away? Nothing is unchanging or impenetrable: even this concrete is going to bend.

Conclusion

From a few grams to several tons, what interests me is to create a link between people and the environment. Touch and innovations are always key. As described in 2012 by Claude Parent:

Milène Guermont is a magician, a magician of concrete. Pass in front of the wall of a school and you hear the children's laughter. Run your hand across a beautiful table, and the noise of the sea invades you. She is the queen of the 'metamorphosis of concrete' (this magnificent material which is imposing by its massive nature). She softens it and gives it a voice, which little by little becomes its own language. We can say that she has created a new poetic way that superimposes onto the forms of architecture.

Who has not dreamed of discovering a pyramid? Who has dreamed of moving a pyramid? Who has ever thought of illuminating a pyramid located thousands of miles away to the rhythm of her/his own heartbeat? *PYRAMIDION* in particular is light in weight and able to travel to any country in the world, where it can be rapidly installed. It can be made available to anyone or any institution that invites it to their location.⁹

⁹ To be a part of the *PHARES* adventure and welcome *PYRAMIDION*, email at contact@mileneguermont.com.

Chapter F

Women and Sustainability

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Sustainability: Utopias, Practices, Women

Introduction

This essay wants to contextualise a selection of current projects by designers and architects that are related to forms of sustainability in a broader perspective of historical utopian and ecotopian initiatives. The essay first considers general characteristics of historical uto- and ecotopias expressed in novels and connects some of these characteristics to lived utopian experiments in the past. Next, and after some more terms and definitions, it will address a number of examples of current design and architectural practices that involve women. Finally, there will be some thoughts on sustainability and geographies. The essay has the following four sections besides an introduction and conclusion:

I Utopias and ecotopias: literary and realised

II More terms and definitions: ecology, eco, green, ecomodernism

III Design, architecture, technology: examples of initiatives by women

IV Geographies: poverty and wealth, rural and urban, local and global

The urgency of sustainable development on a worldwide scale was addressed in the early 1980s when impact of economic growth, increasing inequality, and population growth clearly affected the natural global environment and could no longer be ignored. Helpful for understanding the sustainability as regards the purpose of this essay, are two articles by Robert Goodland and Herman Daly from 1995 and 1996 where they distinguish three different realms of sustainability: social sustainability (SS),

economic sustainability (EcS) and environmental sustainability (ES).¹ Environmental sustainability is maintenance of natural capital; it wants to sustain global-life support systems, such as water, air, soil, to protect human life (anthropocentric) and non-human species such as bees or organisms living in oceans (ecocentric). Economic sustainability emphasises human consumption related to income from forms of capital: natural resource, social resource, human resource. Natural resource is threatened by economic growth, population growth and (over)consumption without constraint. Social sustainability concerns human society, its moral values and its community, religious and cultural interactions.

Environmental and economic sustainability are closely linked but social sustainability cannot exist without environmental sustainability either. Ecology is related to environmental sustainability but focuses more on how organisms interact with each other and their surroundings, and often on a specific population of living things. Ecology can be technologically-driven sustainability and more socially-driven solutions or social ecology. Scientific ecology and sustainability move towards technology, whereas social ecology and sustainability involve more direct relations to human beings.

These forms are not mutually exclusive and all are part of complex interactions with many factors at play, but projects and texts usually highlight one particular element rather than all at the same time. However, it is clear that environmental sustainability in our world of today needs far-reaching interventions. Options for design and architecture to support particular sustainability-goals lie mainly in the realm of increased end-use efficiency of products, such as solar heaters, wind pumps, use of manure instead of chemical fertiliser, and longer life-cycle, durability, and recyclability of products.² In any case, the role to play for 'high' design and architecture is symbolic and must be joined with technology to in any way approach the main goal of environmental sustainability, that is to maintain capacities of environmental sink (waste) and source (natural capital) unimpaired. Recent figures about such issues as renewable energy consumption, electricity of production from renewable sources, air pollution, and the condition of square km of forestry, are provided by the World Bank's data indicator.³

Mixtures of all forms of sustainability feature in both literary eco-utopias and realised utopias. It is therefore interesting to first consider historical utopias in fiction and real life in Section I as a

context for forms of sustainability related to design and architecture that will be discussed later on in Section III.

I Utopias and Ecotopias: Literary and Realised

In *Ecotopia: A Novel about Ecology, People and Politics in 1999*, written by Ernest Callenbach in 1975, reporter Will Weston experiences how it is to live in an ideal ecological society in the year 1999 on North America's West Coast in and around San Francisco where people live in multiple small interconnected social communities. This society is in everything opposed to the capitalist waste economy of the America that he knows, the East Coast of New York and the city where Weston lives. Women play an important role in Ecotopia as well. Ecotopia has a woman, Vera Allwen, as president who Will gets to meet after the Ecotopians have tested the honesty of his intentions and interest in the Ecotopian society. And it is a woman, Marissa, who makes Will finally stay in Ecotopia to start a new life, leaving behind his former life with girlfriend Francine and two kids from his previous marriage with Pat. Marissa is the utmost cliché of female naturalness with 'positively hypnotic powers' that affect Will. To Will, she is a revelation by offering him unbelievably good sex in wild nature whenever they feel mutually 'connected'. Literally and figuratively, she embodies a different experience of social sustainability in a male-female relationship as opposed to the work and lifestyle that Will knows.⁴

The sustainability issues addressed in *Ecotopia* seem to be a separate and sort of 'uni-gender' field. Interiors for living are modest: Will's room is comfortable yet old-fashioned, his bed quite basic but with a good down-filled bedcover (he calls it 'comforter'). He has a plain unvarnished worktable, on it a hotplate and teapot and, the only tech-device, a small sleek 'picturephone'. His toilet looks like a type from around 1945; the toilet paper is coarse and plain. But the bathtub is deep and made of slightly aromatic wood, like those used in Japanese inns.⁵ This simple interior indicates that 'high' design expressing a sustainable lifestyle is not valued in Ecotopia; instead, the objects and furniture indicate unfashionable longevity. As Will writes, Ecotopians 'de-emphasize' goods, yet 'seem to love fixing things.' Television has dull programmes and mainly shows debates; there are none of the 'surrealist commercials' that Will is used to.⁶ By contrast, sustainability on a larger scale is of high technological ingenuity. For example, the production and recycling of plastics in the Ecotopian

1 Robert Goodland, "The Concept of Environmental Sustainability," *Annual Review of Ecology and Systematics* 26 (1995), 1-24; Robert Goodland and Herman Daly, "Environmental Sustainability: Universal and Non-Negotiable," *Ecological Applications* 6, no. 4 (November 1996), 1002-17.

2 Ibid.

3 At "Indicators," The World Bank, <https://data.worldbank.org/indicator> (accessed May 25, 2018).

4 Ernst Callenbach, *Ecotopia: A Novel about Ecology, People and Politics in 1999* (London: Pluto Press, 1978), 68-9, 147.

5 Callenbach, *Ecotopia*, 14.

6 Callenbach, *Ecotopia*, 160, 110.

society of 1999 is very different from the situation Weston knows from Callenbach's America in 1975. It is a technologically-driven environmentally conscious process:

One surprising similarity between Ecotopia and contemporary America is that they both use huge amounts of plastics. However ... the two countries use plastics in totally different ways. Ecotopian plastics are entirely derived from living biological sources (plants) rather than from fossilized ones (petroleum and coal) as most of ours are. Intense research effort went into this area ... and it continues. According to my informants, there were two major objectives. One was to produce plastics, at low cost and in a wide range of types: light, heavy, rigid, flexible, clear, opaque, and so on—and to produce them with a technology that was not itself a pollutant. The other was to make them all *biodegradable*, that is susceptible to decay. This meant that they could be returned to the fields as fertilizer, which would nourish new crops, which in turn could be made into new plastics— and so on indefinitely, in what the Ecotopians call, with almost religious fervor, a “stable-state system.”⁷

A more general social sustainability is accounted for as well. Measures taken by the Ecotopian governors have made the environment become agreeable and less polluted than in America. This leads Will Weston, to conclude, after more than six weeks of intensive study, that:

...the risky social experiments undertaken here have worked on a biological level. Ecotopian air and water are everywhere crystal clear. The land is well cared for and productive. Food is plentiful, wholesome and recognizable. All life systems are operating on a stable-state basis, and can go on doing so indefinitely. The health and general well-being of the people are undeniable. While the extreme decentralization and emotional openness of the society seem alien to an American at first, they too have much to be said in their favor. In these respects, I believe, Ecotopia offers us a difficult challenge, and we have far to go to even approach their achievements.⁸

Callenbach's story evokes the ecological concern, activism and Green Movements of the 1960s and 1970s in the USA.⁹ It has, however, precedents, and is only one of the classical English and American utopian novels that Dutch political sociologist Marius de Geus in 1996 analysed for commonalities

7 Callenbach, *Ecotopia*, 77.

8 Callenbach, *Ecotopia*, 150–161.

9 In real life, women, and notably Lois Gibbs and Rachel Carson, were active in the American environmental movement of the early 1960s. See H. Patricia Hynes, “Ellen Swallow, Lois Gibbs and Rachel Carson: Catalysts of the American Environmental Movement,” *Women's Studies International Forum* 8, no. 4 (1985), 291–98.

and differences as regards ecological issues in fictional model societies.¹⁰ Being symbolic scenarios for ‘utopias of sufficiency’ and different from ‘utopias of abundance’ where technological advancements make for an overall luxurious life-style, the texts – all by male writers – use appealing metaphors for their new and better societies.¹¹ The five most used metaphors can be divided in environmental location metaphors: these are ‘the wilderness’ (Thoreau and Huxley, and to some extent the wood life in Callenbach), ‘the cloister or monastery’ (More and Skinner), and ‘the garden’ (Morris and Howard). And content metaphors: ‘the artwork’ (Morris) and ‘the natural life cycle’ (Callenbach). The metaphorical environments have the following ten rather concrete characteristics:¹²

- 1) *Self-sufficient economy*: most ecotopias envision autarkic economically independent communities who produce and consume their own food, and some are without trade and exchange altogether (Thoreau).
- 2) *Biological agriculture and stock breeding*: especially the later utopias of Skinner, Huxley and Callenbach do not damage the environment by food production or pesticides. They have closed loops by using natural fertilisers, changing crop cultivation, and eco-friendly insecticides. This will give inhabitants good and healthy food and less health complaints, and this system offers an endless equilibrium as well.
- 3) *Sustainable use of natural resources*: existing generations need to use resources with responsibility towards future generations. Industries need to produce in ways that are clean and energy efficient, and by using as few natural resources as possible. They are against the

10 Marius de Geus, *Ecologische utopieën: Ecotopia's en het milieudebat* (Utrecht: Uitgeverij Jan van Arkel, 1996), 167–88; also Marius de Geus, *Ecological Utopias: Envisioning the sustainable society* (Utrecht: International Books, 1999). These classic utopias were, chronologically: Thomas More, *Utopia* (1516; first written in Latin and translated into other European languages, the English version is from 1551); Henry Thoreau, *Walden; or Life in the Woods* (1854); William Morris, *News from Nowhere* (1890); Ebenezer Howard, *Garden Cities of To-morrow* (1902; originally *To-morrow: A Peaceful Path to Real Reform*, 1898); Bernard Skinner, *Walden Two* (1948); Aldous Huxley, *Island* (1962); Ernest Callenbach, *Ecotopia* (1975). ‘Technotopias’ celebrating human power over nature rather than human interdependence with nature, have been described by, a.o., Bacon, Owen, Saint-Simon, and Fourier. See Leslie Paul Thiele, “Book Review: de Geus, M. 1999. *Ecological Utopias: Envisioning the sustainable society*. International Books, Utrecht, The Netherlands,” *Conservation Ecology*, Vol. 4 no. 1 (2000), 18, at <http://www.consecol.org/vol4/iss1/art18/>. French ideas were influential in England as well. See W.H.G. Armytage, *Heavens Below: Utopian Experiments in England 1560–1960* (London: Routledge and Kegan Paul, 1961), 134–38; and, more technology-focused, W.H.G. Armytage, *Yesterday's Tomorrows: A Historical Survey of Future Societies* (London: Routledge and Kegan Paul [1968]).

11 It needs further research to compare these particular issues for female authors. See for example the list compiled by Mary Mark Ockerbloom (ed.), “About,” *A Celebration of Women's Writers. Pre-1950s Utopias and Science Fiction by Women. An Annotated Reading List of Online Editions*, at digital.library.upenn.edu/women/ (accessed June 25, 2018). A number of female writers are included in Bill McKibben, *American Earth: Environmental Writing Since Thoreau* (New York: Library of America, 2008); Kim Stanley Robinson (ed.), *Future Primitive: The New Ecotopias* (New York: Tor/Tom Doherty Associates [1994]).

12 De Geus, *Ecologische utopieën*, 173–76, 190–96.

use of fossil energy fuels such as gas, coal and oil, and want to promote sustainable energy through natural processes: wind energy (Morris, Callenbach), water energy (Howard, Huxley, Callenbach), and solar energy (Skinner, Callenbach).

- 4) *Longevity and reusing of objects and goods*: dress (More, Thoreau), art products (Morris), household products (Skinner, Huxley, Callenbach) must be sustainable and of high quality. Broken products must be recycled, reused and repaired. In Callenbach's *Ecotopia*, all household goods are tested for repair and all waste is separated and recycled into compost or reused as material.
- 5) *Clever design*: More, Morris, Howard and Callenbach all acknowledge the design of the landscape and of the environment. There must be a natural-looking environment by low-storey housing, variety in building style, plenty of greenery and gardens in lanes and roads, and use of natural building materials. Aesthetics is particularly important for Morris and Howard – Morris, of course, being the instigator of the Arts and Crafts movement.
- 6) *Importance of infrastructure*: infrastructure must persuade people to act in the best and environmentally friendliest way with their environment. Contact with nature is an important incentive for infrastructure. Howard and Callenbach say that an infrastructure must be well planned and all-including; without that, there can be no eco-balanced society. The infrastructures must make for shorter distances, easy to reach houses and buildings, and a lot of greenery. Essential are a good public transport system instead of cars, providers for clean net energy, waste collection in separate items and the abolition of dirty and polluting industries. Callenbach mentions electronic networks for image phones ('picturephones') and interactive computers for working at home instead of commuting.
- 7) *Reduction of mobility*: this is related to infrastructure and strongly propagated in order to counter pollution. In his garden cities, Howard already advocates agricultural companies close to cities to avoid unnecessary long distance transportation.
- 8) *Geographies*: utopias and ecotopias oppose urban to rural environments. Early utopias are situated in nature and away from the cities. Callenbach's later *Ecotopia* also does not opt for differences between countryside and city; instead, living communities in *Ecotopia* are spread throughout a larger area and connected by an efficient transport system. Note that the back-to-the-land movement of the 1960s hippie generation re-appropriated the ideal of living in the countryside when they adopted concern about ecology and environment; it has taken on yet another form in the global North since, roughly, 2000.¹³

- 9) *Mindset*: Morris, Skinner, Huxley and Callenbach all advocate the notion of slowness. Their societies work on a slow life rhythm with free time for people for rest, leisure and creativity. There must be no rush and hurry, but easiness, peacefulness and less work stress. Note that slowness regained popularity in the mid-1980s after a protest against fast food and fast life, and disseminated into many philosophically minded 'slow'-movements today, such as slow living, slow working, slow gardening, slow fashion, slow eating.
- 10) *Integral ecological-societal vision*: for a true ecological society, everything must be planned in a total vision with integration of social, economic and political orders. Separate measures, such as turning your heating low and separate waste bins, are cosmetic and mainly symbolic.

This list gives some idea of the profoundness of issues addressed by the fictional uto- and ecotopias. More can, of course, be added. Interesting as regards the importance of technology is also, for example, another of the first American utopias, the mechanical civilisation of the 'techno-utopia' envisioned by German-born John A. Etzler in *The Paradise within the reach of all men, without labour, by powers of nature and machinery* (1833–42). Etzler's *Paradise* positively envisions plastics, synthetic fabrics, air-conditioning, and suggests the use of wind energy. For communal living he wanted to use great lakes wherein floating islands built on a wooden base and covered with earth would produce food.¹⁴

While virtually all uto- and ecotopian model communities have some sort of role for design and architecture, aesthetics and craft are vital to only a few utopias, notably those of Morris and Howard. Even though Morris' principles of handicrafts have remained valid for us, his design is old-fashioned in terms of style and also because technology has considerable impact on sustainable design solutions today. As regards the metaphors and subsequent list of issues for sustainable societies, projects for sustainable design and architecture mainly connect with the artwork, the garden and the natural life cycle. In addition, it is important to realise that 'high' design and architecture only function as symbolic play between science and design because they professionally operate in the aesthetic realm as well. At most, they connect to interpretations of social sustainability in the symbolic realm. And they are reductionist by leaving aside the logic of a totally new alternative society as advocated by eco-utopian novels and, even more so, by the many real-life historical communities.

¹³ Keith Halfacree, "Back-to-the-land in the Twenty-first Century – Making Connections with Rurality," *Journal of Economic and Social Geography/Tijdschrift voor Economische en Sociale geografie* 98, no. 1 (January 2007), 3–8, <https://doi.org/10.1111/j.1467-9663.2007.00371.x> (accessed November 10, 2017).

¹⁴ Armytage, *Heavens Below*, 187.

Realised utopias

Historically realised utopias meet characteristics of fictional ecotopias; some literary ones were actually partly lived by their writers as communal forms of social and environmental sustainability also, for example, by William Morris and his followers of the Arts and Crafts Movement.

There are many overviews of attempts to realise utopian communities.¹⁵ The two 'classical' early types of utopian outlook are radically religious inspired, and rationalist-communist inspired; these two also mingle.¹⁶ In some of these communities, women played a vital role by directly inspiring community formation. The Philadelphian Society, for example, spread via Jane Leade and Francis Lee; it was Christian socialist-inspired and influential in Germany and the Netherlands. The Quakers (or Society of Friends) and Shakers in mid-seventeenth and eighteenth-century England and later in America, are well known for their initial female leaders from the Manchester area, Mother Jane Wardley and Mother Ann Lee.¹⁷ Quaker communities in England and France around 1700 merged experimental Christianity and corporate secularity. Despite their differences, the daily life of religious and secularist utopias, as well as literary ones, has much in common: they grow food in a natural community garden; they make and wear modest dress and clothing; and they live in self-made vernacular dwellings and houses, such as log cabins. In one way or another, this almost always makes the historical communities also ecotopias *avant la lettre*, though without, and later also anti, technology. Many members of utopian communities earned their living as craftsmen; they were blacksmiths, weavers, or carpenters. For the early religious utopias, this type of living was like that of poor people in general but it became more and more exceptional when living conditions for lower classes changed as industrialisation and urbanisation in the nineteenth century progressed. The same applies to the austere aesthetic values of household objects and furniture that came to characterize 'monastic' American Shaker communities. Their dwellings and furniture were practical above all. However, it became noted as 'design' when linked to design ideologies of functional craft and lifestyle ethics that opposed ornamented objects from industries. Especially after 1945, this gained in popularity as a 'counter-culture'. Museum displays then began to celebrate Shakers' 'functionalist' design, as did Shaker museum villages.¹⁸ In their own context, however, twentieth-

century religious communities still advocate a simple lifestyle guided by a Christian God.¹⁹

A comparable focus on 'honest' and 'functionalist' design, crafts, and architecture in a setting of communal living made the German Bauhaus in Dessau a short-lived utopia on its own for 1920s modernist design and architecture before it was closed by the Nazis as being a communist threat. And perhaps it is not too farfetched to say that some of the more socialist early utopian communities come close to later Modernist ideals. As early as 1649, the Diggers, considered by Walter Armytage as one of the emerging 'real Utopian' groups who opposed the control of labour and land by the higher ranks of the then regular society, developed from a small group of poor men, led by William Everard and Gerrard Winstanley, who began to dig and plough the earth to prepare it for seeding, aiming for a comfortable life on earth as well as in heaven thereafter. This utopia in a rural area near Kingston, Surrey (now part of Greater London) advocated household production and assigned an important role to education. Of the many later communities in many different settings, some show how important architecture was for living together: Orbiston by Abraham Combe of 1825, for example, was a communal flat block for 1,000 people that incorporated craft workers as well.²⁰ Counterculture architects of the 1960s and 1970s experimented with radical communal building forms which were modelled after systems in nature and used different forms of solar heating systems.²¹ An example from the MoMoWo context is Anna Bofill who, in 1973, worked with the Architecture Workshop group for the *Walden 7 Building* in Barcelona which comprised 400 social housing flats for 1,000 inhabitants and inspired by the novel of Bernard Skinner.²²

When examining design and architecture related projects which express concern about sustainability today, the questions they ask and solutions they propose may have much in common with fictional as well as lived eco-utopias of the past; some may focus on sufficiency while others tend towards abundance and techno-utopian. A contemporary utopia from 1968 will come up with activist and eco-designer Katell Gélébart in Section III, together with examples of 'high' design and architecture. But first Section II will briefly address a few later terms and definitions as regards sustainability and the environment.

15 Armytage, *Heavens Below*, is an older but still very readable account. Many are also listed in Richard C.S. Trahair (ed.), *Utopias and Utopians: An Historical Dictionary of Attempts to Make the World* (Westport, Connecticut: Greenwood Press, 1999).

16 Armytage, *Heavens Below*, 25, 31, 57, 77–80.

17 These women have been well studied; see, for example, Richard Francis, *Ann the Word: The Story of Ann Lee, Female Messiah, Mother of the Shakers, The Woman Clothed with the Sun* (New York: Arcade Publishers, 2001), for women leaders and ministry 30–32, 75 and after for the success of Ann Lee in America, and "Epilogue" 323–36.

18 Stephen Bowe and Peter Richmond, *Selling Shaker: The Commodification of Shaker Design in the Twentieth Century* (Liverpool: Liverpool University Press, 2007), 69–149, Chapter 2 "Forms and Forces: The Penetration of Shaker Design into Museum and Popular Cultures."

19 See e.g. Ronald J. Sider (ed.), *Lifestyle in the Eighties: An Evangelical Commitment to Simple Lifestyle* (Philadelphia: The Westminster Press, 1982).

20 Armytage, *Heavens Below*, 19–20, 97.

21 Philip Tabb, "Greening Architecture: The Impact of Sustainability," in: Elie G. Haddad and David Rifkind (eds.), *A Critical History of Contemporary Architecture 1960–2010* (Farnham: Ashgate, 2014), 91–114, here 93–8.

22 Ana Maria Fernandez Garcia, "Barcelona itinerary 3 The Western Path," in: Sara Levi Sacerdotti, Helena Seražin, Emilia Garda and Caterina Franchini (eds.), *MoMoWo Architecture & Design Itineraries Across Europe* (Ljubljana: ZRC SAZU, 2016), 43, no. 3.6.

II More terms and definitions: ecology, eco, green, eco-feminism, ecomodernism

Concern with sustainability and the environment gradually grew in the twentieth century and ever faster after 1945. It became expressed in many different definitions and terms. The science that is often intertwined with sustainability, especially after the 1960s, is ecology. The German word *Ökologie* was coined in 1866 by the zoologist and Darwinist Ernst Haeckel who was a specialist in sea organisms.²³ By ecology Haeckel meant the study of the relationship between all living organisms and their surroundings, and interactions between organisms and biotic components of their environment. Ecology also transfers social elements of human organisations to the study of particular organisms, such as their diversity, distribution and number, as well as cooperation and competition between organisms, both within and among ecosystems. Ecosystems are dynamic systems of organisms and the communities they make up, as well as the non-living components of their environment. In ecology, sustainability is how biological systems remain diverse and productive indefinitely. Human interventions in natural ecology may therefore be hostile to sustainability. Ecology as a science has many different meanings and practices, just as sustainability. The main two are scientific ecology, which involves biology and environmental ecology, and political ecology.

Shortly after Haeckel, several women, especially from the United States, used the word ecology quite early in relation to the design of particular human-made objects, as has been acknowledged in literature about women scientists and ecology. Ellen Swallow-Richards, the first woman to graduate from the Massachusetts Institute of Technology in 1873 in chemistry and working as instructor in Sanitary Chemistry from 1884 to 1911, interpreted ecology in 1892 as environmental ecology for human beings by connecting it to the 'women's domain' of household management, sanitation, nutrition and health.²⁴ She addressed the issues of good housing; clean drinking water; good food and nutrition; sanitation; and sewage systems. She designed improved kitchens and exhibited her Rumford Kitchen at the World's Columbian Exposition of 1893. Swallow-Richards came up with the word 'euthenics' – derived from eugenics – to indicate, as she wrote, 'the betterment

of living conditions, through conscious endeavor, for the purpose of securing efficient human beings'.²⁵ The housewife was assigned an important role in the realisation of euthenics, and awareness had to be achieved through sanitary science, general education by reading good books, and through relating science and education to life. Ellen Swallow-Richards did not gain the same recognition for her work as did male scientists in her time and in the end confirmed women's subordinate role precisely by linking ecology to an environment found to be suitable for women: the house and home.²⁶ When later twentieth-century design histories nourished the topic of 1910s and 1920s kitchen design as a socially gendered space (perhaps even: ecology), it was without much notion of the technological basis developed by Ellen Swallow-Richards.

Political ecology, which Haeckel also founded, interpreted the models and findings of scientific ecology for cultural criticism of Western societies and how they mistreat their environment. This generated the 'Green' tradition that can be anti-technology, anti-capitalism, and advocates the veneration of 'nature'. This tradition is often activist and, joint with women's studies in general, became eco-feminism in the 1970s and 1980s, both in its early essentialist form and in its later form of feminist eco-criticism that questions the split between nature and culture and the general oppression of female and non-human bodies due to scientific and societal structures. American and Australian theorists have been assigned an important role in this movement. Initiatives of garden planners and botanists who integrated eco-feminist activism with their work laid the foundations for urban gardens and urban beautification programs by the use of local greenery and plants, something which has renewed popularity today.²⁷

As scholars have noted, terms for design and architecture related to ecology change over the years. The words 'ecology' and 'ecological' in an environmental as well as activist meaning became popular with the eco-movement of the late 1960s and 1970s, also in the meaning of political ecology with the Green Movement and radical environmentalism. 'Sustainable design and architecture' came up in the early 1970s and has remained much used until today. 'Green design' and 'Green architecture', as well as green parties in politics and growing public awareness about ecology in the 1970s and 1980s, became 'eco' plus sustainable design and architecture in the 1990s and after.²⁸ 'Green' today

23 Robert P. McIntosh, *The Background of Ecology: Concept and Theory* (New York: Cambridge University Press, 1986), 1–27, and Anna Bramwell, *Ecology in the Twentieth Century: A History* (New Haven: Yale University Press, 1989). Reviews of Bramwell's *Ecology* illuminate the different forms and wider context of ecology, e.g. Dale Jamieson, "Ecology Then and Now," *Science, Technology, & Human Values* 17, no. 1 (1992), 129–31; William McGucken, "Review of Anna Bramwell: Ecology in the Twentieth Century: A History," *The American Historical Review* 96, no. 1 (1991), 134; Ronald C. Tobey, "Ecology in the Twentieth Century: A History by Anna Bramwell," *American Scientist*, Vol. 78, no. 2 (1990), 186. Victor Papanek, *The Green Imperative: Ecology and Ethics in Design and Architecture* (London: Thames and Hudson, 1995).

24 Dorene Steggell, "Woman in Appropriate Technology," *Seriatim* 10, Vol. 3, no. 2 (Spring 1979), 20; Hynes, "Ellen Swallow," 291–4; Pamela Curtis-Swallow, *The Remarkable Life and Career of Ellen Swallow Richards: Pioneer in Science and Technology* (Hoboken, New Jersey: Wiley, Hoboken, New Jersey: Wiley, 2014). Swallow wrote *The Cost of Shelter* (1905) and *Euthenics: The Science of Controllable Environment: A Plea for Better Conditions as a First Step Toward Higher Human Efficiency* (Boston: Whitcomb & Barrows, 1912; first ed. 1910).

25 Swallow-Richards, "Foreword," *Euthenics*, vi-vii.

26 Hynes, "Ellen Swallow," 293.

27 Susan Griffin, Carolyn Merchant and Val Plumwood are often mentioned. In the context of urban gardens the name of Bernadette Cozart comes up for her work in New York. Karen J. Warren (ed.), *Ecofeminism: Women, Culture, Nature* (Bloomington: Indiana University Press, 1997); Jessica McLean, "Ecofeminism and rhetoric: critical perspectives on sex, technology, and discourse," *Gender, Place & Culture*, Vol. 22, no. 4 (2015), 579–81.

28 Donald Worster, "Book Reviews," *Isis* Vol. 81, no. 4 (December 1990), 798–800; Pauline Madge, "Ecological Design: A New Critique," *Design Issues* Vol. 13, no. 2 (1997), 44–54; Tabb, "Greening Architecture"; Emilie van Haute (ed.), *Green Parties in Europe* (Abingdon: Routledge, 2016).

is also a label for all kinds of consumerist goods, as it is for Green Offices that at universities aim to underline responsibility for ecological sustainability towards the student population.²⁹ We have ethical and social responsibility, time and life cycle of products, and Design for Disassembly (DfD). Around 2000, 'eco-design' included earlier postulated cradle to cradle® principles: full up-cycling of used materials and manufacturing processes. Advocated since the 1980s, prepared in nine principles in 1992 by American architect William McDonough & Partners for the EXPO 2000 World's Fair in Hannover, Germany as *The Hannover Principles Design for Sustainability*, practised since circa 1994 and again formulated in 2002 by McDonough and German chemist and activist Michael Braungart, their cradle to cradle® design framework takes eco-effectiveness as principle and looks at processes in nature for environmentally responsible design. Conform the arguments in favour of environmental sustainability McDonough and Braungart recognise the problem of human intervention in natural ecological systems:

... all the ants on the planet, taken together, have a biomass greater than that of humans. ... their productiveness nourishes plants, animals, soil. Human industry has been in full swing for little over a century, yet it has brought about a decline in almost every ecosystem on the planet. Nature doesn't have a design problem. People do.³⁰

Common and popular terminologies also reflect changing perspectives about nature and technology through scientific systems and categories. Haeckel's nineteenth-century Ökologie was formed as a holistic and vitalist labelling of biology and ecological as well as political science. It also held on to the idea of homeostasis and ecological balance. However, since the 1970s 'new ecology' challenged the view of nature as a balanced system and followed the notion of disequilibrium of natural systems: the concept of nature was unpredictable, dynamic, evolving and self-adaptive.³¹ One of the latest general terms appears to be 'ecomodernism'. Coined by authors and environmental policy experts Michael Shellenberger and Ted Nordhaus, 'ecomodernism' attempts to shake up the field by claiming that 'old' environmentalists have prejudices and outdated ideas about a natural and healthy society; hence, they need to make room for new approaches which are 'modernist'. The intro to their online 7-point "Ecomodernism manifesto" (in 12 languages), optimistically says that

Intensifying many human activities—particularly farming, energy extraction, forestry, and settlement—so that they use less land and interfere less with the natural world is the key to

decoupling human development from environmental impacts. These socioeconomic and technological processes are central to economic modernization and environmental protection. Together they allow people to mitigate climate change, to spare nature, and to alleviate global poverty.³²

Basically, they favour a techno-utopia, for example by advocating concentration of production centres for cultivating food in vertical flat buildings to save the impact of food production on the soil and use the open land for leisure. Such architecture has already been realised.³³

Ecological thinking in terms of design then seems to split technologically-driven sustainability and ecology, and more socially-driven solutions or social ecology; techno sphere opposes biosphere. Although this was a part of earlier utopias, it has developed considerably after the 1960s. Many of today's design projects are joint initiatives by 'creative' designers and people educated in technology, engineering, or bio-chemistry. The entire field is also infused by the rhetoric of newness and progress, and the terminology is as much part of the discourse as are eco- or technotopian practices. The definition of 'design' is as ambiguous as it always was and mostly operates in a fashionable manner. Different realms of architecture will be addressed in Section IV.

III Design, Architecture, Technology: Examples of Initiatives by Women

This Section aims to relate examples of initiatives by women as regards sustainability to ideas and concepts brought forward in Sections I and II. I will introduce it by focusing on an engineer-designer who pioneered in solar energy in the 1940s: physical chemist and biophysicist Mária Telkes. Anno 2018, even the blog of American lifestyle icon Martha Stewart commemorates her.³⁴ Born and educated in Hungary, Telkes immigrated to the USA in 1924 and became an American citizen in 1937. Her first research into solar energy was in 1939, when she worked on thermoelectric devices powered by sunlight for the Solar Energy Conversion Project at the Massachusetts Institute of Technology (MIT). During World War II she invented a solar distiller to vaporize seawater and re-condense it into drinkable water. In the 1940s, Telkes collaborated with architect Eleanor Raymond on a modern house heated with solar energy; built in 1948 in Dover (MA), it was the first of its kind. It received its energy from boxlike solar collectors that captured sunlight and warmed the air in a

29 It seems that the first so-called Green Office at a university was established at Maastricht University, the Netherlands, in 2010. See "Green Office Model," Green Office Movement, <http://www.greenofficemovement.org/model/> (accessed May 19, 2018).

30 William McDonough and Michael Braungart, *Cradle to Cradle: Remaking the Way We Make Things* (New York: North Point Press, 2002), 16. They created the McDonough Braungart Design Chemistry in 1995; see "Home," MBDC, www.mbdc.com (accessed May 31, 2018).

31 De Geus, *Ecologische Utopieën*.

32 "An Ecomodernist Manifesto," <http://www.ecomodernism.org/manifesto-english/> (accessed May 22, 2018).

33 "First European Vertical Farm To Open in Holland," (posted April 14, 2017), [https://www.hollandtradeandinvest.com/...](https://www.hollandtradeandinvest.com/) (accessed September 1, 2017).

34 Megan Cahn, "You Can Thank Maria Telkes For Everyday Uses Of Solar Energy: It's why she was called the Sun Queen," Martha Stewart (posted April 2, 2018), <https://www.marthastewart.com/1527158/maria-telkes-everyday-uses-solar-energy> (accessed May 30, 2018).

compartment between a double layer of glass and a black sheet of metal. Warmed air was then piped into the walls, where it transferred heat to Glauber's salts (crystallized sodium sulphate) for storage and later use. Telkes also improved existing technology to design solar stoves and solar heaters, and in the early 1950s made a universal solar oven that could be adapted for use by people living at all latitudes. Still active in the 1980s, she assisted the U.S. Department of Energy in the development of the world's first solar-electric residence in Carlisle (MA). She continued to work on solar-energy applications until the end of her career, and received several patents for her work. Like Ellen Swallow-Richards, Telkes was a member of MIT.³⁵ There are without doubt more women designer-engineers who pioneered in some form of sustainable technology before 1940, and including them in overviews adds important perspective to histories of design and architecture.³⁶

The number of women designers, engineers and architects who are actively pursuing ecological, social, or economic sustainability through their practices grew since, roughly, the 1970s, and more considerably after the 1990s. They work individually, in teams and start-ups, or through mediation of Design Institutes and Agencies. While all are mixing up ecological sustainability, social sustainability and economic sustainability in one way or another, some are practical, others rather ecotopian. Their practices vary from realised architecture, to living and working with recycled objects and materials, to managing local community-focused projects, to using up-cycled materials in product design for big companies, to developing projects framed as 'speculative design' or 'Bio-design'. This Section will continue by discussing examples of each of these categories in a loosely chronological order. The selection is, of course, far from extensive; it is made to connect with the MoMoWo final symposium in June 2018, to include different geographical locations, and to include examples from the Netherlands because, as the writer of this essay, I am representing this country in the MoMoWo project. Many more relevant practices by women architects and designers, all presented at the MoMoWo symposium, are gathered in the Annex following this essay.

Sustainability and Architectural Practice: Leers Weinzapfel Associates, Boston/USA

An architectural firm that was formed by two women in 1982 and incorporated Sustainable Design Research since its beginning is Leers Weinzapfel Associates from Boston (MA, USA; see the Annex for their presentation at the final symposium in June 2018). After a start as a small architectural practice in 1970 by Andrea Leers and her husband Hugh Browning, Leers continued the firm after they divorced in 1978. Via her friend Jane Weinzapfel, who at the time was working for a big architecture and planning firm and dealing with complex projects, Leers got her first project. This was commissioned by Marilyn Tobey, a convinced feminist who was working for airport conglomerate Massport. By the end of 1982, Andrea and Jane began a partnership as Leers Weinzapfel Associates, combining Andrea's expertise with smaller institutional and public sector projects and Jane's expertise with big projects. The idea of two women partners was, Leers confessed in a recent interview with *Girl Uninterrupted*, 'a leap into the unknown and a great adventure.'³⁷ But their collaboration worked out well and the office grew. Over the years, their bureau won numerous awards, among these the Firm Award in 2007 of the American Institute of Architects, the highest distinction of the AIA for an architecture practice and the first to be awarded to a firm run by women. Today, Leers and Weinzapfel have overall guidance of the firm together with Josiah Stevenson and Tom Chung. Their website explains Sustainable Design Research to achieve environmentally responsible architecture with an important social focus as follows:

Sustainable design principles, including strategic urban infill, the relationship of the building to the landscape, the use of natural light, energy efficiency, and material research, inform every aspect of our work.³⁸

Their efforts were acknowledged by their ranking for sustainable design in the 2014 Architect Top 50 of the USA and joined the American Institute of Architects 2030 Commitment and aims towards carbon neutral design by the year 2030. The sustainability group of the office (who they call the Green Monsters) pursues sustainable design opportunities and strategies through material and systems research and review of design phases, whereby they seek to minimise the environmental impact of the buildings through technical solutions that respond to the site and system requirements. An example of urban revitalisation is their Area B-2 Police Station of 2012 in the Dudley Square neighbourhood in Boston built on the previous home of an electroplating company. It became the first LEED Gold Building of the City of Boston, LEED standing for Leadership in Energy and

35 John P. Rafferty, "Mária Telkes: American Physical Chemist and Biophysicist," *Encyclopedia Britannica*, <https://www.britannica.com/biography/Maria-Telkes> (accessed February 20, 2018).

36 A few examples of designer-engineers were discussed in Marjan Groot, "Interventions at the 1st MoMoWo Conference-workshop at the University of Leiden, the Netherlands: Four Practices, Four Women: Interviews with a Textile Designer, a Scholar of City Planning, an Industrial Designer-Engineer, and an Architect," *MOMOWO: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot et al. (Ljubljana: ZRC Publishing House), 436–450, <https://omp.zrc-sazu.si/zalozba-zrc/catalog/book/2> (accessed May 31, 2018).

37 "Observations on Women Architects with Andrea Leers," *Girl Uninterrupted*, November 7, 2017, <https://www.girluninterruptedproject.com/conversations/2017/11/6/andrea-leers> (accessed May 17, 2018); "Andrea P. Leers," Harvard University Graduate School of Design, <https://execed.gsd.harvard.edu/people/andrea-p-leers-0> (accessed May 17, 2018).

38 "Sustainable Design Research," Leers Weinzapfel Associates, <https://www.lwa-architects.com/sustainable-design/> (accessed May 17, 2018).

Environmental Design, a rating system from the United States Green Building Council (USGBC) to evaluate the environmental performance of a building and encourage market transformation towards sustainable design.

Architectural practices of the size of Leers Weinzapfel Associates that wish to meet the measures brought forward for economic and environmental sustainability by and in the world's rich countries today will need to be aware of the latest technological possibilities. For example, contribution to carbon dioxide (CO₂) footprint reduction per built unit such as an office building can be achieved by digital technologies that operate sensors for monitoring the heating, lighting, elevators, and even coffee consumption of employees. There are houses and offices that upload their surplus of solar or wind energy onto their own lithium batteries to become energy neutral (or: zero net energy buildings). And there are suppliers of building materials who stimulate re- and up-cycling of these materials by renting them out to 'create' buildings and taking them back after use.

Sustainability and recycling as everyday lived practice: Katell Gélébart, France/Europe

Very differently operates French activist-designer Katell Gélébart (b. 1972): she is a self-trained designer who recycles waste to create general awareness. Born in the small (and touristic) fishing village of Le Conquet on the coast of Brittany in France, she has been living as a modern nomad and worked in Copenhagen, Amsterdam, Barcelona, Berlin, Ukraine, India, New Zealand and Italy. Eco-design awareness was marginal when in the 1980s and still a student, she started making new products from waste materials and campaigning against nuclear power in France and the threat to rainforests on a global scale. A realised contemporary ecotopia from 1968 made her change her life: the eco-resort in an ashram in Auroville, the City of Dawn, near the east coast of southern India.³⁹ This 50-year-old and well-functioning utopia, was founded in 1968 as an experimental community by spiritual 'mother' and leader Mirra Alfassa who wanted to create a town where people from all over the world could live in harmony joined by spiritual values derived from Hinduism. French architect Roger Anger (1923–2008) designed the city; disappointed by Le Corbusier's Chandigarh, he searched for another aesthetics and sensitivity. Starting on a barren land with vernacular houses, not unlike some of the Christian-inspired utopia discussed in Section I, it is now a community of 2852 people with 56 nationalities. Some of its eco-friendly facilities are a Solar Kitchen and Shared Transport Service.⁴⁰ It inspired Katell Gélébart to make new products from all kinds of discarded objects and waste; the biography *Die Mülldesignerin* shows many examples,

such as a raincoat from cat food pouches that to her signify our disposable society *in extremo*. Fashion-related products are now offered at the web shop of her company ART D'ECO & DESIGN that she started in 1998.⁴¹ In workshops she showed local people how they could produce items from plastic waste for a tourist market to earn a (sober) living, for example in Gujarat, north-east India. For her work she received the European art award KAIROS in 2012.

Katell Gélébart's work also makes us realise the gap between poor people who actually live on wasteland and through recycling of plastic waste, and the sophisticated technological processes that are being developed and implemented for the recycling and up-cycling of plastic waste in richer areas.

Social sustainability and local design: Craft + Design Institute, Cape Town/South Africa

In another realm and/or institutional setting, namely that of design institutes, sustainability and design-related challenges of a different scale and nature are faced by the Craft + Design Institute of South Africa. Founded in 2001 as Cape Craft and Design Institute (CCDI), it became CDI in 2017 to cover the whole of South Africa. The Institute is a platform for designers and start-ups in general, a subsidised not-for-profit organisation that aims to 'develop capable people and build responsible creative enterprises trading within local and international markets'.⁴² It is located in Cape Town and lead by Executive Director Erica Elk. Sustainability for them is to achieve a synthesis between economic and social sustainability of local and regional businesses, and to develop talent and creativity; all to move away from a welfare and poverty alleviation approach that was not building sustainability or nurturing. Their policy keywords are innovation, competitiveness and progress, and they collaborate with economic and tourism-related departments from the government.⁴³

The Institute's website shows design, architecture and environment-related projects which meet various forms of sustainability. An example of social sustainability and environment regarding built heritage that represents a highly criticized political regime, is involvement with the Robben Island Museum Community Beneficiation Craft Development Centre. CDI Creativity Facilitator and project training manager Mara Fleischer, helped with the skills training for a group of sixteen potential craft

⁴¹ "General terms and conditions Katell Gélébart: Ecodesigner and Modern Nomad," <https://katellgelebart.com/general-terms-and-conditions/> (accessed May 20, 2018).

⁴² "About us," Craft Design Institute (CDI), https://www.thecdi.org.za/page/about_us (accessed May 13, 2018); "Update from Erica Elk: We're changing our name!," e-mail from 11 August 2017. They have a digital portal for designers since 2016: Peek, www.peek.org.za/ (accessed 18 May 2018).

⁴³ *CDI newsletter* (posted December 7, 2017), (accessed December 9, 2017).

³⁹ Christine Eichel, *Die Mülldesignerin: Wie Katell Gélébart die Welt verändert* (Berlin: Scorpio Verlag, 2013).

⁴⁰ "Auroville: The City of Dawn," <https://www.auroville.org/>, and "Census - Auroville population May 2018," <https://www.auroville.org/contents/3329> (both accessed May 14, 2018). Also Papanek, *The Green Imperative*, 107.

producers to make products that relate to individual stories of Robben Island for the tourist market.⁴⁴ The producers learned how to manage a small business, visited the island to learn about its history, context and materials to be used for products, and learned about the different tools and technologies in the CDI Product Prototyping Facility for developing jewellery, artworks, tea towels, hand-poured candles, crocheted work, and more. Three wives of ex-political prisoners, Vuyokazi Shezi, Nosiseko Sindiswa, and Evelyn Makwela, created soaps inspired by, as they say in Afrikaans, a *mielie pap ball*. These tell the stories of their husbands who were working as cooks when in prison and acting as couriers by passing on messages rolled in a tight ball made from mealie pap.

Plastic waste and the world-scale problem of ecological and environmental sustainability that is the infamous 'plastic soup' inspired another initiative of the CDI in the form of collaborative design that was presented during the Ocean Life Festival at the V&A Waterfront in Cape Town in November-December 2017. This is one of Africa's most visited tourist destinations, with views of the Table Mountain and the South Atlantic, heritage sites, and the recently opened Zeitz Museum of Contemporary Art Africa (MOCAA). The CDI project wanted to create awareness and change behaviour as to environmental pollution caused by drifting plastics that threaten the ecosystem in the oceans. Through #cocreateDESIGN as part of the CDI campaign #cocreateSA, five design students from the Cape Peninsula University of Technology (CPUT) and five from Fontys University (Tilburg, the Netherlands) created functional objects that alert to plastic pollution in the ocean.⁴⁵

A CDI local environment-project that joins economic and social sustainability for housing is the Better Living Challenge; project manager is Kelly Arendse. This project wants to map and offer local innovative solutions to urgent socio-economic situations. In its present second phase CDI examines gradual upgrading of 300,000 low-income households (i.e. lower than 431 euro per month) living in informal dwellings in the Western Cape. Of these, 35% are living in backyard informal dwellings and 65% within informal settlements. They came up with, a.o., a study after low cost dwelling architectural typologies and micro-finance research. To achieve effective long-term change they need to address homeowners to upgrade their homes through DIY. Ecological-economic sustainability is involved

where they support to discover the inherent value in the second-hand construction materials.⁴⁶

The CDI also informs the creative industries about ecological sustainability in its monthly 'Creative Exchanges'. In June 2016, invited speakers and practitioners talked about the circular economy and to design with a full life-cycle of materials and closed loop after initial use. One of the speakers was Jaisheila Rajput, who, educated in chemistry, is the founder and CEO of the management consultancy TomorrowMattersNow (TOMANow). She has won recognition as female business-manager and for the ecology-oriented nature of her projects, for example at competitions for the Enviropaedia and Eco-Logic Awards (2018) and the Green economy flagship organisation (2015).⁴⁷

Recycling and up-cycling: museum presentations, designers, companies

As noted in the previous Section, the re- and up-cycling of materials is a popular issue today; the 4-r's as regards (plastic) waste are **reduce**, **re-use**, **recycle**, **renew**.⁴⁸ It is also a design issue that reflects in museum displays and shows. Re- and up-cycling began long ago and were common in households when people simply did not have enough money to buy new things. This was the topic of a recent exhibition at the Fries Museum in Leeuwarden and Museum Boerhaave in Leiden, both in the Netherlands. The show presented the 'laboratory' of local chemist and inventor, Watse Gerritsma who carried out the practice of waste-recycling and reuse in his chemical factory in 1795, one of the first such factories in the Netherlands. The chemist made pressed paper from potato peelings and re-used street waste for gun powder. The museum connected it to current forms of plastics recycling '2.0' by means of a 3D-printer. Women designers and scientists were involved in the exhibition concept and realisation. It was developed and designed by Saskia Meulendijks/Studio La Meul from Rotterdam, in collaboration with Museum Boerhaave in Leiden and partly financed by a government research programme 'Chemistry in Everyday Life' coordinated by Lissa L. Roberts at the Department of Science, Technology and Policy Studies of the University of Twente.⁴⁹

44 "Robben Island History and Heritage Inspires CDI Skills Training Project," CDI Newsletter December 2017 (posted November 30, 2017) at <http://www.thecdi.org.za/news/376540/Robben-Island-history-and-heritage-inspires-CDI-skills-training-project-htm> (accessed May 14, 2018).

45 See Dutch CG Cape Town and @HorbachBonnie: "How can we cocreate SA," 24 November–10 December, Initiative of the Dutch Government in South Africa. #cocreateSA is a platform for South African and Dutch counterparts to exchange ideas and innovations for a sustainable future by meeting local challenges. "Designing a Positive Future for the Challenge of Plastic Pollution in the Ocean," CDI Newsletter December 2017, 27 November 2017, <https://www.thecdi.org.za/news/375988/Designing-a-positive-future-for-the-challenge-of-plastic-pollution-in-the-ocean-htm> (accessed May 17, 2018).

46 "Latest Developments on Our Better Living Challenge 2," Better Living Challenge: News (posted June 30, 2017), <http://betterlivingchallenge.co.za/category/news/>, and "Second Phase of Blc Launches with Focus on Upgrading of Informal Homes," Better Living Challenge: News (posted June 30, 2017), <http://betterlivingchallenge.co.za/second-phase-of-blc-launches-with-focus-on-upgrading-of-informal-homes/> (accessed May 17, 2018).

47 "Latest News," Toma-Now, <http://www.toma-now.com/> (accessed May 14, 2018).

48 On the complicated processes of recycling of materials such as wood or construction materials in relation to the environment, see Subramanian Senthilkannan Muthu (ed.), *Environmental Implications of Recycling and Recycled Products* (Singapore/Heidelberg: Springer: 2015), for example 1–30 for wood products with a Slovenian case study by Michael Burnard et al., "The Role of Reverse Logistics in Recycling of Wood Products."

49 See "Rijk van Rotzooi, De Afval Spiegel," <https://www.deafvalspiegel.nl/rijk-van-rotzooi/> (accessed May 21, 2018).

Leading design and science and technology museums also organise shows with sustainable design by contemporary designers and/or install semi-permanent displays to support general awareness. For example, in 2009 the exhibition *Design for a Living World* at the Cooper Hewitt National Design Museum in New York, organised by The Nature Conservancy, featured contemporary 'high' design. Similarly, and more recent, the 2015 edition of *design d'aujourd'hui + les labels de l'observateur du design* at the Cité des Sciences et de l'Industrie in Paris, included a section on 'environnement + design: à la recherche du moindre impact', with work by French designers to reutilise, recycle, reduce and analyse the life cycle of products according to a cradle to cradle approach.⁵⁰ The catalogue introduced the section by a brief interview with Sylvianne Villaudière who is committed to sustainability as a delegate in the Collège des Directeurs du Développement Durable (C3D) of the Conseil économique social et environnemental (CESE) since 2007, as well as a member of the Conseil d'administration of 'Femmes, Débat et Société' (FDS) that she founded in 2000.

Academy-trained designers have come to address plastics' recycling for lifestyle products during the past two decades. Back in 2001, Dutch designer Ineke Hans used black recycled plastic – wind, water-, salt-, acid-, and UV-resistant – for a 'Black Beauties' children's collection of thirteen products, such as small tables and chairs.⁵¹ More recent is the research by Jessica den Hartog, also from the Netherlands, who looks for alternatives for the unattractive grey colour of recycled synthetic HDPE by industries (HDPE, or PEHD, stands for High Density polyethylene, a thermoplastic made from petroleum and one of the world's most popular plastics).⁵² Jessica den Hartog finds that existing recycling processes of these plastics lack aesthetics, and in 'Recolored, A new way of recycling' she experiments with colour and structures of the plastics to get a new and visually attractive material; applications are not yet realised.⁵³ Other designers focus on recycling and reuse of post consumer

textiles, for example to demarcate polluted areas on land and in water.⁵⁴

Designers are also hired by large companies who look for appealing ways to communicate ecological awareness to the public, often framed by ambitious targets and figures. The Dutch National Railway NS, for example, advertises its recycling and up-cycling policy by commissioning lifestyle products as a 'great sustainable gift'. These are bags made from the faux-leather upholstery of discarded train seats, and, as the website says, 'sometimes even with graffiti that we would rather not see on our seats, but that makes the bags unique'. Or a 'breeding station' for birds designed by Marian Dassing Ontwerpbureau and made from old yellow-blue plastic timetable boards (one may wonder, though, whether a bright yellow bird's nest is practical in real nature)⁵⁵; here, however, it seems that recycling is just as much about commodity aesthetics that is being criticised otherwise. Besides offering it at sales points on their website, the products were displayed for a month in a pop-up store at Amsterdam Central Station. On their website, NS says it is motivated to 'sustainably process all the waste that we produce at the station, on the train, at industrial sites and in offices so that it can be reused as raw materials. Our priorities are to increase the possibilities for reuse and decrease the size of waste streams.' Committed by a Green Deal from early 2015 with the Dutch Ministry of Industry and Economics and ProRail, NS set a goal to recycle 75% of its waste by 2020.⁵⁶

Similarly, KLM Royal Dutch Airlines claims that it 'Takes Care' by 'increasingly integrating sustainability into our processes and policy.' This enables KLM to take 'targeted steps to reduce its environmental footprint'.⁵⁷ Design-related is the use of recycled materials by Dutch star designer Hella Jongerius for its World Business Class cabin interior; the first results were from 2013. Jongerius and her studio (or 'lab') redesigned the space for comfortable seating with a full-flat seat for passengers to recline in a horizontal position, at the same time making the seat lighter which, according to KLM, leads to lower CO₂ emissions because of lower fuel consumption. For the furnishing, Jongerius developed sustainable cradle-to-cradle carpeting together with supplier and manufacturer Desso; this was made from off-cuts of Norwegian wool and snippets of discarded uniforms worn by KLM stewardesses. Besides carpeting for cabin interiors, the up-cycling of 90,000

50 Ellen Lupton, Abbott Miller (eds.), *Design for a Living World* (New York: Smithsonian Institution, 2009); Philippe Testart-Vaillant and l'APCI (ed.), *design d'aujourd'hui les labels de l'observateur du design 2015 150 créations qui font avancer le design* (Paris: Dunod, 2015), 165–78: Among the exhibits were a Dropseat filled with waste (paper or any other), designed by Sophie Larger, and a Freegônes carrier vehicle with cabin by Sandrine Gairaud and Jérôme Pouey Easign-Weenov; "Home," Conseil économique social et environnemental (CESE), <http://www.lecese.fr/> (accessed May 21, 2018) and "Actualités," C3D, www.cddd.fr (accessed May 21, 2018). Other museums with small sections devoted to recycling and up-cycling are the Science Museum in London, the Musée des Arts et Métiers in Paris, and the Deutsches Technikmuseum in Berlin, to name a few.

51 At "News," inekehans, www.inekehans.com (accessed May 8, 2018).

52 Specifics at "Polyethylene (High Density) HDPE," British Plastic Federation (BPF), <http://www.bpf.co.uk/plastipedia/polymers/hdpe.aspx> (accessed May 13, 2018).

53 At Jessica den Hartog, <https://jessicadenhartog.nl/> (accessed May 13, 2018). A few of her results are shown in the Annex hereafter.

54 See Marie O'Mahony, *Advanced Textiles for Health and Wellbeing* (London: Thames and Hudson, 2011), "Environment," 202–31. Since 2013 the Dutch firm ReBlend, which involves many women in their business operations, developed a yarn consisting of 70% recycled post consumer textiles and 30% polyester from PET bottles. At "About," <https://www.reblend.nl/> (accessed May 21, 2018).

55 Marian Dassing shop, www.mariandassingshop.nl (in Dutch); 2ndare, www.2ndare.nl (in Dutch); VerdraaidGoed, www.verdraaidgoed.nl (all accessed May 14, 2018).

56 At "Waste," NS, <https://www.ns.nl/en/about-ns/sustainability/recycling> (accessed May 14, 2018).

57 At "KLM Takes Care," Royal Dutch Airlines (KLM), <https://www.klm.com/corporate/en/topics/corporate-social-responsibility/index.html>; "New Cabin Interior, Sustainable Design," <https://klmtakescare.com/en/content/new-cabin-interior-sustainable-design> (both accessed May 14, 2018).

kilos of textile into a felt-like material was used to create handbags, designed by Omar Munie, and baggage labels.

Ecological awareness in the automobile industry may offer opportunities for women designers as well, even though it is not yet a common industry for them. Actions to reduce car pollution and reliance on fossil energy sources are widespread; Paris, for example, claims that by 2030 it will only allow electric cars in its center.⁵⁸ Some women are involved in the design of car seating and colouring: Aleksandra Gaca designed a 3D-woven interior fabric for the Renault electrical concept car SYMBIOZ from 2017 that should be plugged into your house as additional modular and multifunctional room.⁵⁹ Such car designs are statements of future developments and the label 'concept car' suggests their utopian nature at the moment of design. The Museo dell'Automobile di Torino offers two older specimen of 'green cars' at the end of its display of car classics: in between white trees are displayed the 25-years 'old' electrical small city concept car Fiat Downtown (1993), designed by American Chris Bangle, that works on batteries and has a plastic body and aluminium chassis, and the Fiat Ecobasic (2000) made from recycled materials.⁶⁰

Many more designers come up with comparable solutions and many more companies are profiling themselves with similar sustainability policies. All initiatives are laudable, but they do not solve the large-scale environmental problems regarding renewable resources and pollution and waste. In the travel business, the growth of air travel due to low costs as well as growing consumption at transit airports where plastics are omnipresent makes environmental sustainability policies seem relatively marginal as well. Therefore, projects of this type, although concrete and new as they may appear from a consumerist design perspective, can never ever tackle the growing plastic waste visualised by the dystopian reality of the Great Pacific Garbage Patch over which, perhaps, air passengers may fly on one of their routes; the 28,800 cute yellow rubber ducks 'tragically' lost at sea and traced in Donovan Hohn's *Moby-Duck* (2011), are the perfect symbols speaking for it.⁶¹ Nor can the design projects discussed solve or stop air pollution. Even solutions that were suggested forty years ago in Callenbach's *Ecotopia*, still seem a more workable scenario for such problems. However, not taking any action at all is not an option.

58 At <https://electrek.co/2017/10/12/paris-electric-cars-2030-ahead-of-france/> (accessed June 30, 2018).

59 Realisation in collaboration with the laboratory of the Textile Museum in Tilburg, the Netherlands. See <http://www.textiellab.nl/nl/actueel/aleksandra-gaca-ontwerpt-stoffen-interieur-visionaire-renault-symbioz> (accessed February 27, 2018).

60 Prototypes of electrical cars as such were already made at the end of the nineteenth century.

61 Donovan Hohn, *Moby-Duck: The True Story of 28,800 Bath Toys Lost at Sea and of the Beachcombers, Oceanographers, Environmentalists, and Fools, Including the Author, Who went in Search of Them* (New York: Viking, 2011). For a visualisation of the plastic soup, see Michiel Roscam Abbing, *Plastic Soup Atlas of the World* (Hilversum/Amsterdam: Lias, 2018).

Speculative design: Ermi van Oers Design Studio

Speculative design comprises artistic projects that address environmental sustainability issues from within the community of professionally-trained product designers. Coming up around 2003, projects of this type were shown in art museums such as the Pompidou Centre in Paris and the MoMA in New York, and included in catalogues and books.⁶² This dissemination concerns a restricted museum audience interested in highbrow art and design. The notion of speculative design has been importantly stimulated through design courses developed by Anthony Dunne and Fiona Raby at the Design Interactions Department of the Royal College of Art in London. In their book *Speculative Everything* (2013), Dunne and Raby explain that speculative design aims to suggest future possibilities for today's problems without considering direct practical implementation.⁶³ The projects are highly conceptual and art related, and designers call them 'speculative' or 'critical' design or 'social fiction'. In this vein, many began to explore such scenarios by combining highbrow design with science and technology.

A recent example of a speculative design project regarding sustainability is Living Light by Ermi van Oers Design Studio from Rotterdam, the Netherlands. The studio is led by product designer and entrepreneur Ermi van Oers since 2016 and has female and male collaborators who are product designers and technologists. They design lifestyle products, such as cushions, jewellery, a 'fruit frame', graphic design, but also work on more speculative concepts. The latter is their lamp, Living Light; the prototype is from 2017 and first specimens will be ready in 2018.⁶⁴ The lamp addresses a source function: it is said to be inspired by the energy crisis and the search for replacement systems. It gains energy for light from the photosynthetic process of a plant.⁶⁵ Living Energy is a joint project

62 Valerie Guillaume, *D.Day. Le Design Aujourd'hui* (Paris: Centre Pompidou, 2005), Exhibition Catalogue; Hugh Aldersey-Williams et al., *Design and the Elastic Mind*, edited by Paola Antonelli (New York: Museum of Modern Art, 2008).

63 Anthony Dunne, "Design interactions at the RCA," Dunne & Raby, <http://www.dunneandraby.co.uk/content/bydandr/354/0>. Anthony Dunne and Fiona Raby, *Speculative Everything: Design, Fiction, and Social Dreaming* (Cambridge (Mass)/London: The MIT Press, 2013).

64 General website with product portfolio at Ermi Design, <http://ermivanoers.nl/> (accessed May 23, 2018). Current collaborators: product developer Eva van der Velde, all-rounder Karlijn Arts, electronic developer Marco van Noord, interaction and software developer Nick de Ronde, product developer Ruben Kok (intern), and for business and finance Frank Fondse.

65 Organic matter for generating light in artistic research was used earlier, for example light-generating bacteria for Bioluminescent lighting project LuxCorp furniture by visual artist John Nicholson and microbiologist Kathy Takayama. See Cara Brower, Rachel Mallory and Zachary Ohlman, *Experimental Eco Design: Architecture/fashion/product* (Librero: Kerkdriel, 2007, 1st ed. 2005), 156–57.

with Plant-e, pmfc inventors and developers that has female entrepreneur Marjolein Helder as CEO. Plant-e and Ermi van Oers started collaborating in 2016 to implement Plant Microbial Fuel Cell technology in our daily lives. On the project website they say they want to fuse nature, technology and design: 'We believe that the cross-pollination [sic] of science and design point towards the city of tomorrow.' The website encapsulates the technological element by evoking sympathy for natural processes: the lamp is 'harvesting energy' and 'Living inspiration', or, as Marjolein Helder writes: 'What is more beautiful than getting electricity from living plants? Your environment is able to generate electricity while you are still able to enjoy nature'.⁶⁶ This suggests that 'our' perception of technology might be hostile towards nature.

When science meets design it needs technology, in this case biotechnology, and in real life multimillion euro research projects focus on such technologies today. In this case, plants use sunlight to photosynthesise, thus producing organic compounds. A part of these compounds is passively released via the roots into the soil. When bacteria break down this organic matter, they release electrons and protons. A microbial fuel cell with an anode compartment that captures the electrons converts solar energy into electricity in a natural way: electrons are transferred via a wire to the cathode, and the flow of electrons from anode to cathode can be used as electricity. The system is based on natural processes, claimed to be safe for the plant and the environment, and applicable to all sorts of plants that live in wet ground. Once operative, they envision an entire Living Park powered by plants. This city park will have 'a magical interactive experience factor', with lights turning on when walking through. (Note that this is already the case in solar powered street lanterns by pushing a button).

These speculative designs are extremely inventive in terms of forms, narratives and (web)-presentations whereby they generate publicity among a design-minded audience.⁶⁷ But they remain isolated from any wider environmental source context. Hence, these projects are first of all symbols of design ideologies and mindsets rather than effective change makers for major environmental problems related to sink and source. And when considering sustainability on a global scale, the situation is much more complicated. This will be addressed finally in Section IV.

IV Geographies: poverty and wealth, rural and urban, local and global

The eco- and utopias discussed in Section I, were situated in rural areas as opposed to urban areas. Some addressed the issue of local and global scale, others did not. Some of the practices discussed in Section III, showed the local-global opposition in social sustainability beyond the eco-debates of the affluent countries and regions.

Since the early 1980s it has been analysed that environmental sustainability cannot be reached on the global scale: throughput economic growth and population growth will limit such sustainability. The consumerist lifestyle of the affluent OECD countries (Organization for Economic Co-operation and Development), who are responsible for the bulk of non-renewable effects of raw sources and waste yet only came to 18% of the world's population in 2010, can never be reached by the poorer countries. Large populations, their rapid growth and affluence are unsustainable. In the 1990s, ecological economics acknowledged these problems. Robert Goodland, who was then working for the World Bank, summarised the problem in 1995 in eleven 'laws' for environmental sustainability. Solutions for source and sink need to be adapted to circumstances in countries and regions, but the rich countries, that are also the biggest polluters, are the most responsible to act, not the developing countries.⁶⁸ Examples discussed in Section III showed that rich countries now act but, besides being symbolic exercises, this is often motivated by self interest.

The World Bank's 2018 monitoring of the wealth of nations, an important indicator of sustainability, shows that, between 1995 and 2014, wealth has been spread among more countries in the middle and at the top. The fastest growth was in middle-income countries, notably in Asia. Poor countries, however, are still lagging behind.⁶⁹ Total wealth increased almost everywhere, but per capita wealth did not because of population growth, mainly in Sub-Saharan Africa. At global level and for most high-income OECD countries, human capital is the most important component of wealth; in low-income countries this is natural capital. Therefore, reliable data on human capital, long-term sustainability in development, renewable natural capital and energy sources, and ecosystem services, all need to be taken into account when measuring wealth between countries.⁷⁰ A 2017 overview by the United Nations also shows the worldwide decline of household size between 1970

66 All quotes at Living Light, <https://www.livinglight.info/> (accessed May 23, 2018).

67 See the interview with Ermi van Oers at TEDx Amsterdam, at "Ermi van Oers: The Creator of Living Light," <https://www.wdka.nl/alumni/ermi-van-oers-creator-living-light> (accessed May 19, 2018). For the rhetorical effect of such projects, see Marjan Groot, "The Rhetoric and Rhetoricity of Bio-Design," *A Matter of Design: Making Society through Science and Technology: Proceedings of the 5th STS Italia Conference*, edited by Claudio Coletta et al. (Milan: STS Italia Publishing, 2014), 829–46, http://www.stsitalia.org/conferences/STSITALIA_2014/STS_Italia_AMoD_Proceedings_2014.pdf (accessed May 31, 2018).

68 Goodland, "The concept," 8–12.

69 Specific situations in Ethiopia, South-Africa, Zimbabwe, and Zambia, for example, are compared in Hans Moleman, *Made in Afrika. Een roadtrip door het continent van de toekomst* (Hilversum: Uitgeverij Lias, 2018).

70 Glenn-Marie Lange, Quentin Wodon and Kevin Carey (eds.), *The Changing Wealth of Nations 2018: Building a Sustainable Future* (Washington, DC: World Bank, 2018), 1–16, Figs. ES.1, ES.2, Map ES.1, Table ES.1, <https://openknowledge.worldbank.org/bitstream/handle/10986/29001/9781464810466.pdf?sequence=4&isAllowed=y> (accessed May 24, 2018).

and 2010. With an increasing population, this will mean that more households with fewer people will affect environmental infrastructures.⁷¹

Besides being affected by the gap between rich and poor, sustainability in a general sense is also different between urban and rural environments in less affluent regions. Worldwide, the rural population declined by almost 20% between 1960 and 2016, from 66.4% to 47.6%.⁷² However, as some of the discussed examples showed, initiatives to produce locally are also signals to re-evaluate rural areas, tackle inequalities and meet needs for social sustainability.

Locally and small-scale produced objects and dwellings built from local materials were, of course, sustainable and 'eco-designed' as a matter of fact. The western construction of architecture and design as fields for professional architects, engineers and designers has delegated this type of building and design to the realms of vernacular architecture and design.⁷³ Nonetheless, as Paul Oliver justified his overview of the vernacular house, this type of architecture by the people still represented 90% of the world's buildings (and included 800 million dwellings) around the year 2000; the percentage will have become lower during the past c. 15 years but will still be considerable.⁷⁴ Vernacular building types were also adopted and adapted through global cultural exchange following Western-European economic expansion; the bungalow, for example, developed from a humble dwelling in India (banglā) from 1650 onwards into a modest vernacular country house in rapidly industrializing nineteenth-century Britain, to evolve into cottages designed by architects and between the late 1920s and late 1960s into high-modernist bungalows by Western architects. All bungalow forms could meet different climates and natural environments, and some exemplary modernist ones were by women architects and interior designers, especially after 1945.⁷⁵

Professional women architects have also researched and written about vernacular architecture; the better known and relatively early examples position the vernacular with modernism, as is done by British architect Jane Drew and German-born architectural and art historian Sybil Moholy-Nagy.

Jane Drew with her partner Maxwell Fry acknowledged local building traditions as well as modernist adaptations in their *Village housing in the tropics* (London: L. Humphries, 1947, with Harry Ford), and featured modernist buildings and building types in *Tropical Architecture in the Humid Zone* (1956). Sybil Moholy-Nagy (b. Sybille Pietzsch) discussed settler dwellings and indigenous buildings in different climatic environments of her new home country America from a modernist perspective in *Native Genius in Anonymous Architecture in North America* (1957).⁷⁶ However, as Drew and Fry addressed, sustainability in hot and humid climates was already a concern for nineteenth- and earlier twentieth-century architecture and stimulated trained architects to come up with sustainable solutions that often referenced local building traditions.⁷⁷ In another political constellation, the Non-Aligned Movement of the communist-socialist politics of President Tito between 1955 and the late 1970s offered opportunities for women architects from the Yugoslav federation countries to design architecture that would suit the climates of certain African and Arabian countries; examples are Ljiljana Vučović Bakić and Milica Šterić from Serbia.⁷⁸

In tropical or subtropical climate zones, traditional building methods and locally available materials such as earth, wood, and thatch, in many respects environmentally friendly, are still inspiring modern versions shaped through western modernism. In Ghana, for example, non-profit foundations such as Nka, that was established in 2008 as a network of Arts Villages for vocational training for young people from the region, organise workshops for designing contemporary Sankofa houses in the Abetenim Arts Village in the rural Ashanti Region or Kalì Earth Architecture in the northern region of the Dagomba people in order to 'reinvent the traditional mud hut' and 'rediscover the thermal

76 Maxwell Fry and Jane Drew, *Tropical Architecture in the Humid Zone* (London: Batsford, 1956), for example "European Influence" and "Improved Indigenous Construction" figs. 131–139, and "Neighbourhood Units" figs. 149–190; Hilde Heynen, "Anonymous Architecture as Counter-image: Sibyl Moholy-Nagy's Perspective on American Vernacular," *The Journal of Architecture* 13, no. 4 (2008), 469–91.

77 See also more recently Antoni Folkers, *Moderne Architectuur in Afrika* (Amsterdam: Uitgeverij SUN, 2010); Tabb, "Greening Architecture," 92; Iain Low, "Architecture in Africa: Situated Modern and the Production of Locality," in Haddad and Rifkind (eds.), *A Critical History*, 291–310.

78 Ljiljana Vučović Bakić worked in Kuwait and Zimbabwe. See Milena Zindović, "Ljiljana Bakić: Ground-breaking Architecture," *Women in Architecture: Contemporary Architecture in Serbia since 1900*, edited by Milena Zindović (Belgrade: Center for Architecture, 2014), 133–34; and Vladana Putnik, "Ljiljana Vučović Bakić," *MoMoWo – 100 Works in 100 Years: European Women in Architecture and Design: 1918–2018*, edited by Ana María Fernández García et al. (Ljubljana: ZRC Publishing House, 2016), 133. Milica Šterić built a complex of ministry buildings in Kano, Nigeria (1970–72), a Bedouin settlement in Kuwait (1971–74), a Military settlement Chiampata in Zambia (1970), and more. See Marija Pavlović, "Milica Šterić: Alpha and Omega of Energoprojekt's Architecture," *Women in Architecture: Contemporary Architecture in Serbia since 1900*, edited by Milena Zindović (Belgrade: Center for Architecture, 2014), 101–2. I am indebted to Helena Seražin for providing me with this information and references.

71 *Household Size and Composition around the World 2017* (s.l.: United Nations, Department of Economic and Social Affairs, Population Division, 2017), 1–7, 43, http://www.un.org/en/development/desa/population/publications/pdf/ageing/household_size_and_composition_around_the_world_2017_data_booklet.pdf (accessed May 31, 2018).

72 "Indicators," The World Bank, <https://data.worldbank.org/indicator> (accessed May 26, 2018).

73 Also Papanek, *The Green Imperative*, 113–38.

74 Paul Oliver, *Dwellings: The Vernacular House World Wide* (London: Phaidon, 2003). The Vernacular Architecture Forum, formed in 1980, addresses a wide variety of vernacular building types at "About the VAF," Vernacular Architecture Forum, <http://www.vernaculararchitectureforum.org/about> (accessed May 22, 2018).

75 Anthony D. King, *The Bungalow: The Production of a Global Culture* (London: Routledge and Kegan Paul, 1984). For example by interior architect Ann S. Kittle in Jan Hankowski, *Florida Architecture 1951. A Publication of Architecture and Allied Design in Florida* (Miami Beach: Florida Architecture, Inc., 1951), 48–49, and Kristen Müller and interior architect Hertha Maria Witzemann in Klara Trost, *Landhaus und Bungalow. Beispiele moderner Eigenhäuser im In- und Ausland mit einer Einführung* (Frankfurt/M, Berlin: Ullstein Fachverlag, 1961).

properties of materials such as earth and natural fibers'.⁷⁹ They consider vernacular building still the best way of building as regards economy and sustainability in these regions, even though such architecture is now considered as poor and obsolete and locals use substitute materials such as cement for more 'modern' designs. Their workshops aim to stimulate socially sustainable architecture and environmental awareness, and Irene Librando and Nadia Peruggi from Naples, Italy, act as workshop leaders. However, as indicated above, the growing population and consumption of a westernized lifestyle that characterizes urbanized areas and metropolises will increase demand in energy and pose considerable challenges for maintenance of natural capital beyond local and traditional building. As Drew and Fry already wrote in 1956 in dramatic prose:

... change is everywhere in the tropics. [...] Along the roads the buses run taking country people into town, suggesting something new, destroying something old. In the stores machine-made cloths oust homespun, machine-made pans oust local pots. New goods breed new desires, even in the roadside stall; while in the cinema, seductively, insidiously and indelibly the brand of Cain is imprinted on the upturned simple minds, the curse of artificial want pronounced, and the hunger for the city implanted.⁸⁰

Conclusion and Annex

This essay first outlined different forms of environmental, social and economic sustainability and discussed sustainable solutions for ecology and environment presented in utopian and ecotopian fiction and historical practices. It then addressed more terms and definitions, to continue with a number of exemplary practices of women who were or are actively working on forms of sustainability through 'high' architecture and design. It ended with a few thoughts on sustainability in view of inequalities between geographies and countries.

In view of all this, it must be concluded that the discussed practices of 'high' architecture and design remain in the symbolic realm. In industrialised and wealthy countries concern for sustainability in its various forms has importantly increased since the 1960s. Air pollution, use of fossil energy sources, waste disposal, and climate change: all became topics for political action and international concern. However, as was noted in eco-utopian societal models such as Callenbach's *Ecotopia* and in reports

on real life sustainability, mass consumerism is inevitably hostile towards sustainable and ecological living. Late twentieth and early twenty-first century economies produce ever more for those who did not live in luxury before and enjoy a lifestyle that connects with identities and affluence only relatively recently, as in China and India. The urgency of the West to address ecological and economic sustainability may not be their urgency in the same way; social sustainability could be another matter. Policies and targets today increase the pressure to act, although national incentives for economic sustainability per se keep on counteracting environmental issues; note the current political disagreement of the Trump US administration ('bad deal') over the Climate Agreement from 2016 of the United Nations Climate Change Conference in Paris.

Annex

The Annex hereafter presents the papers related to Panel F: 'Women and Sustainability', of the final MoMoWo symposium in Turin on June 13–16, 2018. First there is the plenary panel with examples of their work addressed earlier on in this essay: Leers Weinzapfel Associates as regards social and environmental sustainability of built projects, Jessica den Hartog as regards aesthetics and recycling of plastics, and Ermi van Oers and Karlijn Arts as regards speculative design. Next, a wonderfully rich palette of architectural and design practices further illustrates particular issues of social and environmental sustainability suggested in this introductory essay. Haley Bernier connects the ideological utopian craft practices and slow design of William Morris via his daughter May to slow design and eco-awareness in current work of Dutch designer Christien Meindertsma. Nataliya Lushnikova addresses sustainability and feminism, and exemplifies ecological and environmental awareness through materiality and architecture of five architects with a wide international scope. Virginia de Jorge Huertas analyses architecture for housing designed by four women with concern for the environment in set-up and natural surroundings. Katherine Marciniak discusses two rhetorical bio-design projects. Annette Condello highlights the work of Ada Tolla and Giuseppe Lignano who, in their New York studio, re-use material left-overs such as shipping containers for new architecture since the 1990s. Chiara Pasut relates her own architectural work to issues of environmental sustainability. Last but certainly not least, Cristian Campagnaro and Sara Ceraolo offer an example of social sustainability with their workshops for vulnerable women set up in 2014 in Turin as forms of design-anthropology and participation. The second Annex panel addresses sustainability by focusing on architecture and cities. Other symposium panels incorporated cases of sustainability too. Artwork PHARES by French artist Milène Guermont, for example (see panel G), involves sustainable issues while striving for aesthetic experiences.

Please enjoy all case studies collected in the Annex!

⁷⁹ Organized by M.A.M.O.T.H.; see "Abetenim, Ghana: Sankofa House," Architecture in Development, www.architectureindevelopment.org/project.php?id=561 (accessed October 10, 2017); *Kali Earth Architecture Workshop Abetenim Arts Village, Ashanti Region, Ghana*, hosted by the Nka Foundation, www.kaliworkshop.wordpress.com/, 6–9. The project is a collaboration with the Università degli Studi di Napoli Federico II. See also Patrick Sisson, "Modern Mud Homes: A New Take on Building in Ghana," *Dwell Magazine*, <https://www.dwell.com/collection/modern-mud-homes-a-new-take-on-building-in-ghana-9d0c1c49> (accessed May 22, 2018).

⁸⁰ Fry and Drew, *Tropical Architecture*, "Introduction," 19–29, quote on 24. Examples of the contrasts between locally inspired building and recent city architecture in Low, 'Architecture in Africa', 294–307.

Annex

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Extroverted Infrastructure: Too Big to Hide

Introduction

The public service elements quietly supporting the daily activities of cities and campuses- energy facilities, water management installations, and utility structures- have long been regarded as unwelcome but necessary infrastructural presences. Considered unsightly, noisy, and polluting they have typically been thrust to the margins of city and campus spaces so that they would not intrude on urban and campus life. The contemporary discussion about sustainable practice and resiliency has rapidly put them in the spotlight of design, and these orphan structures have emerged as important actors in urban and campus form.

An Historical Perspective

In contrast to the negative image of modern infrastructure facilities, the history of these great engineering works reveals many beautiful structures, remarkable for their strength and utility. In many eras infrastructure has been integrated and celebrated as a natural part of architecture, engineering and the environment.

Roman engineering treated structures carrying water and sewage, bridges carrying travellers, and heat sources for baths and domestic life with no less care and creativity than civic buildings and gathering spaces. The aqueducts that brought water long distances to the cities, and the viaducts which spanned rivers and gorges are admired today for their beauty long after their original function has been supplanted.

Inspired by Roman principles of settlement, French architect Nicolas Ledoux in the late eighteenth century Age of Enlightenment sought to create an idealized utopian community in his Saltworks at Chaux and designs for a House for the Surveyor of the Loue River both in eastern France. His proposals represented a romanticized view of engineering and processes of production and their integration into communal life. His vision of industrial structures and their noble place in the urban and landscape fabric remain some of the most compelling and inspiring images today.

With the advent of the Industrial Revolution, infrastructural elements were an increasingly necessary part of expansion and growth. Bernd and Hiller Becher in Germany have meticulously documented cooling towers and gas tanks among many other structures in photographs which reveal the invention, variety, and rough beauty of these unselfconscious utilitarian elements. Where utilities were present at the heart of cities, they were often treated as part of the city fabric, and in the late nineteenth and early twentieth centuries in the US, infrastructure projects were an extension of the City Beautiful movement. The Fairmont Waterworks in Philadelphia (1812–72) and the Holland Tunnel Ventilation structures (1927) were cloaked in Neoclassical and Art Deco garb respectively to play a central role in the city's public places.

While a certain nostalgia gave validity to infrastructure elements in the nineteenth century, mid twentieth century modernism more vigorously and un sentimentally embraced the rough beauty of utilitarian structures. Finnish architect and designer Alvar Aalto gave as much creative energy to the design of the Cellulose Factory at Sunila (1936–39) as he did to the contemporaneous Paimo Sanatorium (1920–33). When he later was charged with the design of a new campus at Otaniemi (1950s), his power plant was a natural and well-composed element of the ensemble. The demand for power, heat, and electricity by mid-century resulted in a dramatic growth in energy plants throughout Europe, the UK, and the US. The Bankside Power Station in London (1957–60), now the Tate Modern, is characteristic of these plants which celebrated industrial forms, materials, and processes.

Beauty in Necessity

In the past 25 years, a new embrace of infrastructure as a necessary and engaging part of the urban landscape is emerging. The design of these facilities is extroverted celebrating their robust beauty, the excitement their size and presence can create, and the stories they can tell about the environmental systems that support modern life. There is a new appreciation of the fact that infrastructure design requires a multi-layered thinking that bridges the domains of engineering, architectural design, landscape design, and social, educational, and recreational planning.

Some seminal examples of this new attitude include Herzog and de Meuron's Central Signal Box Basel, Switzerland (1991–94), and Toyo Ito's Tower of the Winds in Nagoya Japan (1986). The Signal Box at the edge of railroad tracks has a highly refined wrapper of copper strips that are twisted in certain places to admit daylight. The result is a poetic and beautifully crafted form which fulfils its purpose and contributes an object of fascination to the urban context. The Tower of Winds, built as a temporary installation to ventilate a large underground complex at Nagoya's central railway station, was an extraordinary perforated aluminum panel structure with an embedded coloured lighting network activated by movement around it. Both of these projects were seminal in the reconsideration of infrastructure as a serious subject of urban and architectural design.

In the following case studies, the design of large infrastructure elements embedded in cities and campus respond to a variety of scales and contexts. All are installations in extremely constrained sites with a high degree of prominence and visibility. The examples differ in terms of form and materiality to reflect the demands of specific equipment and systems, and the building and landscape context within which they are set. The storyline will shift between the practical (the engineering), the social (the user experience), the didactic (technology on display), and the sensuous (the materiality) aspects of infrastructure projects. Taken together, these examples will form the basis for formulating principles of design and posing questions for the future of these expanding facilities.

A Vessel by the River

The University of Pennsylvania Gateway Complex on the Schuylkill River in Philadelphia (2000) provides chilled water to an expanding nearby medical campus on a site formerly used for student athletic fields. Meeting the challenge of creating a large infrastructure installation while retaining maximum use of the site for a baseball field and other athletic activities, this competition-winning project employs a combined building and site concept. By wrapping the rectangular chiller plant with a continuous elliptical screen wall, the building adjusts to the curve of the river and roads leaving an optimal site for the baseball field and grandstand. The baseball field, with its nine-hundred seat grandstand and press box, is anchored in an earth berm with dramatic views of the city.

The sixty-foot high screen-wall is composed of perforated stainless steel panels, corrugated for stiffness, and attached to a steel framework laterally braced to the equipment building. By extending the screen enclosure beyond the boundaries of the plant itself, vehicle service areas are contained at the two ends of the structure, and the remaining portion of the site is free of vehicles for the full development of athletic activities. As an added benefit, the dimensions of the elliptical enclosure are the same as those of a quarter-mile jogging track.

Nestled into a lozenge-shaped parcel at the edge of the campus defined by a bend in the river, major roadways, and a railroad right of way, the screened chiller plant forms a memorable gateway to the campus. The metal screen wall around the chiller plant celebrates the industrial nature of the structure and veils the building, making it a shimmering, silvery object by day crowned by rooftop cooling towers. By night, the building becomes a translucent glowing object, revealing the colourful equipment within.

A Face to Main Street The Ohio State East Regional Chilled Water Plant in Columbus Indiana (2015) supports rapidly expanding science facilities at the heart of the campus. Its site is located at a prominent edge of the campus facing the city's main street (Fig. 1).

The large scale of the structure is modulated by its composition of two offset volumes: a lower, glazed rectangular volume with semi-transparent views from the interior looking out, and an upper lifted square volume with perforated metal walls of copper coloured, coated aluminum that provides a cost-effective water cooling tower enclosure.

The upper screen wall is designed with two perforation densities, and together with narrow open slots achieves the average 35% open area needed for equipment ventilation. The perforated copper-coloured aluminum enclosure is a modern companion to the brick used widely throughout the campus. Designed to support the densely packed equipment layout, both the upper and lower volumes respond to unique engineering requirements- the upper screened volume contains the cooling towers, and the lower houses the chillers. To minimize the building mass, a full basement contains pumping equipment.

Both volumes are gently illuminated at night to provide site lighting for the surrounding pedestrian zones and to continue the dialogue between the forms and their contrasting materials. The glowing crystalline lower volume is illuminated from the inside, while the glittering metallic volume above is illuminated by ambient light. On a prominent site between campus and city, this critically important large infrastructure facility fits comfortably among its smaller academic neighbors, preserves an important green space, and frames the gateway for a new campus entry.

A Resilient Anchor The Campus District Energy Facility to be finished in 2019 at Harvard's Allston Campus is a new, highly efficient infrastructure typology –the cogeneration plant– that will provide electricity and hot water as well as chilled water to the campus.



Fig. 1. Leers Weinzapfel Associates, The Ohio State East Regional Chilled Water Plant Columbus, Ohio, USA, 2015. © Photograph Leers Weinzapfel Associates.

Located at a prominent and highly visible site, the District Energy Facility sets the Allston campus standard for flexible and innovative quality and design, a visible demonstration of cost-effective sustainability in building, landscape, and site development. Its compact cubic form with rounded corners allows for maximum flexibility of future development around it while maintaining a singular bold and refined presence.

Developed in close coordination with RMF Engineering, the plant's equipment systems are the most efficient and resilient available and are adaptable to the campus's future needs. Equipment elevated above flood levels supports resiliency for continuous independent operation of the facility, even in the event of electrical grid failure. Additionally, a chilled water reserve tank provides thermal energy storage, supporting efficient equipment use.

A wrapper of metal blades forms a screen around the building, with petal-like elements set at varying degrees of openness to reveal or conceal the various equipment areas within. The blades are most open at the structure's corner entry and the round thermal energy storage tank, and most closed on its service sides. On the public face of the building, the blades are raised above the ground to reveal the main equipment hall to passers-by. The plant's transparent interior invites the user community

–and the community at large– to observe the cogeneration plant's complicated system of chillers, boilers, piping, pumps and flues, and electrical rooms, making it an unprecedented teaching tool for the university's new science and engineering campus.

An Ecological Discovery Park On the southwest coast of Taiwan, the new Hsinta Ecological Regional Power Plant will be created in a watery seaside wetlands landscape largely devoted to fish farming and relentlessly flat. Because elements of this plant- generators, turbines, and stacks- are too big to hide, they will be big, bold, and beautiful. In this wetlands context, three rising organic forms contain both lower scale equipment and multi-story turbine halls and stacks. An enclosing ring of supporting work spaces defines an oval precinct with a service courtyard and related water retention basin. This identifiable profile, visible at great distance, will mark the park and allow its grounds to occupy the full extent of the site (Fig. 2).

Three main power generators are iconic markers for the energy plant and park, a competition entry finalist. A utility courtyard for outdoor service functions supports the main generators; its roadways on axis with the main generators are enhanced by landscape areas providing shade and orientation; courtyard functions are visible to visitors and staff from the ring building. The curved ring collects building areas not required to be adjacent to other courtyard functions. Highly identifiable secure entrances have view corridors to plant functions; the ring provides covered parking at its base and breezeways through covered areas into the courtyard. The ring is enclosed with a high performance envelope including electrical generating solar glass. A solar panel array is relocated from the site to the roof of the ring. The roof has viewing paths at the inside perimeter to the courtyard and at the outside perimeter with views of park and sea. The plant area is raised 2 meters. Plant buffer areas connect park activities around the plant.

Between the plant precinct and the existing wetlands, a new topography formed of overlapping crescent shaped earth mounds provide heights to view the adjacent landscape and sheltered areas for a variety of activities. Land fill for the mounds is provided by the excavation of a broad semi-circular recreational basin along the canal edge of the site connecting the park to the harbour to the north. A network of paths circumnavigates the entire site crossing the wetlands to the south, weaving through the crescent mounds, passing by the water basin, and encircling the plant. The wetlands area is preserved for endangered spoonbills and other water birds. The historic salt works structures are integrated into the educational features of the park: cultural, ecological, and industrial.



Fig. 2. Leers Weinzapfel Associates, Design for the Hsinta Ecological Regional Power Plant, 2018.
© Photograph Leers Weinzapfel Associates.

Conclusion

Energy plants and other urban infrastructures play an undeniable role in our contemporary city and campus environments. Far from being hidden, they are now objects of fascination, education, and resiliency. Their design is first informed by their engineering requirements, and is developed within their particular contexts. Within the specific constraints of the equipment itself, new formal and material strategies emerge which shape and define these very large and very present structures and make them extraordinary and vibrant participants in the fabric of city and campus life.

Jessica den Hartog

Studio Jessica den Hartog, Maastricht | The Netherlands

Recoloured: A New Way of Recycling**Colour**

Lots of colour matching systems exist like RAL and Pantone.

Now, a new colour matching system has to be developed out of these existing colours.

How are we to apply these colours again? What shape is attributed to these colours? Colour matching systems like a colour wheel, a colour fan, colour gradients, etc. With this research I wanted to initiate this. The good thing about these systems is that they can be altered at any time, as more research has been done.

We can't keep using earth as a materials library that is inexhaustible, like we do now. This has to be changed nowadays, we have countless materials and colours, but we see them as useless waste and throw them away. But like I told before, 'away' does not exist. Away means: piling up on a heap.

We have to challenge ourselves quickly to start using these materials and colours again. There will be more enthusiasm in this process because we will combine materials and colours that we initially would never choose together.

Colours with a past react differently on each other. The whole mixing process is different. No ordered palettes, but every colour its own impurities. A remake can never be exactly the same, but can emit a similar feeling.

The **51 colours** form the basis from which I can work at the moment, but when bales start flowing towards me, the colours also start streaming in. Now I have lots of colours only from one single



Fig. 1. Colour samples and process. © Jessica den Hartog.

bottle, as the unicum group. Also these colours would gain a reason for existence if I could work with multiple bales. Also the value of colours will play a role. Colours that are present in larger amounts will be cheaper than colours that are occur in small amounts. Just like it is now in the paint industry.

The colours are divided in 8 main colours

Red, orange, yellow, green, blue, purple, pink and gray. Each colour has its own colour hues. The colours yellow and blue appear in huge amounts, this is because these colours represent freshness.

I collected all residues during the cleaning of the shredder and named the group mix. My mix group reacts different then a mix group from the industry. When I process my mix with injection molding, a very dark purple comes into existence, while the mix of the industry changes to gray. This is because the industry also processes the colours white and transparent in the mix group.

I do have favorites, but I find it more exiting when a combination of colours is processed and the machine throws out a new sample for me.

What would it look like, how do the flow lines look and which colour would they have? The mixing of colours in an injection molder is roughly the same as mixing paint.

Inserting flakes in the colours red and yellow will first show both colours aside of each other as the mixture won't blend both colours. This proces takes some time to make the mixture equally coloured. To visually present the mixed-colours I've been working on a colour wheel made in the proces of injection molding.

Developing colour matching systems like these does not mean that I want to write the rules of how we should handle these colours and materials. I want to offer handles and wake people up, for the time has come to change our procedures. It is a material without do's and don'ts. Isn't it great to start exploring those as a designer?

Giving a personal interpretation of how the industry should recycle its plastics. Wanting to strive for a circular economy would only be meaningful when I would start working together with the industry. The view of a 'Gesamtkunstwerk', collaboration between different disciplines in which ideas are united and knowledge and talent can be developed for the same goal:

expanding the possibilities of existing materials.

The process is equally as important as the result. The analysis of activities and production processes makes you come to new ideas. Within the cooperation there is knowledge of material and technique from the professionals and students on the one hand and I am the one that experiments with material, colour and technique to achieve renewal on the other hand, that can enrich the material in its possibilities. How this will happen has to be investigated firstly however. To which applies, the more I find about it, the more I want to learn about it and the more I want to try out with it.

Process

My hands are itching to further develop the material by means of technique.

My fascination for recycled plastic and its colour becomes only larger when I am researching it.

The research will never feel completed, but will always raise opportunities and questions. The research will give clarity though, because every experiment was documented so it can be repeated.

My workplace is divided in several places sometimes it is tiresome to carry everything back and forth. The good things about it however, are that you can continuously experiment on the material with different techniques, that you can talk about it with different people and that you can think forward with the material in your hands. In the meantime I display all samples to be able to have a good look at the work and to analyse it.

Subsequently, the work disappears in a box and on to the next workplace with the question in mind, would it also be possible if...

Each result causes adrenaline for the next result.



Fig. 2. Colour plastic pieces from recycled plastics. © Jessica den Hartog.

Studio Ermi van Oers

Studio Ermi van Oers, Rotterdam | Dutch

Living Light

Living Light is an atmospheric lamp which harvests its energy from the plant living next to the lamp itself. The light of the lamp is produced by 'plant microbial fuel cell technology': energy generated by bacteria in the soil which release electrons while breaking down organic compounds of the plant (Fig. 1). When softly stroking its leaves, this ordinary plant will transform into a Living Light (Fig. 2). The duration of light depends on the wellbeing of the plant: the better you take care of the plant, the more energy you will receive from the plant. Hereby Living Light will remind us once again that if we take good care of nature, nature will provide us with everything we need. This state of mutual dependence is a realisation humans lost over time, a realisation which we need to get back in time.



Fig. 1 and Fig. 2. Studio Ermi van Oers, Living Light. © Photograph Studio Ermi van Oers

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Exploring the Roots of Slow Design: Christien Meindertsma's Return to Craft

There is a growing awareness among designers of the need to address issues caused by increased industrial systems, balancing between production and consumption. The motivation and ideology of the nineteenth century British Arts and Crafts movement strikes a resemblance to contemporary principles and practices in Slow Design. This investigation will seek to uncover how a revitalization of craft techniques, inspired by the Arts and Crafts movement, is helping contemporary designers communicate and address such concerns.¹ This research highlights the embroidery works and ideas of May Morris, and current products by Dutch designer Christien Meindertsma. Despite existing for more than a century apart, Morris and Meindertsma utilize similar methods to attain a sustainable balance in the objects they design. The goal of this paper is to understand similar motivations within these two distinct movements, and examine the design techniques and approaches that provide an alternative to mass produced objects. This research will provide evidence to suggest that Slow Design is influenced by Arts and Crafts ideology through a case study of two leading designers that exemplify each movement.

Beginning in about 1760, scientific and technological advancements generated an industrial revolution that transformed British society. Advancements in coal mining and steam power increased the speed and capability of machines and production. Industrialization brought change to almost all aspects of life and enabled the mass production of goods in textile, wood and metal. As a result of the transformation of the means of production, towns and cities swelled into industrial centres supporting factories and warehouses. Living conditions became cramped and unsanitary, enabling

¹ Product quality and value, resources, cheap labour, poverty, energy, climate change etc. are some challenges contemporary design is up against. Alastair Faud-Luke, *Slow Theory: A Paradigm for Living Sustainably?* (2002), <https://fluido.files.wordpress.com/2006/07/slow-design.pdf> (accessed May 30, 2018).

the spreading of diseases. More production meant an expansion of the transport systems and the transformation of the landscape by railways, roads and growing seaports. Utopian perceptions that mechanized industry and were believed to bring relief to the human labour force, needed to be nuanced. Thomas Carlyle, commented,

The industrial revolution, so far from abridging human labour, created a whole new world of labour intensive jobs ... Working pace was transformed in old industries as well as new, with slow and cumbersome methods of production giving way, under the pressure of competition, to over-work and sweating.²

Much of Victorian culture perceived these changes as positive in advancing the economic prosperity of the nation. However, 'Victorian culture was not monolithic, and voices were raised against the industrial spirit of the age'.³ The Arts and Crafts movement rose up in rebellion to the industrial transformation of English society.

The art critic John Ruskin (1819–1900) influenced ideologies on the relationship between art, society and labour. His work *Unto This Last* examined the reality of industrial revolution-era politics and economic systems and their effect on the lives of workers. He states, 'The false, unnatural, and destructive system is when the bad workman is allowed to offer his work at half-price, and either take the place of the good, or force him by his competition to work for an inadequate sum'.⁴ Ruskin recognized the culture of the time as one where workers were pressured into less desirable work, for less pay, unable to create the product quality they were capable of.

William Morris, widely considered to be the father of the Arts and Crafts movement in Britain, spoke and wrote extensively about the betterment of society through the revitalization of traditional handicraft techniques and quality production of beautiful works and spaces. He stressed that if the designer found joy in his work, he would create beautiful objects, which would give pleasure to the user. Thus, this holistic cycle would influence the greater societal attitude toward labor and happiness. He wrote,

let the arts which we are talking of beautify our labour ... and, no man will any longer have an excuse for talking about the curse of labour, no man will any longer have an excuse for evading the blessing of labour. I believe there is nothing that will aid the world's progress so much as the attainment of this.⁵

These influences shaped the Arts and Crafts movement to oppose cheap and poor quality work,

alongside the factory working conditions, and the effect of industrial activities on the landscape and environment. Designers in the movement often resented industrialization; they felt it separated man from the art of making and disparaged the designers by removing them from the production of the product. The ideology of Arts and Crafts sought to encourage creative, original designs that were accessible to the average person. Arts and Crafts values shaped the way objects were designed, while also operating as a driver of social revolution. It acknowledged the importance of the wellbeing of workers and the impact this consideration had on the social sustainability of British society.

In 1861, William Morris and a few colleagues launched a small-scale design business, Morris, Marshall, Faulkner & Co., which produced stained glass, painted furniture, tiles, wallpaper and embroidered decorations. Morris' wife Jane, along with her sister and female friends within their social circle, were in charge of the needlework designs. By 1875, William became sole owner and renamed his firm Morris & Co.⁶ By this time, his daughters May and Jenny were teenagers and had become deeply ingrained in their father's philosophy and business. As children they observed the work of their mother and aunt embroidering many different types of decorative objects. Their father insisted that all of the techniques used for the products produced by Morris & Co. should be studied and understood thoroughly before being implemented in products. William Morris demanded high quality works produced using natural and traditional methods, and encouraged the implementation of pre-industrial techniques.

In 1878, May Morris enrolled in the National Art Training School (later the Royal College of Art) and focused her study on embroidery work.⁷ In 1885 she took over the management of the embroidery department at Morris & Co. This responsibility involved the design of products to be sold, the management of staff and trainees, and the handling of all orders, transactions and records. May's appointment to this role in her father's company demonstrated her advanced skill in the craft, yet remained acceptable work for a woman during Victorian times.

May Morris went on to teach embroidery and design at Central School of Arts and Crafts, Birmingham School of Art, and at Hammersmith Art School. Her fundamental focus was the study of historical techniques. She believed that these techniques helped to develop physical skill and knowledge of the craft, and that such approaches to production imbued the work with meaning and tradition that would live on in the pieces and bring value to the eventual users. Morris and Co. was known for

2 Anthea Callen, *Women Artists of the Arts and Crafts Movement 1870–1914* (New York: Pantheon Books 1979), 2.

3 Alan Crawford, *The Arts & Crafts Movement in Europe & America: Design for the Modern World* (London: Thames & Hudson Ltd, 2004), 21.

4 John Ruskin, *Unto This Last* (London: Dent & Sons, 1920), 31.

5 William Morris, *Hopes and Fears for Art* (London: Longmans, Green and Co., 1919), 4.

6 Alan Crawford et al., "United Kingdom: Origins and First Flowering," *The Arts & Crafts Movement in Europe & America*, 23.

7 Jan Marsh et al., "A Well-Crafted Life," *May Morris: Arts & Crafts Designer*, edited by Jennx Listen, Jan Marsh and Anna Mason (London: Thames & Hudson Ltd., 2017), 14.

their use of natural dyed wool, inspired by methods from the past. May Morris' pieces specifically reference Jacobian style Crewel work, involving wool sewn onto linen, characterized by fanciful, scrolling, floral designs studded with birds, insects and other garden inhabitants. This idyllic style was popularized at the beginning of the seventeenth century under the reign of King James I.⁸ May Morris' study of historic crafts revived strong traditional style, but also rekindle a fascination for natural methods, simpler times, and handmade detail that prevailed before the rise of machine-based production.

May's embroidery works evoke a sense of paradise: a reflection of the rural utopia that her father urged needed preservation. Her designs are colourful, intricate, delicate and full of the beauty found in nature. *The Kelmscott Manor Bed Hangings* (1893), designed and embroidered by May and some of her female colleagues at Morris and Co, illustrate the fundamental Morris ideology. The hangings refer to traditional Crewel work, use natural dyed wool stitched onto linen, and employ multiple complex stitch types. This combination displays her high level of skill and knowledge.⁹ The bed curtains enveloped the sleeper in the beauty of the gardens, invoking a sense of tranquillity.

May Morris also applied her embroidery techniques to designing book bindings. William Morris and some of his associates experimented with designing and book printing using old press methods, including calligraphy and page ornamentation. May was influenced by her father's reverence for books and went on to design and create decorative book bindings. The cover for *Love is Enough*, a book of poetry written by her father, was commissioned by the bookseller and publisher Frederick Statridge Ellis.¹⁰ The two covers are distinct in their designs: the front cover adorned with a pomegranate tree, and a scrolling floral pattern on the backside. The extravagance of gold thread, seed pearls and beads exemplifies the value and personal adoration May felt for this work. The handmade devotion of her work is evident in the meticulously raised stitches, which call users to touch, inspect and discover its intricate details. A book is an object used intimately, held close in a one-on-one interaction. May's design and treatment of this binding strengthen the value of the object and encourages its reader to cherish the work as an artifact.

At a time where industry was negatively impacting city aesthetics and quality of life for the average person, May Morris' works stand as a reminder of the countryside yet unspoiled. From their places within the Victorian homes, these embroidered household items preserved the environment by glorifying natural beauty. Through such contemplation of natural beauty, users were encouraged

to find a peace separated from industrial advancements that were changing the realities of life. Each stitch served as a reminder of handmade care: a return to a craft that encouraged simple and sustainable pleasures.

The societal circumstances that gave rise to the Arts and Crafts movement have since advanced and become even more complex and ingrained in twenty-first century culture. Processes today have reached new levels of industrialization and mass production through the use of new materials, mechanized labor and global supply chains. While these advances have given rise to new industries and increased quality of living around the world, the impact on environmental quality and the social fabric is drastic. Cheap, foreign and unseen labour is utilized as a way of keeping product cost lower for consumers. In many cases, low costs are achieved through lower quality standards and perpetuate the consumption of disposable goods, which are extremely taxing on waste management and ecosystem health. After the Industrial Revolution, the mass industrialization of cheap ready-made objects gave rise to mass consumerism. The modern, global economy encourages designers to develop products for the masses resulting in a market that is oversaturated with generic products and services. Online stores allow customers to purchase products completely removed from a physical shopping environment, eliminating any physical connection between designer and user. Online purchases distance the consumer from the object itself and therefore restrain the consumer from contemplating the designer, material and method of production. Mass customization is a customer-driven attempt to address this lack of meaning that strives to save costs, while providing more personal products, as an attempt to create something more unique. The observation of Arts and Crafts-era designers that Industry distances designers from their objects is particularly relevant in today's economy, where consumers are further separated from understanding the objects they procure.

Mechanized innovations have also revolutionized food industries, leading to similar issues experienced in the contemporary world of product design. 'Unsustainable food consumption patterns are putting increasing stress on ecosystems, the supply of resources, goods and services, and human social systems and well-being.'¹¹ The Slow Food movement was born in Rome in 1989, founded by Carlo Petrini, an Italian food writer. The movement began as a direct response to the opening of a McDonalds in the centre of the city. Slow Food's goal was to protect people's right to taste and enjoy good healthy food, revitalize traditional foods and preparations, and to encourage the social aspect of sharing a long meal with others. The Slow Food movement Manifesto identifies the speed of contemporary society as a perpetuator of unfavourable habits and loss of traditions:

8 Janis Wild, "Jacobean Textile Design: Surviving (And Thriving) Through the Test of Time," (Senior Thesis: Dominican University of California, December 1, 2015) 2.

9 Rowan Bain et al., "Wallpapers and Embroidery," *May Morris: Arts & Crafts Designer*, 98.

10 Anna Mason et al., "Book Covers and Designs," *May Morris: Arts & Crafts Designer*, 158–160.

11 Philipp Debs, "Analysis of the Slow Food Movement Impact on the Farmers and Rural Areas' Sustainable Development," (PhD dissertation, University of Bologna, 2013), 3.

Born and nurtured under the sign of Industrialization, this century first invented the machine and then modelled its lifestyle after it. Speed became our shackles. We fell prey to the same virus: 'the fast life' that fractures our customs and assails us even in our own homes, forcing us to ingest 'fast-food'.¹²

The roots of Slow Food philosophy inspired other Slow movements: Slow Cities, Slow Travel, Slow Fashion, Slow Design, among others. The Slow movements share the belief that society has become so fast and hurried, that meaningful connections with people and traditions are being lost to alternative, 'faster' methods that sacrifice quality of experience. Journalist Carl Honore comments in his TED talk:

we often lose sight of the damage that this roadrunner form of living does to us, we're so marinated in the culture of speed that we almost fail to notice the toll it takes on every aspect of our lives; on our health, our diet, our work, our relationships, the environment, and our communities.¹³

Carolyn Strauss founded the Slow Research Lab, a multi-discipline platform which investigates a way toward comprehensive balance in the way people experience the momentum of society and how they find their rhythm within it. The objectives of this work are far-reaching. Strauss explains that

the word 'Slow' is intended not only to inspire a different velocity of engagement, but also to evoke a quality of being, characterized by critical thinking, deep spaces of reflection, and the unique forms of creative expression that are born of them. We use the term both as an adjective and as an active verb that describes the pursuit of more holistic ways of knowing oneself, encountering others, sharing knowledge, and evolving together toward harmonious and resilient forms of living.¹⁴

Alastair Fuad-Luke and Carolyn Strauss are both activists and educators of Slow Design and developed a set of Slow Design Principles which give structure and definition to the practice. Projects developed through Slow Design principles often challenge preconceptions by revealing unknown truths about processes, materials, and interactions. Slow Design considers the expression of objects, what can be learned through our interactions, and how we relate to objects. Slow design processes aim to produce projects that are transparent, enable the evolution of ideas, and continuation of designs into the future through open source accessibility and collaborative means.

12 "Slow Food Manifesto," Slow Food, https://www.slowfood.com/wp-content/uploads/2015/07/Manifesto_Quality_ENG.pdf (accessed January 2018).

13 Carl Honore, "In Praise of Slowness," *TEDGlobal Conference* (Oxford, July 12–15, 2005), filmed talk., https://www.ted.com/talks/carl_honore_praises_slowness#t-183190 (accessed May 30, 2018).

14 "ABOUT," Slow Research Lab, <http://www.slowlab.net/ABOUT> (accessed January 4, 2018).

The transparent nature of such products reveals the layers of systems, materials, and people that are required in the production of goods, enhancing user awareness and allowing them to make more informed decisions about the industries or systems that they engage with.¹⁵ Slow Design is an approach that attempts to bring balance to social, economic and environmental sustainability throughout all phases of the design process.

Christien Meindertsma is a Dutch product designer whose work focuses on knowledge of materials and the exploration of the processes that transform materials into products. She explains: 'My mission in the end, is to design a product that is a good product to start with, that is beautiful, that you can use a lot, but that also has an honest story to it'.¹⁶ It is important that the origin of the raw material is understood, production methods are known and that the identities of those who produced or farmed can be realized. Her interest in revealing the truths of raw materials brings a transparency in her work that transmits this knowledge and awareness to the users. She investigates the history of the human relationship to the material and employs traditional methods of processing these materials into finished products. She works to revitalize systems and techniques that have been lost to our knowledge through the advancement of industrialization.

For the *Flax Project*, which encompasses the *Flax Chair*, Christien Meindertsma investigated the history of flax, re-discovering a crop traditionally used in the production of fine fabrics. The crop grows well in the Netherlands (where she is based), which aids in the sustainability of the project by reducing transportation of non-native materials. She worked extensively with farmer Gert Jan van Dongen, who sowed the flax seeds on his farm in the Flevopolder in the Netherlands, to document the complete process of flax production. The flax crop was planted in the spring of 2010 and harvested at the end of the summer.¹⁷

The Dutch Design Award winning *Flax Chair*¹⁸ is made of a composite material from the short and long fibres of the flax plant blended with PLA (polylactic acid) plastic, which is also made from plant material such as corn or other starches. The chair is completely biodegradable. One rectangle of this material, measuring 60 cm x 100 cm, was used to create the piece: the seat and back was cut

15 Alastair Fuad-Luke and Carolyn F. Strauss, "The Slow Design Principles: A New Interrogative and Reflexive Tool for Design Thinking and Practice," *Changing The Change: Design Visions, Proposals and Tools*, edited by Carla Cipolla and Pier Paolo Perruccio (Torino: Allemandi Conference Press, 2008), http://files.cargocollective.com/653799/CtC_SlowDesignPrinciples.pdf (accessed September, 2017).

16 "Christien Meindertsma Interview: Design With a Conscience," Louisiana Channel, (video posted August 3, 2015), <https://www.youtube.com/watch?v=x7qmRLH-YgA>.

17 "The Flax Project," Christien Meindertsma, <http://www.christienmeindertsma.com/index.php?/projects/flax-project/> (accessed November, 2017).

18 "Flax Chair by Christien Meindertsma Big Winner of the Dutch Design Awards 2016," Dutch Design Awards (posted October 29, 2016), https://www.dutchdesignawards.nl/en/news-events/press/flaxchair_big_winner/ (accessed May 30, 2018).



Fig. 1. Christien Meindertsma and the Flax Chair, photo: Studio Aandacht. Courtesy of Christien Meindertsma (www.christienmeindertsma.com).

from the center, and the remainder of the edge fabric was folded underneath to form the legs. The design wastes no material.¹⁹

This chair is the product of a thorough investigation into the history, material qualities, and production systems of the flax fibre. As part of the project, a series of films documenting the process from seed to product reveals the intricate techniques in creating a material from flax crop.²⁰ The deep exploration of production and process connects consumers of the final product to a history of agriculture, of humans working the earth. The addition of PLA allows the material to biodegrade at the end of its useful life and return to the earth that bore it. The simplicity of the form helps the user to discover the material and understand the message. Meindertsma's investigation and understanding of the technique of flax processing echoes May Morris' ideology of perfecting one's craft, while shaping the meaning of work to reflect on tradition which will live on in the piece.

Oak Inside is a series of home furniture pieces designed by Christien Meindertsma in collaboration with t.e. Collection. The works are a contemporary take on the Dutch Hindeloopen style. The village of Hindeloopen benefited from the sea trade routes especially during the seventeenth and eighteenth centuries, importing goods from all over the world. These new and exotic objects and textiles influenced the unique style in traditional dress, interiors and furniture for which Hindeloopen is recognized. The aesthetic is marked by bright colors with hand painted details of birds, flowers and garlands.²¹

The series includes a table, chairs, cupboard, cabinet, chest, rug, stepladder, and salt and pepper mills. For the majority of the pieces, Meindertsma utilizes oak wood, as the title suggests, which was

¹⁹ "Christien Meindertsma - Flax Chair," Designboom, <https://vimeo.com/189612886> (accessed December 2017), Online Vimeo video.

²⁰ For process documentation videos see "The Flax Project," Christien Meindertsma, <http://www.christienmeindertsma.com/index.php?/projects/flax-project/> (accessed May 30, 2018).

²¹ "Oak Inside Bij Christien Meindertsma," The Zuiderzee Museum (posted January 16, 2012), <http://www.zuiderzeemuseum.nl/en/464/purchases/oak-inside-bij-christien-meindertsma/?id=2123> (accessed May 30, 2018).

common for this traditional style furniture. The rug is braided wool, dyed with natural pigments, and the chest is formed from malleable birch wood. Meindertsma discovered that oak wood was discoloured over time by iron, typically an undesired effect of using steel fasteners. The reaction between iron and tannin-like chemicals in the wood create a dark blue-black stain.²² Christien embraces this revelation and, in some instances, applies this natural method of stain to colour the bodies of her pieces. In others, she used the dark blue as an accent on the surface of the natural wood. Her approach to the material in this project is experimental, she learns from the material as she creates the piece, embedding that message in her work. Her contemporary take preserves the rich colour of the traditional style, while employing a new, natural method. The delicate floral, garland and bird decorations are painted with wax which is removed after the stain is applied, allowing the natural wood to be revealed. The vital aspects of the Hindeloopen cultural aesthetic remain, while Meindertsma's exploration of material, craft and introduction of innovative techniques allow her to reinvent a classic.

Christien Meindertsma's design approach signifies a revitalization of the ideals and practices of the British Arts and Crafts Movement. Her immersion in traditional production methods and treatments mirror the ideals of William Morris. Both May Morris and Meindertsma look to the past seeking the wisdom of the origin of a craft. A return to simpler times, with less industrial technology connects designers to their objects more intimately. By being more involved in the system of production, Meindertsma creates products that feel more handmade, personal and genuine.

Christine's work encourages understanding of the places, people and material involved in a design and sets an example for future designers to approach projects sustainably. By experiencing products



Fig. 2. Christien Meindertsma, *Oak Inside Cabinet*, 2012. Courtesy of Christien Meindertsma (www.christienmeindertsma.com).

²² "Christien Meindertsma, Oak Inside," Domus (posted December 7, 2011), <https://www.domusweb.it/en/news/2011/12/07/christien-meindertsma-oak-inside.html> (accessed May 30, 2018).

made in this way, consumers develop an awareness of the implications of buying cheap, low-quality products. The economic realities of today do not allow for every person to purchase goods produced by designers like Meindertsma. However, the example set by her transparent approach can set a precedent for designers to work toward into the future. Just as May Morris' embroidery expertise transmitted beauty and sustaining value, Meindertsma's transparent recognition of process and origin of material achieve this same beautiful authenticity. Arts and Crafts philosophy revere the quality of works, expressed as the joy and passion of the designer/maker, and the harmony between the production and the environment. Christien Meindertsma's adoption of Slow principles, and application of craft techniques, inspire and motivate designers and consumers to question, understand and appreciate the origin of the objects and products they engage with.

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Pioneer Women in Sustainable Modernist Architecture: Materiality of Architectural Forms

With the rise of modernism, getting permission to obtain architecture education for women remained at secondary positions for years. As Gwendolyn Wright wrote, at the beginning of twentieth century they 'were a conspicuous minority with a restricted set of available jobs'.¹ Being a women architect in Europe or the USA meant an unstable source of income. Most of the available working positions were either interiors designer or architects of dwelling houses, considered as allowed and typical women fields. The low level of tolerance to women in architecture remained present in all of the twentieth century. Admitting women were 'as imaginative as men', Bruce Goff supposed that they 'have wrong kind of imagination for architecture'.²

Most researchers pay attention to masculinity of architectural objects and male anthropomorphism through all the history of architecture: from Vitruvian Man to Modulor by Le Corbusier.³ In other words, for centuries, architectural projects were designed by men and for men. Features such as austerity are considered masculine, and 'factitious' as feminine, whereas building materials can serve as one of the identifiers of gender (along with decoration and ornament according to Gerard Rey A. Lico).⁴

1 Gwendolyn Wright, "Chapter on the Fringe of the Profession: Women in American Architecture," *Architect: Chapters of the History of the Profession*, edited by Spiro Kostof (Berkeley; Los Angeles: University of California Press, 2000), 280–308.

2 Wright, "Chapter on the Fringe of the Profession."

3 Diana I. Agrest, "Architecture from Without: Body, Logic, and Sex," *Assemblage*, no. 7 (October 1988), 28–41; Gerard Rey Lico, "Architecture and Sexuality: The Politics of Gendered Space," *Humanities Diliman* 2, no.1 (January-June 2001), 30–44.

4 Lico, "Architecture and Sexuality," 30–44.

More than any previous architectural style, modernism was concentrated on austerity of a rough untreated and non-decorated material. The austerity of the dominant modernistic materials such as brutal, hard, simple concrete, steel, glass was emphasized by plain architectural forms. Ornament and decoration was criticized and abandoned, and deprived the architecture form of feminine features. Under such circumstances women architects were limited by the larger 'fence' of masculine architectural historical background and the newest 'fence' made of aesthetical limitations.

The period between the first wave of feminism in the 1920's and the second wave in the 1970s is the active period of the modern movement and far growing development of architectural forms designed by women. Gwendolyn Wright assigned four roles that are typical for women architects: exceptional women, anonymous designers, adjuncts and reformers.⁵

Regardless of the fact that the term 'sustainability' was used for many types of environments from 1980s onwards, the aspects of sustainability in architectural female activity can be observed in works by exceptional women architects in this period. By considering the works by American architect Anna Wagner Keichline (1889–1943), English architect Jane Drew (1911–1996), Italian born Brazilian architect Lina Bo Bardi (1914–1992), American architect Anne Griswold Tyng (1920–2011), and the Dutch architect Luzia Hartsuyker-Curjel (1926–2011) I tried to chase the development of the ideas of sustainability in their works.

The Triad 'Architecture – Sustainability – Feminism'

The aspects of materiality can be considered with a triad of architecture-sustainability-feminism (Fig. 1), where each link is self-contained and important for the balance of the whole system.

For centuries, according to Diana I. Agrest 'the system of architecture' demonstrated 'consistent repression and exclusion of woman'.⁶ Feminism in the context of architecture first discovered the work of female architects and demonstrated it to the public. Although feminine features in architecture by men are discussed in many researches, the references to feminine features of architecture can also be found in folklore. In one of the versions of Legend of Master Manole, woman Ana was inbuilt in the house by the male Manole as a sacrifice and as a construction material. In some way the legend is considered as a material representation of the body.⁷

5 Wright, "Chapter on the Fringe of the Profession."

6 Agrest, "Architecture from Without," 28–41.

7 Manuela Antoniu, "The Walled- Up Bride: An Architecture of Eternal Return," *Architecture and Feminism*, edited by Debra Coleman, Elizabeth Danze and Carol Henderson (New York: Princeton Architectural Press, 1996), 109–129.

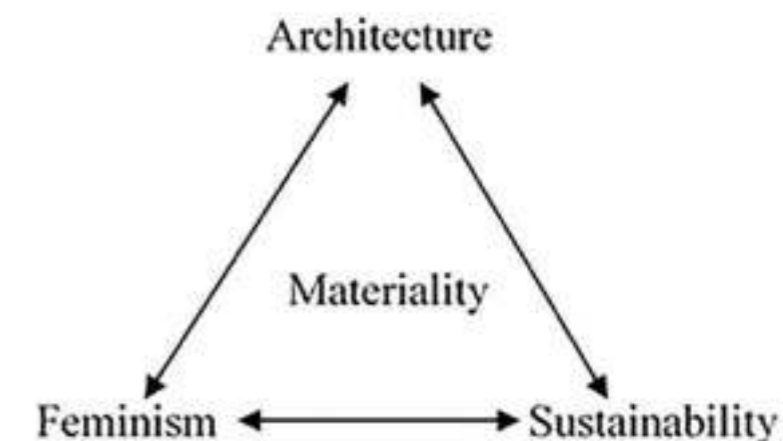


Fig. 1. 'Architecture-feminism-sustainability' triad

According to Deborah Fausch, materiality of architecture by itself is associated with body and femininity. When we consider architecture by other senses but vision it 'could be claimed as a strategically feminist architecture'. It is emphasized that it is very true for modern architecture as materials and construction have dominant value.⁸ She also points out that Hillman noticed the similarity between *mater* and *matter*, which confirmed 'the close relationship of the female and the material in Western culture'.⁹

The first wave of feminism gave women the chance for social and professional activity and the opportunity to realize themselves in the world beyond the family house. During first decades of the twentieth century, women give not only ideas how interior space, comfortable for women should look like. For instance, American writer and designer Edith Wharton wrote about decoration and the design of her own home interior in 1893.¹⁰

The functionalism of 1920s was reflected in projects of pioneer women, at first only in interiors of dwellings which was considered to be feminine. The famous Frankfurt kitchen, designed by Grete Lihotzky, where she 'experimented with new materials and simple, strong color' and the multifunctional space of own house by Eileen Gray erasing pure feminine features, are two examples

8 Deborah Fausch, "The Knowledge of the Body and the Presence of History - Toward a Feminist Architecture," *Architecture and Feminism*, edited by Debra Coleman, Elizabeth Danze and Carol Henderson (New York: Princeton Architectural Press, 1996), 38–59.

9 James Hillman, "Part Three: On Psychological Femininity," *The Myth of Analysis: Three Essays in Archetypal Psychology* (New York: Harper and Row, 1972), 215–298.

10 Edith Wharton, *The decoration of houses* (New York: Scribner, 1898), 356, <https://archive.org/details/decorationofhous00whar> (accessed May 30, 2018).

from this period.¹¹ 'Frankfurt Kitchen became as a synonym for the oppression of the housewife, banished to the isolated kitchen, whereas ... the new Wohnküche really can be liberating'.¹²

Until the 1970s there was a minor amount of publications about female architects of the past, whereas with the rise of the second wave of feminism brought more attention in mass media and researchers to the issues of women's roles in architecture.¹³ According to Jennifer Bloomer, the feminism was involved in the theory of architecture the discourse on in the second half of 1980s as before 'the work of women designers –their methods, materials and sources– who had been ignored by the masculine canon'.¹⁴

The interaction between feminism and sustainability is rather new to be discussed in a historical perspective. Sherilyn MacGregor writes that the relation between feminism and sustainability discusses, among others, the context of urban environment.¹⁵ One of the main conditions of feminist sustainability is 'non-sexist sustainable cities ... this entails a de-gendering of urban space and a re-claiming of the urban commons'. The ecofeminism movement started in 1970s as a combination of ideas of ecology and feminism, and to some extent draws parallels with the oppression of women and nature. Related to materiality of architectural forms we can consider such links between sustainability and feminism as using resources and energy saving approaches in projects by female modernist architects.

Lastly, the sustainability in architecture includes extremely wide range of aspects and paradigms mostly in recent decades.¹⁶ In terms of materiality this interlink means rational selection and

consumption of materials, preferring natural materials, avoiding materials in short supply and hazardous raw materials, designing structural elements to provide energy and water saving.¹⁷

Sustainability Aspects in Works by Female Architects: From K-brick to Biopolis

The early signs of saving resources at construction can be seen in samples of new types of construction modules. The K-brick (Fig. 2), one of the revolutionary inventions, was created and patented by pioneer American architect Anna Wagner Keichine (1883–1942) and became a prototype of hollow concrete blocks. It is a fireproof, lightweight unit, and the envelope structures made with them have high heat insulation.¹⁸ Furthermore, Keichine is famous for her design of kitchens and living spaces to save motions and make them more sustainable in terms of saving women's efforts.¹⁹

The wide application of green architectural materials can be observed in works by China-born American architect Anne Griswold Tyng, who collaborated with Louis Kahn for years. Having an interest in mathematics and inspired by Plato solids, the design of her works made from furniture elements of plywood demonstrated accuracy and symmetry. In her projects of residential buildings, she used naturality of shape, origin of the materials and colour to inscribe into the environment, such as the Trenton Bath House in Mercer County, New Jersey (1955), and the Four-Poster House in Mount Desert Island, Maine (1967).²⁰ Her essay 'From Muse to Heroine, toward a Visible Creative Identity' was key in discovering the role of women in architecture.

In the 1950s-1960s architectural ideas were exported from Europe and United States to the countries of Asia and Africa. The

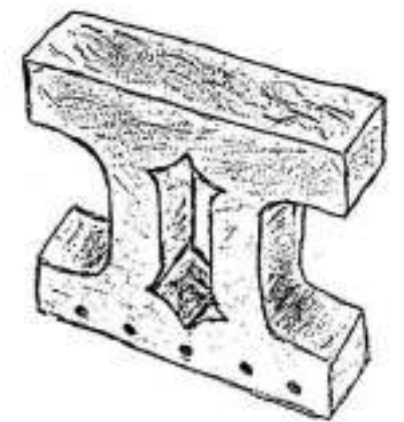


Fig. 2. K-brick designed by Anna Keichline. Drawn by author, based on: Anna Keichline, *Building Block*, #1,653,771 A, filed March 16, 1926, issued December 27, 1927, Anna Keichline Papers, Ms1989-016, Special Collections, Virginia Polytechnic Institute and State University and Anna Keichline, *Patent for "Building Block," #1,653,771 A*, filed March 16, 1926, issued December 27, 1927.

11 Marta Vasevych, "Pereosmyslennya tradytsiynoyi feminnoyi identychnosti v prostori zhytlovoyi arkhitektury v kin. XIX -1 pol. XX st.," *Suchasni problemy arkhitektury ta mistobuduvannya*, 48 (2017), 23–36; Susan R. Henderson, "A Revolution in the Woman's Sphere: Grete Lihotzky and the Frankfurt Kitchen," *Architecture and Feminism*, edited by Debra Coleman, Elizabeth Danze and Carol Henderson (New York: Princeton Architectural Press, 1996), 221–253; Katarina Bonnevier, "A queer analysis of Eileen Gray's E.1027," *Negotiating Domesticity: Spatial productions of gender in modern architecture*, edited by Hilde Heyen and Gulsum Baydar (London and New York: Routledge, 2005), 162–178.

12 Susan R. Henderson, "A Revolution in the Woman's Sphere: Grete Lihotzky and the Frankfurt Kitchen," *Architecture and Feminism*, edited by Debra Coleman, Elizabeth Danze and Carol Henderson (New York: Princeton Architectural Press, 1996), 221–253.

13 Joan Rothschild, and Victoria Rosner, "Feminism and Design," *Design and Feminism: Re-visioning Spaces, Places, and Everyday Things* (New Brunswick, NJ: Rutgers University Press, 1999), 7–34.

14 Jennifer Bloomer, "Abodes of Theory and Flesh: Tabbles of Bower," *Architecture Theory since 1968*, edited by K. Michael Hays (Cambridge, Massachusetts: The MIT Press, 1998), 758–759.

15 Sherilyn MacGregor, "Feminist Perspectives on Sustainable Development," *Encyclopedia of Life Support Systems*, (EOLSS) <https://pdfs.semanticscholar.org/cf49/876cf596957943a16b1e16796745233172fd.pdf>, (accessed January 10, 2018).

16 Shady Attia, "Chapter 2: Modern History of Sustainable Architecture," *Regenerative and Positive Impact Architecture: Learning from Case Studies* (London: Springer International Publishing, 2018), 7–11.

17 Paola Sassi, *Strategies for Sustainable Architecture* (New York: Taylor & Francis Inc, 2006), 306.

18 Sarah A. Lichtman, "Anna Wagner Kiechline," *Pioneering Woman in American Architecture*, <https://pioneeringwomen.bwaf.org/anna-wagner-keichline> (accessed January 3, 2018).

19 "Anna Wagner Kiechline," *International Archive of Women in Architecture*, <http://spec.lib.vt.edu/IAWA/Keichline/annak.html> (accessed January 4, 2018).

20 Susan Morgan, "Small Wonder," *T-Magazine*, May 1, 2012, <http://www.nytimes.com/2012/05/06/t-magazine/anne-griswold-tyngs-tiny-house.html> (accessed December 28, 2017).

development of projects to be constructed in specific climatic conditions (high temperature range, high humidity, excessive insolation) and with less developed technology of artificial materials, made architects to be more innovative and create unique architectural form by limited material means. Dame Jane Drew became a leader of the Modern Movement in London by creating a female architectural office. Working with Le Corbusier in Chandigarh, she created a lot of projects in West-African countries, designing public buildings with her husband Maxwell Fry in their own tropical modernism.²¹ Wide application of ornament, reinforced concrete screens for shadowing glass facades, enclosing elements for staircases and balconies visually lightened the structure were its key features.²²

Architectural heritage in Latin America created by Lina Bo Bardi, showed her own version of tropical modernism. It was 'shaped by love', but her works were overshadowed for years with more famous and productive male architects.²³ Being also a political activist, she used the colour of love and blood in most of her projects – both for pure decorative as well as for structural elements, using not only typical concrete and glass, but also regional materials like straw and adobe. Her Glass House built in Brazilian rainforest in 1952, demonstrates the careful attitude to the nature.²⁴ The trees at the construction site were replanted. Buildings designed by Lina Bo Bardi look detailed and are attributable to modernist architecture, even with limited materials and expressive means, such as the São Paulo Museum of Art (1957–68).²⁵ Lina Bo Bardi was one of the first female architects who contributed to sustainability aspects of architecture. Recycling construction waste, one of the basics of contemporary sustainable architecture, was successfully used in her project of Centro de Lazer Fábrica da Pompéia (1982).²⁶ Her manifesto 'Propeadeutic Contribution to the Teaching of Architecture Theory' was devoted to the aspects of sustainability in architecture.

In the period of the second wave of feminism and the simultaneous growth of environmental concerns, the project of Biopolos (1961) by Luzia Hartsuyker-Curjel and her husband Enrico Hartsuyker served as a model of sustainable urban development. Biopolis was planned to be a satellite city for The Hague.²⁷ The hilly territory was planned to use for terraced housing, combining different functions besides the residential one. Luzia Hartsuyker-Curjel used separate elements of this project in residential house *De Zonnetrap* in Rotterdam (1980). For years she designed social housing. Typical of the houses designed by Hartsuyker-Curjel is an open space at the centre with none of the walls touching the exterior line of the house: hence the description atrium houses or 'walk-around' houses. Small differences in level and voids created a vertical spatial effect. In the 1980s Luzia Hartsuyker -Curjel was known for a series of so-called 'women-friendly' houses, where traditional functional zones were replaced by 'spaces with equal status'.²⁸ They were built in Amsterdam, Apeldoorn and other cities.

Conclusions

The materiality of architectural objects designed by women architects can be considered within the triad of architecture, sustainability and feminism. The level of sustainability issues discovered in projects by women architects constantly grows in the researched period of 1920s to 1970s. The golden decade for modernism became a starting point for raising the issues of sustainability in architecture. Starting with the inventions of resource-saving construction units, like K-brick, through active use of natural materials, local materials, to urban projects of the cities acting as bio-systems.

21 Iain Jackson, "Tropical Modernism: Fry and Drew's African Experiment," *The Architectural Review*, July 4, 2014, <https://www.architectural-review.com/rethink/tropical-modernism-fry-and-drews-african-experiment/8665223.article> (accessed December 28, 2017); Laura Mark, "The Pioneering Jane Drew," *The Architect's Journal*, February 20, 2014, <https://www.architectsjournal.co.uk/news/culture/the-pioneering-jane-drew/8659177.article> (accessed December 27, 2017).

22 Shusha Guppy, "Obituary: Dame Jane Drew," *Independent*, July 31, 1996, <http://www.independent.co.uk/news/people/obituarydame-jane-drew-1307641.html> (accessed December 29, 2017).

23 Rowan Moore, "Lina Bo Bardi: Buildings Shaped by Love," *The Guardian*, September 9, 2012, <https://www.theguardian.com/artanddesign/2012/sep/09/lina-bo-bardi-together-review> (accessed December 29, 2017).

24 Zeuler Lima, "Preservation as Conservation: The Work of Lina Bo Bardi," *Journal of Historic Preservation History Theory* 2, no. 2 (Winter 2005), 24.

25 David Langdon, "AD Classics: São Paulo Museum of Art (MASP): Lina Bo Bardi," *ArchDaily* (posted August 13, 2014), <http://www.archdaily.com/537063/ad-classics-sao-paulo-museum-of-art-masp-lina-bo-bardi> (accessed December 20, 2017).

26 Romullo Baratto, "Architecture Photography: Lina Bo Bardi's 'Sesc Pompeia,'" *ArchDaily* (posted February 17, 2014) <http://www.archdaily.com/475387/architecture-photography-lina-bo-bardi-s-sesc-pompeia> (accessed December 22, 2017)

27 "Enrico and Luzia Hartsuyker," Nederlands Architectuurinstituut, <http://schatkamer.nai.nl/en/designers/enrico-en-luzia-hartsuyker> (accessed January 25, 2018)

28 Wies Van Moorsel and Dorothee C. Segaar-Howeler, *Enrico Hartsuyker en Luzia Hartsuyker-Curjel* (Leiden: Bonas, 2008), 334.

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Fantastic Four Females: The Superheroes Hidden behind the Cape: Bisquert, Fossati - Bellani, Kanstinger and Macintosh.

Habitation culture and related projects have always been a key point in the history of architecture since housing is one of the most extensively studied and most frequently built programmes. However, some of the architects have been 'forgotten' from architecture history.¹ 'They owe me not a Pritzker Prize, but a Pritzker inclusion ceremony. Let's salute the notion of joint creativity', Denise Scott Brown stated during the AJ Women in Architecture Awards in 2013.

Nowadays, this seems to be changing due to a strong body of female architects in academia and the professional work field. Protagonists and new generations are trying to reach a new equilibrium, a real balance.² The habitat, its surroundings and how female architects have focused their attention these areas is the starting point of this paper. The designs of the analysed protagonists showcase an innovative approach to housing as well as public and intermediate threshold spaces.

The research focuses on four arquitectas and their projects: Emilia Bisquert, a Spanish arquitecta who has designed different solutions for flexible distribution in different condominiums in Madrid in collaboration with Carmen González Lobo, Ricardo Aroca and Jose Miguel de Prada Poole; Valeria Fossati Bellani, an Italian Architect who has worked with Giancarlo De Carlo in many housing projects as well as university campuses in Italy; in Germany, Christine Otto Kanstinger has designed

several ecological dwellings with her father-partner Frei Otto and Otto's Atelier in Berlin; and lastly, in London, Kate Macintosh has developed several council housings, ranging from a low-rise project to a high rise development in South London.³ Although the four of them have operated in different geographical contexts and climate regions, the characteristics analysed and the achieved goals are very similar.

The research applies a case study methodology and is based on a qualitative approach through the AIFAD methodology based on five points: archives consulting, in-situ interviews, field work, analytic diagrams and drawings.⁴ The four selected female architects have been selected according to different scales –from low-rise high-density to hybrid-rise high-density– and geographical contexts, but with the same programmatic approach. The projects selected in this paper are focused on estates or council housing from an experimental and ecological point of view.

Literature Review and Four Case-studies analysis

Female Architect	Country	Case study	Timeframe
Emilia Bisquert Santiago	Spain	Madrid	1975-1980
Valeria Fossati Bellani	Italy	Terni. Umbria	1970-1975
Christine Otto Kanstinger	Germany	Berlin	1975-1982
Catherine Ailsa Macintosh	Scotland	London	1960-1970

Emilia Bisquert in Madrid

Emilia Bisquert Santiago was born in Spain in 1937. She designed several condominiums with flexible distribution in Arturo Soria neighbourhood in Madrid and several polyvalent housing in the same neighbourhood in collaboration with Carmen González Lobo, Mariano Bayón, Ricardo Aroca and Jose Miguel Prada Poole. In the street Hernández Tejada, Arturo Soria 93 and Ángel Muñoz 22-San Nemesio 19 she developed a group of residential buildings and condominiums based on 'free space in the liveable spheres' in collaboration with these architects.⁵ The strategy is based

1 Mónica Cevedio, *Arquitectura y género* (Barcelona: Icaria, 2004); Maria Novas, "Arquitectura y Género: Una reflexión teórica" (Master thesis, Universitat Jaume I, 2014).

2 Inés Sánchez de Madariaga et al., *Ciudades para las personas. Género y urbanismo: Estado de la cuestión* (Madrid: Instituto de la Mujer, 2004); Carmen Espegel, *Heroínas del espacio: Mujeres arquitectos en el Movimiento Moderno* (Buenos Aires: Colección Textos Arquitectura y Diseño, 2008); Zaida Muxí, *Recomanacions per a un habitatge no jeràrquic ni androcèntric* (Barcelona: Institut Català de les Dones, Departament de Medi ambient i Habitatge, Generalitat de Catalunya, 2009).

3 *Arquitecta*: Spanish word admitted from RAE to denominated female architects.

4 Virginia de Jorge-Huertas and Justo de Jorge-Moreno, "Domestic Prototypes Co-Designed Through Experimental 1 m3 Topological Cubes," *Nexus Network Journal: Architecture and Mathematics* 20, no. 1 (2018), 283–302, doi: <https://doi.org/10.1007/s00004-017-0362-8> (accessed May 30, 2018).

5 Virginia de Jorge-Huertas, "Flexible Domesticity, Adaptable Structures: Two Case Studies, Madrid and Berlin," *Cities, Communities Homes: Is the Urban Future Liveable?*, edited by Eleni Tracada and Graham Cairns (Derby: AMPS, 2018), 132–147, AMPS Proceedings Series 10, edited by Graham Cairns.

on the dual principle of support and flexibility, performing the space as a polyvalent support for the everyday life.

The multicolour-brick facade of Arturo Soria 93, constructed in 1975, exhibits the structure in a harmonious and strong way by showing all the elements to the public space, windows from floor to ceiling, structures in a knot system with decreasing stiffness in height. The floor distribution allows for a domestic interior surface from 120 to 250 m².⁶ The rectangle floor is dynamic with the stairs and lifts located in the centre. The bathrooms and kitchens can be placed anywhere in the dwellings and the domestic space can be expanded or reduced in any direction. The domestic matrix can grow and vary without rigid patriarchal configurations.

From these examples and an interview with Prada Poole in 2016, it's clear that Emilia Bisquert was a key figure in the adaptable and polyvalent distribution of domestic space in the projects.⁷ She proposed the possibility to generate variable and different distributions according to the users' needs. Prada Poole shared:

Emilia Bisquert promoted the idea of using different materials linked to variation and freedom of distribution. It was her way of thinking, projecting and living. She was the one who placed the greatest emphasis on the idea of spatial flexibility, of having multiple strategies so that each tenant could decide how many square meters they needed, or how to organize their own domestic space, composition of the façade, open terrace or closed balcony. In other words she meant that space could vary.⁸

Valeria Fossati Bellani in Umbria

Valeria Fossati-Bellani was born in 1935 in Milan (Italy). She developed several projects as can be seen in the IUAV Archive, such as the Nuovo Villaggio Mateotti (Fig. 1) in Terni (Umbria, Roma, Italy), two research-educational buildings and universities, and the rehabilitation or transformation of the former orphanage for the Faculty of Magisterium of the Free University of Urbino together with Giancarlo De Carlo, who was member of CIAM and Team X.

In the 'domestic sphere' she collaborates with De Carlo, Domenico de Massi and Fausto Colombo in the worker's housing in Terni, Italy. This project is a mat-building in a linear disposition. It is a low-rise high-density approach in an agricultural and urban context in the Umbrian landscape. The



Fig. 1. Valeria Fossati Bellani with Giancarlo De Carlo, Domenico De Massi and Fausto Colombo, Nuovo Villaggio Matteotti, 1970. View from the facility building in the 'Street in the sky' towards pedestrian interior street in the Villaggio. Photography by Virginia De Jorge Huertas, July 2017.

building implementation produces a strong connection to the landscape in a hybrid fusion, creating a 'terza natura' by the integration of the architecture and the nature in the same holistic space. The dwellings have almost forty-five different variations in the interior distribution. This strategy also generates a dynamic urban intermediate space, the pedestrian street and the 'street in the air' which connects the common services. Furthermore the common stairs of every two houses create an interactive shared space for social cohesion in the neighbourhood.

Therefore the worker's housing in Terni is a type of linear mat-building and showcases an ecological approach by taking pedestrian green paths into the interior neighbourhood.⁹

The conception of Architecture that arose in a humanist architectural morality intends to improve the quality of the living conditions of those who inhabited. ... From the form-counter form of Aldo Van Eyck, Giancarlo de Carlo's groupings, or the mat-building of Alison Smithson, among other members of Team X. These concepts represent a real change from the idea of the Modern Movements of architectural objects, without valuing the identity either of the user or the natural context itself.¹⁰

6 Ricardo Aroca, "Soporte y Flexibilidad," *BAU: Arquitectura, Urbanismo, Arte y Diseño*, no. 21 (2002).

7 Virginia de Jorge-Huertas, unpublished interview with José Miguel de Prada Poole, Madrid, Friday 26th August 2016.

8 Translation by author.

9 Alison Smithson, *The Charged Void: Urbanism* (London: The Monacelli Press, 2005).

10 María Teresa Muñoz, "La ética contra la Modernidad," *Arquitectura Bis*, no. 27 (1979). Translation by author.

Christine Otto Kanstinger in Berlin

Christine Otto Kanstinger was born in 1961 in Berlin (Germany). She has designed experimental ecological dwellings in Berlin in collaboration with Frei Otto's Atelier, a prototype of future ecological and heterogeneous housing. She managed the project from its beginning according to Frei Otto's:

My daughter Christine Kanstinger, an architect herself, began working in my firm and took over the project. She was responsible for drafting, but she also managed communication and the coordination of all the various parties that later built the Ökohäuser. The idiosyncrasies of the clients played a role here, as each building was different.¹¹

She realized a holistic approach to the eco-houses in collaboration with the Baugruppen. The German cooperative was based on the collaboration of all tenants, which was fundamental for the housing development. Christine Kanstinger created an ecological dwellings project in which the user decides what his or her needs would be, leaving the architect as a coordinator. All users had to promise to participate in an ecological sustainability experiment by creating 'green' areas with plants, flowers, trees within the building concrete infrastructure designed by the Frei Otto's Atelier. They also needed to keep energy consumption as low as possible; they created a project that reduced the amount of water used by implementing as much renewable energy as possible.

Kate Macintosh in South London

Catherine Ailsa 'Kate' Macintosh is a Scottish architect who was born in 1937 in Edinburgh (Scotland). She won a Royal Institute of British Architects (RIBA) award in 2005. In practice she designed some of the most remarkable estates in South London, Dawson's Heights in Southwark London (Fig. 2) and 269 Leigham Court Road, which was a Grade II listed building in Lambeth, South London.¹²

I felt that people have different needs at different times in their lives, and if you have a mix of family sizes then they might be more likely to help each other out- ... I was seeking to fulfil the Aneurin Bevan mantra of the doctor, the grocer, the butcher and the farm labourer all living on the same street, the living tapestry of a mixed community.¹³

Dawson Heights was built between 1964 and 1972, led by a young twenty-six-year-old Macintosh.¹⁴



Fig. 2. Kate Macintosh, Dawson's Heights in Southwark London, 1960. View from 'Street in the sky' towards central courtyard and ziggurat morphologies view. Photography October 2017, courtesy of Virginia De Jorge Huertas.

The building consists of three-hundred flats laid on two fragmented spines orientated through the communal central open courtyard. In an interview by Elain Harwood, Kate Macintosh shared: 'The three of us were then interviewed within the office with our own proposals the Hong Kong guy with his towers, Richard with a low-rise scheme, and me with a stepped-ziggurat design.'¹⁵

The 'stepped-ziggurat' design was the selected project and is now part of the Southwark skyline. It is a combination of low-rise high-density with medium rise, creating a semi-public patio in-between the ziggurat buildings.¹⁶ It allows for a mix-development area with one of the most amazing views of London. The 'street in the sky' in the highest part of the buildings is not a 'strict straight line' street, allowing a more harmonious walk and diversity through the space.¹⁷ The balconies are also a key point in the domestic space, providing intermediate spaces that improve the community relationship through programmatic spaces in different levels, on each two floors. Although its twelve-storey 'mega-structure' scale it has a humane composition materialized with warm bricks, creating an 'apparent' heterogeneous but strong façade avoiding the monolithic style. The access and entrance

11 C. Escher, "I Was Dr. Tent Frei Otto on Adaptability, Ecology, and Economy in Architecture," *Journal ARCH+*, no. 211-212 (2013), 72-80.

12 Architectural design: *Old People Housing no. 8.75*, by Kate Macintosh (1975), 489- 491.

13 Architectural design: *Old People Housing no. 8.75*, by Kate Macintosh (1975), 33.

14 Elain Harwood and Kate Macintosh, "In Conversation with Kate Macintosh," *AA Files*, no. 74 (2017), 21-39.

15 Architectural design: *Old People Housing no. 8.75*, by Kate Macintosh (1975), 28.

16 Architectural design: *Housing: Low level, high density*, by Jonas Lehrman (1966).

17 Alison Smithson, *Italian Thoughts: Triangle Bookshop* (Stockholm: Royal Academy of Fine Arts, 1993).

decks are positioned towards the hill views. Every dwelling owns a private balcony which allows a kind of complex and rich approach to high-rise high-density urban housing buildings, avoiding monotonous repetition which used to characterise such housing projects, and open a wide range of dynamic morphologies depending on the location. In addition, the different sizes of the large number of homes promote a 'flexibility in assembling and massing'. Furthermore, Dawson's Heights is a formidable well-maintained workers-housing and this strengthens its maintenance and success.¹⁸

Comparisons

These four perspectives intend to approach the concept of sustainability and domesticity from different scales and approaches of projective processes. Therefore the choice of these four female architects is decided from a multi-scalar point of view, focusing on socio anthropological, ecological and technical approaches. The perspective starts from different socio-political and geographical contexts with the same interest: the domestic space and the ecological concept implementation.

The four of them have achieved outstanding architectures by taking into account five key points to the project from a qualitative and quantitative point of view. In different level but all of them in housing approaches, by green living and ecological design in Christine Otto-Kanstinger case, adaptable domestic space in Emilia Bisquert's, an hybrid low-rise high-density in Valeria Fossati-Bellani and in a ziggurat approach in Catherine Ailsa Macintosh's one.

The first point is their holistic approach of context relationship with buildings, by ecological experiments of sustainability and environmental connections as a contemporary 'genius loci' adapting the design to the implemented given-context in which they are located.¹⁹

The second point is the hybrid-density approach through a low-rise high-density housing and high-rise high-density mix depending on the environmental context, such as the gradual growing density in Kate Macintosh's estate.²⁰ The building and her strategies are an architectural master lesson. According to Alison Smithson, she shared: 'The urban forms of the pieces of a low profile city are ... anticipatory, openended, and adaptable according to the rules growing out of their interaction with systems of movement, which aids the consistency of each form.'²¹

18 Quoted from: *Docomomo Newsletter*, no. 19 (Winter 2009).

19 Christian Norberg – Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (New York: Rizzoli, 1980).

20 Architectural design: *Housing: Low level, high density*, by Jonas Lehrman (1966); Harwood, Macintosh, *In conversation*, 21–39.

21 Smithson, *The Charged Void*.

The third point is the 'participation' or collaborative co-design, by including the user in the project process in different participative ways.²² This happened in Berlin with a Baugruppen a collaborative bottom-up strategy in the IBA 1987 context by Catherine Otto Kanstinger leading a Baugruppen for the housing development.²³

The fourth point is an innovative morphological and spatial distribution approach; the four case studies re-draw the domestic space. Some of them apply a space matrix with a flexible living space, such as Terni and London with 'Streets in the sky' and hybrid programs, mixing not only residential space as common sharing spaces for all tenants.²⁴ In 'le stelle' –the name an interviewed tenant gave to the streets connecting different buildings– in Terni by Valeria Fossati-Bellani in the rural context of Italian Umbria's landscape, the neighbourhood is a 'cluster', which means it has several centres and uses intensities.²⁵

The fifth and final point is the value of the intangible, the gradient domestic transition from private to intermediate-spaces into public, creating no border spaces but thresholds, by configuring a temporal and spatial figure and dialectic of transitions.²⁶ These concepts are explored in the four case-studies. The 'in-betweens' in the Italian case study is applied in the staircase where tenants meet with their neighbours. In Berlin there is a central common courtyard as the 'street in the air' from the infrastructure. In all case studies the 'intangible' aspect is essential as Rybczynski's theory about domesticity:

Describing domesticity is describing a combination of perceived emotions, not just a isolated attribute. Domesticity has to do with family, intimacy and a consecration to the home, as well as the sense of the house incorporates these feelings [sic.], and not only gives them shelter.²⁷

These five strategies, achieved in a more compact and dense habitat are a key point to increase people interrelationship between them and with the environmental atmosphere. The ecological approach developed in Christine Otto Kanstinger work is vital to understand the continuity with the urban patchwork as Dawson Heights in London where the gradient growth from low- to high-density is also

22 Giancarlo De Carlo, "Il pubblico dell'architettura," *Parametro*, no. 5 (1970), 4–13; Dick Urban Vestbro and Lisa Horelli, "Design for Gender Equality: The History of Cohousing Ideas and Realities," *Built Environment* 38, no. 3 (2012), 315–335.

23 Iqbal Hamiduddin and Nick Gallent, "Self-build Communities: The Rationale and Experiences of Group-build (Baugruppen) Housing Development in Germany," *Housing Studies* 31, no. 4 (2016), 365–383.

24 Susana Torre, "Space as Matrix," *Heresies – Making Room: Women in Architecture* 11 (1981).

25 Nuria Álvarez-Lombardero, "Mat building: The Promise of Spatial Association," *Revista de Arquitectura*, no. 12 (2010), 53–60.

26 Jane Jacobs, *The Death and Life of Great American Cities* (New York: Random House, 1961); Smithson, *Italian Thoughts*; Georges Teyssot, "A Topology of Thresholds," *Home Cultures* 2, no. 1, (2005), 89–116.

27 Witold Rybczynski, *Home: A Short History of an Idea* (New York: Viking Penguin, 1986).

based in its topography surrounding. The Mediterranean climate in Terni has a positive connotation in the housing and its in-betweens, as its 'street in the sky' and common linear pedestrian streets create a neighbour feeling of togetherness. In the examples analysed, the continuity with the existing city, by clusters in Matteotti and the ability to propose a 'growing system' based on a 'fixed infrastructure', allow a variable domestic space inside. On the other hand, the ecological projects engage tenants with their nature as an approach to sustainability in architecture in different scales.

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A Tribute to Design in the Netherlands: Designs for the Present and Prototypes for the Future

Designing for the Present: A Case Study of Jalila Essaidi

Jalila Essaidi (born 1980, Eindhoven) is a Dutch artist and researcher who has combined her interest and background in art and bioengineering into BioArt Laboratories foundation where she makes an assault on the ordinary. Her studies in bio-art at Leiden University and then later her master's studies in arts education at Alliantie Kunsten Fontys Zuyd in Tilburg prepared her to become the designer that she is today.¹ Since her first major project *Bulletproof Skin* which won her international recognition, she has won numerous awards and been on news channels like CNN and BBC. In her project *Bulletproof Skin*, she integrates spider silk into human skin samples to make a material that can stop bullets.² However, the project that this paper will be examining is *Mestic®*, which creates bioplastics out of cow manure.

In 2016, Essaidi launched *Mestic®*, a method and technology to create bioplastic out of cow manure, which contains phosphate and nitrogen and is harmful to the environment in large amounts (Fig. 1). *Mestic®* is a sustainable concept that tries to reduce manure's environmental impact by reusing it to make something entirely new and useful. Why is Essaidi's *Mestic®* a design for the present? *Mestic®* tries to be a solution for the current day problem of cow manure waste, which is especially a problem in the Netherlands where, in 2015, the Dutch livestock industry was producing more than its 4.6 million kilogram phosphate limit with a whopping 172.9 million kilograms of phosphate and almost 100 million kilograms of it came from cow manure³ In 2016, the Netherlands

1 "About," Jalila Essaidi, <http://jalilaessaidi.com/about/> (retrieved May 6, 2018).

2 "Bulletproof Skin," Jalila Essaidi, <http://jalilaessaidi.com/2-6g-329ms/> (retrieved May 6, 2018).

3 "Mestic®," Jalila Essaidi, <http://jalilaessaidi.com/cowmanure/>, (retrieved May 6, 2018).

had 1,794,000 cows and had the largest increase of cows in the entire European Union (EU), with an increase of four and a half percent.⁴ The industrial agricultural sector is a large, growing producer of phosphate and carbon dioxide (CO²). In this sense, *Mestic*® is a project for the current day because it attempts to tackle a current day issue.

However, *Mestic*® goes further than creating a sustainable product. In 2016, the Dutch government, following international and national policies, required that phosphate production from dairy livestock needs to be reduced to eight percent.⁵ This was only a band-aid solution which would reduce the number of cows and weaken the economy. *Mestic*® understands that the agriculture sector will continue to grow and that limiting its growth will damage the economy. *Mestic*® is a productive and sustainable concept that uses manure rather than letting it absorb into the soil. This sustainable solution does not compromise economic growth, but rather mediates tension between the agriculture sector, the Dutch government, and international policies.

Even though Essaidi designs for the present, her actual design is considered more futuristic since bioplastics are still more of a niche than a widely-used, marketplace product. Bioeconomy is dominated by the materials sector, but together the sectors of materials, chemicals, and energy only generate 0.5 to 0.6% of the Dutch economy.⁶ There is still a lot of room for the bioplastic economy to expand. Other than being a young economy, the reason for it still being a niche could be that many countries don't have policies that target the bioplastic sector, and only have policies for the biofuels and bioenergy sectors. Without policies, bioplastics are at a disadvantage in the competition with biomass. The only policies in the bioplastic domain which are widespread are the



Fig. 1. Jalila Essaidi, *Mestic*®, 2016. *Mestic*® creates bioplastic and biomaterials out of cow manure. Photograph by Mike Roelofs, © Jalila Essaidi. Source: <https://challenge.whatdesigncando.com/projects/mestic/>, (retrieved May 8, 2018).

ones that relate to plastic bags. Widespread policies still need to be implemented.⁷

It is important to note that bioplastic production is growing within the growing bio economy. In 2018, European Bioplastics speculated that global production of bioplastics will grow from 2017's 2.05 million tons to 2.44 million tons by 2022. Because bioplastic is such a young industry, there is still more research and development required in order for it to be a common solution. For example, PLA and PHA, two types of bioplastics, are still being developed and are predicted to be commercialized only in 2020.⁸ This technology is not widely available now, but it will be available to consumers in the near-future. Designers like Jalila Essaidi are helping to prove the need and effectiveness of bioplastics (Fig. 1).

Designing for the Future: A Case Study of Johanna Schmeer

Johanna Schmeer is a German designer and artist who showcases her work in numerous countries, including The Netherlands. In 2017, she presented her design *Bioplastic Fantastic* at Dutch Design Week.⁹ She also has had her work presented at the Stedelijk Museum Schiedam, and comes back to The Netherlands in 2018 for the Robotanica event at *Transnatural Art & Design*. Schmeer has an extensive educational background, studying in Art Center College of Design in California and Berlin University of the Arts. She received her Masters of the Arts at the Royal College of Art in London before studying for her Doctors in Philosophy at the same institution.¹⁰ Schmeer applies her ambitious nature to both academia and her ingenious designs. Her capability of truly thinking outside the box puts her project *Bioplastic Fantastic* in the futuristic category.

Some of her other designs include Human + Carbon, which is a series of products that try to reduce the client's carbon footprint as he or she wears them. For example, her External Lung Enhancer is a non-titanium-dioxide coated design which attaches to the client's nose and breaks down the pollutants in the air that is being breathed in. Another design is her Posture Enhancing jewellery.¹¹

4 "EU Cow Numbers," AHDB Dairy, <https://dairy.ahdb.org.uk/market-information/farming-data/cow-numbers/eu-cow-numbers/#.Wmxf6qinFyw> (retrieved May 6, 2018).

5 "Mestic®," Jalila Essaidi, <http://jalilaessaidi.com/cowmanure/> (retrieved January 27, 2018).

6 M. S. Breure, J. W. Langeveld and K. P. Meesters, *The Biobased Economy and the Bioeconomy in The Netherlands: Netherlands Position Biobased Economy - FBR Biomass Research 2016_0.pdf*, <https://www.rvo.nl/sites/default/files/2016/03/> (retrieved May 6, 2018).

7 "Biobased Chemicals and Bioplastics: Finding the Right Policy Balance," *OECD Science, Technology and Industry Policy Papers*, no. 17 (Paris: OECD Publishing: 2014), <http://dx.doi.org/10.1787/5jxwwfjx0djf-en> (retrieved May 6, 2018).

8 "Bioplastics: Facts and Figures," European bioplastics, http://docs.european-bioplastics.org/publications/EUBP_Facts_and_figures.pdf (retrieved May 6, 2018).

9 Trudie Carter, "10 Sustainable Foods of the Future on Show at Dutch Design Week," *dezeen* (posted October 24, 2017), <https://www.dezeen.com/2017/10/24/10-sustainable-future-foods-future-dutch-design-week-embassy-of-food/> (retrieved May 6, 2018).

10 "About," Johanna Schmeer, <http://johannaschmeer.com/about> (retrieved May 6, 2018).

11 "Posture enhancing jewellery," Johanna Schmeer, <http://johannaschmeer.com/posture> (retrieved May 6, 2018).



Fig. 2. Johanna Schmeer, *Cyan*, 2014.
Source: <http://johannaschmeer.com/about>, (accessed May 6, 2018).

In this project, Schmeer tries to tackle the daily problem of slouching, or more specifically, the epidemic of unawareness of slouching at the office, university classroom, or the dinner table. Schmeer's work is very versatile because she does both present designs, as she does with the two projects listed, as well as future designs, with *Bioplastic Fantastic*.

Bioplastic Fantastic is a research based design for a dystopian world model. Schmeer made seven products and each produce a different type of food and energy that humans need in order to live. These products require a light source, and through artificial photosynthesis they produce sugar, fat, vitamins, etc., depending on the product. For example, *Cyan*, her sugar and oxygen producing art piece, has a photosynthetic exterior and produces liquid sugar under artificial light (Fig. 2). *Cyan* is one of the seven technological and biological art pieces from the collection *Bioplastic Fantastic* and, like the rest of the art pieces, modelled on a biological process that occurs in nature but is then translated into a bioplastic version of it.¹²

Why is *Bioplastic Fantastic* a design for the future? In 2014, BBC News put out an article that focused on one fear that environmentalists, economists, and people in general have in the twenty-first century when it comes down to ecology: are we running out of raw materials? According to the article, China 'claims that its mines might run dry in 15-20 years... [and] things like aluminium might run dry in about 80 years'.¹³ And what frightens even more is that there are no substitutes for these metals once they are used up. In a study done in 2013 by T. E. Graedel, E. M. Harper, N. T. Nassar, and Barbara K. Reck, sixty two metals were tested for potential substitute materials which could do

the same function. For twelve of the metals there was no possible match, and for none of the sixty two were there any stand-out options.¹⁴

Even though there is a present fear of raw materials running out, Schmeer's design is actually for the future for two reasons. Firstly, the raw materials that Schmeer is talking about are not metals, but vital vitamins and nutrients that humans need for survival. She creates for an apocalyptic scenario where people can't get proper doses of sugar, for example, because food is not available. Secondly, this is not a project trying to solve the current problem of raw materials running out before they run out. Schmeer's project is for a world which has already run out of basic needs like sugar, protein, fat, water, etc.

Schmeer states that *Bioplastic Fantastic* is not supposed to be seen as a solution. Her message and motif behind her art piece make this design for the future have present-day qualities. On her website, Schmeer writes:

Rather than being a proposal or a solution, the project aims at asking questions and provoking discussions about which kinds of applications of bio- and nanotechnology we would want to be part of our future everyday lives.¹⁵

Even though Schmeer's design is a design for a world that does not exist yet, she wants to spark thought and contemplation now in the people who see her artwork. *Bioplastic Fantastic* is more about posing a question for the present than creating a solution for the future. It asks people to think about the future consequences of the present and how that will affect them and their environment.

Conclusion

Jalila Essaïdi and Johanna Schmeer represent two types of designs: designs for the present and designs for the future, respectively. Their categorization depends on the question 'Who is this made for?' or 'For what kind of world is this for?' This paper emphasizes the difficulty of definitively defining and categorizing within sustainability, which is the reason for an individual case study approach. Both designs are equally viable and valuable, although as humans we hope that it will never come to having to utilize Schmeer's seven bioplastic products in practice.

¹² "Bioplastic Fantastic - Between Products and Organisms," Johanna Schmeer, <http://johannaschmeer.com/bioplasticfantastic> (retrieved May 6, 2018). For the process on Vimeo see <https://vimeo.com/ChristianSchmeer/Videos> (accessed May 8, 2018).

¹³ Rachel Nuwer, "Future - What is the World's Scarcest Material?," BBC, (posted March 18, 2014), <http://www.bbc.com/future/story/20140314-the-worlds-scarcest-material> (retrieved May 6, 2018).

¹⁴ T. E. Graedel et al., "On the Materials Basis of Modern Society," *PNAS: Proceedings of the National Academy of Sciences of the United States of America* (published December 2, 2013), <https://doi.org/10.1073/pnas.1312752110> (retrieved May 6, 2018).

¹⁵ "Bioplastic Fantastic - Between Products and Organisms."

Appendix 1

List of nine women designers who are working or exhibiting in the Netherlands and who were researched for the *Itinerary Design and Sustainability in the Netherlands* compiled by the author in 2017–18. Their works are in some way related to forms of sustainability and listed in chronological order.

#	Name of designer	Name and project year in chronological order	Type of Sustainable Solution
1	Mieke Meijer	<i>Newspaper Wood</i> , 2003	Recycling
2	Greetje van Tiem	<i>Newspaper Yarn</i> , 2007	Recycling
5	Iris van Herpen	<i>Fashion designs</i> , 2010	3D Printing
4	Jalila Essaidi	<i>Bulletproof Skin</i> , 2011-2013	(Alternative forms of) Steel
6	Hella Jongerius	<i>KLM World Business Class cabin interior</i> , 2013	Recycling
1	Lilian van Daal	<i>3D Printed Soft Seat</i> , 2014	3D printing
2	Teresa van Dongen	<i>Spark of Light</i> , 2016	(Alternative forms of) Electricity
8	Ermi van Oers	<i>Living Light</i> , 2016	(Alternative forms of) Electricity
3	Maartje Dros	<i>Algae Lab</i> , 2017	Bioplastic
9	Johanna Schmeer	<i>Bioplastic Fantastic</i> , 2017	Bioplastic

Appendix 2

List of the ten women architects from the *Itinerary Architecture and Sustainability in the Netherlands*, (compiled by the author in 2017–18), their projects in chronological order, and how they contribute to forms of sustainability.

#	Name of architect	Name and project year in chronological order	Type of Sustainable Solution
1	Caroline Bos	<i>The W.I.N.D House</i> , 2008-2014	Energy Conservation
2	Dikkie Scipio	<i>Central Post</i> , 2009	Energy Conservation
3	Belinda Tato	<i>Energy Carousel</i> , 2010-2012	(Alternative forms of) Electricity
4	Danielle Segers	<i>Proyecto Roble</i> , 2011-2012	Reusable
5	Marlies Rohmer	<i>Brede School Houthaven</i> , 2011-2015	Energy Conservation
6	Beatrice Montesano	<i>Veilige Veste</i> , 2012	Energy Conservation
7	Nathalie de Vries	<i>Book Mountain</i> , 2012	Recycling, Energy Conservation
8	Esther Stevelink	<i>Tea House</i> , 2013	Reusable
9	Hedwig Heinsman	<i>Urban Cabin</i> , 2015	3D Printing
10	Hester van Dijk	<i>People's Pavilion</i> , 2017	Recycling

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Cutting Edges: Ada Tolla, LOT-EK and Resistant Equipment from Naples to New York

Travelling from Naples, Italy, to the United States in 1990, Italian artist and architect Ada Tolla arrives in New York City and found a visiting scholar position at Columbia University, enabling her to experiment with recycled materials, electronic objects and industrial equipment. In 1993, Tolla and her partner Giuseppe Lignano (architect, artist and photographer) establish their new York-based studio called 'LOT-EK'.¹ Both of them graduated from the school of architecture at the University of Naples Federico II (1982–89), Italy, and completed post-graduate studies at Columbia University in New York (1990–91).² Initially, Tolla did not intend to stay in the United States, but the both of them studied under the architect Bernard Tschumi at Columbia University and this made them stay because of the architectural opportunities in experimenting with discarded fragments.³ Mainly influenced by the Deconstructivist techniques of 'displacement' of desirous fragments and abstracting the cube, Tolla and Lignano followed this type thinking and reused these types of methods to question the excess of the built environment and in reusing material left-overs into new

1 According to Giuseppe Lignano, the name 'LOT-EK' is derived from 'the idea of tension between low-tech and high-tech' and both Tolla and Lignano 'changed the spelling of LO and TEK and EK', from: Vladimir Belogolovsky, "LOT-EK: The Shipping Container is a Vehicle to Invent New Architecture," *Archdaily* (posted January 3, 2018), <https://www.archdaily.com/886447/lot-ek-the-shipping-container-is-a-vehicle-to-invent-new-architecture> (accessed January 30, 2018).

2 Previously, Ada Tolla and Giuseppe Lignano taught at Parson's School of Design and currently teach studios at the Graduate School of Architecture, Planning and Preservation (GSAPP) Columbia University. Christopher Scoates (ed.), *LOT/EK: Mobile Dwelling Unit* (New York: Distributed Art Publishers, 2003), 8.

3 *Blueprint*, no. 290–293 (2010), 47.

forms. At the same time, Tolla is fascinated with the similarities between Naples and New York City, particularly how people live on the street. For Tolla, 'growing up in Naples, you are smashed against things. It's an old metropolis and it's still a metropolis: multicultural, spontaneous, complex.'⁴ The small scale of Naples and its city edges are multiplied in New York City as a distorted horizon line within their work in multitudinal ways.

Deciding to remain in the United States versus Italy, more than Naples there was more opportunity for her to work with discarded materials in experimental ways as an architect and an artist in New York City because of the array of the streets' fascinating found objects. Together with her fascination and vision of port-cities as an extension of the home, Tolla was inspired by the underlying principles of the Arte Povera movement of the late 1960s - using commonplace materials that evoke the industrial wasteland to expose and compose inconsequential objects in a new way.⁵ This is evident in LOT-EK's New York projects from the 1990s onward. Renowned for their recycling of abandoned metal objects, 'through happenstance, and maybe some kind of New Yorker/Neapolitan feeling for ports, LOT-EK' - became recognized as 'the shipping containers guys.'⁶ LOT-EK is concerned with making resistant, or sustainable, equipment to live in - and mark her desiring contemporary practice.

Between the mid- and late 1990s, Tolla looked for potential objects in Manhattan's Meatpacking district's streets, historically recognized with numerous slaughterhouses, import-export companies and marine supplies, to reuse in buildings. There, she found a verve within discarded objects, *objet trouvé*. This area's waterfront was recognized for its containerization and before the gentrification of the Meatpacking district there were numerous abandoned shipping containers and other derelict buildings. Shipping containers are a 1950s invention that revolutionised the global shipping industry; Philip C. Clark was the one who actually patented the conversion of one or more shipping containers into a habitable building in 1987 in the United States.⁷ About a decade later, LOT-EK worked with salvaged elements from the district and created their own form of containers that could be occupied. 'LOT-EK focuses on manufactured objects and systems -not originally intended for architectural use- and the way they proliferate, accumulate, overlap, and interfere with the built and natural environment.'⁸ At the same time, Tolla observed the compactness of found objects,

their edges and, most importantly, how they could be inhabited. From the start, Tolla devoted much of her time in New York City, reusing materials and metaphorically, 'butchering' abandoned shipping containers and reusing parts of them to fit-out kitchens. 'Like a skilful butcher, who respects the precious complexity... of the animal he is dissecting,' they 'locate an economy and a sustainability in how it cuts and combines, to find a way to facilitate eating "the whole pig" from nose to tail. LOT-EK starts with observation.'⁹

From the outset, LOT-EK's early architectural project in Tokyo, Japan, for example, transformed a ready-made shipping container into an American diner (1996, unbuilt) by cutting the container so staff could assemble food inside. As a container holding cooking facilities, the building was designed as a sort of 'suitcase that can be tagged, transported, and set down again with contents intact.'¹⁰

Keeping up with female domesticity of the American diner container to support the inhabitants, that same year LOT-EK fitted out the Miller-Jones Studio with a similar container kitchen in New York, a kitchen which 'holds equipment.' According to one critic, 'A generous number of closets and cabinets line the edges of the container... These closets not only provide storage but also perform the symbolic function of reiterating, as boxes within a box, the logic of the holding environment.' In establishing a 'dialogic relation between the container surface and care of the inhabitant',¹¹ Tolla's Miller-Jones design inserted a large metal sheet wall, removed from a truck. Embedded within this new wall were all the kitchen appliances, storage areas and cable television. In another area, an aluminium shipping container served as the major space organizer. The metal plane slices through the space to separate domestic areas from the clients' work studio. Recycled refrigerators transformed into new structures, as to provide both storage and work surfaces. It was conceived, as a 'life-support system, elements to serve and support the inhabitant'.¹² In doing so, it produced a new well-equipped surface affecting the overall vertical landscape. LOT-EK, as Henry Urbach states 'takes defunct artefacts of industry, containers for things, and invests them with the capacity to sustain life and activate experience,' and they make familiar the 'piles of junk at the edges of cities... containers become incubators as they are selected, captured, and injected with new programs and spatial orders that sustain a productive and playful relationship with the human body'.¹³

4 And for Lignano, 'Naples is a port city like New York, the same industrial civilization at a different scale, the in-betweens, the edges'; Ada Tolla, Giuseppe Lignano and Thomas de Monchaux, *LOT-EK: Objects and Operations* (New York: The Monacelli Press, 2017) 50.

5 They are descendants of the Arte Povera movement - that's what drives them; Tolla, Lignano, De Monchaux, *LOT-EK*, 398.

6 Tolla, Lignano, De Monchaux, *LOT-EK*, 357.

7 Jennifer L. Roberts, *Transporting Vision: The Movement of Images in Early America*, (Berkeley; Los Angeles, CA: University of California Press, 2014), 46.

8 Tolla, Lignano, De Monchaux, *LOT-EK*, 9.

9 Ibid.

10 Henry Urbach, "To Have and to Hold: The MDU and Vital Architecture," *LOT/EK: Mobile Dwelling Unit*, edited by Christopher Scoates (New York: Distributed Art Publishers, 2003), 67.

11 Urbach, "To Have and to Hold," 70.

12 Ada also fitted out a New York kitchen in the Morton Loft (1999-2000) renovation; Urbach, "To Have and to Hold," 70. Also see: Robert Kronenberg, *Portable Architecture: Design and Technology* (Basel: Birkhauser Verlag AG, 2008), 44-51, 114-119.

13 Urbach, "To Have and to Hold," 69-70.

In many ways, their familiarity with container cast-offs reinvents what artificial nature has become – a fertile wasteland for humans. Wasteland demonstrates what Vittoria Di Palma calls a 'conjunction of disgust and utopia that its greatest potential lies.' As 'a space of resistance, of challenge, and ultimately, of possibility and change,' Di Palma claims that the wasteland has the capacity to be 'the landscape paradigm for our uncertain and troubling times'.¹⁴ To add to this, historian Francesca Russello Ammon has suggested that gender has altered post-war landscape destruction and influenced popular views of clearance equipment and practices, since in America 'heavy equipment operators often cultivated an image of heroic masculinity'.¹⁵

In understanding how LOT-EK's collaborative projects provide critical insights into industrial spoliation of the landscape, architecture-wise it is interesting to see how LOT-EK's work evokes New York artist Jean-Michel Basquiat's collage process, particularly the way he finds signs, cuts them up and reorganises them to transform into something new (a cut-up technique he borrowed from William S. Burroughs' writing process).¹⁶ They follow a similar process, including collecting materials Tolla finds in the streets, such as window frames and television antennas. Recently, LOT-EK used the streetlamp as a device used to illustrate the advertising of nature in the artificial, to create an artificial landscape (as with their most recent Gateways Public Art Commission on Australia's Gold Coast, the HI-LIGHTS installations, 2018). For Tolla, 'a streetlamp is as familiar as a tree'.¹⁷

LOT-EK's collaborative efforts respect the pioneering incisions and displacements by architect-turned-artist Gordon Matta-Clark, which they clearly acknowledge. They ascertain 'a tough beauty in violent precision' by cutting and trimming, learning from the lessons from 'Land Art, Procedural Art, and Installation Art –the incisive Matta-Clark maybe chief among them– who had a feeling for dirt and steel and air and paper, for the sharpest imaginary knife, and for the cumulative power of an archive'.¹⁸ Returning to Ammon, the discussion of land artists such as Robert Smithson gouging the earth for their artistic projects, whereas Matta-Clark was more interested in 'severed and punctured buildings',¹⁹ encouraging positive criticism.

In addition, LOT-EK's artistic designs harks back to postmodernist Italy by re-exposing apertures, specifically Lucio Fontana's cut series and the Arte Povera artist Alberto Burri's incisions of sacks

and concrete into the landscape.²⁰ Arte Povera, however, started from an anti-technological stance. In any event, 'Fontana's biro artwork,' for instance, 'has been linked to the Arte Povera Movement and compared to Sao Paulo's Pompeia Factory Complex with its façade punctuated with holes designed by Bo Bardi'.²¹ In doing so, LOT-EK has taken on board these artistic practices within architecture and created open-ended equipment designs that resists the mundane practice of simply furnishing an empty container, one that can easily succumb people to immurement,²² that is, the sealing of people in enclosed spaces with no real visible exits.

Rather than 'immuring' architecture itself, and here I am thinking of Adam Kalkin's 'Quik House' made from recycled shipping containers which simply houses occupants, LOT-EK expose the industrial vessel by cutting into the object revealing spaces for it to breathe and to permit natural light. LOT-EK challenges how shipping containers ought to inhabit people, not store goods, by providing 'cut-outs' through the metal and expose unnoticed spaces that can respire.

LOT-EK's Carroll House in New York City and housing-studio project in Johannesburg, South Africa, are examples of sustainability and recycling, express Italy's origins of the Arte Povera movement and upcycling or managing waste in fundamental ways, such as reusing shipping containers. As container landmarks, Tolla's and Lignano's collaborative efforts experiment with the use of metal and diagonal cuts. Each project suggests the experimental treatment of the aesthetics of modern Italy, of the port-city of Naples in their composition and collage-process as well as the adaptive reuse technique Lina Bo Bardi developed in Brazil from the 1960s until the 1980s. The difference is, is that LOT-EK's collaborative work provides a sort of industrial spoliation back into the landscape, creating alternative edges rather than architecture per se in the form of resistant equipment.

The Carroll House (2012-16) and DRIVELINES Studios (2014-17)

In 2012, LOT-EK was commissioned to design and construct a new single family residence in Greenpoint, in New York City. They began by recycling parts of twenty-one disused shipping containers since this is sustainable way of producing an industrious dwelling. Sited on a completely flat terrain, a rarity in New York City for a house on a longitudinal lot, the house provides a metallic

14 Vittoria Di Palma, *Wasteland: A History* (New Haven; London: Yale University Press, 2014), 244.

15 Francesca Russello Ammon, *Bulldozer: Demolition and Clearance of the Postwar Landscape* (New Haven and London: Yale University Press, 2016), 14.

16 Morgan Falconer, "Cut and Paste," *The Guardian*, August 24, 2005, <https://www.theguardian.com/books/2005/aug/24/art.williamburroughs> (accessed May 30, 2018).

17 Scoates, *LOT/EK*, 81.

18 Tolla, Lignano, De Monchaux, *LOT-EK*, 27.

19 Russello Ammon, *Bulldozer*, 267.

20 On Alberto Burri artworks see: Judith Rozner, "Alberto Burri: The Art of Matter," (PhD thesis, University of Melbourne, 2015), <https://minerva-access.unimelb.edu.au/handle/11343/54617> (accessed 30.01.2018).

21 Condello and Steffen Lehmann, "Introduction," *Sustainable Lina: Lina Bo Bardi's Adaptive Re-use Projects*, edited by Annette Condello and Steffen Lehmann (Cham: Springer, 2016), 2.

22 Joel Stice, "Immurement: A History of Walled in Terror and Cruelty," All that is interesting (posted December 11, 2017), <http://all-that-is-interesting.com/immurement-history> (accessed 30.01.2018).



Fig. 1. LOT-EK's Carroll House single-family residence in Greenpoint, New York City, 2012-16, revealing facades made up of recycled shipping container reversed segments resembling Casa Malaparte. Photo: Danny Bright. Source: <http://www.lot-ek.com/filter/residential/CARROLL-HOUSE>.

street assemblage with careful striations of clear glass window infills for ventilation and privacy (Fig. 1). The project even involved a mechanical sustainability consultant. In analysing its façade and overall composition, it recalls fragments deriving from the Italian rationalist building, *Casa Malaparte* on the Isle of Capri, off the coast of Naples. LOT-EK appears to re-collage and expose Adalberto Libera's staircase within the Carroll house's interior. According to Tolla, the project took four years to construct mainly because it was difficult for LOT-EK's clients to obtain finances since New York banks grant funds only to developers and not to private investors for new constructions. Nevertheless, the lengthy time it took to get the project off the ground gave LOT -EK the opportunity to think more about every step of the project, and be much more detailed and specific with respect to creating cutting edges, to the point appointing the interiors with built-in rooms and furniture.²³ It's a carefully crafted construction and therefore exemplary of a sustainable luxury house.

Around the same time, LOT-EK's DRIVELINES Studios project in the Maboneng district in Johannesburg, South Africa, is their largest residential and retail project constructed so far (Fig. 2). Conceived as an immense billboard, the project point towards an industrial spoliation into the

23 Tolla, email correspondence, 21 March 2018.



Fig. 2. LOT-EK's Drivelines residential-studios and retail building resembling the ancient Mayan technique of binding discarded recyclable materials, Johannesburg, South Africa, 2014-17. Photo: Danny Bright. Source: <http://www.lot-ek.com/filter/residential/DRIVELINES-STUDIOS>.

South African urban condition. Curiously, the project resembles the colourful folded purses made in Africa from recycled or defective lolly wrappers and fruit-drink labels, a method originally deriving from an ancient Mayan technique of weaving everyday materials into sustainable items.²⁴

Resistant Equipment

In terms of sustainability and recycling, Tolla's design sensibility shares similar ideas as Lina Bo Bardi. In an interview with Kaitlyn Rossi in 2013, Tolla responded that 'her favourite building –if she has to choose just one– is a project designed by a woman, a building she describes as both "courageous and dumb.'" Here, Tolla is referencing Lina Bo Bardi's MASP Building in Sao Paulo. Firstly, because it was created by a woman, and secondly, for its infrastructure –caught between architecture and a bridge– a hybrid structure. Bo Bardi's public open space is an amazing place for

24 "About Nahui Ollin," Ollin, <http://www.ollinarmcandy.com/ollin/about> (accessed January 30, 2018).

leisure'.²⁵ Commenting on Bo Bardi's MASP's interior, I referred to the paintings within their fixed glazed panels as accommodating 'a vast glazed shipping container'.²⁶ And this is precisely what LOT-EK has managed to create - adaptive reuse projects that extend the hybrid-architecture that Bo Bardi invented.

In the past decade, the Tolla and Lignano have made a sustainable luxury brand that is expressed in their book published in 2017, *Objects + Operations* with its zero waste symbol (with nothing at its centre) on the cover. As the title projects, LOT-EK's interdisciplinary approach exposes a radical approach to sustainability:

Instead of piety, they have a straightforward and strategic fascination with efficiency as a kind of operational elegance – especially the ingenious occupation and diversion of the operations of 'artificial nature'... Their work is sustainable because it is smart, not because it is merely good.²⁷

As far as their design practice is concerned, LOT-EK's belief is more precisely about sustainable luxury. Recycling for them makes their architecture ship-shape 'feel clean.' In the process they are not creating garbage but thinking about rebirth of an object that is destructed. For them, the adaptive reuse of objects 'has a two-fold benefit: the energy savings of not reducing the object back to its raw material, and the energy savings of exploiting the existing embodied energy of the object by exploiting the existing configuration, topology, and inherent strengths and weaknesses'.²⁸

Conclusion

To do a complete job, LOT-EK cuts corners of the shipping container from multi-directions – by sensibly placing materials diagonally to permit air and light – and they pursue an economical way of doing things, taking risks and cuts the corners off shipping containers to save time. Tolla's expertise is apparent with her upcycling of discarded materials as metal armoury for buildings and in the way she connects Naples with New York City. A project that is close to both Tolla and Lignano is the *Casa Malaparte* reference I made with the *Carroll House* where they demonstrate expertise in tailoring humans with the use of metal armoury as shelter. Much of what I have discussed herein about the upcycling of found objects was initiated by Tolla. Lignano is much influenced by Alberto

Burri's work and this is evident in the manner he photographs projects and documents their process meticulously for each project. Tolla's expertise in upcycling shipping containers into resistant equipment links the straight-forward parable 'to cut corners' to the bespoke tailoring practice of not waste-not/want-not to save material and cost. 'Rather than recycle objects – reduced, through additional energy, to their constituent elemental materials - LOT-EK upcycles objects, retaining and extending their performative characteristics and bringing them into new and better lives'.²⁹ In the end LOT-EK is clear-cut in their philosophy and art-architectural approach, a collaborative practice that operates in manufacturing a purposeful sustainable luxury brand –making do with what one finds– and creating resistant equipment. For Tolla, 'what's at the rough edge of the city [of New York] is the same as in Naples. The edges are the same everywhere,' as literal and metaphorical cutting edges.³⁰ In the end, LOT-EK's resistant equipment demonstrates mundane elegance.

Acknowledgments

I first met Ada Tolla at her LOT-EK studio in New York City in September 2017. I met up with Ada again and Giuseppe Lignano on the Gold Coast, in Queensland, Australia, in March 2018, and I want to thank them both for their feedback on my research.

25 Kaitlyn Rossi, "What's Next: Ada Tolla," *Architect* (posted October 2, 2013), http://www.architectmagazine.com/practice/whats-next-video-ada-tolla-lot-ek_o (accessed January 25, 2018).

26 Annette Condello, "Salvaging the Site's Luxuriance: Lina Bo Bardi - Landscape Architect," *Sustainable Lina: Lina Bo Bardi's Adaptive Re-use Projects*, edited by Annette Condello and Steffen Lehmann (Charm: Springer, 2016), 79.

27 Tolla, Lignano, De Monchaux, *LOT-EK*, 177.

28 Tolla, Lignano, De Monchaux, *LOT-EK*, 165.

29 Tolla, Lignano, De Monchaux, *LOT-EK*, 17

30 Tolla, Lignano, De Monchaux, *LOT-EK*, 398; And as commented in a conversation I had with Ada at her New York City studio, on September 14, 2017.

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Materials and Local Architecture: Best Practices for a Resilient World

International scientific studies show clearly that we are passing the threshold of surveillance of nine critical natural processes that rule the stability of our planet: climate change, ocean acidification, chemical pollution, nitrogen and phosphorus loading, freshwater withdrawals, land conversion, biodiversity loss, air pollution and ozone layer depletion.¹ In the last century, architecture and urban planning have contributed to exceed these limits. The problem is global, but actions must be local.

This article will explain the relationship between urban planning, architecture, materials and environmental sustainability in the north-east region of Italy, Friuli Venezia Giulia. It will identify critical issues and opportunities through an analysis on European and local best practices, with an overall look, from 'the spoon to the city'. It will identify global issues faced by women in various disciplines but with a strong impact on architecture, ideas that can function as a stimulus for the improvement through the practice of architecture.

In past decades, biologist Lynn Margulis postulated that the planet Earth was one big self-organized complex system, interconnected and resilient, starting from the small scale of bacteria, an autopoietic nature.² Today, the human activities are disrupting the planet balance. This is apparent even in the small region of Friuli Venezia Giulia, wedged between Austria, Slovenia, the Alps and the Adriatic Sea, where, for example, in 2014 and 2015 the highest temperatures of the last century were

registered, with an increased temperature of both air and sea well above the average centennial, with monthly peaks of 4,2 ° C.³

As an architect, woman and mother I cannot ignore the scientific data, rather it is necessary to make them my own, from theory to practice, understand them and share them. In the same way as science is changing, the architect's work is also in constant evolution, especially in the field of materials.

Resilience of the Territory

The abandonment issue is a recurring theme in the history of the territory of Friuli Venezia Giulia. The term 'territory' used in this article is intended as a complex system made up of the physical location, the people who inhabit it and its management system: an interconnected system in which the parties are related and influence each other. It is necessary to develop local territories 'from the spoon to the city', since each element is connected and influences the whole. Ignoring the cross-scale effects is one of the most common reasons for failure in sustainable management systems.⁴

At the urban scale in Friuli Venezia Giulia, the word abandonment has a negative connotation, because it's associated with the disposal of large military buildings and factories even within the urban center, with the separation from homes as a result of emigration and with the abandonment of buildings under construction (during the current economic crisis). It is at this scale that the resilience of the territory proves not to be strong enough, both for strictly administrative reasons and for an overall poor vision in the long term without which the country failed to react to chronic (constant loss of some territories) and occasional stress (current economic crisis).

Reuse, regeneration, optimization and innovation are central themes in this recovery. Helping to improve the quality of the territory, the identification of goals and actions can surely be the study of best practices implemented by the European Green Capitals and Green Leaf Cities, promoted and rewarded by the European Union for their effectiveness on the local territories. In all cases of European best practices, it is clear how important it is to achieve a strong public statement of goals: a programmatic environmental vision shared as well as supported by scientific evidence. Best practices depend on a combination of holistic vision, political will, technical capacity,

1 Will Steffen et al., "Planetary Boundaries: Guiding Human Development on a Changing Planet," *Science* 347, no. 6223 (2015), DOI: 10.1126/science.1259855 (accessed October 27, 2017).

2 Luciano Onori and Guido Visconti, "The GAIA Theory: From Lovelock to Margulis: From a Homeostatic to a Cognitive Autopoietic Worldview," *Rendiconti Lincei* 23, no. 4 (2012), 375–386, <https://doi.org/10.1007/s12210-012-0187-z> (accessed December 14, 2017).

3 "Report Meteo.fvg," Riepilogo 2014–2015–2016 ARPA FVG meteo, <http://www.osmer.fvg.it/pubblicazioni.php?In=> (accessed November 16, 2017).

4 Brian Walker and David Salt, *Resilient Thinking, Sustaining Ecosystems and People in a Changing World* (Washington: Island Press, 2006), 90.

implementation tools, sharing and communication.

Analyzing the case of Friuli Venezia Giulia, it is difficult to identify, among the institutional channels, a clear communication of the environmental goals in the long term and therefore there is no sharing policy that makes all citizens, professionals and businesses participate in the actions involved in the improvement of the territory. The tools and actions are not lacking. We are witnessing municipal or inter-municipal initiatives: the voluntary participation of individual mayors or private initiatives demonstrates how the sensitivity to the issue of climate change is taking root. In Friuli Venezia Giulia forty-four municipalities or inter-municipal associations have voluntarily signed the *Covenant of Mayors for Climate and Energy*, promoted by the European Commission, committing themselves to declare, promote and share initiatives aimed at reducing CO₂. The Region and the municipalities themselves are small in size, thus the ability to create networks and design synergistic actions could make a difference in the final result.

On the other hand, it is needed to design long-term instruments to fight the derelict sites also located within the urban agglomeration, in order to regenerate the territories and make them more resilient in the future. The European experiences in this field are numerous, proactive and collaborative: for example, The Bristol Method and its guidelines: *How to Create More Resilient Cities, How to Create Cities That Are Good for People and the Planet*.⁵ They provide a long-term planning involving designers, scientists, doctors, citizens and authorities, in a holistic view of the territory and through a collaborative and adaptive dialogue. The socio-ecological systems are complex adaptive systems and do not always regulate themselves in a predictable manner, precisely because of the many variables present.⁶

The resilience of a territory is closely related to the vision of the circular city. The publication *Cities in the Circular Economy: An Initial Exploration*, talking about the built environment and published by the Ellen MacArthur Foundation, declares:

A circular city will likely include the following elements: A built environment that is designed in a modular and flexible manner, sourcing healthy materials that improve the life quality of the residents, and minimise virgin material use. It will be built using efficient construction techniques, and will be highly utilised thanks to shared, flexible and modular office spaces and housing. Components of buildings will be maintained and renewed when needed, while buildings will be used where possible to generate, rather than consume, power and food by facilitating closed loops of water, nutrients, materials, and energy, to mimick natural cycles.⁷

5 "Bristol Method," Bristol 2015 European Green Capital, www.bristol2015.co.uk/method (accessed November, 23, 2017).

6 Walker, *Resilient thinking*, 31.

7 Ellen MacArthur Foundation, *Cities in the Circular Economy: An Initial Exploration* (published August 29, 2017) <https://www.ellenmacarthurfoundation.org/publications/cities-in-the-circular-economy-an-initial-exploration> (accessed September 13, 2017).

Economic and Architectural Sustainability

For architects, visions of cities have always been a fundamental aspect in the daily practice, mainly as a tool for design reflection, even though these visions may not always have been achievable, for example the work of Archigram, Buckminster Fuller, Yona Friedman, or Zaha Hadid and the drawings at the start of her career. In the visions of the past decades, the myth of the self-sufficient buildings (now called Zero Energy Buildings) was formed: an ideal we are now approaching through the implementation of sustainability rating systems, voluntary or mandatory, in addition to compliance with the minimum energy performance for buildings issued by EU directives and implemented by national governments (Fig. 1).

As for the energy and environmental sustainability rating systems, in Friuli Venezia Giulia there is a spread of CasaClima rating system, followed by the Passivhaus and queued by Leed which is mostly relegated to the achievements implemented by the US government at the air base of Aviano. Through the sharing of best practices and goals, the rating systems have led to a spreading awareness of environmental issues at various architectural scales, from the study of the site to the technical solutions optimization, both among architects and among citizens. Energy and sustainability rating systems offer the advantage of having easily communicated goals, especially if they are described through construction details. In contrast, to be effective and actually shared, urban best practices must necessarily be modelled and adapted to the territory in which they need to be implemented. The architect then has to speak a universal technical language, based on data and scientific studies, but is also called to engage in the understanding of the social dynamics and research architectural solutions to improve the environment and territories.

We are architects, we are women, and we know how expensive it is to create and cultivate life in terms of energy in nature. That is why our own innate sensibility, listening and mediation skills should lead us to design with the aim of creating buildings and cities that are resilient and circular systems that interact with the environment and people. With formal stylistic research we will combine past and present in a perspective of resilience; with research on the techniques and materials we can achieve the goals of flexibility, the use of environmental friendly, recyclable, renewable and particularly efficient materials.

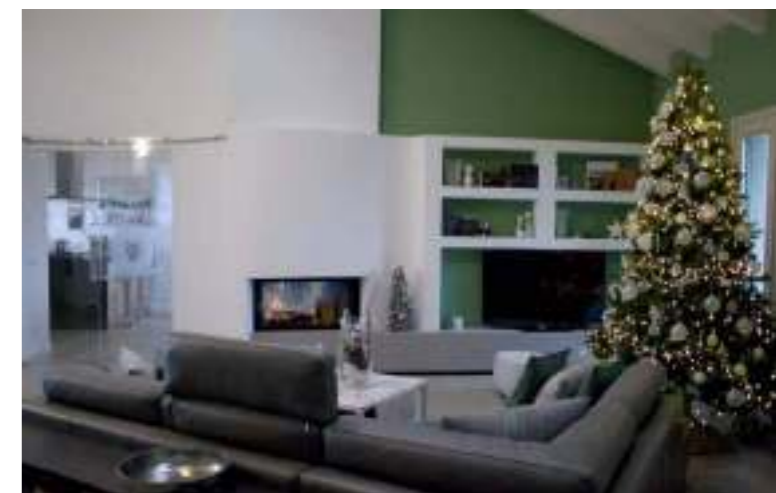


Fig. 1. Chiara Pasut, House designed with high insulation and the use of renewable energies for heating and sanitary hot water system, Energy class A, 2015.

To do this, we need to be aware that we have to get to a breaking point. Those who practice the daily work as architects and are inspired by the guidelines of resilience, circularity but also the *genius loci*, know that the current model of economic evaluation of energy-saving measures and environmental sustainability is imprisoned in obsolete economic rules compared to global sustainability goals. This is because we can't quantify the economic value of a conscious design, not only in terms of energy saving, but also in terms of the global value of reasoned choices, and the flexible and conscious use of materials. To achieve this, environmental and social economic indicators should be necessarily introduced.

The economists Kate Raworth and Mariana Mazzucato adhered to the *33 Theses for an Economics Reformation* in which four theses are exclusively concerned with the environment. One of them has direct implication in architecture and materials: 'The economy cannot survive or thrive without inputs from the natural world, or without the many life-supporting systems that the natural world provides. It depends upon a continual through-flow of energy and matter, and operates within a delicately balanced biosphere'.⁸ In her essay *Doughnut Economics*, the same Raworth cites the idea of 'generous city' made by biologist Janine Benyus, co-founder of Biomimicry 3.8 and member of the US Green Building Council's Board of Directors for two-year term since Jan 1, 2016 (LEED Rating System).⁹ The city can be generous because it is aware of the place in which it is established (*genius loci*). Observing the local ecosystem through technology, it can respect the standards imposed by the ecosystem. By studying and imitating the natural processes (biomimetic), architecture can also aspire to the optimization of the building system (building envelope-systems-materials) both from an energetic point of view and in materials management.

The challenge is great, because it implies a radical change in the way of understanding the economy and architecture: it requires that architects act as carriers of this knowledge and its application, through visions and experimental work, such as those for example of architect Jenny Sabin.¹⁰ Paradoxically, as often happens, the changes come from below, even in architectural practice.

Because of the global economic crisis which is also affecting life in Friuli Venezia Giulia, increasingly we tend to design using reuse and flexibility criteria. The clients, in a present and future saving point of view, demand the refurbishment of existing buildings and to ensure maximum flexibility of spaces in such a way that they can already anticipate a possible future conversion and regeneration.

8 Rethinking Economics and The New Weather Institute, *33 theses for an economics reformation* (published December 12, 2017), <https://drive.google.com/file/d/1Rf7oKB2LSvhP2mFloVFYz469GaW09lba/view> (accessed December 20, 2017).

9 Kate Raworth, *L'economia della ciambella, sette mosse per pensare come un economista del XXI secolo*, translated by Emilio Cella (Milano: Edizioni Ambiente, 2017).

10 "Lab & Studio," Jenny Sabin, <http://www.jennysabin.com> (accessed December 20, 2017).

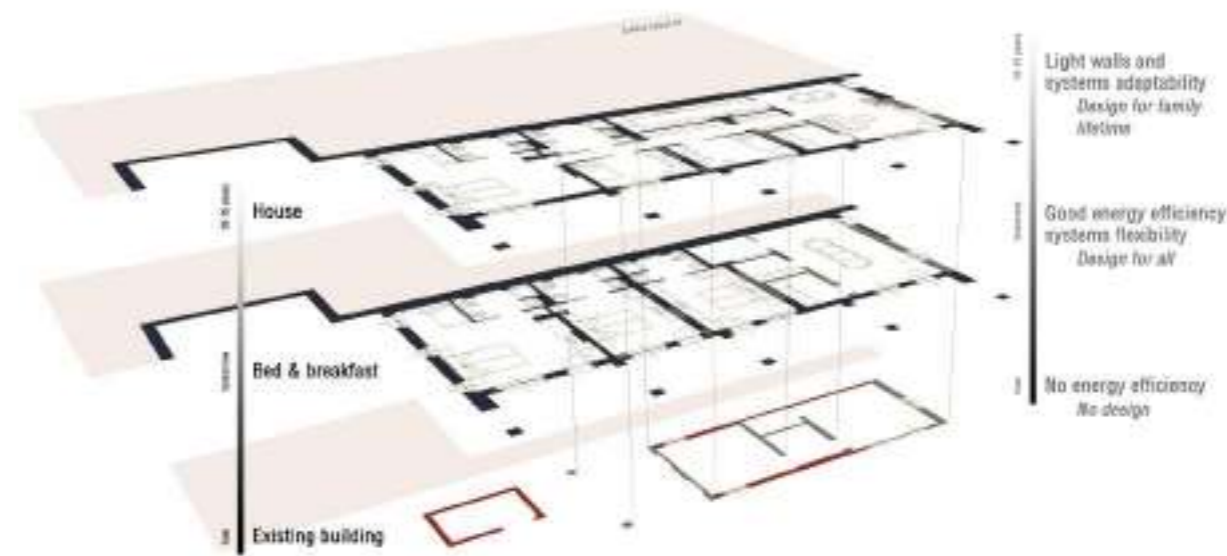


Fig. 2. Chiara Pasut, Project for the recovery of a store room with high flexibility of use for different destinations, 2017.

This implies the ability of the architect to foresee all the variables, such as the spatial distribution, technical plants, but also those related to habits of people and their ways of use in the various configurations (Fig. 2). It's also needed to know the characteristics of the materials used very well, both from a technical and functional point of view and with respect to their environmental quality.

Local Materials and Circular Economy

With the need to implement the Environmental Minimum Standards within the *Green Public Procurement* for *public works contracts* and in my own research I have found an innovation movement, not obvious and still not shared with the best circular economy practices. It involves many actors and can surely still be implemented. In this context, the architects and construction companies, with the support of innovative and incentive laws, could make the difference between success and failure.

In the field of materials, there is a strong tradition in the timber, stone and bricks industry in Friuli Venezia Giulia, and products made by the same chains. In the Region about 85% of the waste is classified as 'special waste' (3.550.389 tonnes in 2015). This figure also includes waste deriving from the demolition, construction, waste products from industrial and craftsmanship (1.459.154 tons).¹¹ In its management, 4.3% goes to landfill, while the remaining part follows other pathways,

11 "I rifiuti speciali," ARPA FVG, http://www.arpa.fvg.it/cms/tema/rifuti/dati_ambientali/rifuti-speciali1 (accessed November 16, 2017).

including the recovery from productive activities (40.8%) and environmental restoration and in the construction field (21.9%).¹²

Landfills authorized to receive products from building demolition in general are active in the recycling of the components conferred in order to produce material used to create new basis for foundations, new modelled soils or used as drainage material. The same fate is followed by the by-products resulting from the processing of Piasentina stone, extracted in the Julian Pre-Alps and exported all over the world: both fine and coarse by-products produced by members of the Consorzio Produttori Pietra Piasentina are used for environmental restoration or in modelling soils.

Another well-known example in the field of materials is the case of timber and its products (wood and furniture). In this area, we can already find a circular economy, which affects not only the processes of transformation but also inspires smart innovations for the implementation of communication, participation and empowerment of producers, architects and end users in terms of finished product.

The Friuli Venezia Giulia region has 300.000 hectares of forest land of which 80.800 hectares are PEFC certified. Woods with different characteristics depending on the location, from the ancient forests of Tarvisio where the excellence of resonance spruce stands, used for musical instruments, to the coastal forests, to name just a few. Within forest management, product chains have also been developed, such as the chain realized through the Consorzio Innova FVG for the development of the mountain territory called *filiere legno fvg*, which includes companies ranging from the timber first transformation until the construction of wood-based buildings; or the *Green District* managed by "Cluster Arredo e Sistema Casa" in which companies converge in the furniture system with FSC and PEFC certifications. In addition to the traditional linear chain, however, there is a real circular economy system in which industries of various sectors and with different technologies take part.

For example, there are those who use the by-products of the certified wood furniture industries to create new certified raw material, and specifically wood flour (La.So.Le Est in Percoto (Ud)). These flours are used in various fields, both in construction field and in industrial design. The resulting products range from the production of lightened or refractory bricks (with the flours derived from beech instead of polystyrene), the production of sheets of plasterboard, the production of gypsum plaster and stucco, up to more complex composite materials such as decking WPC composite wood or composite materials with thermoplastic for interior furnishing elements or for the automotive industry.

A fundamental result in a circular economy point of view, is to make products from recycled materials of a quality superior to those produced with virgin material. This is the case of particle boards made by Fantoni in Osoppo (Ud), made from 100% recycled material but with better mechanical characteristics with respect to its virgin counterpart. In addition, the wooden material recovered must necessarily come from the collection platforms located within a few hundred kilometers, so as to contain the supply costs and be able to market the finished product at competitive prices compared to virgin competing products and balancing the costs of treatment of the recovered products.

The development of new processes and materials is critical to the success of circular economy. A good example is the start-up GEMMA (Green and Eco-sustainable Materials Management) from Materialscan company, which is able to produce an eco-friendly material (50% recycled material, 50% natural origin material) in the form of small spheres for thermal and acoustic insulation through the reuse of waste materials that are difficult to recycle, such as fiberglass, carbon fibres and polyurethanes (from shipbuilding and induced), bricks and plasterboard (from the construction industry).

The involvement of architects and individual citizens in these circular economies is crucial: the first ones to be aware of the choice implemented in the design, from the urban scale to the industrial design product; the latter ones to be aware of how their daily actions affect the economy and the management of resources significantly. For this even those virtuous practices that document and disseminate collaborative circles are valuable, as it happens in the case of the European Green Capitals. Therefore, in addition to defining the circular economy materials, it is also important to find applications for the circular economy. As Anna Pellizzari, executive director of Material Connexion Italia, suggested in a conference on December 6, 2017 at Catas institute, we can indeed identify neomaterials *in* circular economy (circular raw materials) and neomaterials *of* circular economy (tags, supports, etc.).¹³

Initiatives such as those of AcegasApsAmga (Hera Group), which publishes and shares the report *Sulle Tracce dei Rifiuti*, make citizens aware of how the daily separated collection of waste allows for materials to be recycled and re-introduced into the production cycle. Other emblematic cases in the construction industry of Friuli Venezia Giulia are the already mentioned production of chipboard derived from the recovery of the wood, or the production of iron for concrete reinforcement

¹² 2017 *Regione in cifre* (Trieste: Regione Autonoma Friuli Venezia Giulia, 2017), 48, http://www.regione.fvg.it/rafvig/export/sites/default/RAFVG/GEN/statistica/FOGLIA40/allegati/REGIONE_IN_CIFRE_2017_per_sito.pdf (accessed November 16, 2017).

¹³ Anna Pellizzari, *Neomateriali nell'economia circolare* (presentation of the book in Catas, San Giovanni la Natisone, Italy, December 6, 2017).

using material from recycling.¹⁴ Initiatives such as those of AcegasApsAmga (Hera Group) which publishes and shares the report *Sulle Tracce dei Rifiuti* make citizens aware of how the daily separate collection of waste allow to recycle materials and re-introduce them into the production cycle with emblematic cases in the construction industry of Friuli Venezia Giulia like the already mentioned production of chipboard derived from the recovery of the wood, or the production of iron for concrete reinforcement using material from recycling.¹⁴

In the same way, the mobile app *Rifutologo* simplifies the daily waste separation by reading the product barcode. It would be desirable for these applications to be extended to the construction sector as well.

Another interesting application, realized by the aforementioned "Cluster Arredo e Sistema Casa," is the "Italian Furniture-ID" project. Through a NFC (Near Field Communication) device inserted inside the product and a patented management system, every piece of furniture can equip itself with an identification code, with which it is possible to access information made available by the manufacturer, such as certifications, LCA and EPD declarations, instructions for use, maintenance and disposal, etc. These technologies can revolutionize the management of architectural design, not only in the final phase of collecting and cataloging information on 'as-built', but especially in the most critical moment, that is at the construction site where the materials control is essential.

The real challenge lies in combining and sharing the expertise of the various actors in order to realize the virtuous circles of scientists, architects, material manufacturers, recyclers and citizens, in a holistic view of the territory.

As we have seen, the statement of goals to implement local actions to combat global emergencies is critical. The sharing of scientific evidence on climate change must be the basis for implementing actions in all sectors in order to be within the planetary boundaries. Actions can be transferred over the territories by understanding the methods implemented in other situations, as the experience of the European Green Capitals, or that can be studied and applied to individual buildings or products through the guidelines of environmental sustainability rating systems. All this, however, must be supported by a strong leadership that will necessarily include the introduction of new values in the global economic system that considers ecological standards as an integral part of the regenerative economic balance. If we do not proceed in this way the chance of success for systems, including local material chains of circular economy, will be submitted to the will and determination of citizens and businesses. It must therefore also be us, architects, women, with our technical but also

visionary ability to become intermediaries to listen, understand, and above all give answers in order to achieve an organic architecture, sustainable and communicative.

Speaking of communication, we cannot forget one woman, an architect Friulan by birth, which has been able to promote worldwide social and gender progress through design: Elena Valle, better known as Lella Vignelli. With her husband Massimo Vignelli she created the motto 'Design is One', meaning that an architect must be able to do everything, 'from the spoon to the city', and has to know how to plan and communicate: design in all its forms is economy, it is not wastage, 'design is an encompassing profession, not a job or a trade, but a profoundly ethical profession that we should embrace or reject'.¹⁵

¹⁴ *Sulle Tracce dei Rifiuti: 8ª Edizione Hera Dati 2016* (Bologna, Hera s.p.a., November 2017), http://www.acegasapsamga.it/chi_siamo/comunicazione_media/comunicati/pagina489.html; received from AcegasApsAmga Communication office, email correspondence (November 28, 2017).

¹⁵ Jan Conradi, *Lella and Massimo Vignelli: Two Lives One vision* (Rochester: RIT Press, 2014), 9.

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Empowering Vulnerable Women by Participatory Design Workshops

This contribution addresses the issue of homeless women's empowerment through design workshops and according to the capability approach.¹ The paper presents small, ordinary stories of women that experience being designers. Besides the professional label, being a designer means to approach reality from the transformative perspective of pursuing a positive change. It also translates in claiming the space for the expression of a personal vision of the world, within a cooperative environment. It enables to experiment innovative strategies to solve problems and to pursue self-determination in practical activities.

The designers introduced in this paper are women with basic education and no experience in the creative sector, but they share the narrative of generative processes with their 'educated colleagues', rejecting stereotypes and battling to have their skills acknowledged by the rest of society. Within this debate, the position we intend to promote is that design as a discipline can and should foster environments where fragile women can discover, develop or reinforce their capabilities, as it happens in the case of the workshops described further.²

In order to do so, this paper will first introduce the topic of homelessness, pointing out how gender can impact on the difficulties experienced by the female population in the condition of being without a home. Then we will present the case of "Crafting Beauty," a Turin-based interdisciplinary project for the social inclusion of homeless women (and men) via Design-Anthropology, which led workshops

and participatory processes.³ After drawing a parallel with similar case studies, this article will concentrate on three creative workshops that were part of Crafting Beauty in order to highlight how these engage women and enhance creative thinking skills, practical abilities and resilience.

Homelessness and Women

The European Observatory on Homelessness developed the European Typology of Homelessness and housing exclusion that provides a common language for transnational exchanges on homelessness as a framework for debate, data collection purposes, policy purposes and monitoring purposes.⁴

For ETHOS typology, there are three domains which constitute a home: 'having an adequate dwelling (or space) over which a person and his/her family can exercise exclusive possession (physical domain); being able to maintain privacy and enjoy relations (social domain) and having a legal title to occupation (legal domain)'. These latter lead to the four concepts of rooflessness, houselessness, insecure housing and inadequate housing that indicate the absence of a home.

Housing exclusion is the result of a process that –in the absence of a home or a secure housing situation– is the main evidence of homeless vulnerability. The multidimensionality that characterizes homeless people deals with different forms of personal and human discomfort: problems with health or wellbeing, drug or alcohol problems, or the lack of a job. Homeless people seem to have lost the ability to provide adequate answers to personal needs (food, hygiene, clothes) to the extent of not being able to plan their life. Luigi Gui draws attention to the fact that many homeless people or adults in a state of severe exclusion are at a disadvantage due to the fact that they lack most of their endowments, also in terms of emotional relationships.⁵

According to Joanne Bretherton, evidence indicates that gender is consistently associated with differentiated trajectories through homelessness in Europe.⁶ In fact, women's pathways through

3 Wendy Gunn and Jared Donovan, "Design and Anthropology: An Introduction," *Design and Anthropology* edited by Wendy Gunn and Jared Donovan (England: Ashgate, 2012).

4 "ETHOS: Typology on Homelessness and Housing Exclusion," FEANTSA, <http://www.feantsa.org/spip.php?article120&lang=en> (accessed December 2014).

5 Luigi Gui, "Una ricerca di nuovi percorsi d'aiuto," *Servizio sociale e povertà estreme: Accompagnamento sociale e persone senza dimora*, edited by Maurizio Bergamaschi, Carlo Landuzzi and Giovanni Pieretti, (Milano: Franco Angeli, 2003).

6 Joanne Bretherton, "Reconsidering Gender in Homelessness," *European Journal of Homelessness* 11, no. 1 (2017), 1–21, https://www.feantsa.org/download/feantsa-ejh-11-1_a1-v045913941269604492255.pdf (accessed May 31, 2018).

1 Amartya Kumar Sen, *La disuguaglianza: Un riesame critico* (Bologna: Il Mulino, 2000); Martha Craven Nussbaum, *Creating Capabilities: The Human Development Approach* (Harvard: Harvard University Press, 2011).

2 Kumar Sen, *La disuguaglianza*.

homelessness are primarily linked to domestic violence and cultural exclusion, rather than to the loss of a home. Women appear more likely to rely on relatives, friends and acquaintances to keep themselves accommodated, only approaching homelessness and other services when these supports are exhausted.⁷ This condition reflects an extreme fragility and solitude of homeless women, often marked with affective poverty. Since the researchers report the condition of fragile women as very specific, their natural abilities, talents and personal resources need of a specific approach. This approach can focus on the real needs of the population and it can frame the empowerment intervention into appropriate environments.

Within this panorama, the evolutionary relationships between design and the social opens perspectives for innovative interventions: the social appears the immediate object of design, which, instead of being altered via the design of products, services or signs, becomes the transformational subject in and of itself.

Design takes part in debates on urgent worldwide issues and achieves an active role in addressing the complexity of the contemporary world on many topics. According to Viktor Papanek 'all men are designers' where 'design is the conscious effort to impose meaningful order'.⁸ About design and its definition, Krippendorff states that design is 'making sense of things'.⁹ This new paradigm portrays design as a promising, comprehensive, holistic, inclusive, reflective process that can facilitate access of the most marginal users to welfare services and recovery processes, upholding basic human rights.¹⁰ In the meantime, policymakers are regarding these scenarios with interest and are increasingly taking up design as a promising field for partnerships and methodologies.

So what is the role that design can play for the enhancement of creative skills in vulnerable women?

Crafting Beauty: The Project

Crafting Beauty is a Design Anthropology-led project and it was set up in Turin in 2014.¹¹ The project started as an experiment focused on both the empowerment of homeless people and the development of skills in university students through participatory and interdisciplinary approaches.¹²

Crafting Beauty is managed by the architect and designer Cristian Campagnaro (Department of Architecture and Design of Polytechnic of Turin) and the anthropologist Valentina Porcellana (Department of Philosophy and Educational Science of Turin University) and it is part of an action research named *Abitare il dormitorio/Living in the dorm* on homelessness services set up in 2009.¹³

The project involves a complex network of actors from the public and the private sector, involved in the ongoing co-production of the daily processes.¹⁴

Crafting Beauty takes place in one of the six night shelters of the City of Turin and it brings together a variety of participants: homeless people; design students from the Polytechnic of Turin; anthropology and education students from the University of Turin; social workers from the Service for Adults in Difficulty (funding service against homelessness) of the City of Turin; educators from social cooperatives, which manage services for homeless; designers, craftsmen, creatives and citizens.

Through regularly organized design activities they experiment with new projects, languages and production techniques, also contributing to the redesigning of the indoor and outdoor spaces of the shelter.¹⁵

- 7 Marybeth Shinn, et al., "Efficient Targeting of Homelessness Prevention Services for Families," *American Journal of Public Health* 103, no. 2 (December 2013), 324–330, doi: 10.2105/AJPH.2013.301468 (accessed May 31, 2018); K. Reeve, R. Goudie and R. Casey, "Homeless Women: Homelessness Careers," *Homelessness Landscapes* (London: Crisis, 2007); Nicholas Pleace et al., *Statutory Homelessness in England: The Experience of Families and 16–17 Year Olds* (London: Department of Community and Local Government, 2008), <http://womenshomelessness.org/wp-content/uploads/2018/02/Statutory-Homlessness-in-England.The-Experiences-of-Families-and-16-17-Year-Olds.pdf> (accessed May 31, 2018); Paula Mayock and Sarah Sheridan, "Women's 'Journeys' to Homelessness: Key Findings from a Biographical Study of Homeless Women in Ireland," *Women and Homelessness in Ireland: Research Paper 1* (Dublin: School of Social Work and Social Policy and Children's Research Centre, Trinity College Dublin, 2012).
- 8 Viktor Papanek, *Design for the Real World: Human Ecology and Social Change* (New York: Pantheon Books, 1971).
- 9 Klaus Krippendorff, "Redesigning Design; An Invitation to a Responsible Future," *Design - Pleasure or Responsibility*, edited by Päivi Tahkokallio and Susan Vihma (Helsinki: University of Art and Design, 1995), 138–162, <https://pdfs.semanticscholar.org/719f/c8477bcd6d2bd00ca0c2ba35ae0890f85127.pdf> (accessed May 31, 2018).
- 10 Alastair Fuad-Luke, *Slow Theory: A Paradigm for Living Sustainably?* (United Kingdom: Routledge, 2005); Campagnaro, Cristian, and Sara Ceraolo. "Fighting Food Waste towards a New Social Food Chain: The Egg of Columbus Workshop," *International Journal of Food Design* 2, no. 1 (2017), 103+, Academic OneFile (accessed May 31, 2018).

- 11 Gunn and Donovan, "Design and Anthropology."
- 12 Thomas Binder and Johan Redström, "Exemplary Design Research," *Wonderground: Design Research Society: International Conference 2006*, edited by Ken Friedman et al. (Lisbon: CEIADE, 2006), http://unidcom.iade.pt/drs2006/wonderground/proceedings/fullpapers/DRS2006_0152.pdf (accessed May 31, 2018); Kumar Sen, *La diseguaglianza*; Sylvia Margolin and Victor Margolin, "A 'Social Model' of Design: Issues of Practice and Research," *Design issues* 18, no. 4 (2002), 24–30, <https://doi.org/10.1162/074793602320827406> (accessed May 31, 2018).
- 13 *Abitare il dormitorio/Living in the dorm* is the action-research set up in 2009 and led by the anthropologist Valentina Porcellana from University of Turin and by the architect and designer Cristian Campagnaro from Polytechnic of Turin. The research is part of the activities scheduled in the framework of the protocol of intent (2013) between the two Departments and fio.PSD, Italian Federation of Bodies for Homeless People.
- 14 The project involves Service for Adults in difficulty of Turin Municipality, public and territorial social services, social cooperative Animazione Valdocco, volunteers organizations and no profit foundations (S-nodi, Turin; Fondazione Progetto Arca, Milan).
- 15 Ezio Manzini, *Design, When Everybody Designs: An Introduction to Design for Social Innovation* (Cambridge; London: MIT Press, 2015).

Crafting Beauty: The Workshop

The model of conduction of the intensive design actions of the workshops is inspired by the 'empowered peer education'.¹⁶ In the apparatus of the workshops, the dimension of 'doing together' finds the direction to build a long-term collaboration (that can last a few days, weeks or several months), in which design objects are no more the final goal but they are the enabling platform for working together: the most elaborate product springing from collective work is the ability to collaborate, in the hope that this skill becomes property of the actors involved and grows beyond the borders of the laboratory.¹⁷

The topics of the workshops are selected in connection to the capabilities of the homeless people (i.e. abilities coming from their previous working experience or personal interests and aspirations), involving creative realities from the area (i.e. artisans, designers, artists, associations).

Crafting Beauty: Sustainability

Homeless people enrol in the project for nine months in the form of a paid internship. The internship is a 'tool of engagement' developed by the Service for Adults in difficulty of City of Turin in order to test or recover (mostly) the relational skills towards their reintegration in society.

In Crafting Beauty, the internship takes on specific features. It offers an innovative opportunity for conducting the educational work with the homeless people, enhancing their capabilities: the project acts as an accelerator and amplifier, because of the high density of interaction between the heterogeneous group of participants and the variety of activities conducted in the laboratories.

According to Manzini and his co-authors, producing design interventions is a kind of activity entailing a multitude of processes such as learning, sharing, creating and experimenting which can result in generating shared values between designers and individuals from non-creative occupations or fields.¹⁸ This can affect an individual's motivation to collaborate and the motivation of a group to pursue common interest or benefits through which the sharing of knowledge is enhanced.

Since the beginning of the project, Crafting Beauty offers an appropriate context where to develop and test new initiatives for the benefits of the homeless people.

¹⁶ Alberto Pellai, Valentina Rinaldin and Barbara Tamborini, *Educazione tra pari: Manuale teorico-pratico di empowered peer education* (Trento: Erickson, 2002).

¹⁷ Richard Sennett, *Insieme: Rituali, piaceri, politiche della collaborazione* (Milano: Feltrinelli, 2014).

¹⁸ Roberto Verganti, *Design-Driven Innovation: Changing the Rules of Competition by Radically Innovating what Things Mean* (Harvard: Harvard Business Press, 2009); Nigel Cross, "Designerly Ways of Knowing," *Design studies*, Vol. 3 (Bucks: Design Discipline Open University, 1982).

The Three Female Workshops of Crafting Beauty

The first female laboratory of Crafting Beauty was named Microfoodworkshop and it consisted of a cooking workshop attended by homeless women, social workers, students, designers and anthropologists from the project's team.

The workshop was held in June 2014. It involved eight homeless women from a night shelter and its goal was to facilitate the dialogue between them and the local community which was affected by distrust and mutual hostility. The workshop coincided with European Neighbour's Day, where the women helped preparing food to share with other inhabitants.

In order to facilitate the creative process, the workshop was tutored by the chef and performer Sara Casiraghi. Sara Casiraghi's creative research focuses on the combination of gastronomy and storytelling. As tutor of the workshop, she coordinated the food design process through the collective redesign of the recipes, groceries shopping and meal cooking with a creative mind-set.

The workshop gave to the homeless women the chance to experience the normality of a kitchen, something that is remote to the life in the night shelter. Reconnecting to familiar gestures, they exercised the right to express themselves through food and to take care of someone else sharing the meal at the party. Within the framework of creative participatory process, the experience succeeded also as a powerful tool to create a sense of community and a positive connection with the surroundings.

Within this process, the food becomes a pretext to foster initiative of openness towards the neighbourhood, integrating group of citizens and contributing in supporting processes of community identity.

The second experience was the "Tex Paints" and it consisted in a one-month long workshop with the aim of creating a collective artwork. The workshop developed the topic of collective female imagination and personal expression. With the creative direction of Matteo Thiel, a Turin-based fashion designer, five homeless woman and two female design students tested innovative materials for the production of expressive volumes and shapes.

Matteo Thiel's positioning as tutor appeared to be crucial for the development of the creative process. The women perceived him as a powerful, charismatic and fascinating figure. They developed a communication based on a deep sense of trust and understanding, enabling the willingness to participate to an unusual creative process. Thanks to this empathic relationships and a to the ritual atmosphere, the participants committed themselves completely to the project, trusting their tutor and assuming the role of co-designers with pride.

The materials for the project were dismissed clothes that couldn't be reused or donate. Sharing with each other biographical memories, the group started manipulating the fabrics and working in teams. Within a high experimental approach, the group tested several techniques such as folding,

gluing, stitching and painting. Each shape was carried by a collective negotiation among the group in an evocative and ritual atmosphere that enhanced group's cohesion and the promotion of individual imagination. The process of Tex Paints workshop merged as a carefully designed method with the free artistic expression. This combination appeared to be highly educative for the participants: in one hand, they had the chance to recover their ability of divergent thinking and taking a challenge towards creative experimentation, and on the other hand, they appreciated how a well-designed plan of actions is necessary even for those activities that are apparently rule-less.

The third experience was named 'Un sacco di Sport' (a lot of sports') and it consisted of a sewing workshop whose protagonists were five homeless women and two female design students from the Politecnico di Torino. Tutored by a senior designer easing the co-production process, the group manufactured ten handbags designed by the students. The bags' manufacturing process was hosted inside the sewing laboratory of Crafting Beauty. There, going through the details of the production process together, the students and the artisans worked together to make adjustments in order to fit the abilities of the artisan that would produce each bag. In doing so, the students learned the designer's double-sided ability of both 'protecting' the essential elements of his/her project while, on the other hand, re-negotiating the details when confronting with the artisans in charge of the production.

Within the workshop, all the participants tested 'dialogic collaboration', mutually increasing their abilities.¹⁹ By the recognition of their capabilities, the homeless women experienced a sense of well-being, recognition of their value in terms of personal resources. On the other hand, the workshop offered students the opportunity to practice context reading and to develop strategies to achieve the project's goals.

International Examples

The three workshops held in Crafting Beauty for the female homeless participants can be framed in a wider picture, composed by similar experiences about social design projects that have marginal users' empowerment as main goal. In this paragraph, we present three case studies that have been selected following a coherence criteria with the topic of Crafting Beauty's female workshops: food and community engagement; artistic expression and self-determination; technical skills enhancement and co-production.

By this selection, our goal is to connect the cross-field strategy proposed by Crafting Beauty's female workshops to significant singular international creative interventions that enhance women's specific attributes, pursuing the same goal if in different contexts.

The first case study is Herrgårds Kvinnoförening,²⁰ a women's association born within the context of The Malmo Living Lab in Malmo, Sweden. The association is mainly consisting of women from Afghanistan, Iraq, Iran and Bosnia. The Malmo Living lab is exploring how new media services in combination with social innovation can enhance the activities of these women, making them into a resource for the public sphere and surrounding community (and in the long run possibly establishing and increasing business opportunities for them as a commercial cooperative). The experiments consist of a combination of physical gatherings where the women provide meals for the orphans and new media solutions that could support the children's integration in the Swedish society (e.g. video-material from the women such as cooking instructions and their personal experiences of coming to Sweden). The project shares with the Microfoodworkshop the idea that female manual activities can be tools to be part of the community.

The second case study is Normali Meraviglie,²¹ an occupational therapy laboratory in Cesano Boscone, Italy. The project involves disabled people in craft activities. Like in Crafting Beauty, the process is led by a creative professional: the charismatic designer Alessandro Guerriero directs the creative initiatives and the group produces expressive products and objects. One of the collection developed is called *Non so che cosa sono* (*I don't know what they are*). The collection gathers a variety of object (vases, sculpture, and wood toys) where the creativity of the artisans leaves a high impact on the expressiveness of the objects, by the choice of the final shapes, textures and colours.

The third case study is Tiny Miracles²², a non-profit organization working with a local female community in the slums of Mumbai. The goal of the project is to improve the women's socio-economic condition by manufacturing objects designed by Pepe Heykoop. The objects are designed to be hand manufactured using low-tech tools, developing and reinforcing the sewing skills of the participants as Crafting Beauty's workshop Un Sacco di Sport. The initiative aims at making the women of the community Pardeshi independent, ensuring a fair income, an educational program and health care assistance. Focusing on the resources of the users and on the social-

²⁰ Erling Björgvinsson, Pelle Ehn and Per-Anders Hillgren, "Participatory Design and Democratizing Innovation" in *Proceedings of the 11th Biennial Participatory Design Conference* (New York: ACM, 2010), 41–50, doi:10.1145/1900441.1900448.

²¹ "Non so cosa sono," Normali Meraviglie, <http://www.normalimeraviglie.it/non-so-cosa-sono/> (accessed January 2018).

²² Tiny Miracles, <http://www.tinymiracles.nl> (accessed January 2018).

¹⁹ Sennett, *Insieme*.

economic context, the designer developed high quality products that are also in coherence with the craftsmanship, so the women can recognize themselves in these.

Designing For Socially Sustainable Contexts

In conclusion, Crafting Beauty and the projects presented by the case studies offer examples of how Design and creativity can facilitate access of the most marginal users such as homeless women to welfare services from which they are often excluded.

In our experience, Design plays a double match: on one side, 'design as a discipline' promotes new interdisciplinary models to foster social cohesion and active citizenship; on the other side, 'design as an attitude' offers the women the opportunity to experiment 'designerly ways of knowing'. In particular, it offers the chance to practice a problem-solving mind-set focused on solutions, to approach 'constructive' thinking and to develop innate abilities in solving real-world, ill-defined problems.²³

In conclusion, these small design stories try to highlight the essence of design practice in its daily life management. Here, designing means to aspire for the better,²⁴ to approach the complex world with a critical and open mind-set and to acknowledge human being of their great power of innovating, both in society and in themselves. These meanings are the core of the creative actions promoted by the workshops from Crafting Beauty and they appear crucial to those fragile women in order to experiment the wellbeing conditions necessary to reactivate self-confidence, build meaningful relationships, flourish and recover skills for managing personal life.

²³ Nigel Cross, "Designerly Ways of Knowing," *Design Studies*, Vol. 3 (Bucks: Design Discipline Open University, 1982).

²⁴ Arjun Appadurai, "The Capacity to Aspire: Culture and the Terms of Recognition," *Culture and Public Action*, edited by Vijayendra Rao and Michael Walton (Palo Alto: Stanford University Press, 2004).

Sustainability in City and Landscape: Space for Women

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Two Women Architects and Eight People's House Projects: Leman Tomsu and Münevver Belen, 1934-1938

Leman Cevad Tomsu (1913–1988) and Münevver Belen (1913–1973) became the first women architects in Turkey, graduating from the Architecture class of the Academy of Fine Arts in Istanbul in 1934.¹ Following their graduation, both women worked at public authorities in the Thirties, Tomsu at Istanbul Municipality (later the Provincial Directorate of Istanbul) under Martin Wagner, and Belen at the Ministry of Public Works for three months and then at Istanbul, Bursa and Kocaeli municipalities.

Tomsu and Belen were classmates at Erenköy Girls' High School and then at the Academy, and apparently close friends, who designed projects together in the Thirties.

The People's House projects designed between 1934 and 1938, which are the focus of this paper, include the following in chronological order:

- *Gerede Cumhuriyet Halk Partisi Evi* (Republican People's Party House), L. Tomsu, 1934, un-built;²
- *Emirdağ Cumhuriyet Halk Partisi Evi* (Republican People's Party House), L. Tomsu, 1934, un-built;³
- *Gerede People's House*, L. Tomsu & M. Belen, 1936–37, built;⁴

1 Meral Ekinciöglü, *Woman in Modern Contemporary Territories of Turkish Architecture* (Cambridge, MA: Aga Khan Documentation Center at MIT, 2016), <https://www.slideshare.net/MeralEkincioglu/1woman-in-modern-territories-of-turkish-architecture-project-by-dr-meral-ekincioglu-for-archnetmit-february-2016> (accessed January 27, 2018).

2 Leman Cevad, "Gerede ve Emirdağ C. H. Partisi Evleri," *Arkitekt* 52, no. 4 (1935), 110–11.

3 Ibid.

4 Leman Tomsu and Münevver Belen, "Gerede Halkevi Projesi," *Arkitekt* 72, no. 12 (1936), 330–32.

- Karamürsel People's House, L. Tomsu & M. Belen, 1936,⁵ built, then demolished in 2007;⁶
- Kayseri People's House, L. Tomsu & M. Belen, 1937, built with some modifications, under threat of demolition due to a recent urban regeneration project of Kayseri Metropolitan Municipality;⁷
- Bursa People's House, M. Belen, 1938, built, competition project, 1st place, greatly altered in the Nineties;⁸
- Şehremini People's House, Istanbul, L. Tomsu, 1938, unbuilt;⁹
- Kadıköy People's House, Istanbul, L. Tomsu, 1938, unbuilt, competition project, third place.¹⁰

The People's Houses became one of the most efficient tools of socio-cultural modernization in Turkey. Founded and financed by The Republican People's Party (*Cumhuriyet Halk Partisi*) or the People's Party, in short, the first 14 People's Houses in major cities opened in February 1932. These were products of the socialist approach similar to other European countries and the Kemalist ideology in the early period following the foundation of the Turkish Republic. The subjects represented with a workgroup in each People's House included the following issues: (1) Language and Literature, (2) Fine Arts, (3) Theatre/Drama, (4) Sports, (5) Social Solidarity, (6) People's Education and Courses, (7) Library and Publication, (8) Rural Studies and Development, (9) History and Museum. These subjects and works were obviously aimed at creating a sense of community within the new society.

The number of people involved in these activities was estimated at six million in 1938, forming more than one-third of the Country's population. The activities reached about 5000 conferences, 2000-3000 plays, 1000-1500 concerts, 2000 movie screenings, 2000 social events, 1500 village visits, 500 exhibitions, 400,000 books and 2,5 million readers, 40,000 students at various courses per year by the 1940s. Social support and solidarity activities were reaching around 40,000 people per year around the same time.¹¹

The architectural design and production of the People's Houses appear to have been an important problem and a case for great planning for the People's Party. From 14 in 1932, the number of the buildings increased to 209 in 1938, 383 in 1942 and 478 in 1950, when the party decided to close

them. A smaller version of the people's house called people's rooms for smaller towns and large villages reached from 141 in 1942 to 4322 in 1950.¹²

Between 1932 and 1940, the buildings were acquired through different methods: Some were converted from existing buildings while others were either commissioned to various architects by the party or district governors; a few were obtained through architectural design competitions, including Bursa and Kadıköy (Istanbul), discussed in this paper. An architectural office was set up within the People's Party's General Secretariat for the design and construction of these buildings in 1940. Directed by Sabri Oran, this office designed three typological projects for settlements of various sizes and populations. The architectural design characteristics of these buildings were also considered important regarding the socio-cultural modernization of the society.¹³ New projects were commissioned to prominent architects and designers of the period in the mid-1940s.¹⁴

It is also true that the activities started in an existing building, and later transferred to the new people's house when it was completed in many cases. For instance, the activities began in 1932 in Kayseri and Bursa, and in 1935 in Şehremini and Kadıköy (Istanbul) and Gerede.¹⁵ However, the buildings for Kayseri and Bursa were designed respectively in 1937 and 1938 and constructed later. While that for Gerede was designed in 1936, and those for Şehremini and Kadıköy in 1938; of these last three, Şehremini was never constructed.

For the architectural designs, Modernism appears to be an overriding concern with the economy. The buildings were described with terms such as 'simple, clear and functional.' Compared to the historicist architectural approach dominant in the 1920s in Turkey, the Neo-Ottoman style or the 1st National Architectural Movement, as it is coined, the 1930s generally reflected a Modernism of classical proportions, a tendency corresponding to contemporary attitudes in Europe.¹⁶

The People's Houses were closed following the regime change in the 1950 elections. The surviving buildings are used for similar socio-cultural and educational purposes today.

5 Leman Tomsu and Münevver Belen, "Karamürsel Halkevi Projesi," *Arkitekt* 65-66, no. 5-6 (1936), 142-44.

6 Özden Semen Erol, "Karamürsel Halkevi," *Uluslararası Kara Mürsel Alp ve Kocaeli Tarihi Sempozyumu Bildirileri*, edited by Haluk Selvi, M. Bilal Çelik and Ali Yeşildal (Kocaeli: Kocaeli Belediyesi, 2016), 1983-96.

7 Leman Tomsu and Münevver Belen, "Kayseri Halkevi Binası Projesi," *Arkitekt* 76, no. 4 (1937), 107-09.

8 "Bursa Halkevi Proje Müsabakası," *Arkitekt* 85, no. 1 (1938), 16-20.

9 Leman C. Tomsu, "Şehremini Halkevi Projesi İzah Notu," *Arkitekt* 93, no. 9 (1938), 253-56.

10 "Kadıköy Halkevi Proje Müsabakası," *Arkitekt* 86, no. 2 (1938), 43-56. Among the jury members of Kadıköy People's House Competition were Bruno Taut and Georges Debbes, who were then working in Turkey.

11 Cumhuriyet Halk Partisi, *Halkevleri ve halkodaları 1932-1942*, (Ankara: C.H.P., 1942).

12 Neşe Gürallar Yeşilkaya, *İdeoloji ve Mimarlık İlişkisi ve Türkiye'de Halkevi Binaları (1932-1946)*, (Unpublished graduate thesis, Gazi Üniversitesi FBE, Ankara, 1997).

13 Halk Partisi, *Halkevleri ve halkodaları 1932-1942*; Gürallar Yeşilkaya, *İdeoloji ve Mimarlık İlişkisi; Aişe Durukan, Cumhuriyetin Çağdaşlaşma Düşüncesinin Yaşama ve Mekana Yansımaları: Halkevi Binaları Örneği*, (Unpublished PhD dissertation, İstanbul Teknik Üniversitesi FBE, İstanbul, 2006).

14 "Haberler: Yeni Yapılacak Halkevleri Projeleri," *Arkitekt* 17778, no. 9-10 (1946), 245-46.

15 Durukan, *Cumhuriyetin*, 91, fig. 4.2 (map originally published in 1935).

16 Nilüfer Baturayoğlu Yöney, "Devlet Eliyle Modernizm: Kayseri'deki Kamu Yapıları, Kent Belleğindeki Yerleri ve Miras Nitelikleri Üzerine Bir Değerlendirme," *Kayseri'nin Yirminci Yüzyılı - Mimarlık, Kent Tarihi ve Kültürü*, edited by Burcu Ceylan, Burak Asiliskender and Akmet Erdem Tozoğlu (Kayseri: Abdullah Gül University, 2012), 31-54.

Tomsu and Belen's People's House Projects, 1934–38: An Architectural Analysis

The first two examples, Gerede and Emirdağ Republican People's Party Houses were planned with a very simple scheme. (Fig. 1) Tomsu designed both buildings not only as provincial political party headquarters but also as a meeting place for the town's inhabitants.

Gerede had a rectangular plan: The two main functions, meeting and administration were separated with entrance facilities and the lobby in the centre. The meeting room was designed to be used not only for political gatherings but also for other social, recreational and educational activities directed at the community.

Emirdağ had a similar design approach as well but with an L-shaped plan. The entrance facilities again separated the two main functions, meeting and administration. The meeting room had a direct connection with the garden, created at the corner of the L-shaped building, which generated private interaction between the meeting room and the back garden.

Both buildings had basement levels used for technical facilities, such as heating and storage. Tomsu interpreted the social attitudes and intangible identity of the *milieu*/setting, such as the outside/street public usage for social activities and meetings, and transferred them into her designs, welcoming the community into her buildings.

A similar approach was also evident in Tomsu and Belen's designs for Bursa and Gerede People's Houses. (Fig. 1) In both cases, they interpreted the vernacular/traditional housing form into a public building.

Bursa People's House was located on a sloping area and was composed of four floors. In the plan, basic rectangular forms were brought together, a scheme in which rooms of different heights surrounded a courtyard, creating a modern interpretation of a traditional architectural form. Rhythmically repeated simple square openings on the facades gave a generic modernist appearance to the building. The entrance facade was elevated on thin pillars, like *pilotis*, creating a portico in front, and the central courtyard of the building was designed to allow interaction with the surrounding urban environment. The main entrance was located at the interior corner of this exterior courtyard, creating an outside public space that could act as an attraction with the potential of becoming a meeting and interaction point. Two more side entrances were designed at either side of the building, at the corners where the exterior courtyard/square met and intersected the main road.

The spatial organization of the building was based on a very simple U-shaped plan scheme at ground floor level, which was connected with the linear mass above the front/entrance portico at the first-floor level. There were classrooms and offices at the two sides of the 'U-shaped' plan.

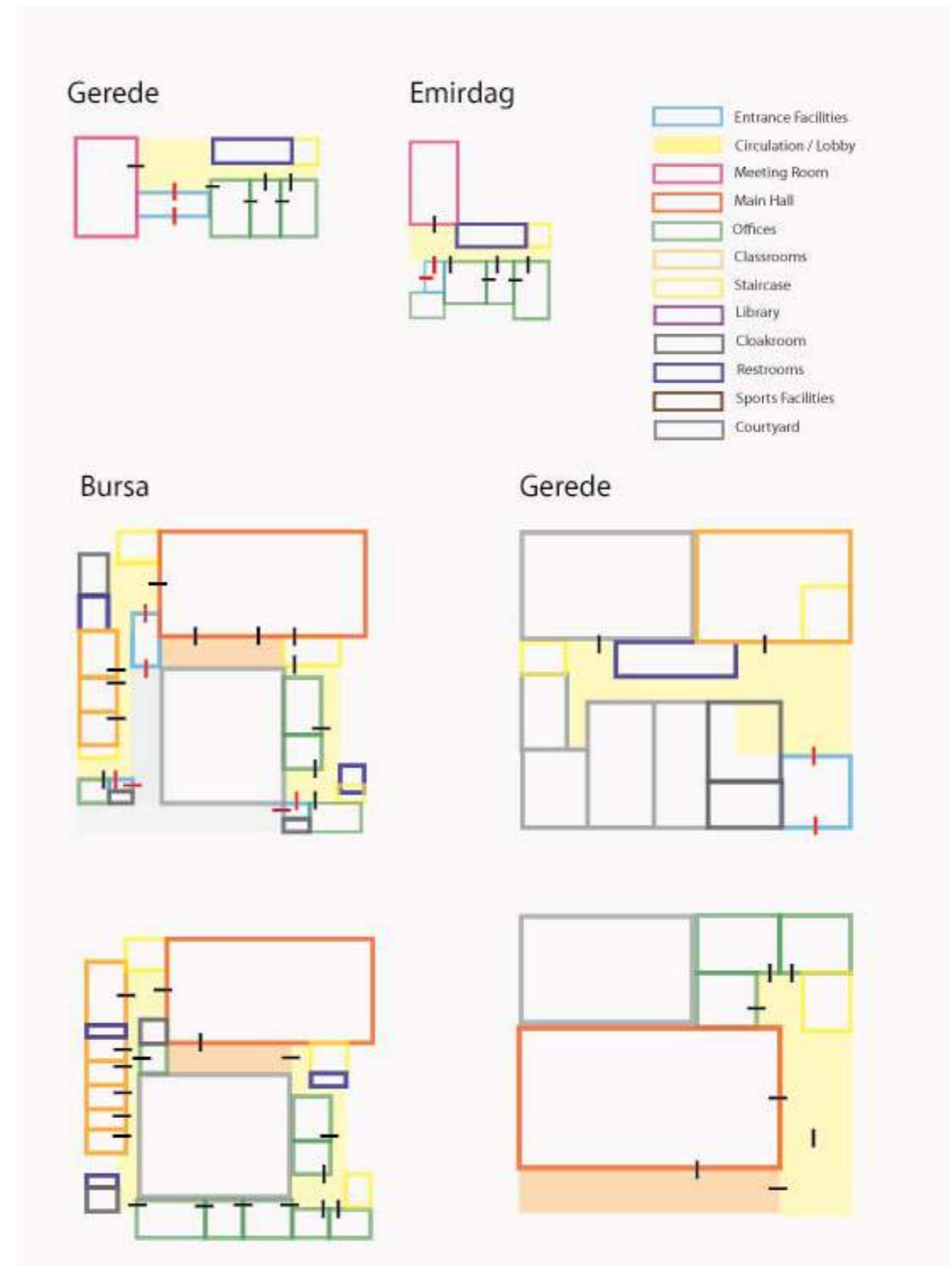


Fig. 1. Leman Tomsu and Münevver Belen, Plan Schemes for Gerede and Emirdağ Republican People's Party Houses, and Gerede and Bursa People's Houses, 1934–1938. Schemes generated from the original plans by the authors.

The main hall combined these side wings at the back as the main attraction and activity space. Classrooms and offices were surrounding the courtyard at the first-floor level as well.

Gerede People's House was also located on a sloping area and was composed of three floors. (Fig. 1) As in Bursa, the building faced a major public square. Tomsu and Belen interpreted the vernacular/traditional architectural forms both in plan and in appearance. The building was composed of intersecting simple rectangular blocks. This time the main entrance was located at the corner, and the courtyard at the back rather than the front. The meeting and classrooms and support units surrounded the courtyard at the ground floor level while the activity hall, which is the main attraction and focus as well as the offices were located at the first-floor level. The courtyard enabled visual interaction between the offices and the meeting and classrooms. There was another semi-open floor located in front of the main hall; this was designed as a balcony and constituted a part of the lobby and foyer on the first floor.

There were further intentional interpretations of the vernacular/traditional courtyard scheme in Tomsu and Belen's other People's House designs as well. Courtyards were central to the constitution of the plan and spatial organizations of the Kayseri, Kadıköy (Istanbul), Şehremini (Istanbul) and Karamürsel People's Houses, which were based on L-shaped plan schemes. These exterior courtyards were limited by a garden wall, organizing the interaction of the buildings with their *milieu*/setting through the courtyards.

Kayseri and Karamürsel People's Houses were also designed with simple plan organizations. (Fig. 2) Similar to Bursa, the main entrance is reached along one side of the exterior courtyard from the main road, creating an open public area outside the building. Spaces with various public functions were aligned along one side of this pathway, with a parallel corridor on the inside. The main halls were located at the ground floor level, with a direct connection to the entrance and forming the further side of the courtyard. Lobby/foyer sections of both buildings had a direct visual connection to the courtyard, thus not only getting natural light and ventilation but also developing an interaction with the outside public realm.

Both buildings were composed of two floors. Classrooms and administrative offices were located at the first-floor levels in both cases. Kayseri People's House appears to have been constructed based on a modification of the original design. The L-shaped plan's longer wing extending toward the main street was juxtaposed in the other direction, creating an entrance wing parallel to the road.

Şehremini (Istanbul) People's House was also based on a similar L-shaped plan scheme. (Fig. 2) Located on a sloping area, the building was composed of two floors and a courtyard was created behind the main façade along the street. The façade had a generic modernist appearance with vertically proportioned and high rectangular openings. The building was designed with two wings, and the main entrance combined these two wings with separate functions, the main activity/

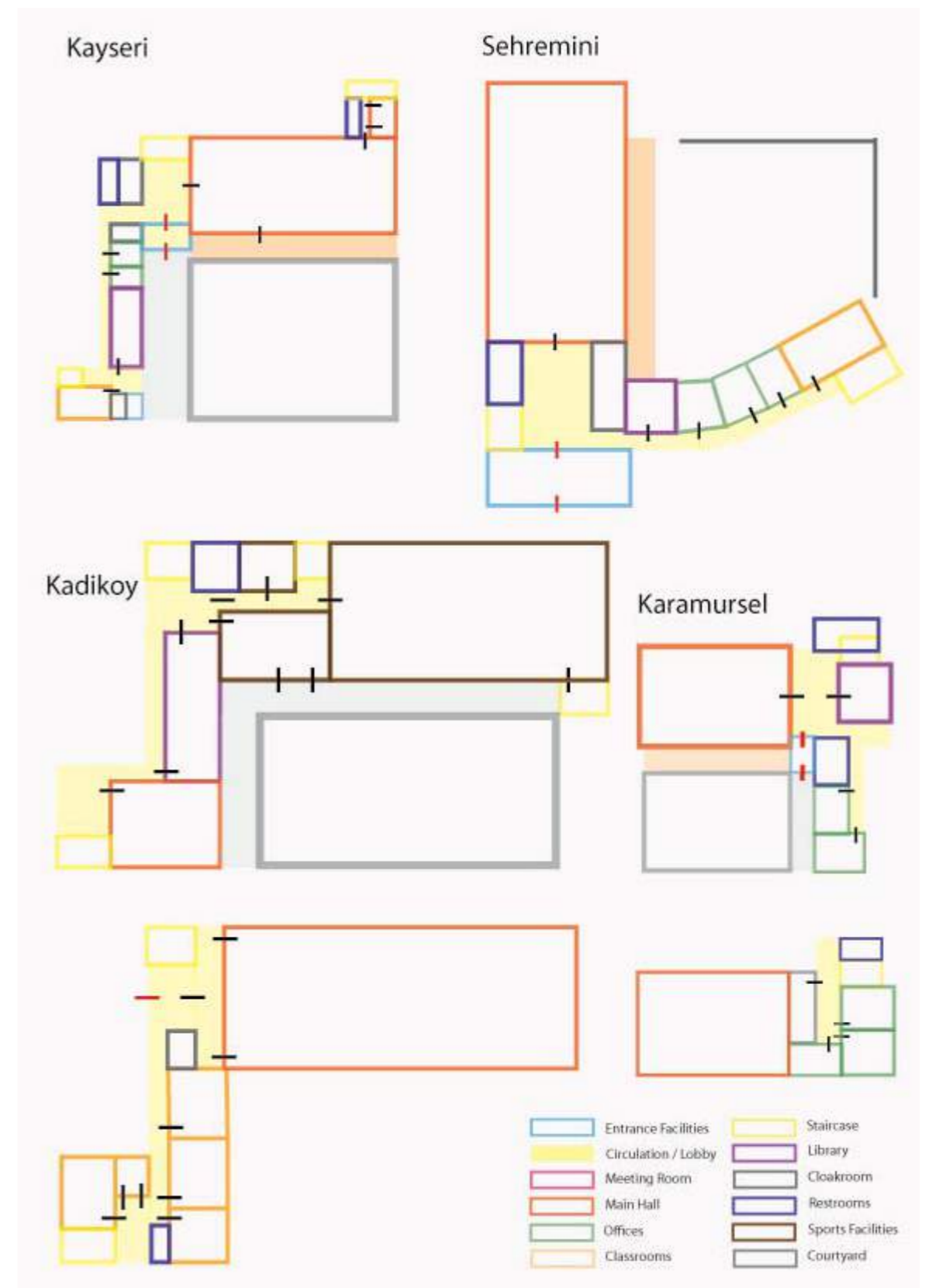


Fig. 2. Leman Tomsu and Münevver Belen, Plan Schemes for Kayseri, Şehremini, Kadıköy and Karamürsel People's Houses, 1934–1938. Schemes generated from the original plans by the authors.

meeting rooms on one side and offices and classrooms on the other. There was a direct connection to the main hall from the entrance. The classrooms were accessible through a smaller curving corridor on the other side, creating a linear wing parallel to the street.

The most complex design among this group of People's Houses was Tomsu's design for Kadıköy (Istanbul). (Fig. 2) Although the design was once again based on the simple intersection of basic rectangular forms in an L-shaped scheme, the functional program was more complex compared to the former projects, including additional activities such as a library and sports-hall in addition to the main hall, meeting and classrooms, and administrative offices. Tomsu separated the main facilities into the two wings forming the L-shape at four different floor levels. There were courtyards/gardens in the front, on the side and at the back. The two main levels were the ground floor where the main hall was located with a direct connection to the lobby/foyer from the main entrance, and the lower floor level where the sports-hall and its facilities were located directly under the main hall, at the back-garden level. The meeting and classrooms, administrative offices and an additional meeting hall were organized in the other rectangular wing. The building had simple and generic modernist appearance, similar to the former designs with basic and rhythmically repeated rectangular openings.

Conclusion

Tomsu and Belen's designs for People's Houses follow the general functionalist modernist approach of the 1930s with classical proportions. The plans, formed with the spatial composition of simple rectangular shapes are clear and functionalist, not only regarding providing economic and rational solutions but also in the way that the various functions of the People's Houses were systematically organized. The facades also provided clear and economic solutions, in which rectilinear openings were rhythmically arranged in a generic modernist approach. Mostly designed with flat roofs, the buildings acquired pitched roofs due to later modifications.

As architects, it is obvious that Tomsu and Belen followed the contemporary architectural approaches dominant in Europe. Their individual touch appears to have been the integration of functional –but not formal– vernacular/traditional elements such as the courtyards in Gerede, Bursa, Kayseri, Karamürsel, Şehremini and Kadıköy, and the porticos establishing a connection with the public realm as in Bursa and Karamürsel.

The roots of these tendencies at such an early period in their architectural career could be sought in their education. Both architects attended the Academy of Fine Arts in Istanbul at a turning point in architectural education: From the classicist and historicist approach of the previous decade, the

Academy was transforming into Modernism/modernist with the appointment of Ernst Egli as the head of the Department of Architecture in 1929.

Egli's style also bore similar characteristics, borrowing functional ideas from traditional architecture in Turkey, as illustrated by the former Music Teachers' School in Ankara (1927–29), organized around a central courtyard, opening to the street with a portico similarly to the plan scheme of the Bursa People's House. Leman Tomsu is mentioned as one of his students in various sources.¹⁷ Münevver Belen, studying at the Academy in the same years and graduating with Tomsu was probably among his design students as well. All projects but especially Tomsu's last two designs for the Şehremini and Kadıköy People's Houses both in Istanbul reflect the architectural maturity and confidence she has reached so early in her career.

Of Tomsu and Belen's eight People's Houses designs between 1934 and 1938, the first two, Gerede and Emirdağ Republican People's Party Houses were never built. Gerede and Karamürsel People's Houses are known to have been built, but neither survived to our day. Bursa and Kayseri People's Houses were built and still in existence; however, they have been modified during construction and/or as a result of later interventions. Şehremini and Kadıköy People's Houses, a private commission and a non-winning competition project respectively, were never built. Considered together within the socio-cultural time frame, this group of buildings constitutes an interesting case in architectural practice, not only as the designs of the first two women architects of Turkey in their early career but also modernist designs produced as a result of a transformed architectural training and ideology.

¹⁷ Neslihan Türkün Dostoğlu and Öslem Erdoğan Erkaslan, *Leman Cevat Tomsu: Türk Mimarlığında Bir Öncü – 1913–1988* (Ankara: TMMOB Mimarlar Odası, 2013); Neslihan Türkün Dostoğlu (ed.), *Cumhuriyet Döneminde Kadın ve Mimarlık* (Ankara: TMMOB Mimarlar Odası, 2005); Ataman Demir, *Güzel Sanatlar Akademisi'nde Yabancı Hocalar: P. Ginther'den (1929) – (1958) K. Erdmann'a Kadar* (Istanbul: Mimar Sinan Güzel Sanatlar Üniversitesi, 2008).

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Women Pioneers in the Modern Movement: The Methodology of Elizabeth Denby, Carmen Portinho, Margarete Schütte-Lihotzky and Catherine Bauer

Introduction

This work aims to offer visibility to the contributions of pioneer women to architecture and urbanism within the framework of the Modern Movement, relating the methodology and thinking of Carmen Portinho, Margarete Schütte-Lihotzky, Elizabeth Denby and Catherine Bauer, with the current focus of gender perspective.¹

Coming from various origins and backgrounds, they experienced a historical moment in which women were acquiring more and more political and social status in a world of male domination. Gwendolyn Wright, among other historians, looked beyond the architectural profession and identified four areas of female practices in architecture, suggesting the so-called 'role dilemma'.²

Feminist activists, architects, engineers, designers and housing consultants had the opportunity to offer new information and interpretations to the study of gender, social phenomena, material culture and the environment built in the domestic space and the urban city planning.³

The approach to the theory and know-how of these women's paths leads us to study their policies, regulations, and architectural projects. Their timeframe brought them together with themes related

to rational housing and planning expertise, debated in the first Congrès Internationaux d'Architecture Moderne (CIAM), in which they actively took part or were somehow involved.

Methodology

The gender perspective in architecture and urbanism aims at fairer and more balanced, and livable cities. The experience attributed to gender means an assignment of different roles and capacities to men and women.⁴

The Modernist theory reinforces gender roles in city design, where specialised sections were built for each function such as inhabiting, working, circulating, and recreation. Public, recreational and political spaces were meant for men and the private space of home meant for women.⁵ The gender approach is one of the Urban Social Movements' responses; it takes into account the needs of the people and criticises the *zoning* principle taken to the extreme. The building of mono-functional areas created dormitory neighbourhoods where people –mainly women, children and the elderly– found it hard to carry out their daily activities. This concept continues to be repeated the wrong way to this day.

The concept of daily life involves the set of activities that people perform to meet their needs in their different aspects such as productive, reproductive, personal, political, or communal tasks.⁶

The methodological approach adopted relies on a tripod: on the one hand there is the perspective of gender, on the other hand, it has its roots in Henri Lefebvre's⁷ dimensions of urban and daily life and, lastly, in the contradictions presented by him and other authors such as, recently, David Harvey.⁸ Housing is considered in its use value (and not exchange value), from the point of view of habitation (and not habitat) where people perform daily activities, in order to guarantee the production of adequate housing for these purposes.

Three categories are considered in order to analyse the urban planning and housing project issues: the private sphere (architectural typology of the domestic interior), the public sphere (urbanism and community) and housing policy design, following the logic that goes from the dwelling's interior,

1 This article is part of the PhD thesis developed by the author: Marcela Marques Abla, "Gênero e produção de habitação social: Uma perspectiva para o planejamento urbano a partir do pensamento de Elizabeth Denby, Carmen Portinho, Margarete Schütte-Lihotzky e Catherine Bauer," (unpublished PhD thesis, PROURB/FAU/UFRJ, Rio de Janeiro, 2017).

2 Gwendolyn Wright, "On the Fringe of the Profession: Women American Architecture," *The Architect: Chapters in the History of the Profession*, edited by Spiro Kostof and Dana Cuff, (California: University of California Press, 1977), 285.

3 See Brenda Martin and Penny Sparke, *Women's Places: Architecture and Design 1860–1960*, (London: Routledge, 2003).

4 See Anna Bofill Levi, "Planejament urbanístic, espais urbans i espais interiors des de la perspectiva de les dones," *Estúdios urbanos, género y feminismo* (2012), 443.

5 See Col·lectiu Punt 6, *Mujeres trabajando: Guía de reconocimiento urbano con perspectiva de género* (Barcelona: Comanegra, 2014), 25.

6 For productive I mean paid activities. For reproductive I mean activities not remunerated, representing the individual and collective subjects related to nutrition, hygiene, rest and care of the home. See Col·lectiu Punt 6, *Mujeres trabajando*, 25.

7 See Henri Lefebvre, "La producción del espacio," (Madrid: Colección entrelineas, 2013, 1st ed.1974), 44.

8 See David Harvey, *Seventeen Contradiction and the End of Capitalism* (London: Profile Books, 2014), 12.

through the city, to the housing policy. This rationale operates on a bottom-up system, which starts from the function of living requirements, defending the rights of the city, from the private to the political level.⁹

Henri Lefebvre proposes three dimensions of society's practices to analyse urban spaces: the space of perception, of materiality, the conception of rationalisation of the space, and the living spaces where daily practices occur. These three aspects are related. And urbanism, with a gender perspective, emphasises the dimensions of the living space.

The connection between the ideas of David Harvey and Henri Lefebvre and the background of these women is the right to the city. They promoted women's rights to the city and fought for female emancipation and participation as full citizens, such as the right to vote. This way these women sought to establish better conditions to inhabit the city and their homes, when they placed the users, especially the women, as the protagonists of their projects.

The concepts of *Existenzminimum*, of the 'neighbourhood units' and 'zoning' debated at the CIAMs¹⁰ will be analysed in the three spheres: private, public, and the design of housing policy, but categorising them is a complicated task since they pervade all of them. The Modern Movement aphorism adopted by Margarete Schütte-Lihotzky 'from the spoon to the city' sums up this theme since all of them are engaged in working from the domestic interior to the housing policy.

The Private Sphere

Since the beginning of the modern city, collective housing has been a fundamental axis of urbanism. As a consequence, there have been changes in the organisation of the so-called 'private' level; and 'minimal' housing has reintroduced the discussion of the concept of living.¹¹

No interpretation can be made of the present and immediate future of collective housing without taking into account the broad tradition that begins in the rationalist experiments of the *Existenzminimum* and the housing policy of European Social-Democracy. The concept of the *Existenzminimum* came to light from the II CIAM, held in Frankfurt in 1929, which gathered the experiments on the subject of 'minimal housing'.

In this field, Margarete Schütte-Lihotzky, the first Austrian female architect, had a significant role as an activist in favour of feminism and Austrian resistance against Nazism. She collaborated in two of the most important public housing operations carried out between the two wars in the social democratic countries of Europe: the Vienna *Höfe* with Adolf Loos and the *Siedlungen* or 'colonies' built-in Frankfurt with Ernst May.

Thus, in 1929, she took part in the exhibition of work on the Frankfurt social housing achievements together with the II CIAM – *L'abitazione per l'Existenzminimum*. In addition, she worked in the preparation of important architecture conferences, including the post-war CIAMs of 1947 in Bridgwater, Great Britain, and that of 1949 in Bergamo, Italy, always keeping her social commitment, especially favouring women.

Through a reformulation of domestic space, the architect sought to respond to the following concern: 'How can we build properly in order to minimise women's work?'¹² Her concern was translated into the famous *Frankfurter Küche*, a key player in the massive production of minimal housing.¹³

The discussion around the kitchen theme, introduced in the 1920s, covers two aspects: the sharing of domestic tasks, and the reduction of housing size.¹⁴ The first reflections on the rationalisation of cooking came years before the war, in the process of female emancipation.

It should be noted that, based on the studies of Christine Frederick in the book, *The New Housekeeping* and other German references, her kitchen design followed ergonomic criteria based on the time reduction in the accomplishment of household chores, with the purpose of promoting the domestic work and the reproductive activity in all of its aspects.¹⁵

Frankfurt's kitchen with its variations was implemented from 1926 on and, in it, Margarete Schütte-Lihotzky applies the knowledge she had already developed, reducing work in the domestic organisation.

The *Frankfurter Küche* –which divided the kitchen and the living room into two separate areas– reached the 'visual impression of the environment's proportion' thanks to different strategies.¹⁶ The architect's design was not only about the interior spaces of the kitchen: the distance between the kitchen and the dining table allowed the woman to cook while watching the children in the living

12 Lorenza Minoli, *Dalla cucina alla città: Margarete Schütte-Lihotzky* (Milan: Franco Angeli, 1999), 13.

13 The theme of the kitchen introduced two fundamental questions: the collectivization of the tasks of the home and the reduction of the size of its space.

14 See Joachim Krause, "La cucina di Francoforte," *Domus* 695 (1988), 211–13.

15 Originally designed in 1926 for the *Siedlungen Romerstadt* were designed other typologies and the 30,000 dwellings held in the city of Frankfurt between 1925 and 1930, 10,000 of them with such model of kitchen included.

16 See Krause, "La cucina di Francoforte," 209.

9 See Lefebvre, *La producción del espacio*, 44.

10 These topics were discussed at the International Congresses of Modern Architecture, the II CIAM, held in 1929 in Frankfurt, and IV CIAM, held in 1933 in Athens.

11 See Josep Maria Montaner, *La arquitectura de la vivienda colectiva: Políticas y proyectos en la ciudad contemporánea* (Barcelona: Ed. Revertè, 2015), 13.

room. The sliding door from the living room to the kitchen was another device that was used to isolate or connect the two environments, retaining the advantages of the kitchen-living room.

Elizabeth Denby, consultant and specialist in aspects of the design and management of social housing, was part of Modern Architectural Research Society (MARS), the British section of CIAM's and focused her work on building a suitable housing model for working people who lived in slums in England.

She collaborated with architect Edwin Maxwell Fry on the projects of *Sasson House*, 1934 and *Kensal House*, 1937 in London. In both cases, the *Existenzminimum* was applied, with emphasis on equipment and social services.

The consultant designed the interior of the *Kensal House* buildings: the kitchen separated the household tasks from the family gathering and resting areas. As in the Frankfurt kitchen, it was designed to maximise efficiency by optimising work and enabling women to develop their role of housewives and mothers. Small in size, it was well equipped, and the task of washing and drying clothes was concentrated outside, on a counter that was an extension to the kitchen.

The living room with its fireplace represented the centre of the social spaces and had an outdoor counter where people could sunbathe. Thus, the counters served as spaces of the gradual relationship between the interior (private) and the exterior (public) of the dwelling.

The principles of the *Existenzminimum* were also adopted by Carmen Portinho, the third female engineer in Brazil and the first urban planner; a protagonist of feminist movements, she was a militant for libertarian and innovative actions, which emphasise women's right to vote and their political and economic emancipation.

As director of the Department of Popular Housing in Rio de Janeiro (DHP), she worked alongside architect Affonso Eduardo Reidy, director of the Department of Urbanism, incorporating CIAM's criteria into housing projects in which she proposes a new way of living. This proposal had the most significant result in the construction of the residential complex Prefeito Mendes de Moraes – also known as Pedregulho.

Pedregulho is divided according to different layouts: it has a variety of shapes, apartments ranging from one to three bedrooms and duplexes, in response to the possible growth or diminishing of family units. Aiming to free women from domestic tasks in order to integrate them into the productive work, they outsource service spaces by proposing a complete mechanised collective laundry with washing and drying equipment and specialised workers.¹⁷

¹⁷ See Nabil Bonduki (ed.), *Os pioneiros da habitação social: Cem anos de política pública no Brasil*, Vol. 1 (San Paulo: Editora Unesp, Edições Sesc, 2014), 317.

Catherine Bauer was a North-American city planner and women's rights activist. Based on Europe's between-wars housing policies and the CIAM's conceptions, she was the founder of the United States housing policy. While designing the housing methodology, she placed women first, emphasising that the basic requirements of a good home should be defined regarding the person who will most use the internal space: the woman.¹⁸ It became a mandatory reference in the field of housing, receiving the title of 'Houser'. The 'housers' constituted a group of idealists who were advocating for housing.

According to her, the 'common woman' was the best source of information and a collaborator in the struggle to establish the minimum standards of habitability, which aimed to protect the poor and homeless working families from the real estate market and the iniquities of American slums.¹⁹

The Public Sphere

At the 'public' level, they adopted the concept of 'neighbourhood units', with an emphasis on community and social relations. Neighbourhood units, theorised by Clarence Arthur Perry in 1928, defined the idea of grouping dwellings to enhance community life. They should have facilities for education, health, trade, and leisure all within walking distances. The theme of the IV CIAM, the concept of neighbourhood unity, was reflected in the book by José Luis Sert, *Can Our Cities Survive?*²⁰

At *Kensal House*, Elizabeth Denby proposes to offer of different equipment and services: day-care and social programs as tools to improve the well-being of the residents in their daily lives. The creation of a Tenants Committee during the rehousing of slum dwellers reinforced the inhabitants' feelings of responsibility and belonging. The complex allowed them to try out recreational spaces for adults and children, playground and child care centre. The latter had trained nurses so that mothers could have more time to devote to their productive and personal tasks.

Carmen Portinho worked on the project of using the modern and innovative ideal of well living for the common citizen, through promoting decent housing for the low-income classes. The proposal was to build large housing estates equipped with social services, based on European neighbourhood units. Also, Carmen Portinho had among her objectives to 're-educate' citizens in a new living concept. In her housing programs, she reinforces the importance of the social worker's role who,

¹⁸ See Catherine Bauer, *A Citizen's Guide to Public Housing* (Poughkeepsie; New York: Vassar College, 1940), 2.

¹⁹ See Cynthia Imogen Hammond, "The Interior of Modernism: Catherine Bauer and the American Housing Movement," *Craft, Space and Interior Design, 1855–2005*, edited by Sandra Alfody and Janice Helland (London: Routledge, 2008) 176.

²⁰ See Josep Maria Montaner, *La arquitectura de la vivienda colectiva: Políticas y proyectos en la ciudad contemporánea* (Barcelona: Ed. Revertè, 2015), 60.

while on the one hand was fundamental for the education of the new inhabitants regarding life in society, on the other hand, contrasted with their resistance to the newly proposed habits.²¹

Thanks to her feminist ideals, the Brazilian engineer paid a lot of attention to the needs of women and children: the location of the school within the urban complex would increase the comfort, security, and independence of the children's movements, giving the parents greater time availability.²² The neighbourhood unit included school, gym, swimming pool and a club. This shows that the culture and education of children and citizens were of primary importance in her urban vision.

Margarete Schütte-Lihotzky recognises a new urban female subject with specific needs, developing the housing program for single women in Frankfurt. The central idea of this program is that architecture can facilitate the incorporation of women into the public world, having the same opportunities as men. The *Einliegerwohnung* offered small, independent dwellings, located on the upper floors of buildings intended for traditional families. Its wet areas (toilets and kitchens) were planned to be shared fostering space and structure savings.²³

Housing Policy Design

The early Twentieth-century housing policy demonstrated how it had established a strong knowledge exchange about the city, the neighbourhoods, and dwellings between the United States, England and Germany.

At this historical moment, Catherine Bauer introduced more social and regulated policies in the United States from the publication of her book, *Modern Housing*, in 1934. The work is the product of her interpretation of the social-democratic policy of social housing, in Central Europe, as well as of her investigations into the tradition of American housing.²⁴

She establishes some minimum principles and patterns that social housing should comply with, pointing out the lack of housing policy in the United States. Founder of the US housing policy,²⁵ her proposal influenced the early US housing laws, dedicated to improving the quality of urban life through functional, low-cost, and equal access housing.

Elizabeth Denby's book, *Europe Rehoused*, published in 1938, the result of her research, has become

one of the most influential texts on post-war housing policies in England and the United States.²⁶ The book compares the housing policies of six European countries (according to their participation in the war) with the British system. Her housing theory highlights the need to address the resident's wellbeing from a physical and social point of view.

Her book introduces her proposals for housing in Great Britain, through high-density strategies, mixed uses dedicated to all social classes built in urban areas where the incorporation of services and equipment is crucial.

Her approach pointed out the importance of respecting the wishes of residents and especially housewives and this is the basis of her criticism of the use and spaces of the minimal housing. According to her, the different social problems created in spaces so reduced, by the lack of equipment and services necessary to daily life, become intolerable.²⁷

It should also be remembered that the creation of the Department of Popular Housing (DHP) in Rio de Janeiro in 1946 was the result of a proposal by Carmen Portinho to put into practice her experiences in Europe with British architects and engineers, in the field of housing policies. During her stay in the old continent, she held lectures on modern Brazilian architecture for the MARS group, which included Elizabeth Denby.

As director of the DHP (1946–1956), Carmen Portinho designed different neighbourhood units equipped with social services: all the basic necessities of daily life should be fulfilled without requiring large displacements. The housing model adopted by Carmen Portinho is based on the book *Modern Housing* by Catherine Bauer.²⁸

In her residential units, collective equipment received special care and was designed as an extension of the house. Their proposal was to offer an extensive catalogue of activities, from physical exercise to medical care.

The gender perspective criticises urban planning of cities divided into working, living, leisure and circulation areas, which brings it closer to Henri Lefebvre's 'zoning' criticism. Le Corbusier's functional urbanistic practice is accused of eliminating the complexity and richness of urban life by creating dormitory towns in areas of housing where children and women find it difficult to get through their daily lives.

The position of the four pioneers is clear because they place women first in their neighbourhood unit projects, which prioritise their daily needs.

21 The resistance to the use of community laundry is a clear example of these dynamics.

22 See Bonduki, *Os pioneiros da habitação social*, 317–20.

23 See Minoli, *Dalla cucina alla città*.

24 See Montaner, *La arquitectura de la vivienda colectiva*, 20.

25 The National Housing Act, 1934 and 1937.

26 Its first edition includes advertisements for *Modern Housing*.

27 See Elizabeth Denby, *Europe Rehoused* (London & New York: Routledge, 2015, 1st ed. 1938), 145.

28 See Carmen Portinho, "Habitação Popular," *Jornal Correio da Manhã*, March 24, 1946, 2a seção, 1.

Thus, Carmen Portinho proposed a unit in each neighbourhood for city officials with low salaries. In defence of her project, she placed the distance reduction between home and work, as of main importance and also pointed out the need to take care of the public space design, foreseeing the use of bicycles as means of transportation.

Elizabeth Denby also defends the need to live close to work and the town centre, which is opposed to the principle of 'zoning', through which the home is located on the outskirts of the city. Other principles of the Modern Movement criticised by her and which reaffirm her vanguard position are Garden City and the skyscraper apartment blocks.

Catherine Bauer also took a critical stand on the famous leaders of CIAM –Le Corbusier, Walter Gropius and Ludwig Mies van der Rohe, as well as the teaching of architecture in general. She argues that 'modern architecture was not intended to respond to the complex economic design and planning challenges that public housing presented'.²⁹ This way architecture would be moving away from the needs of the residents of their dwellings. She also criticises the skyscrapers that prioritised the wealthier classes and created ghettos for the poor.

If modern architecture was dedicated to the needs of the "new man," treated as a generic concept, Margarete Schütte-Lihotzky sought to meet the physical needs and conditions of the "new woman." In considering the *Existenzminimum*, as a goal of simple survival, a limited concept, she was concerned with building correctly, as a way to minimise women's work.

The architect privileged the functionality of the dwelling following a design method that started from the aphorism of the Modern Movement 'from the spoon to the city', that is, that starts from the interior and successively goes to the exterior, from the private to the general, where the 'residence must be the reflection of people's lifestyles'.³⁰

Final considerations

The submitted work offers visibility to the path of four women who acted expressively in the architecture and urbanism of the Twentieth century. They rethink the concepts of housing and city life, from the experience of women, and the efficiency of space, and promoting access to adequate housing. The daily needs of people are prioritised when considering living with a focus on housing at its use value.

These women take an avant-garde stand by questioning a world geared to the 'ideal' man. They dedicate their efforts so that women have more time to develop productive lives and at the same time dedicate themselves to personal care, health, leisure, sports and rest, without having to restrict their lives to caring for the family. They set up a range of possibilities through regulations, projects for the various social groups, rehousing programs, applying the concepts that inspire the contemporary gender approach to special care for women, children and the elderly.

The proposal gives visibility to the contributions of women who worked in the Modern Movement also has the objective of encouraging the participation of other women in urban planning and housing issues. Based on the complexity of women's daily life, there's a wish to promote housing policies based on equality between women and men.

The struggle for gender equality is a human right and must, therefore be understood as an essential approach to the right to the city. If the domestic space is reflected in social relations, a good housing project cannot do without the gender perspective.

²⁹ Hammond, "The interior of modernism," 181.

³⁰ Minoli, *Dalla cucina alla città*, 15.

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Designing the Growth: Planners of Belgrade Housing

When talking about Belgrade, and its expansion in the second half of twentieth century, one always falls into the trap of thinking about New Belgrade. Although a completely valid point of view, since it did house 250,000 of new inhabitants of Belgrade and it was planned by some of the most talented planners and architects of the country, I would argue that it is far too exceptional to be a good case study in this matter.

As architect-planner Milica Jakšić recalled, only the most talented architects-planners were invited into the team for New Belgrade and they did not interact so much with the other teams, while architect-planner Vera Paunović commented on the imperative of multidisciplinary work for this urban laboratory.¹ There were other notions to exceptionality of New Belgrade as well: it was envisioned as the federal capital, as the seat of the administration, was funded from various federal bodies and planned as a review of Yugoslav architecture.

I would argue that it is precisely those developments that are not heavily featured in architectural journals that are being shyly mentioned as a footnote or being analysed from one point of view (i.e. just technology, or just design); those are the ones that ought to be analysed. In this case, I will stick more closely to the various aspects of the profession, without analysing the historical and systemic problems of the women's employment in the field of architecture and urban planning in Serbia/Yugoslavia.² Here, I would like to analyse the plans, projects and developments that were known

for authorship of women planners, but somehow ended marginalized, although once featured as potential future successes of Belgrade housing economy. In this case, we will stay on the right bank of Sava River and examine the other housing estates of Belgrade, the famous 'not-so-famous' and 'not-so-successful' estates of Šumice and Konjarnik, Braće Jerković and Medaković. It is an interesting coincidence that all of them are in Voždovac municipality, on the so-called South-Eastern route of expansion of the city of Belgrade.

Remarks on the Post-War Planning and Growth of Yugoslav Cities

Belgrade's post-Second World War renewal, reconstruction and related growth, were tightly intertwined with the peculiar (urban) planning strategies of socialist Yugoslavia's society. The need for renewal and reconstruction was quite obvious, due to the severe destruction of the Second World War, and was not unusual; the whole of Europe was taking similar action, especially in major cities. Belgrade, the capital of, nowadays, second Yugoslavia, was no exception. Enthusiasm was immense: the city was to recover and grow, became the administrative, cultural, education, economic and industrial centre that Yugoslavia needed and deserved. There were also some local peculiarities of this process. For example, Yugoslav government took extra care of the cities and towns that were of great importance during the war or suffered extreme devastation and retributions. Belgrade, alongside Ljubljana and Titograd (today Podgorica), was on this (un)fortunate list, which added another layer of importance to the already existing precondition for their growth - them being the capitals of the federal republics and great economic value to their surrounding regions. Consequently, the planning of these cities was slightly more important than the others. Hence, it was emphasized in the First Five Years Plan and additional resources were allocated by the government for these cities.

Urban planning was considered one of the crucial activities of the self-managed society of socialist Yugoslavia: besides constantly relying upon the societal plan and the predicted perspectives of growth, it also played a key role in it. Through the carefully organized infrastructure of institutes, units, associations and enterprises, some urban planning agency was basically present in every part of the country. These agencies were well networked and connected, and although the country made efforts to decentralize, some hierarchy of competence did exist from federal, via Republic, towards regional and municipal level.

Urban Planning Institute of Belgrade was also a part of this network; the convenience was that being in the capital, all the federal and republic agencies were also in Belgrade. This opened the possibilities for both collaborations and clash between them. By looking at the case of Urban Planning Institute of Belgrade and analysing the work of its teams, we will glance at some expertise

¹ Brigitte Le Normand, *Designing Tito's Capital: Urban Planning, Modernism, and Socialism in Belgrade* (Pittsburgh: University of Pittsburgh Press, 2014), 127–28.

² For more information, please refer to the following texts: Jelica Jovanović, "The Worker Bees of Belgrade Architecture," *MoMoWo: Women Designers, Architects and Engineers between 1969 and 1989* (Ljubljana: ZRC Publishing House, 2018) Series Women's Creativity, vol. 3 (in course of publishing); Vladimir Kulić, "The Invisible Majority: Women Architects in Serbia after the Second World War" (unpublished manuscript).



Fig. 1. A party in Urban Planning Institute of Belgrade, mid-1960s 'women's collective'.
Courtesy of the Urban Planning Institute of Belgrade.

it had to offer to the society. We will take into consideration the plans for the well-known housing estates in Belgrade and try to reconsider the work on their planning considering the gender perspective of the authorship, in an effort to answer why did so few of these women-planners remain in collective memory, given the fact that there were many of them on very prominent and highly responsible positions. (Fig. 1) Housing was the most extensive architectural program of the country, is one of the most important urban functions by the doctrine of the modernist architecture, but also considering the goals of the Yugoslav welfare state. Hence, for the planners it was a major city-building tool and an opportunity to cultivate the city-scape: get rid of the rogue construction, implement the doctrines of urban reconstruction of the built tissue and expand towards virgin territories. However, as we are about to see, this well-thought layout did not always go as planned, resulting –among other things– in the invisibility of the planners and designers.

Belgrade Is Expanding But Not as We Wanted!

City-wide analysis of the illegal construction in Belgrade was done in 1969, and published as a study, following the conclusions of the Yugoslav study of 12 cities, presented at conferences in 1964 and 1967.³ In this study, it was noted the municipality of Voždovac has by far the most illegal settlements, 18 out of 78 that have been listed in six municipalities that were selected as 'severely affected' the subject of the research. Due to the risk of this valuable area being completely overtaken

³ See Urbanistički zavod grada Beograda, *Bespravna stambena izgradnja u Beogradu*, (Belgrade: Urban Planning Institute of Belgrade: 1969).



Fig. 2. Housing estate Braća Jerković I, around 1965.
Courtesy of the Urban Planning Institute of Belgrade

by 'rogue'⁴ individual construction, the Institute started planning of the areas which were most convenient for construction in prefabricated technologies, since this was the prevailing solution for building large numbers of housing units, in industrialized structural systems, designed for housing. This planning was a difficult task: for example, New Belgrade is set in the flat terrain of Vojvodinian part of Belgrade, which is perfect for this kind of construction. On the other side, Šumadija part of Belgrade, where Voždovac municipality is set, is quite inconvenient since it is hilly and full of creeks. In Voždovac case, even the best locations meant building on slopes, and the technology had to adapt to that.

There were several plots selected. First was the lower part of the Konjarnik slope, just above the highway Belgrade–Niš. The plot area is around 69 ha, the planned number of inhabitants was around 20,000. The plan was done by the Urban Planning Institute of Belgrade team: Milan Zarić, Milica Janković Jakšić, Milenko Jevtić and Ratomir Janković in April 1965. The neighbourhood had all the amenities planned and built: two schools, kindergartens, recreation centre, community centre, heating plant. Due to the prominent position of the estate, on its most Eastern side, the Eastern Gate of Belgrade, Rudo, was designed by remarkable Vera Ćirković and Milutin Jerotijević and built by Rad construction company, making the estate more visible and recognisable as the city's landmark.

Between 1965 and 1976 all three local communities (in Serbian: *mesna zajednica*) that were planned and designed were built and settled according to the plan - hence the endeavour should have been considered a success. The planning was extremely good, and the construction went on in phases with no major halts, the neighbourhood is functioning very well regarding traffic, supplies,

⁴ Le Normand, *Designing Tito's Capital*, 148.

education, recreation, even today, even with the constant influx of rogue builders, rogue tenants, refugees, immigrants, etc.

In a word, from a planner's perspective –SUCCESS! Or not? Alas, this neighbourhood had a problem of 'young technology' - the prefabricated technologies that were applied here by INPROS Business Association, were at their early stages of application, especially when it comes to such a large construction site like this one. Of course, the technology quickly improved due to the peculiar experimental setup of the housing economy and its designated prefabricated technologies, but the damage was already done.⁵ Of course, the flats were inhabited, since the lack of housing was a constant issue in Belgrade - nobody could afford the luxury of not taking the offer, but the problems of noise, lack of thermal insulation, leaking roofs became notorious. Due to these problems, the authors of the plan often got the blame for the deficiencies of the technology - as perceived by the dwellers they were all the same. No wonder why the authors gradually became reluctant about their oeuvre and moved on to work on other things.

Planning IS the Solution!

Same –but different– happened in another well-known Voždovac neighbourhood: the housing estate Braća Jerković (named after the Jerković brothers, war heroes). The process went the other way around: The Institute for Material Testing of Serbia (famous IMS Institute) got the task of planning the estate I in 1958, with the goal of housing 4000 people. The plan was done, but from the very beginning, there were problems with it; the combination of 12 story high-rises and single-family houses did not persuade the officials to proceed with the investment. Instead, they assigned the Urban Planning Institute a challenging task of reworking the plan, which resulted in interesting zoning with single-family houses and low density, five-story housing, surrounded by greenery. The new plan, done in 1962, had planned the resources for 9000 inhabitants. However, the investors –the Foundation for Housing Construction of the City of Belgrade paired with Voždovac municipality– figured out that the density is too low compared to the infrastructure on site, and that it is not profitable for them to invest in it, demanding an increase in some inhabitants by additional 1500.

Planners had other problems with investors: for example, they did not want to build the thermal plant, claiming that the estate was of 'modest standard' and therefore central heating deemed unnecessary

luxury. The healthcare facility was planned, but not built; the high-rise was built instead of it, claiming that a central ambulance for the local community will be built elsewhere. The number of housing units increased constantly and *ad hoc*, reaching 15,000 people by 1968 and territory of 55 ha was considered to be Braće Jerković I, with no proper facilities in it, no waste disposal, gas station built on a lot which was not planned for it, no parking space, kiosks instead of stores... (Fig. 2) The Institute had a lot of work, basically, fixing the problems of a brand-new estate, the problems that would not have existed if it were only planned properly. Hence, the team refused to claim the authorship of this phase but planned and followed through the second phase of the estate, which was considered to be a major success. The team was composed of architects-planners Andrija Mendelson, Branka Jugović and Mira Vukotić, supported by the external expertise of Nikola Nikolić from Komgrap Construction Company. This team was also responsible for planning Šumice, second out of three local communities of the above mentioned Konjarnik. They are even today mentioned among professionals in Belgrade as the team that 'saved the day' in Braće Jerković and managed to go above and beyond with their planning to fix the problems of bad decision making of the city's housing authorities. Another planner of the Institute continued to do so in Medaković housing estate. A highly inconvenient lot for building in prefabricated technologies, given the fact that it is on top of the hill, sloping towards the highway. Vera Mitić made the urban layout for the estate of 2400 flats, in the area of 14 ha of very slanted terrain. It was built in panel system of construction company Neimar and developed by Vera Kordić of Novi Beograd design office. Again, the urban layout and the quality of the housing units are compensating for lack of problematic technology.

Concluding Remarks: Talent and Resources Wasted on Corrections?

By the mid-1970s it seemed that the Urban Planning Institute's primary role was to symbolically put out the fires caused by the incompetence of the housing agencies, investors and local governments while taking the blame for the problems that were not a part of their assignments. Milutin Glavički, the legendary planner of New Belgrade and head of the team for "Master plan of Belgrade" until 2000 constantly tried to appeal to the authorities that housing has to be planned in advance, integrated with other planning documents of the city, of the region and the State, while the other planners such as Kosta Karamata and Miroljub Kojović tried to explain that housing is not just a function of 'being in the house'.⁶

⁵ For further reading: Jelica Jovanović, Jelena Grbić and Dragana Petrović, "Prefabricated Construction in Socialist Yugoslavia: From 'System' to 'Technology'," *Unfinished Modernisations between Utopia and Pragmatism*, edited by Vladimir Kulić and Maroje Mrduljaš (Zagreb: Udruženje Hrvatskih Arhitekata, 2012), 405–19.

⁶ "Stan i stanovanje," *Izgradnja* (1984), 12, 47, 5, Special Issue.

It is no surprise that problems like these happened, given the complexity of the societal planning, self-management and housing economy in Yugoslavia, combined with modest resources, inherited poverty and finally; the profession and institutions evolving, changing, learning or falling into dysfunction. In the process, many cases like this happened, which made the final results different compared to the initial plans, especially when it came to the reconstruction of rural settlements surrounding Belgrade.

The plan for Banjica estate, co-authored by Mirjana Lukić, was completely changed due to the investors' demand for higher densities. Plan for Miljakovac 1, authored by Mirjana Potkonjak, was only partially built, while in Kumodraž only parts of traffic network, planned by Vera Paunović, were built. Many planners eventually gave up their authorship, since not much of their plans is visible on sites, and it is only now, when we revisit the documentation, that we grasp how progressive their ideas were. And a lot of that goes to the 'women's collectives.'

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Studying the Building Envelope through the Works of Two Indian Architects

Architecture in India has evolved from the Indus Valley civilization to the British colonial with its European influence up to the post-independence era. In between the particular religious and political influences dominating the Region characterised the architecture.

The architecture of the post-independent India is marked by the liberal economy and some Regions saw the imprints of the works of the foreign masters like Le Corbusier and Louis Kahn. Among others, they have succeeded and failed to capture the needs and experiences of the complex and multi-layered Indian society.

Further, I believe, the postcolonial architecture of the Region is marked by the increasing fading out of the vernacular language in favour of the contemporary burgeoning of homogenous urban typology in response to the growth of the capitalistic economy, characterized by the integration of technology and dismissal of the local means and materials to address or cater to the building systems like heating, cooling, daylighting, and acoustics.

The role of Indian-origin women architects has been internationally recognised but its scope has been limited just to that. Among the generation of architects who built in the period marked by the transition of the socialist state to a liberalised economy are Brinda Somaya and Anupama Kundoo. As I pursue my bachelor's in architecture in the United States, my context and prior experience with the built-environment has been in India. The climatic variations, building materials and economy of labour along with the precision of technology make the building envelope, techniques, and process are different from what is commonly taught here.

Through the Milka Bliznakov Prize, International Archive of Women in Architecture (IAWA) provided an impetus to further my interest and use the archive to explore the lingering questions on the process of design and construction and the differences and similarities between the two Countries.¹

Thus, in an effort to reduce the gap in accessibility of information through materials, this research proposes to provide documents of the work of the two Indian-origin architects: Brinda Somaya and Anupama Kundoo, including but not limited to plans, sections, sketches and/or photographs. This paper aims to create an understanding of the building envelope through two case studies: a historical building restored under the leadership of Somaya Brinda's firm Somaya and Kalappa Consultants (SNK),² and Anupama Kundoo's residence in South India. Both buildings being located in a tropical climate help to facilitate understanding and approach towards design for international architects or students like myself.

SNK Architects represents a diverse practice recognized for its innovation and sensitivity in design. Anupama Kundoo's architectural innovation through material research lies in low environmental impact structures pursued through practice and academia. Both architects represent different time frames, ways of working and approach. While Brinda has been involved in more large scale commercial projects along with restoration work, Anupama's approach delves into the usage of waste materials, unskilled labour and local communities. Both likened in the international community through their award-winning architecture practice.

Interdependence of Research and Practice: Anupama Kundoo

Starting her own practice in 1990,³ Anupama Kundoo has worked on a range of works from residences and installations to her workshop on 'Baked In-Situ Mud Structures 1:1'⁴ for students from Cornell University, TU Berlin, TU Darmstadt and ETH Zurich in Auroville, India, among her other international educational endeavours of research and teaching spanning TU Berlin, AA School of Architecture London, Parsons New School of Design New York, University of Queensland Brisbane, IUAV Venice and ETSAB Barcelona.

1 "Milka Bliznakov Research Prize," International Archive of Women in Architecture, https://docs.google.com/document/d/1Golbm1QBTcNlH9PGjteevnWunyZCNmT_kp3myS90g/edit?ts=5a720931 (accessed April 1, 2016).

2 "Rajabai Clock Tower and Mumbai University Library Building," SNK, http://www.snkindia.com/project.php?category_id=20,22&project_id=52 (accessed, April 1, 2016).

3 "About," Anupama Kundoo Architect, <https://www.anupamakundoo.com/curriculum-vitae/> (accessed April 10, 2016).

4 "Teaching: Auroville, TUB, TUD, ETH and Cornell Universities," Anupama Kundoo Architect, <https://www.anupamakundoo.com/auroville-tub-tud-eth-and-cornell-universities/> (accessed April 10, 2016).

Graduating from the prestigious Sir JJ College of Architecture, Mumbai in 1989, Kundoo received her PhD from TU Berlin in 2008. She is currently a professor at the UCJC Madrid where she is the chair of 'Affordable Habitat'. Along with this, she serves as the Straunch Visiting Critic at Cornell University.

Exploring her body of work primarily in the area of architectural innovation through material research is of particular interest to me. This leads me to question her approach to building envelope in cross-continental design work. This is done through the case study of the Wall House in Auroville, India. A part of the architect's house built from 1997 to 2000 was later transplanted and built at 1:1 scale for the 2012 Venice Biennale.⁵

At a time when architecture is increasingly becoming a 'retinal art' caught by the hurried eye of the beholder or the camera instead of being a 'situational bodily encounter' Anupama's work through its sensitivity and knowledge of local materials used through a contemporary thought process speaks otherwise.⁶ The Wall house is an example of that claim as it brings tactility, spatial experience offering experiential depth, plasticity, measures and details crafted by and for the human body. Integration of construction with the realities of the matter and craft further turns architecture which is not limited to the haptic senses or the hegemonic eye. This can be understood through Anupama's own residence, termed as the Wall House. It is sited in Auroville, which is like a utopian human settlement situated partly in the Indian State Tamil Nadu and partly in the Union Territory Puducherry. The area was conceived by 'Mother' Mira Alfassa in 1968 who asked the French architect Roger Anger to design it. Precisely, the house is located in Petite Ferme, outside of the planned city limits of Auroville in Auromodele, an area designated for research and experimentation.⁷

The coastal area is marked by a tropical climate with an average rainfall of 1141 mm per year and average maximum and minimum temperatures between 90°F and 68°F.

Apart from the geography of the wasteland area, the site is hosted in a unique social, cultural and spiritual *milieu* due to the influence of the teachings of Sri Aurobindo, on which the town was founded.⁸

On moving to Auroville in 1990, Anupama lived in a temporary hut-like structure made of natural materials: casuarina round wood, resting on granite stilts; finished with pakamaram split-palm slats

5 "Venice Biennale 2012: Wall house / Anupama Kundoo, University of Queensland," ArchDaily, <https://www.archdaily.com/258087/venice-biennale-2012-wall-house-anupama-kundoo-university-of-queensland> (accessed December, 2017).

6 Juhani Pallasmaa, "An Architecture of Visual Images." *The Eyes of the Skin: Architecture and the Senses* (Hoboken: John Wiley and Sons Ltd, 2012), 33.

7 "Residences: Wall House," Anupama Kundoo Architect, <https://www.anupamakundoo.com/wall-house/> (accessed April 10, 2016).

8 "Sri Aurobindo: His vision made Auroville possible," Auroville: The City of Dawn, <https://www.auroville.org/contents/531> (accessed January 29, 2018).

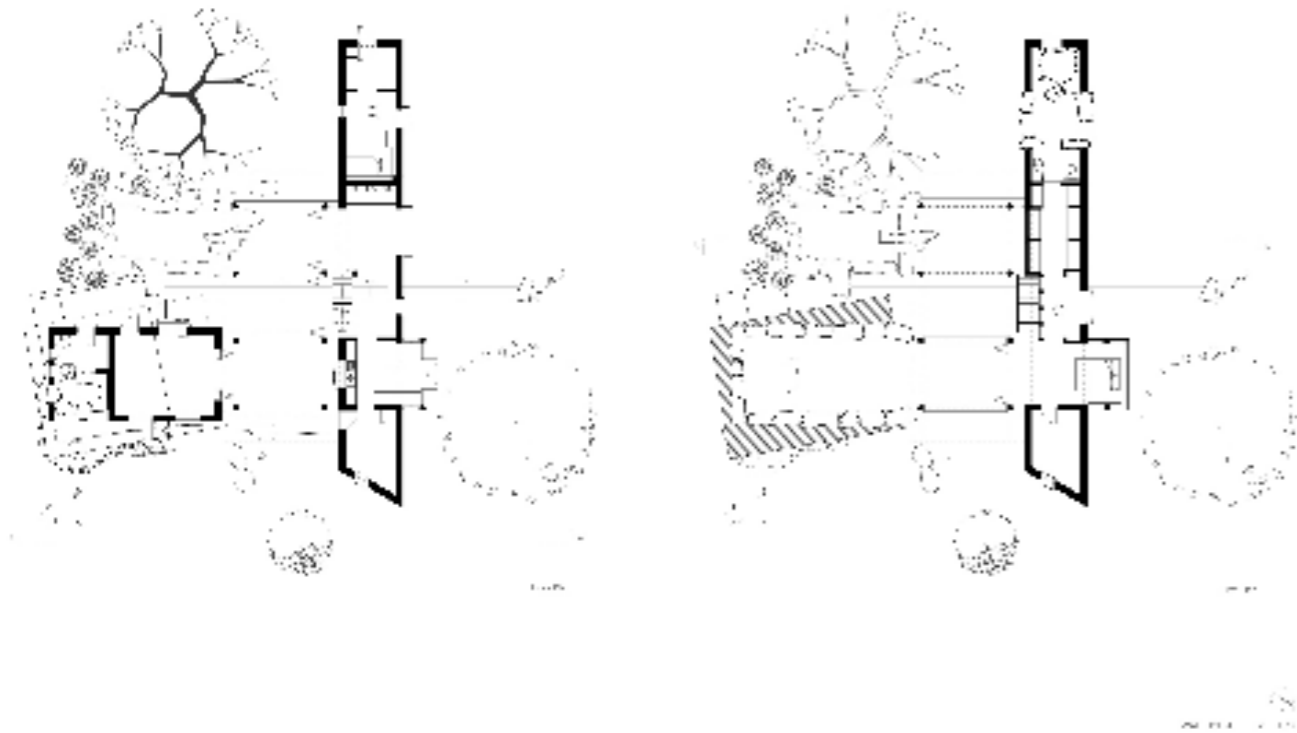


Fig. 1. Floor Plan of the Wall House. Courtesy of architecturelive.com.

for flooring, and coconut thatch for roofing tied together with coconut rope and coconut calyx for around 10 years.⁹ Transitioning into more permanent housing, the Wall House was the culmination of her ongoing extensive research and experimentation in low-impact building technologies that are environmentally and socio-economically beneficial, by negotiating the balance between hi-tech and low-tech and incorporating everyday materials through techniques that include the participation of those with lower skills and education along with a few skilled craftsmen.

The house is rooted in its location, thus embodying the local characteristics and denying the prevalent homogeneity brought by growing urbanisation or the 'frictionless vacuum of technology',¹⁰ well, a state which India is still to fully reach, but which she would have experienced through her international exposure. The reflected 'L' shaped plan is such that the slender elongated shape brings in ample day lighting along with ensuring good ventilation.¹¹ (Fig. 1) One room thinness helps in the movement of air through the windows often located opposite to one another. In addition, the

operable panels are located high up in the double height space thus facilitating the removal of warmer air reducing the inside temperature. The 'L' shaped plan opens up diagonally to the South, thus bringing in the South-Western winds in the summer.¹²

The outside is brought in, while the inside is pushed out. These moments of transition have not only been carried out through the aid of the plan and section but also by the continuity in the choice of materials. For example, the vaulted roof constructed by clay pottery extends to the shelter the outdoor bathroom. Using traditional products in new and inventive ways by collaborating with the local craftsmen assist in the creation of low impact buildings.

Thus, Anupama's wholesome approach is integrating and encompassing multiple scales. She engages design through architecture and landscape architecture marked by climatic considerations married with material insight and a communal approach towards building it.

From New Construction to Conservation: Brinda Somaya

Founding her company in a garden shed in Mumbai, India in 1978, today, Brinda Somaya's SNK comprises of over fifty architects who have been engaged in a diverse typology and scale of projects over the years from institutional campuses to Information Technology parks, hospitals and hotels to museums. The diversity is bound by the common elements of 'water, light, geometry, wall, and material'.¹³

Highly recognised for her contribution to the academia through her practice, she has been on the IAWA Board of Advisors and is presently elected as the AD White Professor-at-Large at Cornell University. She has also gone on to receive the Baburao Mhatre Gold Medal for Lifetime Achievement given by the Indian Institute of Architects in 2014.

Alumnus of Sir JJ College of Architecture, Mumbai University and Smith College, Massachusetts, Somaya went on to be the founder trustee of the HECAR foundation (Heritage, Education, Conservation, Architecture, Restoration) under which she organised an exhibit on *Women in architecture: Focus South Asia*¹⁴ in 2000 whose panels were later donated along with the book which became a part of

9 "Anupama Kundoo: 'Current Methods of Construction are Producing More Problems than They Solve,'" ArchDaily, <https://www.archdaily.com/880897/anupama-kundoo-current-methods-of-construction-are-producing-more-problems-than-solving-it> (accessed December 20, 2018).

10 MOS, "A Situation Made from the Loose and Overlapping Social and Architectural Aggregates," *Log 37: The Architectural Imagination catalog*, edited by Cynthia Davidson and Monica Ponce de Leon (Spring-Summer 2016), 152.

11 "Wall House Plans," Architecturelive.in, http://www.posts.architecturelive.in/the-wall-house-at-auroville-by-anupama-kundoo-architects/01_05_018_wall-house-plans-anupama-kundoo/ (accessed January 10, 2018).

12 "Wind Roses by Season," Tropical Buildings, http://tropicalbuildings.org/case_studies/62 (accessed January 20, 2018).

13 "About Us," Somaya and Kalappa Consultants - A Full Service Architectural Firm, <http://www.snkindia.com/profile.php> (accessed January 25, 2018).

14 Brinda Somaya, Urvashi Mehta and Hecar Foundation, *An Emancipated Place: The Proceedings of a Conference and Exhibition Held in Mumbai, February 2000* (Mumbai: Hecar Foundation, 2000).



Fig. 2. Rajabai Clock Tower.
Courtesy of SNK Architects.

the IAWA archive, apart from bringing out several other books and documents. These exhibit panels became a starting point for my research.

Brinda's work in both the commercial and the conservation area intrigues me. The inclusive design approaches are marked by the recycling and reuse of the old site-specific materials, including furniture, is distinctly seen throughout her projects, for example, the restoration of the West End hotel in Bangalore, India.¹⁵

The second case study, chosen considering the historical importance is Rajabai Clock Tower and the Mumbai University Library building, to compare the techniques and building assemblies to the contemporary times. More so, Brinda's team started the restoration and conservation project with a lack of original drawings.¹⁶ (Fig. 2) Thus, in addition, this case study will begin to comprehend their initial approach and strategy towards conservation.

Located in Mumbai, Maharashtra, and designed by the English architect, Sir George Gilbert Scott, the Rajabai Tower was built between March 1869 and November 1878 during the colonial period. It was the tallest building then at 85 m and was named Rajabai after the name of the mother of the person who sponsored the portion of the construction.

The chosen building falls under Grade I grouping of heritage buildings at Fort Precinct in South Mumbai, which is defined to have 'national or historic importance, embodying excellence in

architectural style, design, technology and material usage and/or aesthetics. ... They have been and are the prime landmarks of the region' and 'deserves careful preservation'. In addition, the Central Public Works Department guidelines, under the scope for changes, mentions that

no interventions be permitted either on exterior or interior of the heritage building or natural features unless it is necessary for the interest of strengthening and prolonging the life of the buildings/or precincts or any part or features thereof. For this purpose, absolutely essential and minimum changes would be allowed and they must be in conformity with the original.¹⁷

Taking into account the implications and architectural confines of the prompt, along with the lack of available resources to refer back to, makes it a special case study forcing me to extract and learn more from the firm's process. The project included architectural, structural services and interior works, including making a future maintenance proposal for this 136-year building.

This occurred in two phases, the first one being that of the total structural and ornamental repairs to the two heritage buildings, followed by the second phase involving furniture and electrification.

The library building longitudinally runs 46.33 m in the North-South direction. The Rajabai Tower forms its Westside extension, while the East side is greeted with an entrance porch. Two staircase towers are at the NE and SE corners of the library. The bilateral symmetry of the library divides it into verandas or arcades, arched reading room and book storage area.

The architecture of the time is marked by the usage of louvered windows with stained glass, high vaulted ceiling and Minton tile flooring. The highly carved projected balconies and stone carved capitals with heads of Shakespeare, Homer, kings & queens provided the building with a unique character.

The Neo-Gothic architecture is marked by the usage of four different stones:¹⁸ Malad and Grey Green Basalt for the Masonry work, and Porbandar and Red Dharangdhara Stone for the architectural detailing. The Library building was completed in 1874 and the Clock Tower was completed in 1878.

Initial condition mapping revealed visual defects which were structural and non-structural in nature. Cracks, stains and effloresce on stone facades, water seepage, broken and missing architectural elements and details, biological growth on the façade, damaged flooring and ceiling, damaged door and window panels, peeled plaster, exposed wiring, etc. were noticed.

To address and analyse the structural concerns, non-destructive tests (NDT) were carried to recognise the level of deterioration of the structural members. There were endoscopy investigation

15 "Media: Videos," SNK, <http://www.snkindia.com/news.php?cid=4> (accessed January 21, 2018).

16 "Building Storeys: An Architect's Journey through the Indian Landscape," interview with Brinda Somaya, <https://www.youtube.com/watch?v=hk3SNcrTXts> (Harvard South Asia Institute, April 21, 2015).

17 *Handbook of Conservation of Heritage Buildings* (New Delhi: Directorate General, Central Public Works Department, 2013), 14–15, <http://cpwd.gov.in/Publication/ConservationHertBuildings.pdf> (accessed January 27, 2018).

18 *Handbook of Conservation of Heritage Buildings*, 14–5.

on the joints of the wooden truss members, test for loss of section and extent of corrosion, chemical analysis and weldability test for steel sections, tensile and compressive strength of the structural wooden sections, electrosonic damp detection and moisture meter tests, petrography test for different stones and plumb test for the tower. Some stone cracks were structurally stitched while others were replaced.

After the strengthening of the structure, restoration of the weather-beaten sections and cleaning up of tiles and stones was carried. 'The firm went to great lengths to find the exact Minton tiles laid in several of the parquet surfaces in the building.' Brinda's team carried out external façade stone cleaning, lime plastering, removal of thick layers of paint from the internal stone surface using water misting, mild pH-balanced surfactants and gently cleaning of the surfaces with nylon brushes. Poulticing cleaning was carried out including plastic repair for Porbandar limestone details. Installation of fire alarm system, electrical re-conducting and concealed wiring using fire retardant and low smoke type copper wiring as per current NBC norms was followed.

Conclusion

Indian-origin women architects have been reinventing themselves and the architecture of the Country. Anupama Kundoo's research-based practice and practice influenced research along with Brinda Somaya's tremendous experience spanning new construction and conservation is a testament to that.

The climatic factors and the economy of labour are helping them in creating an honest building envelope. For example, one in which brick is the structural building material, and not just a facade element. Comparing to the temperate climate of the East Coast of the United States, the continuity of the thermal envelope, mainly, dissects the interiors from the exteriors, thus, influencing the architecture of transition. If not considered during design decisions can perpetuate the creation of buildings with highly questionable energy usage or efficiency.

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Learning from Suburbia: Dolores Hayden and Her Forward-Looking Proposal for a More Egalitarian Urbanism

Introduction: Some Terminological Clarifications

The descriptive categories that have been consolidated for centuries and which architecture and urbanism have used as a reference to shape our built environments are unfitting for many aspects of people's everyday lives. Family has been so far understood as a nuclear, asymmetric social structure involving the presence of parents and children, which does not envisage any other form of consanguinity relationship or relational kinship.¹ Likewise, any definition of domesticity has been conflated with this kind of family relations. Domesticity as synonymous with the private realm of the petit-bourgeois family structure is a product and a construction of the rising capitalism of the early nineteenth century. The (obvious and only apparently innocuous) dichotomy between home and work has been the foundation on which our modern society has been constructed.

Nancy Duncan² gives a quite exhaustive definition of the two ideals that emerged because of this dichotomy, highlighting the conflation between the private and the domestic as opposed to the public, which created and supported the gendered gap between the (feminization of the) interior and the (masculinization of the) exterior. 'Women must transform the sexual division of domestic

1 As Judith Butler suggests, 'it is crucial to expand our notions of kinship beyond the heterosexual frame ... The relations of kinship cross the boundaries between community and family and sometimes redefine the meaning of friendship as well.' Judith Butler, *Undoing Gender* (New York: Routledge, 2004), 26.

2 See Nancy Duncan, "Renegotiating Gender and Sexuality in Public and Private Spaces," *Bodyspace: Destabilizing Geographies of Gender and Sexuality*, edited by Nancy Duncan (London and New York: Routledge, 1996), 128.

labour, the privatized economic basis of domestic work, and the spatial separation of homes and workplaces in the built environment if they are to be equal members of society'.³

A whole (heteropatriarchal) ideology (of domesticity) emerged as a consequence of such a dichotomy, with the support of assumptions and theories contending the naturalization of the (biological) differences between genders.⁴ 'This ideology is articulated in terms of gender, space, work, and power. Domesticity can, therefore, be discussed in terms of legal arrangements, spatial settings, behavioural patterns, social effects, and power constellations'.⁵

With reference to spatial arrangements, the (suburban) nuclear family home/house has become an almost impenetrable, sacred fortress, a symbolic (spatial, historical and cultural) construct, a sealed and exclusive enclave of the heteropatriarchal world. To paraphrase Michel Foucault, a 'desanctification' of the single-family home/house has still to be achieved, in order to overcome the binaries 'public and private space, family and social space, cultural and utilitarian space, the space of pleasure and the space of work – all opposites that are still actuated by a veiled sacredness'.⁶

Negotiating Time, Space and Practices at Home

A house is not always a home and a home is not necessarily synonymous with a house, since only certain 'everyday practices, activities, meanings and processes ... turn the physical space of a house into a home'.⁷ But it is almost impossible to separate the discursive dimension of space from its material component. As suggested by Brent Pilkey, materiality, design, and imagination happen at the same time⁸ above all if we take into account that 'homes and gender norms are mutually constitutive'.⁹

3 Dolores Hayden, "What would a Nonsexist City be Like? Speculations on Housing, Urban Design, and Human Work," *Signs* 5, no. 3, Supplement, *Women and the American City* (Spring 1980), 170–87.

4 See, for instance, the passage from John Ruskin's lecture "Of Queens' Garden" in his *Sesame and Lilies* (London: Dent, 1907, 1st ed. 1865), 59–60.

5 Hilde Heynen, "Modernity and Domesticity. Tensions and Contradictions," *Negotiating Domesticity: Spatial Productions of Gender in Modern Architecture*, edited by Hilde Heynen and Gülsüm Baydar (London: Routledge, 2005), 7.

6 Michel Foucault, "Of Other Spaces: Utopias and Heterotopias," *Rethinking Architecture: A Reader in Cultural Theory*, edited by Neil Leach (NYC: Routledge, 1997), 331.

7 Andrew Gorman-Murray, "Queer Politics at Home: Gay Men's Management of the Public/Private Boundary," *New Zealand Geographer* 68, no. 2 (2012), 113.

8 See Brent Pilkey, "Reading the Queer Domestic Aesthetic Discourse," *Home Cultures* 12, no. 2 (2015), 235.

9 Lucas Crawford, *Transgender Architectonics: The Shape of Change in Modernist Space* (Farnham, Surrey; Burlington, VT: Ashgate Publishing Limited, 2015), 26.

Feminist claims about an equal and flexible redistribution of household tasks (and responsibilities) and more suitable supportive policies (flexible working hours, parental leaves arrangements) stemmed from the fact that 'negotiating space at home is a dynamic process in which the initial status differences between women and men create certain types of gendered spaces, which institutionalized spatial segregation and allocation in houses then reinforces the existing gender roles (Spain, 1992; Roberts, 1990; Domosh, 1998).'¹⁰

As Colomina points out, already in the first decades of the twentieth century, the modern house in the USA, with its 'cleanliness, open interior spaces, sleeping porches, and sanitary kitchens and bathrooms'¹¹ became a veritable bulwark of the well-being of the American family (and hence of American society at large). 'The new form of domesticity turned out to be a powerful weapon'¹² and a spatial control and monitoring mechanism of (American) society. Indeed, the (post-war) American dream of owning a freestanding single-family house with a backyard patio and a front lawn has still a strong allure and remains an enduring aspiration.

The form of single-family houses is controlled by planning regulations, banks, economics, and structures for the protection of personal assets. It is these controls that truly limit the opportunity to adapt the single-family house to a variety of lifestyles beyond the nuclear family. It's not architects at all.¹³

But spatial arrangement, issues of classifications and relationships of the vicinity are, as Foucault suggested, of the utmost importance in our society: 'space presents itself to us in the form of patterns of ordering,'¹⁴ being time 'one of the many possible patterns of distribution between elements that are scattered over space'.¹⁵

Urban planning, (single-family suburban) houses and (massive) collective housing have been used as arrangements of power relations and order. 'Spatial ordering is connected with behaviour normalisation'.¹⁶ For this very reason a feminist approach to architecture, urban planning (and housing policies) –in terms of 'a new paradigm of the home, the neighbourhood, and the city; to begin to describe the physical, social, and economic design of a human settlement that would

10 Zeynep Toker, "Housing Privacy and Community: Contradicting Cases of Cohousing and New Urbanist Developments," *International Journal of Education and Social Science* 1, no. 4 (November 2014), 120.

11 Beatriz Colomina, *Domesticity at War* (Cambridge, Mass: MIT Press, 2007), 163.

12 Colomina, *Domesticity at War*, 12.

13 Bell Hooks, Julie Eizenberg and Hank Koning, "House, 20 June 1994," *Assemblage* (1994), 27.

14 Foucault, *Of Other Spaces*, 331.

15 Ibid.

16 Stavros Stavrides, "Common Space as Threshold Space: Urban Commoning in Struggles to Re-Appropriate Public Space," *Footprint* 16, vol. 9, no. 1 (Spring, 2015), 10.

support, rather than restrict, the activities of employed women and their families¹⁷– can overturn both urban order and normalized life styles and types, opening new possibilities that can meet the challenges of an eco-sustainable development and a more inclusive and equally accessible environment.

We have been constructing for decades extensive car-dependent neighbourhoods that have so far become a threat to ecological systems, to our health and social/cultural relationships, perpetuating, at the same time, outdated assumptions about land use, family structures, incomes, mobility systems, home ownership and tenancy, social relationships, behavioural patterns.

Mutual support and collective management of housework and childcare is of the utmost importance for everyone and, even more, for non-traditional households (single man and women, single parents, dual-earner couples, elderly people, young couples). Given the above assumption, the role of women in the renegotiation of the meaning of domestic spaces, which implies a rethinking of the limit between private and collective spheres and spaces, is pivotal.

The Intermediary Level (That Is, Inhabiting the Threshold between Architecture and Urban Space)¹⁸

Architecture is not an innocent device that facilitates human relationships in space; buildings themselves are social convention shapers and multipliers. Space is not neutral; it is rather a gender-based construction and *'reflects social organisation*, but of course, once space has been bounded and shaped it is no longer merely a neutral background: it exerts its own influence ... *behaviour and space are mutually dependent'*.¹⁹

The public dimension of the home, intended therefore as a space-time of negotiation of one's everyday life, challenges the disciplinary boundaries of architecture and its status, undermining its certainties and prompting a redefinition of what architecture is and means. An expanded agenda is required: architecture is more than buildings, more than beautiful objects and design solutions, it is a process (of negotiation), within which the architect is no longer the only space-provider. The starting point of these arguments is that space is a social and collaborative production, and that

architecture's main commitment should be to find a response to the needs of everyday life.

The interaction between domestic and urban scale is fluid through time and space, as well as the problematized relationship between privacy and publicness at home. Housing, home and domestic space don't end where the city begins and vice versa. If in principle, home might become a temporal setting and backdrop, thanks to 'digital, cyborg, nanotechnological, and genetic theory [that] are steadily feeding practices that may well destabilize'²⁰ the already multifaceted and complex terrain of architectural debate, as things stand, these same issues further increase the gap between those who can access these advances and those who cannot.

Therefore, we must wonder, looking ahead, whether a major element of rethinking architecture would be resuming the feminist materialist approach which prioritized a restructuring of time and labour value. Modernists wished to minimize housework, without questioning the split between productive and reproductive work, whereas the 'feminists attacked both the physical separation of household space from public space and the economic separation of the domestic economy from the political economy,'²¹ trying to make the hidden domestic work visible and shape more egalitarian and supportive urban environments. By proposing new buildings types (such as kitchen-less houses or apartment hotels) and new forms of management of housework based on its socialization and collectivisation (such as shared meal production, public kitchens, food service delivery), they attempted to counteract the vicious circle of women's lack of time and space because of the lack of services in residential districts.²²

In the mid-1970s, feminist researchers and legislators realized that the spatial segregation between public and private, which had been strengthened by an urban model based on low-density suburban neighbourhoods, penalized female workers. The suburban realities lacked the same quality of life and opportunities offered by cities, and therefore the fact that 'American suburbs should become more like cities'²³ became a priority imperative for an entire community of activists, architects, researchers. Many initiatives were promoted; among them, the "Traditional Neighborhood Development" (TND) aimed at creating new neighbourhoods according to the 'key features of the New Urbanist planning credo: school, recreation, and convenience shopping ... within a short walk distance of homes'.²⁴ Despite the effectiveness of some of these improvements, which have

20 Jennifer Bloomer, "Pale Houses, Silenced Shadows," *Assemblage* 37 (December 1998), 61.

21 Vestbro and Horelli, "Design for Gender Equality," 320.

22 See Ivi, 324.

23 Susana Torre, "Expanding the Urban Design Agenda: A Critique of the New Urbanism," *Design and Feminism: Re-visioning Spaces, Places, and Everyday Things*, edited by Joan Rothschild, (New Brunswick, N.J.: Rutgers University Press, 1999), 35.

24 Torre, "Expanding the Urban Design Agenda," 36.

17 Hayden, "What would a Nonsexist City Be Like?," 171.

18 See Dick Urban Vestbro and Liisa Horelli, "Design for Gender Equality - the History of Cohousing Ideas and Realities," *Built Environment* 38, no. 3 (2012), 333.

19 Shirley Ardener, "The Partition of Space," *Gender Space Architecture: An Interdisciplinary Introduction*, edited by Iain Borden, Barbara Penner and Jane Rendell (London: Routledge, 2002), 113.

become concrete and built alternatives to the urban sprawl, other issues 'regarding the options for working women and their families'²⁵ were completely neglected by the TNDs.

New urbanist planning principles revolve around the decentralization of urban patterns. [...] In addition to a lack of collectively managed facilities, control of the management in the new urbanist developments on house design eliminates the possibility for residents to accommodate their needs and values in their houses (Torre, 1999). Therefore, new urbanist planning principles have been criticized for privileging spatial forms over social processes (Fulton, 1996; Sorkin, 1998; Harvey, 1997; Talen, 1999; Veninga, 2004).²⁶

The 'residential cluster' development²⁷ advocated by Whyte (1964), 'to allow for interconnected network of suburban open space',²⁸ is an alternative subdivision development that creates a connective tissue of private spaces that, nevertheless, provides more area for open spaces, collectively used for recreation, agriculture and social interaction. Individual owners not only have full ownership of their (small sized) lots and dwelling units but are very often made responsible, through the formation of homeowners' associations and cooperatives, for the maintenance of open spaces as well.

Residential cluster development is a form of land development in which principal buildings and structures are grouped together on a site, thus saving the remaining land area for common open space, conservation, agriculture, recreation, and public and semi-public uses.²⁹ In many respects, cluster development dates back to one of the earliest town forms. In primitive early settlements, dwelling units were often organized to form a common area or enclosure that residents could use together and readily defend if necessary.³⁰

An alternative solution that planned a radical remodelling of the (existing) American suburbs was that of the groups which Dolores Hayden proposed calling HOMES (Homemakers Organization for a More Egalitarian Society), i.e. organizations based on the presence of shared community

services (kitchens supplying takeaway meals, nurseries, laundries, community gardens, etc.) and characterized by a novel approach. 'All services would be run like business available to customers in addition to the members of the community'³¹ and –even more important– 'the collective activities would generate at least thirty-seven jobs for the residents'.³²

At the architectural level, Hayden proposed the possibility of turning the ancillary spaces and structures (such as toll sheds, garages, porches) –which many front lawns of single-family houses were dotted with– into shared community services, 'turning the block inside out'.³³ These types of 'Spaces-as-thresholds acquire a dubious, perhaps precarious, but also virus-like existence: they become active catalysts in processes of re-appropriating the city as commons'.³⁴ Such initiatives, however, have been successful only at the micro-scale of multifamily housing units, but are based on principles, such as increasing intensity of use while lightly densifying (although in an affordable and sustainable way) the neighbourhood, that could be easily shifted to the urban scale at large.

When activities traditionally hosted in the framework of a domestic interior are removed from the house, not only the spatial setting within a house but also the time committed to these activities is altered, and the sense itself of what a home should encompass changes. For this reason, as Dolores Hayden suggests,

Most employed women are not interested in taking themselves and their families to live in communal families. ... They desire, not an end to private life altogether, but community services to support the private household. They also desire solutions which reinforce their economic independence and maximize their personal choices about child rearing and sociability.³⁵

A possible implementation of the speculations carried out by Dolores Hayden might be achieved by studying and re-interpreting some spontaneous trends that are already underway. In spite of the remarkable differences between European countries and the USA, because of their different traditions of domesticity and urban patterns, some spontaneous (and not always built-to-code) practices and adaptation strategies set up by dwellers could be considered as the seed for the transformation of current monocultural residential areas into new possible urban (small scale, infill and incremental) models based on more lively, dynamic, mixed-use districts.³⁶

The State of California has been adopting housing policies that encourage accessory dwelling units

25 Ivi, 38.

26 Toker, "Housing Privacy and Community," 119.

27 See William H. Whyte, *Cluster Development* (New York, N. Y.: American Conservation Association, 1964).

28 Troy Bowman, Jan Thompson and Joe Colletti, "Valuation of Open Space and Conservation Features in Residential Subdivisions," *Journal of Environmental Management* 90, no. 1 (2009), 322.

29 See: William H. Whyte, *Cluster Development* (New York, N. Y.: American Conservation Association, 1964); Richard Untermann and Robert Small, *Site Planning for Cluster Housing* (New York et al.: Van Nostrand Reinhold Company, 1977); Randall G. Arendt, *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks* (Washington D. C.: Island Press, 1996); Welford Sanders, *The Cluster Subdivision: A Cost-Effective Approach* (Chicago: American Planning Association, 1980).

30 Section 4.7 Model Residential Cluster Development Ordinance Model Smart Land Development Regulations Interim PAS Report, © American Planning Association (March 2006), http://www.lebcounty.org/Planning/Documents/Comp%20Plan%20-%20Appendix%20III/LCCP_AppIII_07_ResidentialClusterDevelopment.pdf (accessed May 15, 2017).

31 Susana Torre, "Expanding the Urban Design Agenda," 38.

32 Ibid.

33 Ibid.

34 Stavrides, "Common Space as Threshold Space," 11–12.

35 Hayden, "What Would a Non-Sexist City Be Like?," 181.

36 See Aron Chang, "Beyond Foreclosure," *Places Journal* (September 2011), <https://doi.org/10.22269/110914> (accessed May 19, 2017).

(ADUs) in the single-family neighbourhood since 1982 in order to face an increasing request of housing units. In fact, for years, illegal, self-constructed second units (almost always garages) have provided homeowners with additional incomes that have allowed them to make their living more affordable, providing, at the same time, an additional amount of space for adult children, for growing families, for seniors who would have had their caregivers in close proximity. Most recently, in 2002, a State legislative action (the Assembly Bill 1866) has reinforced the so-called 'granny flats' thanks to the modification of an existing Density Bonus Law (related above all to the fulfilment of local building code requirements in terms of parking areas, setback, maximum size of the units, lot coverage, building height limits).³⁷

Building on this situations, the cityLAB –a think tank in UCLA's Department of Architecture and Urban Design (an interdisciplinary team led by Dana Cuff and Roger Sherman) who has spent three years investigating new possible development models for the low density urban landscape of single-family, detached houses in Southern California– has proposed the Backyard Homes project, an initiative meant to provide one possible, open-source solution to restructure urban sprawl in a responsive manner, densifying suburbia without affecting farmland and natural ecologies, and ensuring a suitable mix of uses that can improve the vitality of the whole neighbourhood. In one of their proposed solutions for the re-design of a corner lot, Roger Sherman, in conformity with the single-family residential zoning code, planned the inclusion of public uses (community garden, childcare centre, or playground), to add amenity and services to the neighbourhood.³⁸

Conclusions: From Nuclear-Unit-Based Relationships of Social Reproduction to Neighbourhood-Community-Based Interactions of Solidarity and Co-Production

The status of the contemporary housing issue is ambiguously and precariously balanced between the private precinct of everyday life and the public arena of late-capitalist forms of power. The huge amount of houses in foreclosure, abandoned and/or deteriorating, has tragically demonstrated *ex post* that 'traditional' homes might become unaffordable during a 'family' lifetime because of many factors (changes in homebuyers' preferences, demographic dynamics, unemployment rates, policies and financial systems, recession, mortgage crisis, etc.) and the stasis of such suburban structure very often is due not to design solutions or construction technologies (which could actually be adapted to a new range of needs) but rather to the rigidity of outdated regulatory and

financial schemes and restrictions (zoning policies, rules and conditions to protect investments, etc.). Rethinking and reimaging the underused suburban neighbourhood represents an exciting challenge for design professions, provided that they collaborate with other important actors of the urban scenes (homebuyers, homeowners, ecologists, urban planners, economists, developers, builders, landscape architects, municipal housing companies, etc.), combining their expertise with an actual engagement in the political and social issues related to the development of the whole process.

Gradients of publicness and privateness and a multi-layered and nuanced reality of multi-scalar in-between situations emerge, offering a wide range of new forms and possibilities of relationships, new frontiers for legitimacy and agency, and open-ended approaches (such as pop-up and open-source urbanism), which can fuel a redefinition of family relations.

High living costs in globalized cities in western neoliberal societies make shared living arrangements more affordable even with non-kin, although the (supposedly gender-neutral) notions of privacy (which disguises the bourgeois privatization of intimacy) still make it preferable to share domestic space with family members, giving collaborative living negative connotations.

Following the lead of feminist studies and gender perspectives, a renewed approach to architecture should lead to a renewed (design) ethics and a re-definition of a citizenry, based on the shift from nuclear-unit-based relationships of social reproduction to neighbourhood-community based interactions of solidarity and co-production.

37 Ibid.

38 See Dana Cuff, Tim Higgins and Per-Johan Dahl, *Backyard Homes LA* (Los Angeles, CA: cityLAB, 2010), 20.

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Underground Women: Invisible Female Architects of the Moscow Metro

The equal political rights were at the base of the new social structure formed after the Russian Revolution of 1917. The newly established government stated that everyone, disregarding of their gender or class, should equally contribute to the society. It provided women with the same rights available to men at that point in time.¹

Nevertheless, behind the new freedoms was not only a long-fought-for by women idea of emancipation² but also a necessity for the increase of the workforce.³ Women found themselves in an intricate situation: between the new rights and ambitions and obsolete perceptions of their role in the society and obligations within the household.⁴ Women could officially access all professional fields, but most of them entered the job market as unskilled or low-skilled labour constituting the

1 Soviet women were among the first in the world to get the right to vote. Svetlana Polenina, *Work, Family, Lifestyle of a Soviet Woman* (Moscow: Juridical Literature, 1990).

2 Natalia Pushkareva, "At the Origins of Russian Feminism: Similarities and Differences between Russia and the West," *Russian Women and European Culture*, edited by Grigory Tishkin (St. Petersburg: St. Petersburg Philosophical Society, 2001), 79–84.

3 The country was transitioning from the agrarian to industrial state; this demanded a radical change in modes of production and a substantial workforce for which decreased male population would not be sufficient. According to different sources, around 10 million people (predominantly men) perished or emigrated during the Revolution of 1917 and the first years of the Soviet governance. Boris Uralnis, *History of Military Losses: Wars and Population of Europe: Human Losses of the Armed Forces of European Countries in the Wars of the XVII-XX Centuries* (St. Petersburg: Polygon, 1998), 359–60.

4 'Labor is the measure of a woman's position: labour for a household enslaved her, labor for the collective carries her liberation.' However, widely failed attempts to create a system of kindergartens and public kitchens and laundries meant that women had to carry double burden working at the production and taking care of the family and the house. Aleksandra Kollontaj, *The Work of Women in the Evolution of the National Economy* (Moscow: Gosizdat, 1923), 194. Translation from Russian of the title of the book is made by the author. Please note: translations of quotations from Russian and of the titles of Russian edition books are made by the author.

main contingent of the hard manual workers.⁵ Even after being able to access higher education widely, women constituted a very low number in leadership positions. The architectural field was not an exception.

Schools for architectural studies generally opened their doors to female students in the 1920s.⁶ First female young professionals begun to join the architectural practice in the mid-1920s actively. At the time, the field was heavily dominated by the prominent male architects of the older generations: the most ambitious and important built and unbuilt architectural and urban projects, such as Palace of the Soviets, Lenin's Mausoleum and many others, were led by men.⁷ The names of female architects were barely seen in any of them. Except for one – the Moscow Metro (further, the metro), that became one of the most significant and vast infrastructural, engineering and architectural projects of the Soviet era.

At the beginning, the concept of the metro was seen as mundane and prosaic: it had to solve the urgent transportation problem in the capital due to the rapidly growing population.⁸ By the 1930s, it became clear that a new transportation system was a necessity. However, the government hesitated: the image of the subway was unavoidably associated with the capitalist ideology of such cities as New York and London. That concluded to the decision that while the European analogues could have inspired building technologies and engineering solutions, the appearance of the new infrastructural project had to radically differ from the bourgeois subway systems of Paris, Madrid and alike.⁹

The questionable nature of the project, due to its ideological ambivalence, made it unpopular in the eyes of society. The structural complexity, due to the specifics of underground construction,

5 Not having higher education, majority of women were left with few choices. Besides, women extensively applied to the industries with harmful or hard-working conditions because such jobs would usually have shorter hours allowing women to take care of their households. Elena Gruzdeva and Elvira Chertykhina, "Professional Employment of Women in the USSR and Payment of Their Labor," *Working Class and the Modern World* 3 (1986), 57–60.

6 In 1860s, the educational reform stimulated active opening of women's gymnasiums. Finishing a gymnasium allowed women to work as teachers at elementary schools. Special women's vocational schools were created in the end of Nineteenth Century; women also begin to enter some of men's vocational schools. Besides teaching, women could study medicine and art. However, education in engineering, agricultural, artisanal and many other professional fields traditionally associated with masculinity, including architecture, became accessible to women only after the Russian Revolution of 1917. Svetlana Shatokhina, "Evolution of the Education of Women in the Russian Province in the Second Half of the XIX - Early XX Century in the Context of Everyday Life" (PhD dissertation, Belgorod State University, 2011), 201–03.

7 Selim Khan-Magomedov, *Architecture of the Soviet Avant-garde: Volume 1: Form Formation Problems: Masters and Currents* (Moscow: Stroyizdat, 1996).

8 After the socialization of the land in 1920s, the rural population actively moved to the cities - the population of Moscow doubled by 1930. Statistical Office of Moscow, *Moscow in Figures: 1917–1977* (Moscow: Statistika, 1977).

9 Dietmar Neutatz, *Moscow Metro: From the First Plans to the Great Construction of Stalinism (1897–1935)*, translated by Yuri Petrov (Moscow: Rosspen, 2013).

was predicted to influence architectural image heavily;¹⁰ mainly considered as an infrastructural¹¹ and engineering project, it originally avoided the attention of the wide architectural circles. Such marginalization of the metro allowed young unknown professionals to join the project on its first stages.

In 1931, the first outlines of the subway system were born almost unnoticeably in closed confines of the only room of the architectural bureau of the technical department of Metrostroy.¹² Led by S. Kravets, the bureau staff consisted of very young architects, who came to work on the metro immediately or almost immediately after the graduation. Two out of five architects of the original staff were women: L. Shagurina and L. Shukhareva. Soon the staff of the bureau doubled, and more women joined the project among who were N. Bykova and M. Sedikova.¹³

The young architects faced a huge, complex and very responsible task; none of them, or other Soviet architects for that matter, had an experience of underground construction. There were no analogies in the terrestrial architecture in USSR, and they had no access to the references from other countries.¹⁴ They had to invent everything from scratch basing on the available engineering data, and most of it was developed or altered during the actual construction depending on the soil, location within the city and other factors.¹⁵

The metro was to become a seamless extension of the urban fabric downwards. The stations, along with the ground and underground vestibules, were to become an inseparable part of the entire city ensemble, a continuation of the streets and squares under the ground. This obliged to develop such a basis for a design that would not only meet the peculiar requirements for the operation of the complex engineering structure but would also be compatible with the architecture of the city's most significant public buildings. The young architects were identifying the locations of the stations, determining their depth, defining the placement of vestibules, entries and stairs. Confronted with such questions as what this new urban and spatial typology may be, and how the subterranean realm can be rethought and transformed into an environment full of light and air, they

were refining types of volumetric-spatial solution, the optimal dimensions and step of the structural elements. They were studying the specifics of underground lighting and writing recommendations for the facing materials. All of these findings and blueprints became the basis for the development of the outstanding architectural objects interconnected in an enormous web under and above the ground.¹⁶

Besides producing all the foundational data, young architects elaborated the first designs for the stations, both ground and underground structures, but soon their projects were to meet a tough competition. Lyubov Shagurina,¹⁷ who was among the first architects of the metro, recalled that

at the first stage, the design of the stations and vestibules was entrusted to a group of young architects But the Moscow Committee of the Party and the Moscow City Council proposed to involve broader circles of architects. ... along with the well-known masters, there often were young people.¹⁸

The competition for the architectural design of the Metro announced in March 1934 attracted the attention of the broad architectural community to the project. Almost every Moscow architectural bureau took part in it, including the most influential architects of the time. Each of the thirteen stations acquired many proposals;¹⁹ designs for four stations were chosen through the competition, the rest were distributed among architects designated by the Committee. The project of Sokolniki station by Nadezhda Bykova and Ivan Taranov was among the winners. While other female architects of the initial architectural staff for the metro participated in the design of the stations of the first stage of the metro construction,²⁰ Nadezhda Bykova was the only one to work at the leading position.

The design of Sokolniki station strikes with its austerity, simplicity of elegant forms and straight lines. Pure without ornament sturdy square columns suggest solidity; they embody candid determination to appropriate the underground space. The theme of ordered rectangular pattern is carried throughout the station: almost monotonous grey checkerboard pattern of the floor is

10 George Morgan, *The Moscow Metro is the Best in the World* (Moscow: The Moscow Worker, 1935).

11 For elaboration on the social aspects of infrastructure, see Anna Foka et al., "Beyond Humanities Qua Digital: Spatial and Material Development for Digital Research Infrastructures in HumlabX," *Digital Scholarship in the Humanities* 33, no. 2 (2018), 264–278, <https://doi.org/10.1093/llc/fqx008> (accessed May 31, 2018).

12 Metrostroy is an institution responsible for the development and construction of the metro. Later the architectural bureau was transformed into an independent institution - now Metrogiprotrans.

13 Nikolai Kolli, "The Architecture of the Metro," *How We Built the Metro*, edited by Aleksandr Kosarev (Moscow: History of factories and plants, 1935), 175–207.

14 Irina Chepkunova, Maria Kostyuk, and Elena Zheludkova, *Moscow Metro: An Underground Monument of Architecture* (Moscow: Kuchkovo Pole, 2016).

15 Vladimir Golubkov (ed.), *Stories of the Metro-builders* (Moscow: Poligrafkniga, 1935).

16 Olga Kostina, "Architecture of the Moscow Metro (Foreword to the Album)," *Architecture of the Moscow Metro*, (1988), <http://www.metro.ru/library/architecture/76/> (accessed November 1, 2017).

17 Lyubov Shagurina (1910–2003) later became the deputy chief architect of Metrogiprotrans. Throughout her career she had strongly influenced the design of many stations though she directly led only design of two.

18 Berta Bukharina, "The Metro Was Built Brilliantly!," *Moscow Journal* 6 (June 2010), <http://mosjour.ru/201706809> (accessed May 31, 2018).

19 Igor Kazus, "Architectural Competitions of 1917–1933: Experience of Comparative Statistical Analysis," *Problems of the History of Soviet Architecture*, edited by Anatoly Strigalev (Moscow: Central Research Institute of Urban Development, 1980), 5–15.

20 The metro was built in different stages, each stage characterized by a designated period of time, number of stations and political ideology. Nikita Khrushchev, *Memoirs* (Moscow: Moskovskie Novosti, 1999). While there are relatively few female architects involved in the first stage of construction, more women participated in developing and overlooking designs of the metro on the following stages.

interrupted by the bigger almost white in colour squares that accentuate the bases of the columns perceptibly elevating them; warm yellowish wall tiles unevenly reflect the linear light and brighten the space; ceiling coffers above the trucks increase the perception of vertical depth. The undulating pattern of the grey-bluish marble used as a facing material for the columns stands in contrast with the dominant rigid structure of the station adding a feeling of slow, tranquil movement. The tone of the marble lightens towards the top of the columns blending them harmoniously into the overall picture of the station, which passes through a similar transition - from nearly black tracks to the white ceiling. Despite essentially being an interior, this stately space recalls a feeling of passing through an open-air colonnade. The station strikes with the coherence of its elements; defying its underground nature the modestly solemn space is filled with warm light and soft movement.

In 1935, the stations of the first stage of construction had opened their doors to the public. People, exhausted by the turmoil and poverty of the previous years, were deeply impressed by the bright and festive spaces. For a long time, it constituted a criterion of both patriotism and aesthetical reference for the population.²¹ It was a built proof of the ideology that promised to provide common man with treasures equivalents of which were only available to the richest and most powerful – the metro became a symbol of democratic space where everyone is equal. The government proclaimed the metro a triumph of the industrial and cultural development of the Soviet State over the Capitalist West.²²

Inspired by the success of the first stage of construction, the State soon announced a competition for the second stage of construction. This competition attracted even more entries. And again, the proposal by Nadezhda Bykova²³ for Belorusskaya station (this time in co-authorship with N. Andrikanis) took one of the winning prizes. She wrote about the intentions behind the design: 'We wanted the citizens after a workday to enter the underground palaces flooded with light so that a joyful, festive feeling would not leave them *en route*.'²⁴

The space of the station is divided into three parts. The side naves that accommodate platforms and tracks are separated from the central part by the massive pylons. The pylons are mainly covered in

lilac with dark streaks marble. The middle part of each pylon is recessed and finished in light onyx; it accommodates a torchiere light. These bright semi-oval niches echo the light from the side naves creating an illusion of stronger connectivity between three parts of the station. The central space of the station is crowned with the white coffered cylindrical vault with large pendant lights. Their step follows torchieres in the niches filling the space with arches of light. This light effect counters linearity of the elongated station by making space gently revolve around the central axis. The scale of the station is inherently human. The space suffused with soft flowing light is inviting, serene, almost homelike.²⁵

In 1955, the attitudes towards the metro as a symbolical space radically altered following the change of the political power – the Decree No. 1871 'On the elimination of excesses in design and construction' was issued.²⁶ It condemned highly elaborated architecture of the previous years, obliging to reduce expressive tools of architecture to the bare minimum nearly diminishing it to pure construction.

Simplification and unification resulted in the unprecedented pace of the metro construction but challenged architects in creating differing and recognizable stations.²⁷ Only in the 1970s, the discussions began to arise about the need for the stronger architectural identity of the stations.²⁸ Yet this hard time for Soviet architecture coincided or perhaps contributed to the feasible increase of the number of female architects leading the design of the metro. (Fig. 1) During this period, many women who had already worked on the metro on the secondary positions led projects for the first and in most cases the only time. However, some female professionals continued to direct design of stations after the restrictions were elevated. Among them was Nina Aleshina²⁹ who led or directly participated in the design of 19 stations working on many with Natalia Samoylova. In 1975, they

25 These domestic qualities were especially valuable during the World War II when the station served as a shelter throughout the night bombardments: after the last train the space was transformed into a roomy communal house.

26 Central Committee Of The Party of the Soviet Union, and The Council Of Ministers Of The USSR, *Decree of the Central Committee of the CPSU and the Council of Ministers of the USSR of 4 November 1955 No. 1871 'On the Elimination of Excesses in Design and Construction'*, (1955), <http://sovarch.ru/postanovlenie55>. (accessed November 1, 2017).

27 However, the advertence of architects can be seen in how Nadezhda Bykova wrote about projects of that period, which 'were less vivid, but they also demanded a huge contribution of strength, energy and love.' Bykova, "Underground palaces."

28 Academy of Arts of the USSR, *Minutes of the Meeting on the Synthesis of Arts in the Moscow Metropolitan*, (Moscow: Rotaprint Metrogiprotrans, 1974).

29 Nina Aleshina worked as the Chief Architect of Metrogiprotrans 1981–91. T. Fedorova noticed responsible and caring attitude of Nina Aleshina towards the station that went beyond regular responsibilities of an architect: '... when I visit the "Kuznetsky Most," I get such a picture: finishing works are being done, huge scaffoldings are rising in the middle of the hall, the architect Nina Aleshina is sitting on them and she polishes marble with a cutter.' Tatiana Fedorova, "About People of Metrostroy," *Architecture of the Moscow Metro* (1988), <http://www.metro.ru/library/architecture/86/> (accessed November 1, 2017).

21 Ilya Ilf and Evgeny Petrov, "Metropolitan's Ancestors," *Days and Years of Metrostroy*, edited by Evgeny Reznichenko and Yuri Grachevsky (Moscow: Moscow Worker, 1981), 18–27.

22 Lazar Kaganovich, *Let's Build the First Stage of the Metro by the 17th Anniversary of October* (Moscow: Mospartizdat, 1934).

23 In her career Nadezhda Bykova worked on the design of 10 stations. T. Fedorova wrote about her projects: '... when you pass silvery, like frostbite, Sokolniki, or greenish like the spring forest, Schelkovskaya, or the floor of the Belorusskaya-Koltsevaya runs in front of you, know that architect Nadezhda Bykova imagined these stations in such a way. She went to the factory, chose the color of marble, argued because of the shades, fought with the builders because of each insufficiently well sealed suture, everything was noticed by her meticulous "author's supervision."' Tatiana Fedorova, "Women of the Country Metropolitan," *Female Worker* 11 (November 1964), 1–2.

24 Nadezhda Bykova, "Not 'Underground' but Underground Palaces," *Architecture of the Moscow Metro* (1988), <http://www.metro.ru/library/architecture/84/> (accessed November 1, 2017).

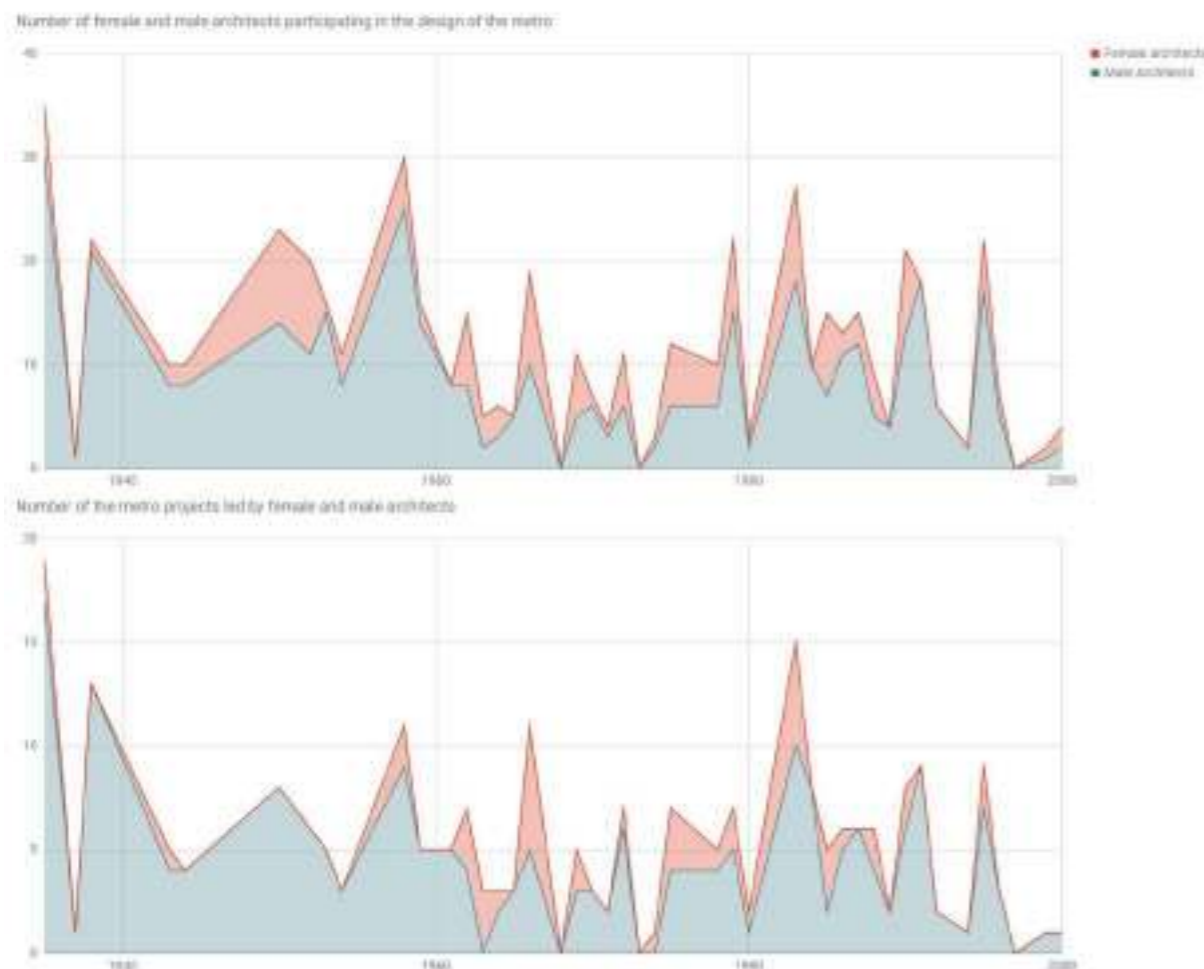


Fig. 1. Comparison of female and male architects participating and leading the metro projects in the twentieth century

completed Kuznetsky Most station. The terrestrial vestibule of the station effortlessly assimilates in the urban fabric without losing its identity. The building is low and wide; the main body is divided horizontally into two parts: heavy monolithic rectangular volume covered in light gray with terracotta undertone marble rests on two sides round engaged columns finished in the same material. They enframe deeply recessed glass wall almost hidden during the day and luminous at night. Behind the glass wall, bright semi-round spacious hall covered in light gray marble with the only central column finished in accentuated warmer marble. The walls circle the column towards the white arched tunnel leading down. The underground space is divided into three parts by the repeated columns solved in the shape of arcade covered in beige-gray undulating marble. The materials used in the design of the station are light and subtle. Reflected in the white cylindrical vaults the light of continuous light fixture creates an illusion of the ungraspable endless height of the space above the arcade. The station charms with its wholeness and simplicity, proportional interrelation and natural complementarity of its pure architectural elements.

Chertanovskaya station was Nina Aleshina's project. The bold contrasting appearance of the terrestrial vestibule surrounded by the uniform residential buildings stands out from its environment. Weighty inverted pyramidal frustum clad with dark metal presses down glass walls edged by the curving away from the entrances white marble walls. The underground space filled with slender columns appears surprisingly tall. The eloquent silhouette of the white marble columns derives from its four-pointed star-shaped section profile. Columns smoothly expand towards the top imperceptibly blending into the ceiling. Chandeliers in polygonal coffers follow the central axis of the vault; uneven upcast light reflects in coffers as if in shallow water.

The design of the underground space while having a strong individual character pays tribute to Kropotkinskaya and Avtozavodskaya stations of the first years of metro construction – Chertanovskaya station echoes overall bright and upward image of its predecessors.³⁰ This puts the station in a wider historical and cultural context; it belongs to the system that is interconnected not only in a material way by tracks and tunnels but also in aesthetical, ideational - the metro cites itself, it becomes self-referential.

Iraida Petuhova is another architect who led projects during and after the simplification period. Among her best designs are Shabolovskaya (designed together with V. Kachurinets) and Krasnogvardeyskaya (co-authored by N. Shumakov) stations. Also an artist and a sculptor, she brought the articulate plastic vision to all her designs. In the design of Krasnogvardeyskaya station, the peculiar sculptural conception of space appears daringly.

The station construction is single-vaulted which results in a vast open space. Clad in red marble walls along the tracks slightly higher than the gray granite floor of the platform support massive, elaborate cylinder vault ceiling solved in 11 rhythmic rows of dramatic deep coffers. The sources of light are the poles placed in the centre of the platform projecting the light upwards that only emphasises sharp, expressive plastics of the vault. The design recalls images of interstellar stations; it reinstates that appropriation of the subterranean realm seemed as ambitious as reaching the outer space.

The works of the architects above and their colleagues cannot be generalized by a similar aesthetic expression or a unified approach to the design process. (Fig. 2) Each of them had an individual vision for every object they were involved in. What unites them is their active participation in the design of one of the most significant projects of the Soviet era.

Unique historical conditions and specifics of the initiation of the metro that for some time kept it away from the ardent interest of the Moscow architectural society allowed young female architects

³⁰ Kristina Tatarova, "Starlike," *Metrostroevets* 11 (March 2014), 4.



Fig. 2. Photo of engineers and architects I. Shmitova, O. Rudnik, L. Shagurina, N. Kozlova, L. Alekseeva, N. Samoylova (from left to right) discussing new metro projects, 1964. From: *Female Worker* 11 (November 1964), 3.

to work on the challenging task – inventing and establishing the foundational rules and criteria that informed the design of the stations for decades. Later, theirs and the projects of the new generations of female architects proved to be competitive with the projects of the most influential Soviet architects of the time.³¹

Though the number of female architects who took part in the metro design had unquestionably grown since the first stage of construction,³² the ratio of female and male architects leading or participating in the projects rarely overbalanced towards the former. By this day, Moscow residents and guests of the capital wonder on the elegance and uniqueness of the subterranean stations and terrestrial pavilions and vestibules of the metro designed by female architects. However, their names are almost nowhere to be found.

³¹ However, in contemporary printed and online resources female architects get little or no attention; for example, describing aforementioned station Sokolniki designed by Nadezhda Bykova and Ivan Taranov many resources mention Ivan Taranov as its only architect, see for example "Samaya kratkaya istoriya arkhitektury moskovskogo metro," *Arkhiv XX veka*, <http://archspeech.com/article/samaya-kratkaya-istoriya-arhitektury-moskovskogo-metro> (accessed May 31, 2018).

³² The number of women participating in the metro design fluctuated year to year affected as well by the historical events and the attitudes of the society regarding women's rights and freedoms. Svetlana Aivazova, "Freedom and Equality of Soviet Women," *Russian Women in a Labyrinth of Equality (Essays on Political Theory and History: Documentary Materials)*, edited by Svetlana Aivazova (Moscow: RIC Rusanova, 1998), 66–99.

Marcella Tisi

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The Feminine Sensibility in the Project of the Place 'Sustainable'

Sustainability in projecting landscape, architecture and design can be read in many different ways. It not only means 'green living', 'green interiors', ecological design, cradle-to-cradle production approaches, recycling of waste, energy low environments for living, facades and roofs with plants and mosses, bio-bricks or reused materials from demolished buildings, but even more generally weighing up many variables upstream from design, social, relational, environmental, urban –and-why not?– aesthetic. The feminine sensibility is often more suitable than the masculine one to face in an unitary way these problems inherent in a project and to give answers that weigh up all different aspects, not neglecting them but focusing the attention on them.

As part of this articulated and broad topic, 'Women and Sustainability', I deal in particular with regard to the role of women in projects that are concerned with the landscape, or more generally of the modelling of the territory understood in all its possible meaning. These projects cannot be simply understood as the answer to new physical needs surfacing over time and asking for spaces to answer to new functions. They must value the new needs that, as it was said before, can stem from very different subjects, not only architecture and town planning.

There is no need to dwell on this topic here, but it is worth underlining that there are scientific studies¹ and authoritative literary productions² about the differences between man and woman

¹ There are many scientific studies that make constant research on the organic, behavioral, psychological differences between men and women. In this case I quote the studies of the Amen Clinics in Newport, California and a recent study published in the journal *Proceedings of the National Academy of Sciences* by Daphna Joel, of the Tel Aviv University, Daphna Joel et al., "Sex beyond the Genitalia: The Human Brain Mosaic," *PNAS: Proceedings of the National Academy of Sciences of the United States of America* 112 (50), 15468–15473, <https://doi.org/10.1073/pnas.1509654112> (accessed May 31, 2018). See Franco Restaino and Adriana Cavarero, *Le filosofie femministe* (Turin: Paravia, 1999).

² Compare the text Franco Restaino and Adriana Cavarero, *The feminist philosophies* (Turin: Paravia, 1999).

that try to give an explanation to the different ways, behaviours as well as values the two genders address. They explain that the conception of the world based on the culture of the relationship is especially a feminine prerogative, as well as the greater intuitiveness and the marked tendency towards empathy. As Marta Lonzi said:

I need direct relationships, real knowledge, practical constraints, conscious needs, in order to be able to entrust myself to the working out of the possible conscience at that moment, in the never suppressed tension of not being able to take the originality or the heart of the problem. Without relationships I do not know who I am, I do not discover anything, I do not feel creative, because I miss any reference to which to state and take a position, I'm not concrete, overcome by fragile, even if threatening, ghosts.³

We need to clarify the object on which the modeling projects of the territory are worked out, that is the concept of landscape, to better understand why in this specific area the contribution of women has a particularly favoured place.

The theoretical definition of landscape, now universally recognized is: that part of aesthetically Pleasanton place that, including nature, is able to convey the pleasant and indispensable feeling of being an integral part of the universe.⁴ But it must be considered that in recent Times this concept has been profoundly transformed with ever more evident acceleration, having to deal with an environment quickly invaded by human intervention without possibility to come back.⁵

The Project of and in the Landscape

The landscape today is much more than the visible characteristics of a territory and its concept has been expanded⁶ to understand the conflictual interaction between human activities and environment. All the biophysical, anthropic, cultural, social, perceptible and economic elements of a landscape now belong by right to its notion. The landscape architect⁷ is the professional figure working with a particular sensibility towards the environment and who depending on the occasion, takes part in the most different subjects: in environmental planning, in the projects of the large, abandoned areas, in public spaces and parks designs, in private gardens. It is a confused profession, however, swinging

between architect, gardener and artist and still extremely diversified, which has evolved combining naturalistic, sociological, philosophical and architecture subjects. The landscape architect escapes to specificity and defined skills and acts boundless in fields even apparently very distant from each other. The reason for this can be the difficulty to clear the object of this kind of project. The idea of landscape, in comparison with the urban place, that is the city, has been overloaded with more complex values than natural places as parks or gardens.

A street, a square, the city itself, are first of all symbolic places, legible traces of the men's history, marks of other existences that have been measured with the mystery of life and which everyone can take in the depths of their being. It means that the city's places have the ability to represent a richer and more articulated image than the simple spatial extension. It is necessary for the project to consider it. Therefore the artistic sensibility can become a fundamental component within the working groups dealing with the modelling of the territory. The need for autonomy of the aesthetic component within projects means that artistic intervention is equally required as all the different skills involved in modelling the territory.

The art expressions that are part of Land Art, or more correctly Environmental Art, can give better contribute than others to landscape design. This artistic movement stems from the 'historical' Land Art of the Sixties and it has never been exhausted, but has been transformed and diversified and still today counts great exponents all over the world.⁸ It is an exceptional movement that has had an enormous significance not only in the artistic topic and which collects all those artistic interventions that face the theme of the place, beforehand or later. Environmental Art gives rise to works, sensibilities and attitudes that inevitably compare with it. It has a uniqueness character also because for the first time it counted and counts still a large number of female exponents within the wide range of artistic practices. It was born in America, in the cultural melting pot of New York animated by political, social and intellectual ferments where the feminist movement occupied a fundamental place. The female artistic activities are above all inspired by the second theoretical and political wave that claims no longer equality but the enhancement of the peculiarities and differences with regard to the other sex. Through the first earthworks, female artists wanted to exalt the uniqueness and peculiarity of the female world, separating its history from the conventions stemmed from patriarchal societies.

They embraced unconditionally theories according to which the origins of the female myth based on the ancient belief of the earth as the mother of all living beings and on the traditional social conviction that identified the woman with nature and passivity, man with action and culture. So their artistic activity centre was the connection between body and earth, linking women's emancipation directly to ecology and protection of nature, their direct ally.

3 Marta Lonzi, *L'architetto fuori di sé* (Milan: Scritti di Rivolta femminile, 1982), 200.

4 Rosario Assunto, *Il paesaggio e l'estetica* (Palermo: Novecento, 1994).

5 The principal source of this short treatise is Marcella Tisi, *Il luogo e le opera: Arte e architettura: Nuovo dialogo per nuovi personaggi* (Turin: Celid, 2007).

6 Eugenio Turri, *Il paesaggio come teatro: Dal territorio vissuto al territorio rappresentato* (Venice: Marsilio, 1998).

7 Pierluigi Nicolini and Francesco Rephisti (eds.), *Dictionary of Today's Landscape Architects* (Milan: Skira, 2003).

8 Jeffrey Kastener and Brian Wallis, *Land and Environmental Art* (London: Phaidon, 1998).

As Lucy Lippard said, 'Because women's traditional arts have always been considered utilitarian, feminists are more willing than male artists to accept the notion that art can be aesthetically and socially effective at the same time.'⁹

This entrance of utilitarian ambitions into the sphere of contemporary artistic practice finds many of its earliest and most profound examples of work involving not only the natural world but urban and social one too.

Artistic women who belong to this movement enter rightfully into the possibility of artistic collaboration that requires landscape design, especially when the object of the project is a portion of urban territory.

Cities need 'beautiful places', places where it is not enough that everything works perfectly, traffic flows, there is much parking, the presence of "green" is guaranteed, but they also allow the spirit 'to infinitize', to enjoy their own infinity and take heart. In this perspective, the project 'of' and 'in' the place, in an attempt to bring the landscape into the city, cannot renounce nature so any intervention in urban space must position itself between human intervention and the control of nature and it must become a resulting synthesis in a moulded language. It is also worth remembering that the landscape, even more than the building, has one more dimension to be kept under control that is the temporal dimension, which does not marry with the current attitude that wants quickly the maximum effect and the finished image of the place.

On this subject, it is useful to support the project activity with forms to make citizens aware of the environment and to spur them to take care of it. This has become necessary because the conditions of contemporary life have contributed to lower the level of humanity and receptivity.¹⁰ In the end a good project 'of' and 'in' the place needs attention to the complexity of the relationships tying up its various components. The landscape architect must have artistic sensitivity particularly addressed to nature and its relationships with a human being. He must have a bent for "to listen to" and for social relations and social needs.

There's nothing for it but to mention some examples of women, artists and architects, who confirm the concepts and key points of this short essay with their work and their life choices.

Mierle Laderman Ukeles (Denver, 1939): Garbage Girl

Mierle Laderman Ukeles has dedicated her art practice to reclaiming both waste materials and waste environment in an effort to create a new relationship with our material world. Her work consists of the activities of selecting, performing and maintaining. In 1969 she wrote a manifesto entitled *Maintenance Art Manifesto 1969! Proposal for an Exhibition "CARE,"* challenging the domestic role of women and proclaiming herself a 'maintenance artist'. Aside from 'personal' or household maintenance, the manifesto also addressed public maintenance and earth maintenance, such as polluted waters. Her exhibitions were intended to bring awareness to the low cultural status of maintenance work, generally paying either minimum wage or no payments for housewives.¹¹ From 1973 to 1979 she performed a series of works in Soho, New York, in which she cleaned pavements and museum floors and performed duties of museum guards. In 1977 she became affiliated with the New York Department of Sanitation, a residency which led to a series of works which include both permanent sites and performances. *Flow City* is her work the most significant, realized from 1983 until 1990 at a recycling plant on West 59th Street and the Hudson River. (Fig. 1) Designed with engineers from Greeley Hanson and made in collaboration with the New York Department of Sanitation, it is installed in a garbage recycling unit; it is a demonstration of Ukeles' concern to educate the public about its role in controlling the tide of waste which is poured into the environment. In the first section *Passage ramp*, a 76 m long walkway is made of twelve recyclable materials, including 6 m of crushed glass and 6 m of shredded rubber. At the top of the ramp is *The Glass Bridge* which is 12 m long and 6 m wide about. From the bridge, the viewer can watch the garbage trucks beneath them which are loaded in fourteen dumping bays under the *Glass Bridge*. At the end of the bridge is *Media Flow Wall*, a 3 m x 5,5 m long wall of crushed glass with 24 monitors set into it. The video wall is programmed with live cameras which are located both on and off-site. The monitors transmit three kinds of flow-imagery: river, landfill and recycling.¹²



Fig. 1. Mierle Laderman Ukeles, *Flow City*, 1983–90, 59th Street Marine Transfer Station, New York © M.L. Ukeles. Courtesy of Ronald Feldman Fine Arts.

9 Lucy Lippard, "The Contribution of Feminism to the Art of the 1970s," *Art Journal* 40 (1980), 10.

10 Marc Augé, *Nonluoghi: Introduzione a una antropologia della surmodernità* (Milano: Euthèra, 2002), 32–42.

11 Mierle Laderman Ukeles, "Manifesto for Maintenance Art 1969! Proposal for an Exhibition 'CARE' (1969)," in Jack Burnham, "Problem of Criticism IX: Art and Technology," *Artforum* 9 (January 1971), 22–3.

12 Compare the text: Kastener and Wallis, *Land and Environmental Art*.

Patricia Johanson (1940, New York):**'So much of what we see is beyond our ability to comprehend'¹³**

She lives her childhood and adolescence in the parks designed by Olmsted and in the mountains of Catskill, where she always spends her summer holidays. The environment in which she grew up influences her training as an artist attentive to nature and to the living world in its entirety. After the study of art in Vermont, in Bennington College, she produced large minimal painting and sculptures during the 1960s, including the 1600 feet environmental sculpture *Stephen Long* (1968). In those years she went around with friendships like Helen Frankenthaler, Barnett Newman, Georgia O'Keefe and her teacher and friends Tony Smith, who were very important for her artistic activity. She turns her main interest in the design of the territory as a possible art form and most of her works combines public sculpture with functional infrastructures, such as highways, sewage, garbage and water-treatment. She thinks that the earthworks can give many possible solutions to environmental problems, natural or produced by men, like erosion, flood, settles, deterioration, pollution and contamination. Johanson realizes large-scale earthworks when she combines poetic and just of natural elements with functional and practical need but she never comes to terms with her ideas. For examples *Endangered Garden* (1987–89) a Candlestick Cove, San Francisco and *Fair Park Lagoon* (1981–86), Dallas, Texas. The latter is one of her projects which combine functional art and ecology. Commissioned by the Dallas Museum of Art, this project was designed to revitalize the Fair Park Lagoon. The artist discovered that the area had once been a thriving wetland habitat. After purifying the lagoon, which was suffocated by algae, she reintroduced native plants, fish and reptiles to revitalize and balance the food chain. At either end of the Park complex grouping of painted concrete sculptural paths and bridges were installed based on the form of the aquatic plants in the water. They are very important not only for the aesthetic and harmonious image of the park but also because providing access to micro-habitat and wildlife, prevent erosion and enhance a flood-control basin. Johanson's work is an effort to reconcile environmental art and social purpose.¹⁴

Martha Schwartz (1952, Cambridge):**'As we see ourselves as part of "nature," aesthetics are a necessary component of environmentalism'¹⁵**

American architect and artist, she was a pupil and later a partner in the love of landscape architect Peter Walker. She became famous for her work Bagel garden in Boston in 1979.

Her greatest interests are aimed at urban-scale projects and exploration of new design expressions in the landscape. She managed to combine the typical Land Art theories with carrying-out of functionally useful public spaces. Schwartz it is in truth part of a completely new dimension of the urban landscape design, started with Isamu Noguchi, converting the empty spaces of the city into places for art and sculpture, for the garden and architecture. In her works, public places become new fields of cultural action, offering areas and moments of expression that make a stop and crossing meaningful experiences like in Exchange Square (2000) in Manchester, Great Britain. There, the context is an essential element of the project, sometimes exalted, sometimes denied and contradicted for example through the use of common artificial materials, how can we see in her first works like Splice Garden (1986), Cambridge, Massachusetts and King County Jailhouse Plaza (1987) in Seattle, Washington.

In private gardens and art commission Schwartz makes an effort with link between art and nature, creating sculpture gardens, or making the territory like artwork: it is an examples *Power Lines*, 1999, Gelsenkirchen, Germany.¹⁶ (Fig. 2)



Fig. 2. Martha Schwarz, *Power Lines*, 1999, Gelsenkirchen, Germany

13 Caffyn Kelley, *Art and Survival: Patricia Johanson's Environmental Projects* (Salt Spring Island, BC: Islands Institute of Interdisciplinary Studies, 2006), 25.

14 Compare the text: Kastener and Wallis, *Land and Environmental Art*.

15 Nicolin and Repishti, *Dictionary of Today's Landscape Architects*, 29.

16 "I nuovi paesaggi," *Lotus navigator 2* (2001), 30–33.

Marta Lonzi (Florence, 1939 - Rome, 2008):

'That's how I chose to study architecture: it was the synthesis of my values, the thoughts of my life day by day, relationships with the outside, experiences and knowledge about the world and myself'.¹⁷

Marta Lonzi was born in Florence in 1939 and has her studio in Rome. She took her degree in architecture in 1963 in Florence under the guidance of Ludovico Quaroni and Riccardo Morandi. She attended architectural design courses held by Adalberto Libera. She taught architectural design as assistant to Aberto Samonà first and later to Ludovico Quaroni, at the Rome Faculty of Architecture from 1967 to 1973. On January 1973 she abandoned the university explaining her choice with the impossibility of adhering to a teaching method which favours the object against the creative process. These are the years of protest, rebellion and rejection of the model of a woman subaltern and subjected to male power. Like her sister, Carla Lonzi approaches feminism and participates in the initiatives of the *Rivolta Femminile* (Female Revolt) group and the small publishing house connected to it, which her sister founds together with Elvira Banotti and Carla Accardi. She published in those years her most important book *L'architetto fuori di sé* (The architect outside of himself), where she explains well clearly his conception of the creative process in architecture:

There is a wide gap between my attitude and that of architectural towards the creative process. As long as the object continues to be seen as the ultimate purpose of a project, much of its essence will inevitably be lost. There are in reality two types of creative process. The first is what I call sublimated, and does not belong to me. The second always seeks to establish a real relationship, human not cultural relationship.¹⁸

She was not interested in the architectural culture of that time, based on the purely masculine values of the object's culture, that is the architect's objective and arbitrary thinking in which the final synthesis was a 'gift from God', because this approach to the project leads to the sublimation of the final product and to consider a nuisance to people who ask for it, the client, and its needs. She thinks that the project must develop according to the culture of relationship and that it is necessary upstream design contact and to tune in:

Every house is always thought of and conditioned by contact, ... a free contact, not aimed at the project and the house. ... The clients are for me a source of love and teaching, because they are people, who at that moment give you all their humanity. And my responsibility lies precisely in not betraying that humanity.¹⁹

Starting from these suppositions, she maintains that it does not exist difference between interior and exterior architecture; they are just different scales of action. But the relation you can look for with territory is analogous to the kind of relationship you can establish with the client. It is necessary to discover the secret of a place and also to discover the secret of a person. You must tune it.

We can find in Marta Lonzi a contemporary soul and a perfect application of feminine values and sensibility in the approach to both architectural and urban design.

17 Lonzi, *L'architetto fuori di sé*, 1.

18 Marco Romanelli, "Marta Lonzi: Domestic Interiors in Palermo and Turin," *Domus* 766, (1994), 49.

19 Romanelli, "Marta Lonzi," 50.

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Lina Bo and the Aqueduct of Cars

As Silvana Rubino has pointed out, the work of Lina Bo Bardi (1914–1992) seems to have fulfilled the modern ambition of confronting all design scales, from ‘a chair to the Glass House to a toboggan for São Paulo,’ except that it was done ‘in the tropics and in the female.’¹ Rubino was referring to the “Anhangabaú Toboggan,” the title of Lina’s entry to the competition for the urban restructuring of the Anhangabaú Valley, at downtown São Paulo, launched in 1981.²

The Anhangabaú Valley is part of the historical centre of São Paulo. Nowadays, the Anhangabaú is one of the city’s major public spaces, but its history begins with a tea plantation, at a time when the River Anhangabaú still cut the valley. The process of urbanization started by the end of the Nineteenth century, leading to the construction of the first Tea Viaduct (Viaduto do Chá) in 1892, in order to bond the two sides of the valley. The River Anhangabaú was channelled in 1906, and the valley was converted into a park. The Saint Ifigênia Viaduct was constructed in 1913, with a Belgian iron structure. The old iron Tea Viaduct was substituted by Elisario Bahiana’s concrete one in 1938. Eventually, an expressway connecting the south of the city to the north replaced the park. The objective of the competition launched by the Municipality of São Paulo in 1981 was to solve the conflicts between the intense traffic and the requirements of adjacent public spaces, somehow overcoming the barrier imposed by the expressway.

1 Silvana Rubino, “A escrita de uma arquiteta,” *Lina por escrito: Textos escolhidos de Lina Bo Bardi*, edited by Silvana Rubino and Marina Grinover (São Paulo: Cosac Naify, 2009), 39.

2 The basic sources for this work were the material available in the archives of the Instituto Lina Bo and P.M. Bardi on the Anhangabaú Toboggan project (<http://www.institutobardi.com.br>). I should also mention the Exhibition *Anhangabaú – Jardim Tropical*, shown at the Instituto Lina Bo and P.M. Bardi, Casa de Vidro, São Paulo, November 2013, curated by Renato Anelli, which provided an overview of the whole drawings and models.

Lina headed a team composed by the young Francisco Fanucci and Marcelo Ferraz (today partners in Brasil Arquitetura), André Vainer, Paulo Fecarotta, Guilherme Paoliello, Bel Paoliello, Marcelo Suzuki and Ucho Carvalho.³ Nevertheless, Lina’s team did not win the competition for the revitalization of the Anhangabaú. The first prize was given to Jorge Wilhelm, Rosa Kliass and Jamil Kfoury. ‘The essence of the problem,’ as defined by Wilhelm, was ‘reconquering the huge central space for pedestrians’ freeing the valley of heavy traffic (12,200 vehicles per hour) that did not even need to enter the city centre.⁴ Wilhelm’s underground solution (the one actually executed), buried an expressway beneath a concrete slab and created pedestrian spaces over it.

Lina’s design dismissed a fanciful, fully opposed the winner’s strategy. Instead of a tunnel, she proposed an unexpected giant viaduct, rising above the two existing ones, over a lush park designed to be like a ‘tropical garden for the people.’⁵ As she claimed, there would be ‘two Anhangabaú’: one above, for the cars, and another below, for the people.⁶ The truly distinctive character of Lina’s proposal was due not so much to the well-emphasized idea of ‘returning the valley to the people’ (which the winners’ design somehow corroborated), as to the way in which she understood the role of mechanized movement (which fully opposed the winners’ strategy).

On Lina’s Way

According to her notes, Lina considered four basic alternatives for solving the central problem of the traffic. Three of them were excluded as ‘negative options.’⁷ First, the use of elevated pedestrian walkways crossing the valley above the expressway, which she found would be wearing for people, even with the aid of mechanical stairs.⁸ Second, the lowering of the roadbed, with pedestrian walkways crossing the valley over it, which she believed would deprive cars and buses of a ‘view from above of the urban landscape.’ She thought that cars and bus passengers could get some fun out of the usually dreary journeys to work, like in the London’s double floor buses. The third discarded

3 Lina Bo Bardi, “Anhangabaú Tobogã, Concurso de Projetos, 1981, São Paulo,” *Lina Bo Bardi*, edited by Marcelo Ferraz (São Paulo: Instituto Lina Bo e P.M. Bardi, Empresa das Artes, 1993), 252.

4 “Projeto de Urbanismo – Vale do Anhangabaú,” Jorge Wilhelm, <http://www.jorgewilhelm.com.br>, (accessed October 10, 2017).

5 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Perspective with notes* (100ARQd0012), Collection of the Instituto Lina Bo and P.M. Bardi.

6 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Handwriting notes* (100ARQd0045), Collection of the Instituto Lina Bo and P.M. Bardi.

7 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Notes* (100ARQd0003), Collection of the Instituto Lina Bo and P.M. Bardi.

8 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Notes (negative option A)*, (100ARQd0004), Collection of the Instituto Lina Bo and P.M. Bardi.



Fig. 1. Lina Bo Bardi, Anhangabaú Toboggan, São Paulo, Brazil, 1981. The model showed at the exhibition *Anhangabaú – Jardim Tropical*, curated by Renato Anelli. Instituto Lina Bo e P.M. Bardi, Casa de Vidro, São Paulo, November 2013. Photo by author Claudia Costa Cabral, 2013.

option was the underground highway, which she described as so depressive and miserable as a 'way of earthworms'.⁹ Besides, she recognized technical problems arising from this solution, due to the river bed.

The fourth option, the one she adopted, was a critique of the fully underground solution. Reversing the conventional expedient of the heavy traffic concealed beneath the ground's surface, she decided to let 'pedestrians on earth,' and 'transportation facilities above'.¹⁰ Thus, she proposed the construction of what she called the 'Anhangabaú Toboggan': an elevated highway for carrying the high-speed vehicular traffic that was not expected to enter the city's central areas. It was an amazing bridge-like steel structure, running along the centre of the valley throughout its length, from Southwest to Northeast. She referred to it as 'an aqueduct of cars,' since it should take the flow of traffic from a point and lead it directly to another, running all over the valley and releasing the ground level for green areas and safe pedestrian circulation.¹¹

The basic idea for this structure, according to her, was to achieve 'transparency and lightness'.¹²

9 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Notes (negative option B)*, (100ARQd0005), Collection of the Instituto Lina Bo and P.M. Bardi.

10 Bo Bardi, "Anhangabaú Tobogã," 252.

11 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Handwriting notes and perspective* (100ARQd0012), Collection of the Instituto Lina Bo and P.M. Bardi.

12 Bo Bardi, "Anhangabaú Tobogã,," 252.

The almost inevitable comparison with the 1970s *Minhocão* might have been a good reason for that. Wilhelm and Lina's contrasted solutions must be both seen against an existing massive concrete elevated highway built in 1970 to improve traffic connections between downtown São Paulo and the city's western region, nicknamed as the *Minhocão* (literally, big earthworm). During the 1970s, the *Minhocão* was regarded a failure, criticized for its size, ugliness, and negative impact on surroundings. As registered by Sophia Beal, the nickname 'playfully alludes to the monstrous size and ugliness of the highway,' which could be considered as 'an illustration of an urban development model that privileged car culture.'¹³

But Lina Bo never feared ugliness or bigness. She had declared that her SESC Pompéia, designed in 1977, would be as ugly as her former masterpiece MASP, completed in 1968.¹⁴ It's worth noting the asphaltic appearance she gave to the building's concrete slab in "Perspective of the Belvedere," one of her expressive sketches of the MAPS' big span as if it was actually the underside of a concrete viaduct.¹⁵ I would guess that she had further reasons and that these reasons –her real reason– had actually very little to do with disguising the viaduct huge presence.

Lina's giant viaduct had four tracks, overlaid in two levels. Two pedestrian passageways for services and emergencies were placed alongside them. The total width was 9 m. The horizontal structure consisted of innovative and daring pre-stressed steel trusses and steel cables. As for the floors, she planned to cover the tracks with perforated sheet metal, in order to obtain half transparent, lacelike surfaces, which would let light in and allowed to see the passing cars.

The horizontal structure was supported by a sequence of giant columns, which she referred to as 'steel trees.' The name was due to the columns figurative relation to 'ancient trees', like the Brazilian *gameleiras* and other large trees of the *ficus genus*, which are in fact among the oldest species of higher plants on earth.¹⁶ The large span between the vertical supports, as well as their outsized height, would give the impression of isolated trees in a forest. The 'steel trees' had an external diameter of 5 m, and would be constructed with two concentric steel tubes, jointed by process of in-situ injected concrete. Their cores would be hollow. Each column had upper angular pieces supporting

13 Sophia Beal, *Brazil under Construction: Fiction and Public Works* (New York: Palgrave Macmillan, 2013), 164.

14 SESC Pompéia, São Paulo, 1977 (with the collaboration of André Vainer and Marcelo Carvalho Ferraz); Museum of Art of São Paulo (MASP), São Paulo, 1957–68. As she ironically put it: "The "Beautiful" is easy, difficult is the "Ugly," the truly ugly. I hope the sports complex of the SESC Factory of Pompéia will be ugly, much uglier than the Museum of Art of São Paulo. It is a Silo, Bunker, Container." Lina Bo Bardi, "SESC – Fábrica da Pompéia, São Paulo, 1977," *Lina Bo Bardi*, edited by Marcelo Ferraz (São Paulo: Instituto Lina Bo e P.M. Bardi, Empresa das Artes, 1993), 230.

15 Lina Bo Bardi, *Museum of Art of São Paulo, 1957-1968: Perspective of the Belvedere* (036ARQd0121), Collection of the Instituto Lina Bo and P.M. Bardi.

16 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Structure* (100ARQd0052), Collection of the Instituto Lina Bo and P.M. Bardi.

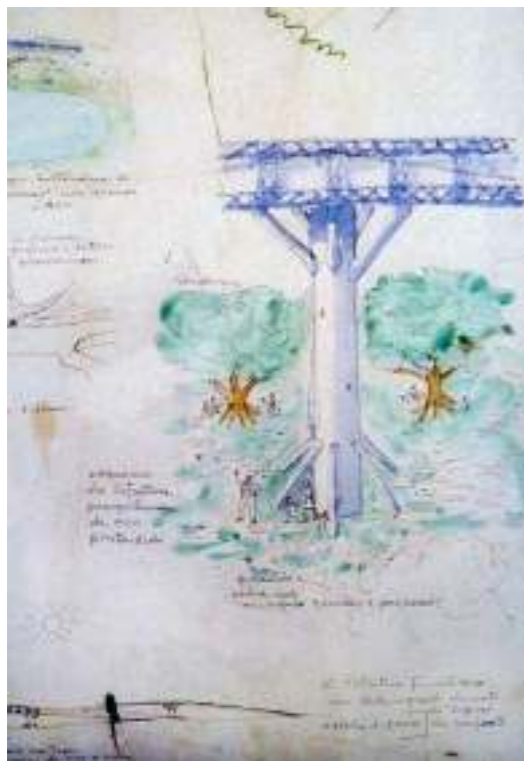


Fig. 2. Lina Bo Bardi, Anhangabaú Toboggan, São Paulo, Brazil, 1981. Detail of the 'steel trees'. The exhibition *Anhangabaú – Jardim Tropical*, curated by Renato Anelli. Instituto Lina Bo e P.M. Bardi, Casa de Vidro, São Paulo, November 2013. Photo by Claudia Costa Cabral, 2013.

the track box, growing like the branches of a tree, and similar pieces on the bottom, sinking into the ground like roots. Like their genuine counterparts, these fake trees reached variable heights, allowing the whole aqueduct structure to take the form of a 'wavy sequence', crossing over the Tea Viaduct and the Saint Ifigênia Viaduct, the two pre-existent structures that connect the two sides of the valley.¹⁷

As Comas has noticed regarding Lina's 'dual parti,' comprising a bold engineering achievement and a natural park, 'advanced technology was the means to the recovery of the unspoilt nature.'¹⁸ Below and around the elevated highway, nature would prevail, with the 'steel trees' set side by side with 'leafy trees,' like rosewoods, rubber trees and palm trees.¹⁹ She wanted a park that was not 'designed,' as an immense lawn crossed by natural routes, perhaps 'those chosen by passers as the fastest and most organic.'²⁰

According to the two-dimensional representation of the master plan designed by Lina and her team, the red line of the highway scarred the valley, splitting it into two

separated parts. Nevertheless, according to the three-dimensional reality of the proposal, vehicular circulation was displaced upward, and the park healed the scar, providing the necessary buffer against the heavy traffic, as modern urbanism had been fighting for, since the days of the Congrès Internationaux d'Architecture Moderne (CIAM).²¹

Instead of merging into the landscape, the aqueduct of cars would transform it. 'The structure will follow the valley as an old aqueduct,' she explained.²² In fact, like a man-made feature set against the regained green valley, her viaduct would actually operate at a territorial scale, as well as the great achievements of Roman engineering did in the ancient world.

Mechanized Landscape: Tree-Like Columns and Bird-Like Cars

'Mechanized landscape' was the title of a funny sketch by Lina Bo Bardi, published in a Brazilian newspaper in 1958. It showed a modern automobile stuck between two sides of an old street. Despite its technological appeal and the implied promise of freedom and velocity, it seemed that the car could go anywhere.²³ Another sketch, for the same newspaper, showed a row of tiny old houses interrupted by a dissonant skyscraper.

The surprising element of the scene was the building's oversized *pilotis*, raising it above the roofs of the houses, and disclosing a natural background landscape.²⁴ However, these funny early drawings posed questions that would be serious long-term concerns for her: the relationship forged between men and their machines; houses and cities built before the arrival of automobiles; the environmental possibilities of vertical stratification of functions, instead of segregated functional zones.

The central device of Lina's design was the way in which she explored mechanized movement within the city space. At the executed project for the Anhangabaú, Wilhelm tapped the valley with a concrete slab, putting the expressway below it, and creating pedestrian spaces over it. All traces of mechanized circulation disappeared, hidden beneath the earth. Lina, on the contrary, overemphasized mechanized circulation. Transportation, one of the cities' major problems, would be enjoyed as a memorable experience, and incorporated to the urbanized landscape as something not useful, but also as a source of fun and pleasure. The name toboggan, which referred to the undulating shape of the structure, was still an allusion to this playful spirit that pervaded the project.

If Lina never feared ugliness or bigness, she also never restricted her architecture to any female gender *cliché*. Lina's entry to the competition was a powerful and sustainable design, which actually subverted expected *clichés*. It was a critique of the controversial *Minhocão*, although not through the usual strategy of the concealment of infrastructure (the one took by the winning design). On the

17 Bo Bardi, "Anhangabaú Tobogã," 252.

18 Carlos Eduardo Dias Comas, "LBB: Three City Pieces, 1976–88," *El desafío el tiempo: Proyecto y persistencia del movimiento moderno*, edited by Horacio Torrent (Santiago de Chile: Docomomo Chile, 2014), 44.

19 Bo Bardi, "Anhangabaú Tobogã," 252.

20 Bo Bardi, "Anhangabaú Tobogã," 252–53; *Lina Bo Bardi, Anhangabaú Tobogã, 1981: Notes* (100ARQd0042), Collection of the Institute Lina Bo and P.M. Bardi.

21 On the relationship between Lina Bo Bardi and the CIAM's perspective see: Cláudia Costa Cabral, "On Circulation: Lina Bo and CIAM's Fourth Function," *Adaptive Reuse: The Modern Movement Towards the Future: 14th Docomomo International Conference Proceedings*, edited by Ana Tostões and Zara Ferreira, (Lisbon: Docomomo International, Casa da Arquitetura, 2016), 788–793.

22 Bo Bardi, "Anhangabaú Tobogã," 252.

23 Lina Bo Bardi, *Paisagem Mecanizada* (Diário de Notícias, Salvador, September 1958), Collection of the Institute Lina Bo and P.M. Bardi.

24 Bo Bardi, *Paisagem*.

contrary, Lina architecturally exposed infrastructure, boldly exploring mechanized movement within the city space, both physically –designing the highway as a major engineering structure– and as an experience of the metropolitan life in itself. Moreover, her ‘aqueducts of car’ playfully used male gender stereotypes (cars, velocity), lending them a fresh meaning, through a new figurativeness completely of her own invention.

The ‘transparency and lightness’ of the structure did not seem to be there to activate some sort of camouflage effect, aimed to ‘integrate’ the giant viaduct into the landscape. Through Lina’s architectural imagination, it would achieve an opposite goal. The lacelike floors would perform like an almost cinematographic surface, through which moving cars could be seen from below, as well as the park could be seen from above. ‘The car would no longer be the dangerous enemy of pedestrians,’ she said, it would be ‘the spectacle.’²⁵

If compared to the winning solution, Lina’s proposal would better embrace contemporary sustainability criteria, in the sense that it might increase the surface soil’s permeability. But the park was not intended to hide the viaduct, nor visually soften the impact of its mechanical appearance. Sometimes painted blue in Lina’s drawings, sometimes painted red, or even announced as ‘green *patropi*,’ a reference to a popular song at the time, the viaduct remains an assertive presence.²⁶ Nobody would seriously assume that steel pillars of about 5 m in diameter, stabilized by fantastic metallic roots, could be mimicked with the surrounding forest, in a conciliatory manoeuvre. After all, as Leo Marx has brilliantly shown in *The Machine in the Garden*, it has been an artists’ role, in the long modern age, not ever search for a middle ground between civilization and nature, but to expose a complex and contradictory relationship.²⁷ Lina assumed that role. Obsession with the machine, and longing for nature, the two interlinked faces of the modern spirit, were never avoided but made explicit in her design.²⁸

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A Capital before Brasilia: The Modern City of Carmen Porthinho

Brasilia, the capital city inaugurated in 1960, was the result of a competition. Although it was part of the presidential campaign of Juscelino Kubitscheck (1902–1976), the idea was prior to that. The republican constitution of 1891 mentioned an area for a future capital of Brazil, far from the seashore.¹ So, the capital city was part of the desire for a new Republic since the beginning; but it was a dream of the modern urbanism as well: the 3 million inhabitants’ town by Le Corbusier (1922) could be in any place of the planet, ex nihilo, out of nowhere. Perhaps the CIAM modernists could not anticipate that this rational city could be the basis for capitals in Brazil and India, but it was what has occurred, even if it may seem paradoxical.

When Le Corbusier visited Brazil for the first time in 1929, he pursued the possibility to plan a city, a Planaltina, a modern capital to Brazil, a rumour he learned from his fellow countryman, the poet Blaise Cendrars. In 1926, Cendrars visited Brazil and sent him a curious postcard: ‘Building of a 1 million soul town, PLANALTINA, in a still virgin region. I think it concerns you’. So, a little before the foundation of CIAM, Le Corbusier felt anxious with the possibility of building a city, especially because he was aware of the presence of Donat Alfred Agache in Rio de Janeiro:

The other day I learned a colleague, well known for his picturesque and romantic conceptions, had a demand for a project of expansion of Rio de Janeiro. Supposing it’s true, he’s quite close to designing Planaltina. It makes me very sad.²

Agache, one of the founding fathers of the Société Française des Urbanistes, was in Rio and Plan

25 Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Detail tree-columns; Notes on structure* (100ARQd0053), Collection of the Institute Lina Bo and P.M. Bardi.

26 In that song, *Patropi* was a short for *País tropical* (tropical country). Lina Bo Bardi, *Anhangabaú Tobogã, 1981: Perspective, Notes: Project* (100ARQd0038), Collection of the Institute Lina Bo and P.M. Bardi.

27 Leo Marx, *The Machine in the Garden: Technology and Pastoral Ideal in America* (New York: Oxford University Press, 2000) 4.

28 The present work was supported by the National Council of Scientific and Technological Development (CNPq) – Brazil.

1 James Holston, *A Cidade Modernista: Uma crítica de Brasília e sua utopia* (São Paulo: Companhia das Letras, 1993), 25.

2 Cecilia Rodrigues dos Santos et al., *Le Corbusier e o Brasil* (São Paulo: Tessala, Projeto Editora, 1987), 42–43.

Agache became the popular denomination for the city's urban redevelopment plan, designed and implemented between 1926 and 1930: a plan inspired by European ideals of remodelling and embellishment. Urbanism, the new science was a novelty in Europe as well as in Brazil. It's not surprising that when the first course of urbanism was created in Brazil, the first graduate had presented a very detailed proposal for a new capital for the country as her dissertation; an early Brasilia, despite being almost a decade before the competition. The name of the graduate was Carmen Velasco Portinho.

She was born in 1903 in Mato Grosso, the central west of Brazil and moved to Rio de Janeiro where she became the third female engineer of the Polytechnic School. By that time she became a suffragist as well. She initiated her career at the City Hall of Rio, as supervisor of the public buildings, coordinating the tasks of 600 workers. At this point, she wrote in her diary she was glad to tear down 'the old ruined buildings that stopped the urban expansion of Rio de Janeiro'.³ Soon she was promoted and constructed a profitable career as engineer. At the same time she built a reflection about overlapping themes, from construction techniques to feminism, from urban planning to the details of domestic equipment.

In 1932, the town hall of Rio de Janeiro started the edition of a technical magazine, the *Journal of the Engineering Department*, with Carmen as secretary. Due to her presence the journal played the role of disseminating the modern architecture that was carried out in Europe and the United States. In the first issue, Carmen presented an essay absolutely admiring the contemporary architecture in Holland –in her own words modern architecture in a traditionalist country– and celebrated the fact that the national brick was beginning to be discarded, opening the way for the use of reinforced concrete. In the same issue, in an article about the influence of climate in the construction of prisons, she changed her focus, bringing constructive challenges to Brazil, a tropical climate that had to face insolation, sunstroke and ventilation issues: 'we cannot expect our problems to be solved abroad'.⁴



Fig. 1. Carmen Portinho's certificate as engineer, 1926. Courtesy of Carmen Portinho Archives, Nucleo de Pesquisa e Documentação, Faculdade de Arquitetura e Urbanismo, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil.

According to her, there were a lot of problems to be solved in Brazil by this professional that still did not exist, at least not formally: the urbanist. In the 1934 issue of the journal, Portinho began to draft her concern about such a gap, and to outline her future perspective. In the article "The scientific criterion of urbanism," she sought to delineate the contours of this new discipline:

The urbanist who wishes to devote consciously to the study of his project cannot dispense the required general knowledge of sociology and psychology, or the detailed investigation into the history and geography of the city whose plan of organization and extension has been entrusted to him, unless he wishes to criminally interrupt the continuity which must exist between the past life and the future development of the town in question.

And further on:

The living habits of the population, the traditions of the city, are points that need to be known by its remodeler. An urbanist may have universal fame and be an expert in his profession; however, if he is requested to urbanize a Latin city, for example, and if he belongs to the Germanic or Anglo-Saxon race, there will be no doubt that for the execution of his work, the urbanist will enter with a negative factor, with a disadvantage that the natural technician of the locality would not have.⁵

If the engineer Carmen sought a possibility to put into practice the modern architecture and urbanism she advocated for, the opportunity came when she completed her specialization in Urbanism at the University of the Federal District (UDF). Created by Anísio Teixeira (1900–1971),⁶ the UDF was an institution of higher education that had a brief life, functioning between 1935 and 1939. Architect Lucio Costa (1902–1998) was a professor there in 1935; the sociologist, author of the classic *Masters and Slaves*,⁷ Gilberto Freyre (1900–1987) was a professor as well. The university created the course of Urbanism in 1936, a postgraduate degree that worked for three years in the Institute of Arts, and which had as professors, among others, the writer Mário de Andrade (1893–1945), the painter Candido Portinari (1903–1962) and the composer Heitor Vila-Lobos (1887–1959).

By that time, Carmen exchanged mail with Anhaia Melo (1891–1974), an urban planner who had been mayor of São Paulo, asking for some advice, a research topic. He suggested that she dedicate herself to the concept and application of *zoning*, but she ended up electing a capital, an *ex-nihilo* city on the Central Highlands, clearly inspired *La ville radieuse* of 1935. Carmen was the first to

5 Carmen Portinho, "O critério científico no urbanismo", *Revista da Diretoria de Engenharia*, no. 8 (January 1934), 15–16.

6 Anísio Teixeira was a Brazilian intellectual and educator, defender of integral education for all. He was a follower of John Dewey's ideas. He was persecuted by the Getúlio Vargas government after 1937. His death in 1971 occurred in obscure circumstances, probably a political crime in our dictatorial period.

7 Gilberto Freyre, *Casa-grande e senzala* (São Paulo: Global Editora, 1933). First English edition, Gilberto Freyre, *Masters and Slaves* (New York: Knopf, 1946).

3 Carmen Portinho, *Por toda a minha vida* (Rio de Janeiro: EDUERJ, 1999), 35.

4 Carmen Portinho, "Influência do nosso clima na arquitectura das prisões", *Revista da Diretoria de Engenharia* 1, no. 1 (1932), 14–16.

exercise this novelty in Brazil: the Corbusian approach and she proposed a large park where it would be possible to live.

We have already mentioned Le Corbusier's passage through Brazil in 1929. If Lucio Costa, did not pay much attention to his lectures, Carmen Portinho was there and in her plan for the capital we do not need to collect references, for they are there, explicit, offering themselves to the reader as a Corbusian capital for the new times.

The bibliographical research carried out by Carmen was based on the studies of 1892, the well-known Cruls Report, designed by a team coordinated by the director of the National Observatory, Luis Cruls, who demarcated 14,400 km² to choose the exact point for a future capital. Carmen justified her choice of the place by the constitutional article and this report, electing the Central Plateau, the most central of the Brazilian territory, emphasizing as qualities the existence of two seasons –drought and rain– and the easiness for creating parks and gardens with the local flora, because her goal was to build: '... the most picturesque and pleasant city of the world, as we have foreseen ..., among lush and rich vegetation, ran by rivers of fresh waters ...'

She had also pointed out her interpretation of the Brazilian territorial occupation:

This immense region cannot be eternally abandoned. Located there the Federal Capital, where it would certainly converge our most important highways, air routes and railroads, linking it to the coast and to the capitals of the States and thus assuring the development and the progress of the Nation. Against the idea of moving the Capital of the Republic to the Central Plateau, the distance factor cannot be claimed, since, according to L. Cruls, president of the commission, the "vol d'oiseau" between the city of Rio de Janeiro and demarcated area is about 970 km.⁸

Carmen dedicated the second part of her study – the project itself – to explain the capital of a new country of great possibilities, 'in the age of the motor'. In her memorial she assumed an open Corbusian orientation, that is, a city of the type *Ville Radieuse*, designed on an immense park and in which the dwelling would be the primordial element. A city to be seen from above, whose final test was not in use and walking, but the mechanical bird's eye:

In the execution of the project of the future Capital of Brazil we seek to obey the fundamental principles of modern urbanism. If we make mistakes, the plane will be there to point out our mistakes. It will show us the city with its faults; before it we could only feel, but not see them.⁹

The same enchantment revealed by Le Corbusier in 1929, when he first travelled by plane in South America: 'I saw from the plane some spectacles that could be called cosmic. What an invitation to

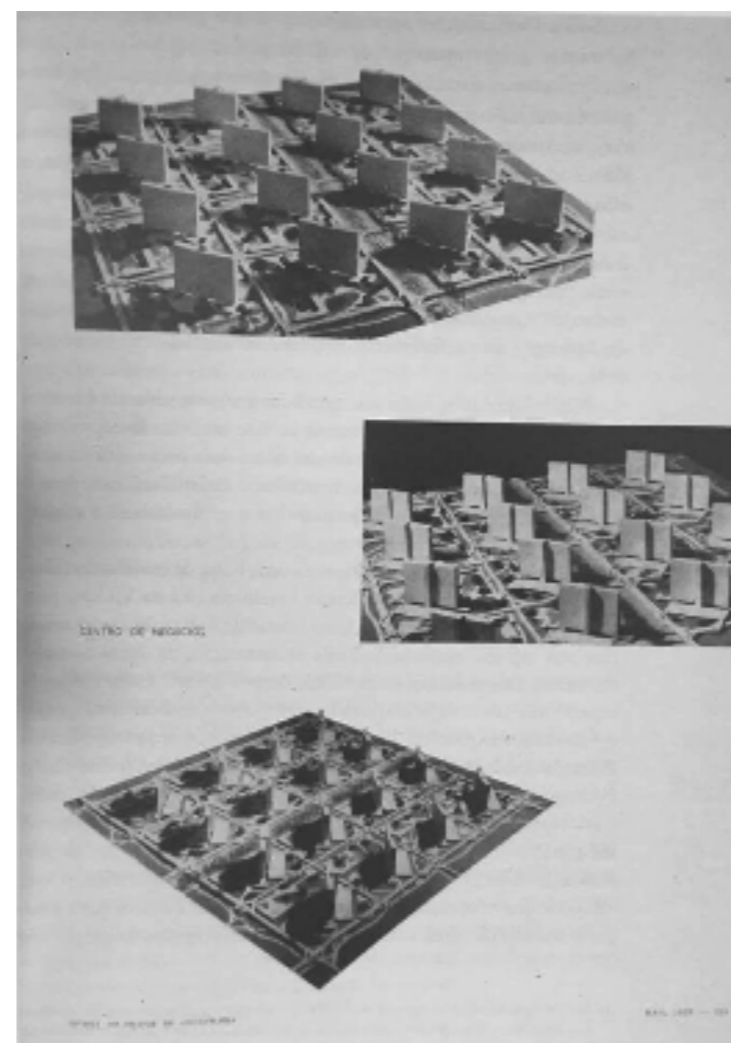


Fig. 2. Carmen Portinho, Business Center, her plan for the new city. From Carmen Portinho, "Ante-projeto para a futur capital do Brasil no Planalto Central," *Revista da Diretoria de Engenharia* 6, no. 3 (1939), 294.

meditation, what a call to the fundamental truths of our Earth!¹⁰

Located on the banks of the River Torto, where it would be possible to erect this beautiful, picturesque, wooded city, her project foresaw a population of 2 million inhabitants, separating functions in space, motorways, a train linking the old Capital to the new one and a Brazil that invested heavily in air transportation. As in the *City of three million inhabitants* that Le Corbusier presented in Paris in 1922,¹¹ the centre of the city, a large terrace, would be destined for landing small airplanes, while the airport would be a little away from the centre.

A business centre would have air-conditioned skyscrapers, blocks of 150 meters high –that is, forty floors– and in each block more than 18 thousand people could work, measured in favour of the proposed density of 1000 inhabitants per hectare and contrary to great distances. The buildings would be 400 m away from each other. A civic centre predicted, besides Chamber, Senate, ministries etc., all amid gardens, cafes and pastry shops, a People's Palace, for demonstrations, and a Museum of Brazilian Knowledge. A green city, in

which sports areas would be close to the houses, like the 'prolongations of the dwelling' foreseen by the Charter of Athens.

The type chosen for the city –that of *Ville Radieuse*– indicates that it was designed in an immense park, where the dwelling represents the primordial element; the 'street', in the common sense of the word (path lined with houses) was suppressed.

8 Carmen Portinho, "Ante-projeto para a futur capital do Brasil no Planalto Central," *Revista da Diretoria de Engenharia* 6, no. 3 (May 1939), 284–97.

9 Ibid, 286–7.

10 Le Corbusier, *Precisões: Sobre um estado presente da arquitetura e do urbanismo* (São Paulo: Cosac & Naify, 2004 [1930]), 18.

11 Project *Ville contemporaine de trois millions d'habitants*, presented at Salon d'Automne in Paris.

If dwelling is primordial, it's where one can find the vision of modernity proposed by Carmen Portinho and a certain vision of domesticity as well:

Above the 'pilotis' one floor was reserved exclusively for common services. The organization of these services will be the only way to avoid unproductive fatigue and fruitless time loss to the housewife. On this floor, a large domestic service plant will be located. Corporate organizations will assume responsibility for these services. Foodstuffs, meat, vegetables, fruits, etc., coming directly from the markets (warehouses), located in the industrial zone, will be collected from the refrigerators, built on the floors for the common services. Well-equipped kitchens will provide meals at any time. The cleaning of the apartments will also be done by professionals; the washing of clothes as well and all other necessary services to the home. A maid to look after the children and do other small services will suffice for every dwelling. The problem of domestic servants, so difficult to solve, can be solved in this way.¹²

Who is this maid, where would the 'maid' live? This is not clear in the project. The city of the feminist engineer did not anticipate a periphery, did not indicate a suppression of social differences, nor did it indicate 'noble' neighbourhoods and the lower classes ones.

On the buildings with their horizontal roofs would be designed sand beaches for sunbathing and sports, making the roof the most attractive pavement. A Civic Centre next to the Business Centre, but separated by a green zone should include the Museum of Brazilian Knowledge, a 'synthetic expression of Brazilian life', a precious propaganda instrument of the country.

The bibliography at the end of the memorial included, as it might be expected, almost everything Le Corbusier had published so far, a report by the 5th CIAM authored by Josep Lluís Sert, a text by Prestes Maia (1896–1965),¹³ the Agache Plan, and a reference to the sanitarian engineer Saturnino de Brito (1864–1929),¹⁴ among others.

There is no indication that there was any intention of building this capital city, although it was conceived, because of its connection with all the studies that have occurred since the First Republic, to the same site where in 1960 Brasília was finally, belatedly, inaugurated.

In 1944, Carmen applied for a scholarship from the British Council. And she spent a season dedicated to the study of social housing, an important theme to the British in this period of reconstruction. From the reflections of this post-war turnaround, as well as from the experience accumulated in the study that could indicate a possible Brasília, her partnership with her companion, the architect Affonso Eduardo Reidy (1909–1964) resulted in a housing complex, Pedregulho. It is from this



Fig. 3. Carmen Portinho during the construction of Pedregulho. Courtesy of Carmen Portinho Archives, Nucleo de Pesquisa e Documentação, Faculdade de Arquitetura e Urbanismo, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil.

pioneer of feminism in Brazil, the interference that made the complex to have a collective laundry, to save women's double journey work. Pedregulho had an urbanistic dimension, with school, laundry, sports area, swimming pool, due to its population density.

Why then, did the Portinho-Reidy couple not participate in the Brasília competition? Carmen had the study already done and Reidy accumulated an experience in urbanism since 1929. In 1954, he participated with Roberto Burle Marx (1909–1994) in a group work with the goal of demarcating the area in the Central Plateau, Goiás, where Brasília would be built. According to Yves Bruand,¹⁵ Reidy and Burle Marx would have suggested an invitation to Le Corbusier to conceive the plan. Certainly a part of this inexplicable absence refers to an already announced presence: Juscelino Kubitschek's choice of Oscar Niemeyer (1907–2012) to rapidly develop a proposal has caused many architects' discontent. Reidy took the lead publicly criticizing the edict, from the short four-month deadline to the lack of an administrative political plan that should provide a basis for competitors and the jury. Interviewed in 1997, Carmen Portinho said: 'he [Reidy] never told me anything, but we did not have

12 Portinho, "Ante-projeto para a futur capital do Brasil," 292.

13 Francisco Prestes Maia was a Brazilian civil engineer, architect, urban planner and professor, who served three terms as mayor of São Paulo.

14 Francisco Rodrigues Saturnino de Brito is considered by many the pioneer of sanitary engineering in Brazil.

15 Yves Bruand, *Arquitetura contemporânea no Brasil* (São Paulo: Editora Perspectiva, 1981), 354.

to say things at home, we knew: he did not want to participate. ... He did not want to know about something that he knew how it would end'.¹⁶

So in 1956, Carmen Portinho neither resubmitted her project, nor conceived a new one from the studies of the 1930s.

The winning design, written by Lucio Costa, placed Brasília exactly in the same place as the Portinho project did, as the two projects were based on the same research and modern projects. Portinho's design is more Corbusian than Costa's, but let us remind that Costa designed and described his capital after the revalidation of monumentality by Josep Lluís Sert (1902–1983), Siegfried Gideon (1888–1968) and Fernand Léger (1881–1955). The super-blocks were maintained, as well as the sectorisation and other aspects of a project that Lucio Costa surely knew well, but what he added was fundamental to the victory he achieved and to the Brasília that we have today: eloquence, symbolic capacity and rhetoric.

Brasília became an easy target for postmodernist critique. It would certainly be criticized, whatever the outcome of the competition, because the 1960s would bring new sensibilities regarding history, diversity, authorship and social issues. The arguments included the fact that people do not always want to live in a work of art, beautiful when seen from above, from the plane, by the bird's eye.

Brasília merges two mythologies, in the anthropological sense – the first is Modernism itself, and the other is the difficult Brazilian Republic. And Carmen Portinho's design helps us to realize that modernism was not a condemnation but a choice, a desire of several postulants for a technical and erudite knowledge that should make new cities, and that found in this utopia a way to propose a modern life, which no one knew quite well how it came to be.

¹⁶ Nabil Bonduki (org.), *Afonso Eduardo Reidy* (São Paulo: Instituto Lina Bo e P. M. Bardi; Lisboa: Editorial Blau, 1999), 24.

Chapter G

Women 'as Subjects': Documentation, Methodology, Interpretation and Enhancement

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Women 'as Subjects': Documentation, Methodology, Interpretation and Enhancement

The history of the works of women in architecture, civil engineering and industrial design belongs to contemporary history. In fact, except for a few isolated and exceptional cases, women have worked in these fields since the second half of the nineteenth century.¹

Historiography on women is fully integrated into a concept of memory whose semantic spectrum has increasingly extended, enriching itself with meanings.² In recent times, research on female professionals in the fields of architecture and design has also become a popular 'history making' phenomenon.³ These research studies have begun to be conducted by different categories of

1 The exceptions include: Katherine Briçonnet (1494–1526), who contributed to the refurbishment of Château de Chenonceau (1514–1522), named 'Château des Dames'; Pautilla Bricci (1616–1692), a member of the Accademia di San Luca who in 1663 designed and built Il Vascello Villa in Rome (demolished in 1849) with her brother Basilio (1621–1692) on behalf of the abbot Elpidio Benedetti, who was the agent of Mazzarino and the King of France at the court of Rome; Lady Elizabeth Mytton (1632–1705), who designed 400 buildings in her architectural studio. See Lucia Krasovec Lucas, "Modern Women in (Modern) Architecture: Some Cases (Genesis of a Modern Lifestyle)," in *MoMoWo: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot, Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: ZRC Publishing House, 2017), 214–29, <https://doi.org/10.3986/wocrea/1/momowo.1.12>. About Il Vascello Villa, see Carla Benocci, *Villa Il Vascello* (Rome: Eraso, 2003).

2 For an extensive consideration of the multifarious concept of memory and its implications in contemporary society, the essential reference is Paul Ricoeur, *La mémoire, l'histoire, l'oubli* (Paris: Édition du Seuil, 2000).

3 A landmark in the empirical study of popular and public history is David P. Thelen and Roy Rosenzweig, *The Presence of the Past: Popular Users of History in American Life* (New York: Columbia University Press, 1998). On 'Public history', see Paul Ashton and Hilda Kean (eds.), *People and their Pasts: Public History Today* (Basingstoke: Palgrave Macmillan, 2008).

people (most often women); therefore, recent research practices have widely differed from those established by traditional research by professional historians in areas such as art, architecture, building and design. In research practices on the history of women, both the use of documentary sources and the relationships with the studied objects and the past are manifold. The 'new scholars' tend to be driven by the desire to recover or cultivate group and professional memories or rediscover and enhance local identities. As a general rule, they attempt to establish direct and immediate relationships with the moments and aspects of the most recent past.

Both in the context of popular history making and in more traditional academic studies, research experiences on women in the design of the built environment are inspired by the desire to 'find those who were lost' and 'reweaving the threads' of professional memory in the fields of architecture, civil engineering and design.⁴ Their ultimate goal is also to re-establish the identities of those professions that have long been dominated by men, as has their history has been.

Through the rediscovery of individual, professional and social memories, the process of historicising the works of women designers aims to recover the material and immaterial cultural heritage that has been kept in the shadows or removed altogether by the dominant culture, a recovery for the benefit not only of women but of the whole community.

If it is true that, according to the most reliable definitions, history is 'knowledge through sources', it is also true that history has used and continues to use paradigms, methods, critical analyses and sources in different ways according to factors such as the different periods and contexts in which it is studied, the area or research topic being addressed, the historiographical trends that have developed over time, the objective to be reached, and the required rhetoric.

The reconstruction/construction of women's collective memory appeared on the historiographic scene as a result of a highly multifaceted process that cannot be exclusively traced back to feminist demands, as is customarily stated. This process is closely related to the definition of the qualitative and quantitative specificities of the sources of contemporary history over the last three decades of the twentieth century.

4 See Caterina Franchini, "Women in the History of Architecture and Design: Sailing to a New History," in *MoMoWo: 100 Works in 100 Years: European Women in Architecture and Design: 1918–2018*, edited by Ana María Fernández García, Caterina Franchini, Helena Seražin and Emilia Garda (Ljubljana: ZRC Publishing House, 2016), 238–43.

Polycentricities of Sources and Historiography: Overcoming Disciplinary Paradigms and Conventional Research Themes

Since 1962, when Madeleine Bettina Stern published *We the Women: Career Firsts of Nineteenth-Century America* (New York: Schulte), the geography of historical research sources began to widen chronologically towards the contemporary world and thematically toward unexplored horizons. The polycentrism of sources was joined by a historiographical polycentrism which, by rejecting the rigid paradigms and disciplinary hierarchies of the past, also contributed to the conservation of documents, freeing them from the influence of the dominant historical culture. New research paths emerged alongside previously explored ones, such as those suggested by the quantitative or serial historiography theorised by Pierre Chaunu and widespread mainly in France and the United States.⁵

The plurality of research approaches and the interpretative points of view of the 1970's –which conciliated the distinction between 'major' and 'minor' sources– began to illuminate parts of the past that had remained in the shadows for too long. Women's work is notoriously one of those shadowed areas of history. In the same decade, the downplayed archival sources of positivist historiography, as well as the disdained ones of idealistic historiography, returned to claim their place in historical research.

In 1977, using the documentation gathered in the Archive of Women in Architecture of the Architectural League of New York, Susana Torre published her book, which is as famous as it is pioneering: *Women in American Architecture: A Historic and Contemporary Perspective* (New York: Whitney Library of Design), describing the exhibition of the same name.

Like all research on the archival sources of the twentieth century, investigation of the sources produced by women architects, civil engineers or designers has also clashed with the prejudice that archival documents are decreasingly important the closer they are to the present time. On the other hand, the tendency to assign a more significant historical importance to the documentation of the past than to that of the present is still highly prevalent in the oldest archival institutions. Furthermore, in the past, historical culture has also had a restrictive influence on choices regarding the conservation of documents of recent production.⁶ All of this has led to the formation of gaps in the documentation that are particularly significant in the history of the built environment of the last two centuries.

5 See Pierre Chaunu, *Histoire quantitative, histoire sérielle* (Paris: Armand Colin, 1978).

6 It suffices to recall that the specificity of contemporary history only began to be recognised in the Eighties. In Italy, the Italian Society for the Study of Contemporary History (SISSCO) was founded in 1989. See Isabella Zanni Rosiello, "Archivi, archivisti, storici," in *Il potere degli archivi: Usi del passato e difesa dei diritti della società contemporanea*, Linda Giuva, Stefano Vitali and Isabella Zanni Rosiello (Milan: Bruno Mondadori, 2007), 18, 30.

Documentary gaps have begun to be partially filled with the creation of the first institutions specialised in the study and conservation of project documents in North and Central Europe, such as the Arkkitehuurimuseo in Helsinki in 1956;⁷ the Bauhaus-Archiv in Darmstadt in 1961; the Arkitekturmuseet of the Svenska Arkitekters Riksförbund in Stockholm in 1962 (SAR, ArkDes since 2013);⁸ the Archives d'Architecture Moderne (AAM) in Brussels in 1969; and the Norsk Arkitekturmuseum in Oslo in 1975. The Canadian Centre for Architecture (CCA) was established in Montreal in 1979,⁹ followed a year later by Le Centre d'archives d'architecture du XXe siècle in Paris, which has been open to the public since 1991.¹⁰ Strangely enough, even these specialised institutions have very few archival fonds produced by women designers. One of the main reasons for their scarcity is the fact that the role of women in the hierarchies of political, social and professional power has been, and remains, mostly marginal. Archives have always had a very close connection with the powers in society.

As it is known, throughout history the various kinds of power and their institutions determined the aggregation and location of archives and how they were organised. Ultimately, it was precisely those same forms of power that created the reasons for the archives' creation, as well as directing their use over time.¹¹ Therefore, scholars approaching research on the works of women must still 'flush out' and 'elicit' archives and form new collections of documents,¹² as occurred at the beginning of the 1970s for Susana Torre's "Women in American Architecture" project carried out with The Architectural League of New York. For this project, in fact, the committee in charge 'decided to form an archive to collect biographical and project data about the careers of women design professionals ... Under the auspices of the Archive of Women in Architecture, a national survey was undertaken and extensive historical research begun'.¹³

Almost fifteen years after the end of the project, the Administrative Director of the Architectural League of New York Marita O'Hare, who had participated in the formation of the Archive, recognised how the Archive had grown in importance, well beyond its initial purpose. Not only did it constitute the knowledge base for the creation of the exhibition and the book, but it also 'fostered a consciousness of historical continuity that seems essential to creative processes, whether as an enriching matrix, as a standard to be measured against, or indeed, as a tradition to be challenged'.¹⁴

Reflecting on the Archive's formation, Marita O'Hare wrote:

I am reminded of Virginia Woolf's essay on women and fiction entitled "A Room of One's Own," which was published in 1929. One passage, in particular, comes to mind: one could not go to the map and say Columbus discovered America and Columbus was a woman; or take an apple and remark, Newton discovered the laws of gravitation and Newton was a woman; or look into the sky and say aeroplanes were invented by women. There is no mark on the wall to measure the precise height of women.¹⁵

Why have women's accomplishments so often been omitted from architectural history, and how can we correct the record? These are the questions that spurred the architectural historian and Bulgarian constructivist architect Milka Bliznikov (1927–2010), who immigrated to the United States in 1961, to found the International Archive of Women in Architecture (IAWA) in 1984. 'Established as a joint programme of the College of Architecture and Urban Studies and the University Libraries at Virginia Tech',¹⁶ this extraordinary archive is still the only one of its kind in the world.

Finding a Way to 'Flush Out' Hidden Names and Projects in Archival Labyrinths

Excluding the exceptional case of the IAWA, identifying archives of women designers currently requires tackling the preservative fragmentation resulting in the fragmentation of institutional power at various territorial levels that occurred in the last decades of the twentieth century. At that time, in parallel with the widening of the geography of sources, private and public bodies with some degree of autonomy started to appear.

7 The Architecture archive also preserves the photographic collection of the Finnish Architecture Association founded in 1949.

8 The ArkDes collection has 500 Swedish architects' fonds (see: "Library and collections," ArkDes, <https://arkdes.se/en/library-and-collections/>).

9 In the same year, the International Confederation of Architectural Museums (ICAM) was founded in Helsinki, which is part of the International Council of Museums (ICOM) and the International Council of Archives (ICA).

10 The list of fonds can be viewed at "Archiwebture," Cité de l'architecture & du patrimoine, <https://archiwebture.citedelarchitecture.fr/fonds?p=3>.

11 See Stefano Vitali, "Premessa," *Il potere degli archivi*, 8.

12 With reference to the topic of the establishing women's archives, for an illustration of concrete examples of what it means to 'flush out', 'elicit' or 'invent' archives, see Alessandra Contini, "Archivio per la memoria e la scrittura delle donne: Un cantiere aperto," *Archivio storico italiano* 594 (2002), 769–87 (in particular page 773).

13 Marita O'Hare, "Foreword," *Women in American Architecture: A Historic and Contemporary Perspective*, edited by Susan Baybrooke and Susan Davis (New York: Whitney Library of Design, 1984, 1st edition 1977 edited by Susana Torre), 6.

14 O'Hare, "Foreword," 7.

15 O'Hare, "Foreword," 6.

16 "Home," International Archive of Women in Architecture (or IAWA), <http://spec.lib.vt.edu/IAWA/> (accessed January 2018).

The phenomenon of archival 'Balkanisation',¹⁷ which was already recognised by Philippe Bélaval in 2001, has intensified in recent years as a result of the computerisation of documentary systems, the constant increase of institutions that preserve historical archives and the proliferation of independent archives. Archives of local public bodies, private institutions, industries and companies, families, and individual professionals are increasingly made available to the public. However, regulations regarding the access, selection and use of the most recent documentation are still problematic barriers.

At present, the identification of archives of architects, therefore, comes up against an ever-mazy archival labyrinth due to the complexity of both the contemporary documentation gathering processes and historical documentation management. Finding the archival fonds of professional women within this labyrinth is a difficult task for several reasons. The most evident of these is the fact that women's surnames often change with marriage. In fact, women often disappear in archives not because of small transcription errors –as in José Saramago's suggestive novel *All the Names* (New York: Harcourt Brace & Co, 1997)– but because when women married they took the surname of their spouses professionally as well as personally. Consequently, the reconstruction of professional women's family lives plays a much more relevant role, at times an essential one, than it does for their male colleagues when identifying archival fonds and documents.

The identification of the first women designers was, and remains, further hampered by the fact that even their first names are often not registered in full or are registered differently than their official names. In fact, it is customary for women to adopt the nickname used in private life in their professional life.¹⁸ Sometimes only the initials of their given name appear in both primary and secondary sources. Consider, for example, the extraordinary patent for hexagonal buildings (1886) by Harriet Morrison, whose married name was Irwin, which is ambiguously signed 'H.M. Irwin', as Madeleine B. Stern did not fail to note.¹⁹

The reason why the first American woman (from North Carolina) 'to patent an architectural invention for a dwelling' did not want to appear either by her first name or by her maiden name is unknown. In the text of the Patent Letter, the inventor avoids the use of personal pronouns or possessive

adjectives that could reveal her female identity. Perhaps Harriet Morrison Irwin feared that the United States Patent Office would not seriously take into account the invention of a woman in the construction industry? This assumption may have some basis in reality, as can be argued from the following quote:

The Patent Act of 1790 opened the door for anyone, male or female, to protect his or her invention with a patent. However, because in many states women could not legally own property independent of their husbands, many female inventors didn't bother to patent their new inventions. Mary Kies broke that pattern on May 5, 1809. She became the first woman to receive a U.S. patent for her method of weaving straw with silk.²⁰

Other, more subtle reasons underlying the difficulties of locating women's archives may be due to the role they played in the professions of civil engineer and architect, which for many years have been, and in part still are, traditionally male.

As for women architects, their professional activities often began or extended to fields akin to architecture, which did not, however, coincide with it. In the case of women who started working before the Second World War, it can be seen that in almost the whole of Europe they have consecrated their time, even more than their male counterparts, in the practice of interior design, set design, theatrical set design, furniture design, product design, decorative arts or graphic design. Therefore, considering how sometimes architectural archives do not care about these various activities, numerous other archives must be referred to in order to reconstruct all of an author's works.

Concerning product and furniture design, the manufacturers' archives will contain the archival fonds or documents of the women architects. These company archives are still essential in the study of women designers, even if they, as did the women architects, often worked in parallel in many other related fields.

In some countries, company archives disappeared along with the closure of companies caused by political-economic circumstances. One example is the breakup of Yugoslavia. These disappearances created documentary gaps that have had severe consequences for the history of an entire period of industrial design.

As for exhibitions and fairs or theatrical sets, the organising bodies may possess archival collections to be consulted. Consider, for example, the historical archives of prestigious institutions such as

17 On the 'Balkanisation' of archives, see Philippe Bélaval, "Archives et République," *Le Débat* 3, 115 (2001), 100–17.

18 Among others, consider: Gae (Gaetana) Aulenti; Lina (Achillina) Bo Bardi; Cini (Maria Cristina Mariani Dameno) Boeri; Margherita (Rita) Bravi Mori; Fede (Federica) Cheti; Susie (Susan) Cooper; Jela (Gabriela) Ferrario Mari; Liane (Juliana) Ficher Zimble; Anni (Anneliese Fleischmann) Albers; Lux (Luise) Guyer; Grete (Margarete) Lihotzky Schütte; Ko (Jakoba Helena) Mulder; Marie (Maria Cornelia) Kuyken; Gunta (Adelgunde) Stölzl.

19 The document quoted by Madeleine B. Stern is *Improvement in the Construction of Houses*, United States Patent Office, Letters Patent No. 94, 116, August 24, 1886. Madeleine B. Stern, "Three American Women First in Architecture: I Harriet Irwin 1869," in Madeleine Bettina Stern, *We the Women: Career Firsts of Nineteenth-Century America* (Lincoln: University of Nebraska Press, 1994, 1st ed. New York: Schulte, 1962), 58.

20 "Mary Kies Became the First Woman to Receive a U.S. Patent," America's Story from America's Library, http://www.americaslibrary.gov/jb/nation/jb_nation_maryk_1.html (accessed January 30, 2018).

the Milan Triennale,²¹ the Venice Biennale (Historical Archives of Contemporary Arts - ASAC),²² or the archives of important theatres.

Concerning interior design, one should consult the archive/fonds of the author of the building for which the women architect designed interiors and pieces of furniture and, if possible, the client's private archive.

The question of clients' archives is always a delicate and intricate issue. As seen in the contributions by Claudia Mattogno²³ and Rosa Tamborrino²⁴ to the MoMoWo Symposium, sometimes women clients played a co-authorial role in the complex design process ranging from conception to creation. Here are just some of the women who commissioned architectural works that have become icons of the Modern Movement: Dutch socialite Truus Schröder-Schräder (1889–1985), who commissioned the Rietveld Schröder House (G.Th. Rietveld, Utrecht, 1924); American art collector Sarah Stein (1870–1953), who together with her husband and her friend Gabrielle Colaco-Osorio de Monzie (1882–1961) commissioned Villa Stein (Le Corbusier, Garches, 1927); Chicago nephrologist Dr Edith Farnsworth, who commissioned the Farnsworth House (L. Mies van der Rohe, Plano, 1945–51); and Canadian architect and philanthropist Phyllis Barbara Bronfman Lambert (1927), Seagram's heiress and director of planning for the Seagram Building (L. Mies van der Rohe, New York, completed in 1958).

Another possibility is that some women architects/designers carried out significant theoretical activities or were feminist activists, with the result that their archives have merged into institutions of various kinds that have little to do with architecture. In this book, Raffaella Poletti presents

21 See "Archivio storico," La Triennale di Milano, <http://old.triennale.org/it/archivio-storico>. The Historical Archive has been digitised since 2005 and subsequently made accessible to the public. At the Milan Triennale, the Archive of Paola Lanzani and Piercarla Toscano Lanzani Racchelli collects the furnishing projects created from 1961 to 2006 for the most important Italian and foreign chains of shops and department stores, including La Rinascente, Croff and Upim.

22 The ASAC was inaugurated in 1928 with the name Historical Institute of Contemporary Art. With this establishment, the Biennale was equipped with a specific institute that was not only responsible for the conservation of documentary materials that were progressively passed to it by the different offices, but also for their increase with fonds and collections of other origins. "Historical Archives of Contemporary Arts (ASAC)," La Biennale di Venezia, <http://www.labiennale.org/it/asac> (accessed January 4, 2018).

23 See Claudia Mattogno, "Building Genealogies, Learning from Feminism: Women as Designers and Planners" (paper presented at MoMoWo Symposium 2018, Polytechnic of Turin, Italy, 13th-16th June, 2018), full paper is annexed to this chapter. The author also traces a synthetic picture of the main secondary sources to use to build genealogies: exhibition catalogues, anthologies, journals, autobiographies and critical essays.

24 See Rosa Tamborrino, "Collecting & Linking Creative Culture of Women: Women Designers and Women Clients for Another History" (paper presented at MoMoWo Symposium 2018, Polytechnic of Turin, Italy, 13th-16th June, 2018), the full paper is annexed to this chapter. This lecture addressed the critical issue of how the digital archive can be designed as a digital platform for a 'virtual re-composition' of women's involvement in the process of architectural transformation of the twentieth century as both women designers and clients.

the case of the archive of Marta Lonzi (1938–2008). The archive of architect Marza Lonzi, an exponent of Italian feminism, was received by the Elvira Badaracco Foundation (Women's Studies and Documentation) in 2017; since its establishment in 1994, this foundation has promoted studies on women's culture and women's social and political experience.²⁵

Resuming the matter of hidden names, it must be mentioned that in Europe, as elsewhere in the world, female designers practised with their husbands, fathers, brothers or male colleagues.

In most of these cases, at least until the 1960s, the design contribution of these women has been sought in archives and fonds that do not even bear their name. In fact, it was common practice for the professional firm to maintain or carry the name of a man for commercial reasons. For example, the Finnish architect Alvar Aalto has never included the name of his first wife Aino Marsio in the name of his studio, although he has repeatedly acknowledged her vital role in the design work. Not even his second wife and architect Elissa Kaisa Mäkinen, who took over the studio after her husband's death, saw her name as part of the Alvar Aalto brand.

These cases of professional and life coupling are still numerous today since the co-maintenance of marriage and partnership makes it easier for women to organise work and home life. Another reason can be traced to a reflection of the hierarchy of roles within the family and society in the organisation of the architect and the civil engineer's professional studio.

The story of the archive of Jennie Luise Bethune (née Blanchard) offers an interesting example. She was the first American woman to become a member of the American Institute of Architects in 1888; when Luise Blanchard Bethune died in 1913, she left her husband and studio partner, architect Robert Armor Bethune, 'all her interest or share' in her 'office furniture and office library, books and papers', and all her 'interest in all uncollected office accounts and claims'.²⁶ However, upon Robert's death in 1915, the archive passed to William L. Fuchs, the architect partner of Bethune's studio since 1890. He died in 1930, and 'according to Margaret D. Fuchs (daughter of William L. Fuchs) the office records "have been long since been disposed of".²⁷

The names of women designers and their works are also hidden in the archives of public institutions' personnel. In fact, it was common for women architects or civil engineers to hold design positions in public administrations after having practised the profession as freelancers.

Different motivations drove women, including women pioneers, to become public officials within

25 See Raffaella Poletti, "The Marta Lonzi Archive: Subjectivity in the Creative Process" (paper presented at the MoMoWo Symposium 2018, Polytechnic of Turin, Italy, 13th-16th June, 2018), the full paper is annexed to this chapter.

26 Madeleine Bettina Stern, "Three American Women First in Architecture: II Louise Bethune 1881," *We the Women*, 66.

27 Stern, "Three American Women First in Architecture," note on sources, 324.

their various historical-geographical contexts, most often because, for them, working in the public building sectors –from educational buildings to social housing– assured the stability that better suited their family duties. Therefore, the archives of public institutions, including state or national archives, can be of great help in studying women's contributions to construction.

The recent research by Vladana Putnik Prica at the archives of the Ministry of Civil Engineering of Serbia and those of Alexandra Alegre, Maria Becherel and Ana Fernandes through the documents of the Department of Construction for Technical and Secondary Education of the Portuguese Ministry of Public Works and Communications remain a clear demonstration of this.²⁸

Women can be officially recognised for their authorship of the works they designed and built from the staff files (which are not always available for reasons of privacy). For a long time, it was customary for only executive staff, almost always men, to sign the works.

One example I encountered in my research is that of Ada Bursi. She was an architect of the Municipality of Turin who designed houses and schools from the late 1940's. Only after twenty years of work, a year before his retirement, was Bursi authorised to sign one of her projects. Her signature does not appear in the drawings for the nursery school Piccolo Torino; nevertheless, documents from her folder at the Historical Archives of the Municipality of Turin demonstrated her authorship.²⁹

In the case of buildings that are still under public ownership, the search for original projects is hampered by the documents being in current archives, which are not accessible to the public. Thus, finding original documents related to recent buildings as well as buildings currently in use is not always possible.

The identification of sources for historical research on the cultural legacy of women designers is further complicated when considering the typological variety of documents that pass through and feature the contemporary age. In addition to the archives, which have already been mentioned, photographic, film, television and radio archives have relevance for studying the new sources entering the historiographic scene.

Old and New Sources for a New Historical Narrative: A Specificity of Contemporary Historiography

Since the last decades of the twenty-first century, contemporary history has seen the emergence of its own specificity related to the quantitative and typological aspects of its sources. Censuses, reorganisations, inventories, publications (digital and otherwise) platforms and websites have progressively elicited and introduced into the network of historical culture a large number of documents that are characterised by as many typological varieties.³⁰

A distinctive feature of contemporary historiography is that it is increasingly faced with sources other than those used in studies focusing on other historical periods; namely, sources that were not considered in the past or did not exist, such as photographs, films, audio-visual materials, audio recordings, websites and digital platforms.

The invention and growing diffusion of new technologies for the reproduction and storage of images and sounds has allowed designers to expand the types of documents produced –photographs, films, videos, sound recordings, 3D digital modelling³¹– to create, communicate and document not only architectural and design works but also the professional and life experience of their creators. Songwriters, directors, authors of television and radio programmes, journalists, historians and critics of architecture and design have in turn produced just as many documents in which the built environment and its creators have been presented and narrated from multiple points of view.

Beyond the "Visible Veil": Still and Moving Images

Designers' use of photography in the various phases of the design process and construction process beyond the presentation of their outcome has progressively extended over time, due in part to the communicative immediacy of photographic images,³² so much so that in our society of communication, photographic images (mostly digital) have largely replaced written text. With the extension of the use of photography and its derivatives, the amount of information conveyed with written text or with traditional drawing has progressively decreased.

From the Modern Movement on, which aimed to be international, photography has begun to impose

28 See the full papers presented at the MoMoWo Symposium 2018 (Polytechnic of Turin, Italy, 13th–16th June 2018) annexed to this chapter: Vladana Putnik Prica, "The Role of Female Architects in Designing Schools in Belgrade (1918–1941)"; Alexandra Alegre, Maria Becherel and Ana Fernandes, "The Design of Educational Buildings in Portugal: A Feminine Contribution in the Sixties."

29 Caterina Franchini, "Women Pioneers in Civil Engineering and Architecture in Italy: Emma Strada and Ada Bursi," in *MoMoWo: Women Designers*, edited by Marjan Groot, Helena Seražin, Caterina Franchini, and Emilia Garda (Ljubljana: ZRC Publishing House, 2018), 93–100, note 68, <https://doi.org/10.3986/wocrea/1/momowo/1.04>. Ada Bursi's archive was 'invisible' since it was non-inventoried and just very recently it has appeared in the records of the State Archive of Turin, thus allowing future studies.

30 See Rosiello, "Archivi, archivisti, storici," *Il potere degli archivi*, 17.

31 Regarding the methods that different generations of architects have for dealing with digital tools in their design process, see full paper presented at the MoMoWo Symposium 2018 (Polytechnic of Turin, Italy, 13th–16th June 2018) annexed to this chapter: Teresa Sapey, *Io Donna Torinese, Falsa and Cortese*.

32 In general, for the history of architectural photography, see Giovanni Fanelli and Barbara Mazza, *Storia della fotografia di architettura* (Rome-Bari: Laterza, 2009).

itself as a means of representation and a design communication tool, as it can overcome the linguistic and cultural barriers of written text effectively. In fact, many designers of the Modern Movement were also the photographers of their works or used photographic language as their critical adjunct, as is clear in the photomontages of the pioneer of industrial design Marianne Brandt (née Liebe, 1893–1983)³³ or the role played by the photographer and story-teller Lucia Mohly (née Schulz, 1894–1989) in communicating the vision of the Modern advocated by the Bauhaus school.

A photograph taken by a designer of her/his work is highly subjective, thus, if it is properly analysed, these photographs can lead the scholar beyond the "visible veil," contributing to unveiling the author's poetics.³⁴ By analysing the photographic document, the scholar will be able to decode the interpretative elements that underlie the purposes of the production of the image itself.

More generally, like other sources, photographic documents should never be considered objective, in spite of their alleged impartiality related to their technical nature and the precision in the representation of the object image.³⁵ Architectural or product design photography has revealed a paradox in 'the use of a system of representation of physical subjects to create images and non-existent object: photographic realism at the service of the unreal'.³⁶ One must bear in mind the intrinsic non-objectivity of all sources of visual communication, regardless of whether they are still or moving images. These sources have to be used with great caution in historical investigations, taking into account that they are vulnerable to manipulation by all, including subjects other than their original author. Nevertheless, it is also true that when a manipulated, retouched and distorted image becomes famous and is part of the collective imagination, it becomes another truth.³⁷ When these images are historically and critically interpreted, they also reveal perceptions and receptions that contribute to enriching the historical vision.

Films can be another highly effective source for constructing new narratives with widely varying intentions. A film can be analysed in order to investigate the role of the architect in society or the common perception of Modern architecture in certain periods and places where the film is produced and/or set. This type of investigation is also applicable to the role of the woman designer,

as demonstrated by the original work of Adam Nadolny. This scholar analysed the figure of the woman architect in two Polish films of the 1960s, which he selected after browsing the *Filipolski* online database.³⁸

Further research paths can be carried out from the film's location in order to understand how a specific architectural work or urban space in an 'imagined time' becomes a carrier of different messages than those for which they were conceived.³⁹ In fact, film reflects the perceptions and interpretations of directors, screenwriters, directors of photography and all the other operators who have in turn drawn on their own repertoire of sources. This repertoire of sources, which is almost always different from that of the designer or historian, can echo the ideological orientations, chronicles and protests of an era. An emblematic example is the famous fictional film about corruption and building speculation in Italy in the 1960s, *Le mani sulla città* (*Hands on the city*, Italy, 1963). In this film, the leftist movie director Francesco Rosi chose to set the headquarters of the main character –the builder and city councillor in the ranks of the rightist Edoardo Nottola– in the penthouse of the highly criticised Società Cattolica di Assicurazioni skyscraper in Naples, which was built by architect Stefania Filo Speciale.

The documentary films are another 'new source' to which gender scholars pay attention. As part of the Women's Creativity since the Modern Movement (MoMoWo) project, at the 2nd Workshop (3th-5th October 2016, Ljubljana at the Research Centre of the Slovenian Academy of Sciences and Arts), the Dutch documentary film of the 1960s "*Een nieuw dorp op nieuw land*" by the realist-modernist director Louis van Gasteren was shown and discussed. In this 25-minute film on the construction of the new village of Nagele (1958–63), the two women architects Lotte Stam-Beese and Mien Ruys appear for only a few seconds, showing how he still intentionally exalted 'male architectural heroism'.⁴⁰

Regardless of its genre, a film should be the subject of a critical analysis that attempts to unveil how reality and fiction are combined, which narrative modules were used, and what message they wanted to communicate. For this purpose, it may also be helpful to analyse documentary materials

33 See Elisabeth Otto, *Bauhaus-Archiv and Museum für Gestaltung* (Berlin), *Tempo, Tempo! Bauhaus-Fotomontagen von Marianne Brandt* (Berlin: Jovis, 2005).

34 For the language of photography, see Roland Barthes, *La camera chiara: nota sulla fotografia* (Turin: Einaudi, 1980).

35 See Adolfo Mignemi, *Lo sguardo e l'immagine. La fotografia come documento storico* (Turin: Bollati Boringhieri, 2003).

36 Paolo Brandinelli, "Il documento fotografico d'architettura: dal dibattito sull'oggettività all'autenticità inattestabile," in *Gli Archivi per la storia dell'architettura: atti del convegno internazionale di studi dell'architettura* (Reggio Emilia, 4th-8th October 1993), edited by Gino Badini (Rome: Ministry for Cultural Assets and Activities, Central Office for Archives, 1999), vol. I, 106.

37 See Peter Burke, *Testimoni oculari: il significato storico delle immagini* (Rome: Carocci, 2002), 18.

38 See the full paper presented at the MoMoWo Symposium 2018 (Polytechnic of Turin, Italy, 13th-16th June 2018) annexed to this chapter: Adam Nadolny, *Women Architects in Polish Feature Films of the Sixties*.

39 For this research path, the websites dedicated to the relationship between cinema and architecture are of interest; see, for example, *World Architects, Architecture and Film*, <https://www.world-architects.com/en/pages/film/architecture-film> (accessed February 3, 2018).

40 Marjan Groot, "The Makeable Landscape and Society. Gender-representation and the Male Architect as Post-war Hero in a Dutch Documentary," in *MoMoWo 2nd International Conference-Workshop: Women Designers, Architects and Engineers between 1946 and 1968*, edited by Helena Seražin, Caterina Franchini and Emilia Garda (Ljubljana: France Stele Institute of Art History ZRC SAZU, 2016), 28.

that show what happened before, during and after the film production.⁴¹

Although it certainly does not provide irrefutable evidence, film documentation can create new historical narratives in which possibilities and proof interact while also remaining distinct but consistently intertwined with other types of documents, each analysed with its specific methodology.

Contemporary historiography, including gender historiography, emphasises the typology and structure of sources beyond the traditional ones on which to construct historical narratives. However, it should be noted that new gender issues do not necessarily refer to new sources: they can also be based on new interpretations of well-known sources. Some of the sources which have long been left in the dark and have recently come to light include novels, or 'women's writings',⁴² and oral testimonies.

'Listening to Sources'. Gathering and Eliciting Oral Documents and Creating Audio Archives

Oral testimonies have existed for centuries but disappeared from historical studies; they began to appear again in the 1960s, gradually gaining importance among scholars of contemporary history.

The consideration that historians have given to oral sources has gone hand in hand with an interest of the curators in this type of source. Radio programmes have been recorded and preserved, and Oral History research centres have been established at universities. In addition, audio-visual libraries have been created within libraries that have gradually started to include fonds and develop projects on architecture and design and their protagonists.

The Oral History Program of the Archives of American Art at the Smithsonian Institution is one of the oldest and most authoritative collections of oral testimonies, dating back to 1958. Modelled after the Columbia University Center for Oral History, the Archives' Oral History Program includes the themes 'Architecture & Design' and 'Women'.⁴³ Among the projects of this programme, the Nanette L. Laitman Documentation Project for Craft and Decorative Arts in America is of particular

interest. From 2000 to 2012, the project covered the recording and transcription of 235 oral history interviews with key figures in American craft, including many craftswomen.⁴⁴

Turning to architects, since 1983 the Chicago Architects Oral History Project (CAOHP) has documented architects' contributions to Chicago during the twentieth century. The CAOHP was established under the auspices of the Art Institute's Department of Architecture to record the life experiences of architects, including women, who shaped the physical environment in Chicago from the early 1900s to the present day.⁴⁵ Similarly, in 1995 the British Library established the National Life Stories Architects' Lives project to document the life and work of British architects and their associates over the course of the twentieth and twenty-first centuries. Numerous interviews (1264) are available from the British Library Sounds, which also includes a section on pioneering women in different fields.⁴⁶

Oral sources have been and continue to be used to investigate the thoughts and actions of women. One of the reasons for the use of these sources is that women, even those who worked in the building or decorative arts, left few written records. Sometimes no written records exist since they belonged to those categories of people who have long been marginalised from the centres of power. Aside from that, the main reason for resorting to oral sources is inherent in the research by contemporaries of an opposing or alternative historiographical practice that is interested in creating a story 'from below' to 'illustrate the socially invisible (e.g., working women) or hear the unexpressed'.⁴⁷

In particular, gender studies pay considerable attention to oral testimonies with the aim of constructing alternatives to the traditional narratives that are also able to restore emotional aspects and attract the interest of a wider audience than the small one composed mainly of expert scholars.

An emblematic example of the attempt to build 'experimental (hi)stories of architectural practice'

41 See Luciana Devoti (ed.), "La memoria del cinema: atti del convegno internazionale di studi, Torino, 28-31 Maggio 2003," in *Archivi per la storia: rivista dell'Associazione nazionale archivistica italiana*, XVII, 1-2 (Modena: Mucchi, 2004).

42 On 'women's writings', see the innovative census project focusing on the writings of women in the public and private archives of Tuscany established in 1998 (<http://www.archiviodistato.firenze.it/memoriadonne/>). Contini, "Archivio per la memoria e la scrittura delle donne," 769-87.

43 "About the Collections. Learn about the Archives' holdings and Oral History Program," Archives of American Art-Smithsonian Institution, 2018, <https://www.aaa.si.edu/collections/about-the-collections> (accessed January 10, 2018).

44 "The Nanette L. Laitman Documentation Project for Craft and Decorative Arts in America. About the Project," Archives of American Art-Smithsonian Institution, <https://www.aaa.si.edu/node/1120> (February 27, 2014; accessed January 10, 2018). In 2007 and 2009, a project was carried out focusing on women artists, art historians and curators who have had a lasting and significant influence on the American art world. See "Elizabeth Murray Oral History of Women in the Visual Arts Project," Archives of the American Art-Smithsonian Institution, <https://www.aaa.si.edu/inside-the-archives/elizabeth-murray-oral-history-of-women-the-visual-arts-project> (February 12, 2016; accessed January 10, 2018).

45 "Chicago Architects Oral History Project," The Art Institute of Chicago, <http://digital-libraries.saic.edu/cdm/landingpage/collection/caohp> (accessed January 10, 2018).

46 "National Life Stories: Architects' Lives," The British Library, <https://www.bl.uk/projects/national-life-stories-architects-lives> (October 5, 2017, accessed February 10, 2018). See "Pioneering-women," British Library Sounds Oral-history, <https://sounds.bl.uk/Oral-history/Pioneering-women> (accessed February 10, 2018).

47 Peter Burke, "Prologo: la nuova storia, passato e futuro," in *La storiografia contemporanea*, edited by Peter Bruke (Rome-Bari: Laterza, 1993), 17.

is the Voices of Experience project (VoE, www.voices-architecture.com). The project was initiated by Jude Barber and Suzanne Ewing and is carried out in collaboration with the Glasgow Women's Library. Since 2016, this project has been creating an audio archive of women's work experience in late twentieth-century construction design in Scotland, with the intention to steward disciplinary stories. As described by Suzanne Ewing in her abstract for the MoMoWo Symposium 2018:

[VoE] constructs a series of conversations between a highly experienced architect and a professional at the outset of her career ... The VoE project aims to deepen and extend methodological exploration of the archives of architecture, through the listening, editing and presenting of site-based conversations as audio-archives, transcripts and public conversations, offering a hybrid method for researching and communicating the practice-based and relational knowledge of architecture.⁴⁸

Another project that is similar to VoE is AA XX 100. Launched in 2017 to celebrate the centenary of women at the Architectural Association (AA) in London, Yasmin Shariff and her team work closely with the AA archivist, filming and recording oral histories with AA alumni, teachers and staff, men and women, past and present. So far they have conducted seven interviews: Joyce Taylor (née Wilson), Inette Austin-Smith (née Griessmann), Jean Symons (née Layton), Patricia Bullivant (née Bowden), Patricia Hepple, Eldred Evans and Su Rogers (née Brumwell).

The stories we are collecting are extraordinary not only for shedding light on the AA school in the 1940's, 50's, 60's and 70's (we are yet to cover the 80's, 90's and 00's), but equally the broader lives of women and men as architects during these periods in England. Though women were first admitted as students to the AA in 1917, they were a minority for many years afterwards. These women are part of a small handful who at that time went on to become architects and designers and practice in their field. They are pioneers.⁴⁹

These types of projects demonstrate that even when scholars address the issue of the contribution of women designers, they still find themselves 'eliciting' and 'constructing' new sources by conducting interviews in person. While converting the oral source into written text, they will have the opportunity to put more or less importance on elements such as context, facial expressions and gestures, all of which contribute to the interpretation of oral testimony.

More generally, as A. Portelli states:

[oral historians try to] convey the sense of fluidity, of unfinishedness, of an inexhaustible work in progress, which is inherent to the fascination and frustration of oral history – floating as

it does in time between the present and an ever-changing past, oscillating in the dialogue between the narrator and the interviewer, and melting and coalescing in the no-man's land from orality to writing and back.⁵⁰

As often happens, when the end-user of the oral source is the conductor of the interview, the relevance that she/he can give to the dialogic relationship between the interviewee-narrator and the interviewer and the comparison/confrontation between the two subjectivities will be bent to the interviewer's will. Therefore, as happens with other sources, the question is whether the final result is a real, plausible, false or almost-invented source originating from memory and the sensitivity of the people who on the one hand elicit the story and on the other who tell it. Therefore, as with other types of sources, even in the written history through oral sources, we must pay close attention to the producers, the objectives they want to achieve, the context in which they act, and other factors.⁵¹

Parallel to the European MoMoWo project, in the last few years, some female architects in various parts of the world have expressed the need to raise awareness about the current contribution of women to architecture by undertaking independent documentation and communication projects.

Following the well-known Pritzker committee controversy about Denise Scott Brown's prize⁵² that sparked a global debate on women in architecture in the winter of 2013, the Serbian architect Milena Zindović decided to undertake a web-based campaign on women's contributions to architecture in her country. Faced with the scarcity of archives to be studied, Milena Zindović and her other colleagues broadened the sphere of their actions. They systematically conducted and disseminated a series of 'interviews with successful female colleagues and young architects'.⁵³ These interviews were available in two languages, Serbian and English, on the research website *Women Architects of Novi Stad* (<http://wa-ns.com>), and they proved to be an excellent medium for attracting new audiences.

Sharing the same aim, during the three International Conference-Workshops (Leiden, 2015; Ljubljana, 2016; Oviedo, 2017), MoMoWo interviewed textile designer Christine van der Haak; architect and urban planner Ana María Fernández-Maldonado; design-engineer Males van Dullemen; architects Ninke Happel and Joke Vos and civil engineer Darinka Battelino. During the third Workshop, at the *Arquitectas en la profesión* roundtable (hosted by the Colegio Oficial de Arquitectos de Asturias),

50 Alessandro Portelli, "Oral History as Genre," in *Narrative and Genre: Contexts and Types of Communication*, edited by Mary Chamberlain and Paul Thompson (London: Routledge, 1998), 23.

51 On the use of oral sources see: Giovanni Contini and Alfredo Martini, *Verba manent, L'uso delle fonti orali per la storia contemporanea* (Rome: Nuova Italia Scientifica, 1993).

52 A public interview with Denise Scott Brown was conducted during the MoMoWo International Travelling Exhibition "MoMoWo. 100 Works, 100 Years, 100 Women" held on 22nd June 2017 at Delft Technical University.

53 See the full paper presented at the MoMoWo Symposium 2018 annexed to this chapter (Polytechnic of Turin, Italy, 13th-16th June 2018) by Milena Zindović, *Women in Architecture Initiative in Serbia: The Importance of Promoting Women's Work in Architecture*.

48 See the full paper presented at the MoMoWo Symposium 2018 annexed to this chapter (Polytechnic of Turin, Italy, 13th-16th June 2018) by Suzanne Ewing, *Making (Hi)Stories of Women in Scottish Architecture*.

49 Hannah Durham, "To Listen: The AA XX 100 Oral History Programme," AA Conversations, <http://conversations.aaschool.ac.uk/hannah-durham/> (London: Architectural Association, March 10, 2015, accessed February 10, 2018).

MoMoWo co-organiser Ana María Fernández García interviewed several women architects, including the doyen of the Official Association of Architects of Asturias, Sonia Puente Landázuri. Lastly, a talk-show has been organised at the opening of the MoMoWo Symposium (Turin 2018) for the same purpose. The women interviewed included the engineer and leader of the *Ingenio al Femminile* (Ingenious women) Ania López, councillor of the National Council of Engineers, Stardust Architects (Anca Cioarec and Brîndușa Tudor) and the architect-members of the association *La Voce delle Piante* (The voice of plants).

Oral sources have been shown to facilitate communication with the public, while the task of the sources' creation and chosen medium for their reproduction and dissemination –written, audio or video– requires facing the inherent limits of the oral source.

As usual, when writing history, individual documents of any kind can regain their meaningfulness only when interwoven with other sources, within an 'indistinct levelling'⁵⁴ created with the increase in documentary production and circulation. At present, scholars can increasingly create large aggregations and 'horizontally' interweave sources to build 'memories' and 'other identities' by using information and communication technologies (ICT). Especially in the last decade, ICT has contributed to emphasising the role of informational resources in social and cultural development, giving rise to unprecedented phenomena such as the accumulation of enormous masses of data that can be accessed, searched and quickly exchanged all around the globe.

Digital sources, Inventories and Online Censuses.

The MoMoWo Database on Women's Archives

In the intergalactic imperial archive, 'two hundred and fifty thousand years of the history of the empire are preserved; [in it] we could find the answers to questions we had not even considered'.⁵⁵ This digital archive depicted by Andreas Eschbach in *Die Haarteppichknüfer: Roman (The carpet makers)* systematically and faithfully preserves every single trace of the past and those who lived it. We like to imagine that this archive also contains all the documents produced by the women designers of the empire. One could imagine that by querying the archive, interwoven data and documents would be systematically displayed on our monitor.

In the real world, digital archives have currently proved to be useful for collecting documentation that is as heterogeneous as it is disseminated in ever-expanding galaxies of archives. However, several

issues remain unresolved, including how to design digital platforms capable of providing virtual rearrangements of complex interwoven information and constellations of documents.⁵⁶ This issue is at the centre of the thought and experimentation that has been carried out by the Polytechnic of Turin (Polito) since 2014 for the design and implementation of the Database on Women's Archives, whose results were presented at the MoMoWo Symposium (Turin, 2018).⁵⁷

The purpose of the database is to conduct a continuous mapping of archives and archival fonds of European and non-European women designers who have worked in Europe from 1918 to 2018. The goal is to offer scholars an open access tool that is available online (<http://www.momowo.eu/database-webgis/>) and useful for creating new narratives of architecture, construction and contemporary design.

In its various implementation phases, the geo-referenced database has progressively increased the visibility of the neglected and forgotten works of female authors in order to favour their knowledge, protection, conservation, restoration and enhancement. Pursuing this objective, a spontaneous collaboration between MoMoWo and the open source catalogue Architectuul –a worldwide architecture community– was created for the creation of the *Pioneer Architects* campaign *Women in Architecture*.⁵⁸

Additionally, in 2018 MoMoWo Polito (C. Franchini and E. Garda) cooperated with the Italian non-profit association of the International Working Party for the Documentation and Conservation of buildings, sites and districts of the Modern Movement (Do.Co.Mo.Mo._Italia) by creating the thematic itinerary "Cherchez la femme" (with M.T. Feraboli for Lombardy), which highlights the variety of architecture built in Italy by women architects. This itinerary is part of a project to promote Italian architecture of the second half of the twentieth century, entrusted by the Ministry of Cultural Heritage and Activities and Tourism (MiBACT) to the Sapienza University of Rome in collaboration with Do.Co.Mo.Mo._Italia.

⁵⁶ Regarding digital archives, Rosa Tamborrino's contribution "Collecting & Connecting the Creative Culture of Women as Cultural Heritage: Norah Geddes, Kate Cranston and a new digital archive concept for an alternative history" (paper presented at the MoMoWo Symposium, Polytechnic of Turin, Italy, 13th-16th June 2018 and annexed to this chapter) places this issue at the centre of the debate: how digital archives can be conceived as a digital platform for a virtual historical re-composition based on key interpretations focused on women in architecture.

⁵⁷ Enrica Maria Bodrato, Francesco Fiermonte, Caterina Franchini and Emilia Garda, "The MoMoWo Database: Searching for 'Kamino': Mapping to Build and Share Knowledge" (panel presented at the MoMoWo Symposium: International Conference Women's Creativity since the Modern Movement (1918–2018): Toward a New Perception and Reception, Polytechnic of Turin, Lingotto Campus, Turin, Italy, 13th-16th June 2018). C. Franchini was responsible for scientific coordination and data research; E.M. Bodrato assessed the consistency of the fonds and prepared the data entry; F. Fiermonte saw to the technical implementation and data entry; E. Garda supervised the preparation phases.

⁵⁸ Regarding Architectuul, see Boštjan Bugarič, "Pioneer Architects: The Open Source Catalogue Architectuul," (paper presented at the MoMoWo Symposium, Polytechnic of Turin, Italy, 13th-16th June 2018), full paper is annexed to this chapter.

⁵⁴ Rosiello, "Archivi, archivisti, storici," 37.

⁵⁵ Andreas Eschbach, *Miliardi di tappeti e di capelli* (Rome: Fantucci, 2006, ed. or. 1995), 152, 258.

Within the MoMoWo database, my research to date on the identification of archives and archival fonds was combined with the twofold analysis of women designers and their works. To carry out this research, I have used data from other activities related to the MoMoWo project (travelling exhibition, workshops, cultural itineraries), as well as censuses and repertoires of works and designers available on the web. Moreover, the digitalisation campaigns of the last few decades have made inventories and digital documents of project archives available online, which are proving to be useful research tools.

The digital sources I analysed have turned out to be somewhat 'volatile', unstable and subject to rapid obsolescence. Platforms and databases appear and disappear online every day from the web; their contents are updated continuously and are growing. Therefore, I identified and selected the data while also considering its degree of 'stability'. In regard to monitoring these changes, the MoMoWo Polito team concluded that they could only be managed with the creation of a 'permanent monitoring unit' to implement in future research projects.

The systematic analyses carried out on national censuses, inventories and various kinds of portals suggest that women designers, their works and the archival documents they have produced are still underrepresented. This is one of the reasons why the tangible and intangible cultural legacy of women continues to present difficulties in being studied, recognised, protected and valued.

Consider, for example, that the Do.Co.Mo.Mo. Virtual International Exhibition (MoMove [http://exhibition.docomomo.com./](http://exhibition.docomomo.com/)) in 2016 only included 39 European women out of a total of 929 authors.⁵⁹

The documentary gap is evidenced by the "National Census of Italian architecture of the second half of the twentieth century," which is currently managed by the Directorate General for Contemporary Art and Architecture and Urban Peripheries (DGAAP) of MiBACT. In February 2018, the census available online had less than 200 women's works out of a total of 3057 architectural works throughout Italy that were identified since 2000.

In the national census, the percentage of the works of women to be protected or brought to the attention of authorities and designers does not even reach 10%. The number of works mapped varies considerably from region to region depending on the state of progress of local censuses. In only four out of 17 regions, the percentage of works designed by women architects individually or in teams exceeded 10%. The highest percentage was found in Liguria (16%, 10 works), followed by Marche (13%, 2 works), Molise (12%, 12 works) and Abruzzo (11%, 15 works). Lombardy contained the most, with 59 works of women counted in the census and available online, yet the percentage is only 8%.⁶⁰

The data available on the national platform online is variable because it is continuously updated and only partially reflects the progress of the censuses in each region. Sometimes the websites of the regional *Soprintendenze* (superintendent bodies) of cultural heritage show more complete and current local census data that have not yet been incorporated within the national platform. This is the case for the Lombardy Region, which has expanded its campaign from 2013 to 2015 and contained approximately 70 works by women designers (<http://www.lombardiabeniculturali.it/architetture900/>). As highlighted by Maria Teresa Feraboli, who participated in this last regional census, the presence of women's works begins to become numerically significant when also considering so-called 'minor' architecture that is somehow related to the local context and meaningful for the local history.⁶¹

At the national level, excluding the best-known Italian or foreign women architects,⁶² around half appear to be engaged in employment relationships or even occasional collaborations, while the other half owns individual or associated studios. Concerning the latter case, associated studios of family members are the majority. In the national census, there are only 22 works signed exclusively by a woman.

The documents of most of the architecture included in the census are in designers' private archives or in archival fonds bearing the name of the male architect with whom the woman has also worked as co-author. For instance, the documents of Carla Federspiel are in the *Fondo Marco Zanuso* at the Fondazione Archivio del Moderno (Modern Archive Foundation) of the University of Italian

59 Less than half of these came from countries in the EU today. From Austria Helene Koller-Buchwieser (1912–2008) and Margarete Schütte-Lihotzky (1897–2000); from Denmark Raili Paatelainen (b. 1926) and Karen Clemmensen (1917–2001); from Finland Raili Paatelainen (b. 1926); from Germany Herta-Maria Witzemann (1918–99), Hertha Hammerbacher (1900–85) and Ursulina Schüler-Witte (b. 1933); from Greece Souzana Antonakaki (b. 1935), Eleni Goussi-Dessylla (b. 1938), Seva Karakosta (b. 1938) and Elli Vassilikioti (b. 1923); from Italy Franca Helg; from the Netherlands Mien Ruys; from Scotland Wendy Corrigan.

The results of the research on the presence of women's works in the publications of Do.Co.Mo.Mo_International and in the Virtual Exhibition MoMove were presented by Caterina Franchini at "MoMoWo: Women and Modern Movement Heritage" (Round Table with Emilia Garda and Helena Souto at the 14th Docomomo International Conference Adaptive Reuse: The Modern Movement toward the Future, Calouste Gulbenkian Foundation, Lisbon, September 7, 2016).

60 The data refers to February 2018 and is the result of the browsing carried out by Caterina Franchini on the website "Architetture del Secondo 900," Direzione Generale Arte e Architettura contemporanea e Periferie urbane - DGAAP, <http://architetturcontemporanee.beniculturali.it/architetture/index.php> (accessed January - February 2018).

61 See Maria Teresa Feraboli, "Female Design and Architectural Archives in Italy: A Preliminary Investigation among Online Search Tools" annexed to this chapter (paper presented at the MoMoWo Symposium: International Conference Women's Creativity since the Modern Movement (1918-2018): Toward a New Perception and Reception, Polytechnic of Turin, Lingotto Campus, Turin, Italy, 13th-16th June 2018).

62 Luisa Aiani Parisi, Gae Aulenti, Antonia Astori, Anna Castelli Ferrieri, Carla Federspiel, Afra Bianchin, Cini Boeri, Margherita Bravi, Luisa Castiglioni, Maria Antonietta Cester Toso, Odile Decq, Terry Dwan, Giuliana Genta, Johanna Grawunder, Grafton Architects, Liliana Grassi, Zaha Hadid, Franca Helg, Enrica Invernizzi, Doriana Mandrelli Fuksas, Piera Ricci Menichetti, Franca Stagi, Gigetta Tamaro, Laura Thermes, Egle Maria Trincanato, Patricia Viel, Nanda Vigo.

Switzerland in Mendrisio; the documents of Anna Castelli Ferrieri are in the *Fondo Ignazio Gardella*, and those of Egle Maria Trincanato are in the *Fondo Samonà*, which are both at the Centro Studi Archivio Comunicazione (Communication Archive Study Centre, CSAC) of the University of Parma. An archival fond of Egle Maria Trincanato is also at the archives of the Venice University Institute of Architecture (IUAV).

Among all the women architects whose works are in the online national census, only four of these have an archive or archival fond listed in their name in an institution. The Franca Stagi Archive is conserved at the 'Luigi Poletti' Civic Art Library in Modena; the Giuliana Genta Archive is at the Central State Archives in Rome; the Franco Albini and Franca Helg Archives are at the Franco Albini Foundation in Milan and the *Fondo Liliana Grassi* is at the Historical Archives of the Polytechnic of Milan. The historical archives of schools, universities or polytechnics preserve valuable archival fonds for ongoing studies,⁶³ but their consultation is often subject to privacy restrictions. Even when these archives are in digital form, they seldom have open access for the same reason.

It has been possible to find some archives/fonds/collections that are in public institutions through the Unified Information System for the Archival Superintendent bodies (SIUSA) and the online publications of the Archives of Architecture Association AAA/Italia. The research has also been carried out using online catalogues of the archives of the Museums of Architecture and Design in Europe and in the world as well as various platforms on women.⁶⁴

As it is extraordinary and unique, not merely because it specialises in women in architecture but also because it represents around 40 countries in the world, the International Archive of Women in Architecture (IAWA) is a valuable source for growing the MoMoWo Database. Browsing the Guide to the IAWA Collections⁶⁵ revealed that most of the collections are of European architects, namely 52.28% (184 out of 352), while only 37.5% (132) are from North American women architects.

The IAWA Biographical Database will allow for tracking the women designers' fonds conserved in other archives in order to continue the mapping. For this purpose, some websites specifically dedicated to making the work of women in architecture visible are also useful, such as the New

63 See Margherita Bongiovanni, "Women Architects and Engineers from the Polytechnic of Turin Archives" (lecture presented at the MoMoWo Symposium: International Conference Women's Creativity since the Modern Movement (1918-2018): Toward a New Perception and Reception, Polytechnic of Turin, Lingotto Campus, Turin, Italy, 13th-16th June 2018).

64 Among others: National Technical Museum of Prague, Architecture Collections of the Nasjonalmuseet of Oslo, National Museum of Ireland Archive, Museo Nazionale delle Arti del XXI secolo - MAXXI of Rome, the website La Scienza a due Voci (<http://scienzaa2voci.unibo.it/>).

65 See "Guide to the IAWA Collections," International Archive of Women in Architecture (or IAWA), <https://spec.lib.vt.edu/IAWA/guide.html>, (accessed January-February 2018); "IAWA Biographical Database," Virginia Teach, <https://iawadb.lib.vt.edu/>, (accessed January-February 2018).

Zealand website 'Architecture + Women-NZ' (<http://www.architecturewomen.org.nz/>), which has provided a current database on women in architecture associated with New Zealand since 2011.⁶⁶ This website can be used to identify the names of European women architects who have worked in New Zealand and the New Zealanders who have worked in Europe, then to search for their archives.

The archives of professional associations of architects and engineers as well as those of women associations can also offer useful clues for finding the project archives of female professionals. Consider, for example, the recent surveys carried out by trade magazines such as the Women in Architecture Survey by the British magazine *The Architectural Journal*, which gathers data on the women enrolled at the Royal Institute of British Architects (RIBA).

The aim of the MoMoWo Database on Women's Archives is to help the scholar community to share and pursue the recognition of women's contributions that have been omitted or forgotten by the histories of architecture, urban planning, landscape and design. The main aspiration is to recover the lagging knowledge in order to fill a cultural gap, just as has occurred for other disciplines that have been attempting a 'historical reparation' in past decades through the recovery of gender memory that has been affected by long-term 'documentary amnesia'.⁶⁷

Information and communication technologies (ICT) make it possible to collect data, select and share it, thus increasing access to sources. However, as revealed by the research conducted, the visibility given to women's works remains quantitatively limited and the path to be taken requires carrying out biographical investigations to use as a starting point for finding these women's project archives. The identification of 'pulverised' archival fonds and documents in the 'nebula' of archival institutions and the discovery of personal archives are essential in order to progress with both the construction of individual case histories and the creation of quantitative histories.

Individual Case Histories for Intersectional Identities. Personal Archives: Paper and Digital Mirrors

The research case studies presented at the three MoMoWo International Conferences-Workshops (Leiden, 2015; Ljubljana, 2016; Oviedo 2017) have shown that in the present state of women's studies in architecture and design, biographical research is still necessary to bring to the forefront

66 In recent years, this database has often been accompanied by a series of quantitative and qualitative surveys, such as different remunerations between sexes and difficulties in reconciling family life and work.

67 See Maria Bacchi, "Colmare un vuoto e costruire una memoria," in *La memoria e l'archivio: Per una storia della presenza femminile a Mantova in età contemporanea: Atti del seminario Mantova, 28-29 Ottobre 2000*, edited by Gruppo 7 Donne per la pace, (Mantua: Gianluigi Arcari, 2001), 17-28.

works, professional, family and private events and gender issues that reveal professional stories and practices.

Biographies are magnifying lenses through which to select specific data on which to build transnational interpretative scenarios based on 'intersectional identities' that can give the history of architecture/design its gender balance.

The interest in applying a transnational and 'intersectional' approach in the field of architecture has recently been confirmed by Lori Brown's and Karen Burns' project for the creation of *The Bloomsbury Global Encyclopedia of Women in Architecture 1960–2015*. By the creation of a collection of 1200 biographies of women architects, educators, activists and theorists, the project is intended to be a 'study of women's agency in shaping the ideas, production, and reception of the recently built environment [and as a whole it aims to] provide key terms for contemporary feminist architectural history'.⁶⁸

Personal archives are one of the primary sources of individual case histories. Aside from a few exceptions, personal archives or archival fonds have been a historically significant phenomenon since the nineteenth century. Their creation coincided with the rise of the principle of individuality that featured first the romantic culture and then liberal culture, along with the spread of the mononuclear family. It is in this process of change that women slowly began to free themselves from their condition of marginality.

Until the second half of the twentieth century, scholars primarily turned to personal archives to document the activity of eminent figures in politics, science and the arts. Only since the second half of the twentieth century, as the interest in historiography for the private sphere of individuals has grown, historians have begun to consider personal archives in their entirety as an exhaustive representation of the existential situation of their creator.⁶⁹ At the same time, the conservative strategies tended to increasingly identify personal documents. However, it was only with the enlargement and democratisation of the spectrum of social categories represented in archival institutions that even women's documents began to be preserved.

Only in this century, due to the spread of globalisation, the enhancement of individual and local aspects has assumed increasing importance in research. In fact, these aspects are considered

more gratifying or reliable compared to the dangers of uprooting connected to the phenomena of cultural massification.⁷⁰

The creation of personal archives has been the result of initiatives undertaken by family members, spiritual heirs or conservation institutions after the death of their author/creator. Inevitably, these archives have also suffered from the relationships of power and gender hierarchies present in the family, social, professional and institutional dynamics.

Traditionally, in families, the memory transfer of men's works was entrusted to women, to the mothers, sisters, wives or daughters, but such a transfer has almost never happened in the opposite direction. In contrast, the preservation and transfer of memory in the institutions remained mainly entrusted to male scholars/curators who were seen as the only legitimate persons.

During the twentieth century, the awareness of a personal archive's ability to contribute to constructing the memory of oneself and one's own existential/professional path for the benefit of oneself, one's material or spiritual heirs, of one's own discipline, or more generally of posterity has increased. This awareness has grown among the members of different social categories, including people from art, culture and liberal professions, but oddly enough, to a lesser extent among women. In fact, as already observed for the female writers, the female architects/designers also have 'less aptitude to document their existence and their role in society'.⁷¹

One of the specificities of historical research on the work of women in general, particularly professional women in construction and design, lies in the difficulty of finding their professional/personal archives.

Black Box versus Magic Box: The Woman Designer's Archive

The various research experiences presented during the three MoMoWo Workshops have shown that, in most cases, professional archives of women were not created with the intention of being passed down (unintentional archives), and that is why they have often been destroyed or lost.

When scholars succeed in tracking down an unintentional archive, they almost certainly will face uninventoried documents and begin to categorise them according to their interpretative criteria. As a result, the original nature of the archive will change reflecting the construction of the thought of

⁶⁸ Lori Brown and Karen Burns, *Intersectional and Transnational Feminist Histories: The Logic behind the Bloomsbury Global Encyclopedia of Women in Architecture 1960–2015 (forthcoming 2021)*, full paper presented at the MoMoWo Symposium 2018 (Polytechnic of Turin, Italy, 13th-16th June 2018), annexed to this chapter.

⁶⁹ Regarding personal archives, see Giulia Barrera, "Gli archivi di persone," *Storia d'Italia nel secolo ventesimo: Strumenti e fonti*, Vol. 3: *Le fonti documentarie*, edited by Istituto nazionale per la storia del movimento di liberazione in Italia and Claudio Pavone (Rome: Direzione Generale per i Beni e le Attività culturali, Dipartimento per i beni archivistici; Direzione generale degli archivi, 2006), 617.

⁷⁰ See Remo Bodei, *Se la storia ha un senso* (Bergamo: Moretti & Vitali, 1997), 79.

⁷¹ Linda Giuva, "Le carte di una vita: Suggestioni archivistiche dai documenti di Alba de Céspedes," in *La memoria e l'archivio*, 44.

those who at that time reorganised collections to create their narrative. Discovered and inventoried by Ceylan İrem Gençer and Işıl Çokuğraş since 2015, the archive of one of the first women architects in Turkey, Mualla Eyüboğlu-Anhegger, is an inspiring example for our topic.⁷²

Women designers tend to avoid creating their archive to be passed down for several possible reasons.

Preserving many different documents, including sketches, notes, drawings, three-dimensional models, metric calculations, technical reports, photographs, as well as correspondence with clients, workers or suppliers, that have lost their original function in a professional studio is a burdensome task. Beyond the terms imposed on professionals by law, tackling such a task implies being aware of the value of the professional experience gained and of its value and the value that one's works could have for future generations.

As Linda Giuva states regarding studying the writer Alba de Céspedes' home archive, 'Remembering and being remembered is a deliberate project, it is the result of self-esteem and affection of oneself',⁷³ and perhaps it is also a manifestation of confidence in the future generations' ability to change the world for the better. The underestimation by women designers of the importance of their own work can be a consequence of the marginality that women have experienced in society as well as the role they played in male-dominated professions.

When they are found, archives of women designers can offer a many-sided, even emotional, perception of their producer and her work. For example, the presence/absence or order/disorder of some documents can reveal the different relevance a woman professional ascribed to the various phases of her life, to the works accomplished, or show the repercussions of professional, family and social relationships.⁷⁴ In fact, a designer's archive typically preserves technical materials as well as sketches, notes, memos, reflections, publications and objects that have been significant in the expression of the creative process of the designer.

In some cases, the professional archive can be destroyed by its creator. Dissatisfaction with one's work, fear that one's legacy will not be understood, or the desire that the works created are the only element communicating one's own poetics or design practices, could be some reasons behind such destructive action. Other reasons may be the unwillingness to have others decide what one has been or the concern that others can highlight the conflicting sides of one's own creativity through documents. Stefania Filo Speciale (Naples, 1905–1988), the first female architect who succeeded in carrying out an intense construction activity in Naples, is an engaging case study. It seems that she burnt her archives after having been isolated by her academic colleagues and harshly criticised by the architectural historians and critics of her generation. At first, she was accused of being fascist and later blamed for taking part in propriety speculation following the construction of the 'skyscraper' for the insurance company Società Cattolica (1954–9).⁷⁵ Yet the actual reasons behind Speciale's destructive act remain unknown. In this case, as in similar ones, the buildings take on an even more fundamental value for the scholar, and other archives have to be 'flushed out'.⁷⁶

In the best cases, when an architect, engineer or designer has shown from the start of his or her professional activity a bright and lively intention to form and pass down her/his professional archive, this archive becomes an instrument of 'self-representation', 'self-aggrandisement, self-memorialization' of her/his work.⁷⁷ One such example is the archive of Lina Bo (1914–1992) at the Istituto Lina Bo e P.M. Bardi (former Istituto Quadrante, 1990). The institute is located in the famous Casa de Vidro (1950-51, Sao Paulo, Brazil), which was the home of the couple and the first architectural work of Lina (Achillina) Bo in Brazil and later became an icon of the Movement Modern. The archive contains drawings, documents and photos, which are partly accessible online, and is flanked by the library, which also contains Lina Bo's personal books.⁷⁸

The personal/professional archive is a 'mirror', whether on 'paper' or digital, through which her/his producer reflects and conveys her or his image and story. This archive is configured as a form of 'individual self-narrative', a 'kind of witnessing' and 'evidence of identity'.

72 The archive of Mualla Eyüboğlu-Anhegger is one of the rare archives of architects preserved in Turkey today. These include the professional archive of Altuğ Çinici and Behruz Çinici, which can be consulted at the Salt Research Centre (Istanbul) since 2015. See the full papers presented at the MoMoWo Symposium 2018 annexed to this chapter (Polytechnic of Turin, 13th-16th June 2018): Ceylan İrem Gençer and Işıl Çokuğraş, "Sophisticated Professional Life and Archive of Mualla Eyüboğlu-Anhegger." On the work of architect Altuğ Çinici, see Zeynep İren Kuregibuyuk, "Women as Design Partners: First Founded Husband-and-Wife Partnership in Modern Turkish Architecture."

73 Giuva, *Le carte di una vita*, 44. Alba Carla Lauritai de Céspedes y Bertini (Rome, 1911-Paris, 1997), writer, poet and Italian partisan, traced and retraced maps of her home to be able to find the documents she had hidden in every piece of furniture, from the kitchen to the bathroom.

74 These considerations also apply to the archives of other women. On the archive of the historian Franca Pieroni Bortolotti, see Linda Giuva, "Archivi neutri, archivi di genere: Problemi di metodo di ricerca negli universi documentari," *Reti della memoria: Censimento di fonti per la storia delle donne in Italia: Vol. 1: Gruppo archivi*, edited by Oriana Cartaregia and Paola De Ferrari (Genoa: Coordinamento donne lavoro cultura, 1996), 40.

75 See the full paper presented at the MoMoWo Symposium 2018 annexed to this chapter (Polytechnic of Turin, Italy 13th-16th June 2018) by Chiara Ingrosso and Aurora Maria Riviezzo, "Stefania Filo Speciale and Her Long-Overlooked Legacy to Twentieth Century Italian Architecture."

76 Concerning the Ina-Casa Housing Project in Agnano (Naples) by Filo Speciale's the historical Archive of the Istituto Autonomo Case Popolari- IACP Naples has proved to be essential in the recent studies by Carolina De Falco, "Immagine e sviluppo della Napoli occidentale: case pubbliche e ricostruzione," *Eikonocity* Vol 2, 1 (2017), 85-99, <http://dx.doi.org/10.6092/2499-1422/5074> (accessed, March 30, 2018). See also the recent book by Carolina De Falco, *Case INA e luoghi urbani. Storie dell'espansione occidentale di Napoli*, (Naples: CLEAN edizioni, 2018).

77 Catherine Hobbs, "The Character of Personal Archives: Reflections on the Value of Records of Individuals," *Archiviaria* 52 (2001), 131–33.

78 See the Istituto Lina Bo e P.M. Bardi - Casa de Vidro, <http://www.institutobardi.com.br>.

Women designers' archives are not a 'black box' or passive containers of documents, but rather a sort of 'magic box' through which reflections of the producer's dialogue with her own memory and gender memory can be gathered. In other words, these archives have to be assumed as a 'place of identity and genealogy, and as a return to roots'⁷⁹; when brought into the present by scholars, they are projected into the future to reconstruct the link between individual, professional and collective memories and identities.

Towards Quantitative Horizontal Histories for a Feminisation of the 'Reversed Filiation' of the Past

In our century, even up to the threshold of the present, the research on women's works not only clashes with matters related to the archives of the present –current archives which are sometimes still under formation and not yet selected as historical memory– but it also encounters specific issues related to the production, use, conservation and transmission of digital archives. The archives of architects/designers have in fact begun to take digital form since the coming of the digital age. Although digital technologies are suitable archiving means for their immediate use, they have already shown their fragility over a more extended period.⁸⁰

When a historian makes use of a digital document, the problem of identifying who produced it and for what purpose, by which criteria it was selected and other such issues are complicated by the de-materialisation of the document itself, which facilitates its transmission, delocalisation and possible tampering. Therefore, digital sources pose new challenges for scholars regarding identifying their producers, formation process, conservation and transmission. For these reasons, when we use digital sources for our historical research, we must rethink the concepts of originality, authenticity, and verifiability of the source itself.

Despite the broad range of sources that historians at present have at their disposal, serious gaps endure, and new documentary gaps suddenly appear with which we have to contend.

How to defend oneself from an excess of documents or to fill the gap in the documentation are questions that must be dealt with on a case-by-case basis, even in research studies on the work of

women in the built environment. These studies are driven by the desire to re-establish the identity of those professions such as architecture, civil engineering and urban planning that have long been the prerogative of men, just as their historiography has been.

Ever since information and communication technologies (ICT) began, highlighting the role of information resources in social and cultural development over the last decade, giving rise to unprecedented phenomena such as the accumulation of enormous volumes of data, this data has become accessible and quickly transmissible even at a considerable distance. At present, ICT applied to both research and cultural dissemination can contribute to gathering and selecting those serial sources containing homogeneous and comparable data necessary to write a new quantitative history of women's works. Quantitative history as '*une autre histoire*'⁸¹, which appeared in France as early as the mid-1970s, is currently starting to be applied to research on the contribution of women to the world of construction and design through ICT.

By creating 'quantitative-horizontal' histories, it will soon be possible to overcome the scenario outlined by the mainstream historiography, which is traditionally 'vertical' and uniquely featured by 'male filiation' of the protagonists of the History of Architecture and Design. It will then be possible to re-activate the process of 'reversed filiation',⁸² according to which fathers are not those who generate children but are the sons and daughters who generate not only fathers but also mothers.

A comprehensive 'horizontal' investigation of the works can contribute to forming a more inclusive and democratic vision of the history of architecture, the city and design. We believe that in an era like the present, in which society and the cultural world call for equal opportunities between men and women, we must question the thought processes that have led even the most accredited historical interpretations to exclude women's contributions in order to find novel methodologies for creating new genealogies of works and authors.

79 Alessandra Contini and Anna Scattigno, "Un cantiere aperto: Il censimento della scrittura delle donne (XVI e XX secolo)," in *Carte di donne: Per un censimento regionale della scrittura delle donne dal XVI al XX secolo: Atti della giornata di studio, Firenze, Archivio di Stato, 3 Febbraio 2005*, Vol. 1, edited by Alessandra Contini and Anna Scattigno (Rome: Edizioni di Storia e Letteratura, 'Memoria e scrittura delle donne', 'Sussidi Eruditi', 2005), 29.

80 About the consequences of the vulnerability of digital documentation, see Stefano Vitali, *Passato digitale: Le fonti dello storico nell'era del computer* (Milan: Bruno Mondadori, 2004).

81 François Furet, "Le quantitatif en histoire," *Faire de l'histoire*, Vol. 1, edited by Jacques Le Goff and Pierre Nora (Paris: Gallimard, 1974), 53; Vital Chomel, "Une autre archivistique pour une autre histoire ?" *La Gazette des archives* 91, 1 (1975), 238–48; François Furet, *L'Atelier de l'histoire* (Paris: Flammarion, 1982); Jacques Le Goff, "Monumento/ Documento," *Enciclopedia*, ad vocem, Vol. 5 (Turin: Einaudi, 1978), 38– 48.

82 Maurizio Bettini, *Contro le radici: Tradizione, identità, memoria* (Bologna: Il Mulino, 2001), 5–15. In his book, the Italian philologist and anthropologist claims that it is not the past that produces the present, but the present that shapes its past. The author goes into the fascinating process of transforming the past into tradition by identifying a 'reversed filiation' process, according to which fathers do not generate children but children generate fathers.

Annex

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Collecting & Connecting the Creative Culture of Women as Cultural Heritage: Norah Geddes, Kate Cranston and a New Digital Archive Concept for an Alternative History

Introduction

Women's traces in the architectural archives are as faint as they are scarce and, with a few famous exceptions, women's contributions in the modern era appear too vague when we consider the radical changes in society and the roles played therein by women. While female protagonists were becoming more common in certain fields, the field of architecture seemingly had no equivalent to, say, Maria Skłodowska Curie. What we should rather say is that there is no evidence of an analogous female contribution to the history of architecture and design. Moreover, this presumed lack of input into the field of design might be misinterpreted as a failure to participate in building common ground. It might ultimately appear to be a failure – culpability even – 'to conceive' of a new modern environment for their own new life in a modern society. This nonsensical vision of a lack or, at best, of a discontinuous range of initiatives made by women within this framework highlights the importance of the role played by archives and source material in making history, and this necessitates some preliminary considerations. Were women really disinterested in shaping, in terms of design, a way of life tied up with their emancipation, or, rather, are sources providing evidence of their involvement really just not accessible? Some examples of overlooked female creativity may help to underline this lack of information and the consequent need to reformulate crucial links between sources and history in order to gain a new understanding of women's contributions.

It is our belief that there is a need to put female creative culture in the spotlight, and a digital approach offers a new perspective by making it possible to create a new kind of digital archive. In

any event, what is certain is that a new critical approach to collecting sources and making history is overdue. Institutional records offices are essential for the collection and spreading of cultural heritage as well as for the fostering of research. Digital platforms can create links capable of shaping a new cultural context since they provide an overview of the broad networks operating in design processes. From the point of view of both tangible and intangible cultural heritage, as well as of the built environment, there exists no single author-demiurge but rather a collective of collaborative workers. In this perspective we aim to introduce a couple of case studies of women's creative work as demonstrations of possible new critical approaches to architectural and design culture and its history. The first focuses on the little known designers Margaret and Frances Macdonald and the entrepreneur Kate Cranston, the second on the almost unknown landscape designer Norah Geddes. In this context they aim to articulate some aspects of this cultural perspective. Case studies take into account the period just preceding the Modern Movement as a turn of important changes. Lastly we discuss how a digital archive which makes known the historical, creative culture of women as this comes to light.

Ici on ne brode pas des coussins

It should be noted that since the nineteenth century the matter of new designs has been tightly bound up with the reorganisation of private and social spaces. If, on the one hand, modern design has included noteworthy architectures devoted to institutional buildings where women were generally not very numerous, on the other, the general overhaul of the built environment has included a wide range of functional buildings essential to the lives of the general public and catering to all needs and pleasures, not to mention the domestic environment forever perceived as a 'womanly realm'. According to Le Corbusier, the design program to change architecture was a means for changing the world, and this light, the notion of 'architecture or revolution' must have represented more than a mere slogan for the women of the time.¹ Some masterpieces, such as the *Frankfurt kitchen* by Margarethe Schütte - Lihotzky, have recently been highlighted by providing evidence of specifically female involvement.² Many others, however, are scarcely documented in spite of their extraordinary freshness and social significance. One such example is the iconic self-portrait of Marianne Brandt '

wearing' her teapot on her head as a hat, which speaks of a multi-layered participation by women in innovating both products and imagery.³ Related architectural historiography revealing a still little-explored theme explains the difficult context in which she expressed her talent.⁴

Her direct participation in furniture production in the Walter Gropius atelier, albeit for a short period, also recalls the contribution of Charlotte Perriand to Le Corbusier's modernization of domestic furniture. Apparently both modernist masters were radically promoting architecture as social commitment, addressing their design to the aim of changing family life and social interaction by firmly believing that architecture could drive change. The naivety and failure of this kind of effort is evident in their underestimation of the female contribution to their ateliers.⁵

Given the significance and standing of Le Corbusier and Gropius, the difficulty experienced by these women designers to 'break through' is quite telling. Brandt, a woman student, was indeed admitted to the Bauhaus school, but, notwithstanding this, Gropius only allowed her to be part of the metal laboratory as an exceptional case since women students were almost always directed to 'more feminine' arts activities. On the one hand, if women were admitted and did enthusiastically apply to the school, they had all but disappeared from the studies on Bauhaus until some recent contributions on the subject were published.⁶

On the other hand, Perriand mentioned how Le Corbusier had been more than incredulous to take her on as a partner in his atelier. 'Ici on ne brode pas des coussins' (We don't embroider cushions here), he said on their first meeting as, in answer to her proposal to work in the atelier, he saw her to the door.⁷ These unpleasant behaviours are a sign that women were still ignored in the male domain of design. This sign is echoed in their personal archives; as Le Corbusier declared

3 Marianne Brandt, Model No. MT 49 teapot, 1924. Marianne Brandt (1893–1983) studied at Bauhaus with Laszlo Moholy Nagy. She entered the product metal design workshop by designing teapots, coffee sets and metal ashtrays. Later in Paris she developed photography with photomontages. After working with Walter Gropius on furniture production, Brandt became the head of the design department at the Ruppelwerk hardware factory in Gotha, Germany. Naomi Blumberg and Ellen Ferry, "Marianne Brandt: German painter, photographer and designer," *Encyclopaedia Britannica* (last updated June 14, 2018), <https://www.britannica.com/biography/Marianne-Brandt> (accessed June 22, 2018).

4 Nahoum Cohen, *Bauhaus Tel Aviv: An Architectural Guide* (Tel-Aviv: Bauhaus Foundation, Private Museum, 2008).

5 Hayley A. Rowe, "The Rise and Fall of Modernist Architecture," *Inquiries Journal/Student Pulse* 3, no. 4 (2011), <http://www.inquiriesjournal.com/a?id=1687> (accessed June 22, 2018); Hubert-Jan Henket, "Modernity, Modernism and the Modern Movement," *Back from Utopia: The Challenge of the Modern Movement*, edited by Hubert-Jan Henket and Hilde Heynen (Rotterdam: 010 Publishers, 2002), 10.

6 Ulrike Müller, *Bauhaus Women: Art, Handicraft, Design* (Paris: Flammarion, 2015).

7 Charlotte Perriand, *Une vie de création* (Paris: Editions Edile Jacob, 1998), 25. When the young designer went to the rue des Sèvres to put herself forward for his furniture program, Le Corbusier reproached her... He needed time and above all a visit to Perriand's *Bar sous le toit* exhibited at the 1927 Salon before he would consider her a suitable partner in his atelier.

1 "Architecture and revolution" was the title of a chapter in Le Corbusier, *Vers une architecture*, (Paris: Éditions Crès, Collection de 'L'Esprit Nouveau', 1923).

2 Äne Söll, " 'What's cooking?': Reconfiguring Gender and Domestic Space in the Exhibits of Margarete Schütte-Lehotsky's 'Frankfurt Kitchen,'" *1st MoMoWo International Conference-Workshop: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945: Programme and Abstracts* (Ljubljana: ZRC Publishing House, 2015), 49.

its archive was conceived to 'become a spiritual entity, that is, a continuation of the endeavour pursued throughout a lifetime'.⁸

Two Wives and One Client: Traces of Women in Glasgow

Irrespective of individual attitudes, the industrial revolution had started to change society radically and it had brought new duties and opportunities for women. In parallel it created enormous problems and a new poverty as much as it fostered women's integration and sociability. The manufacturing environment especially drove important transformations both in the urban setting and in life style. For example, innovative workers housing included new types of private and collective functions (e.g. kindergarten) which may be linked to women's 'liberation'. Some women, however, started to become involved in new challenges.

Margaret Macdonald (1864–1933) was already an acclaimed artist when she met Charles Rennie Mackintosh, having shared a Glasgow art studio with her sister Frances since the 1890s.⁹ After Margaret got married, her own artworks became secondary to her husband's leading architecture studio.¹⁰

Frances also married an architect, James Herbert McNair, with whom she carried out projects. Frances Macdonald's projects are even less well known than those of her sister even if as a student she did win local and national awards. In 1899 Frances and her husband moved to Liverpool where almost all her artworks were destroyed by him after her death in 1921. Some still extant artworks and documentation about Margaret and Frances Macdonald are collected in the 'Archives and Collections' of the Glasgow Art School.¹¹

The Macdonald sisters worked in the 'Group of Four' where Mackintosh played the lead while doing architectural practice in a studio.¹² Margaret and Frances certainly designed graphics, textile artworks and book illustrations. But we could argue that they did much more. Especially in the case of Margaret, however, we can assume that her involvement in the studio must have been very intensive. She worked closely with her husband for many years when he redesigned the studio partnerships and finally she assumed the leading role when they moved to Suffolk, London, and France. Mackintosh's ill health in this period leads us to believe that Margaret did not merely work on decorative details.

This approach includes a further path for a different research framework. Among celebrated masterpieces, the *Willow Tea Room* (1903) was Mackintosh's most important commission for Miss Cranston. It was the culmination of a meaningful 'partnership'.¹³

It should be noted that among Margaret Macdonald works, there is a record of a menu also designed for the same client for her exhibition cafe, The White Cockade.

Kate Cranston thus played a leading role as a client both of Mackintosh's atelier and of design products of the Glasgow style in general. She commissioned these projects because of her leading role within the city. Her *Cranston's Tea Rooms* were in fact a social endeavour.¹⁴ Glasgow, as an industrial city had to deal with the consequences of people's life styles, of which the consumption of alcohol was one, and a serious one at that, even for women. Kate Cranston created and supported these nice and pleasant tearooms to counter alcoholism through new social activities. In these places women could meet and socialize over a cup of tea and some scones. Alcohol was not served there, unlike in the pubs where workers would meet. Tearooms were a cross between parlours and social clubs, and they promoted new behaviours, women's emancipation included. Kate Cranston played an important role as a client by offering job opportunities for developing a common phenomenon known as Glasgow style. Furthermore, she also played an essential role in creating the concepts for design and production by conceiving new kinds of visions of urban life.

8 Le Corbusier collected his personal documentation and shaped his archive: 'I hereby declare, for every eventuality, that I leave everything that I possess to an administrative entity, the "Fondation Le Corbusier," or any other meaningful form, which shall become a spiritual entity, that is, a continuation of the endeavour pursued throughout a lifetime'. The online Gropius archive at the Bauhaus in temporary offline: https://www.bauhaus.de/en/bauhausarchiv/185_bibliothek_und_archiv/879_open_archive_walter_gropius/ (accessed June 22, 2018). On the Stanford Gropius collection see Busch-Reisinger Museum, *The Walter Gropius Archive: An illustrated catalogue of the drawings, prints, and photographs in the Walter Gropius Archive at the Busch-Reisinger Museum, Harvard University* (New York: Garland Pub: 1990).

9 Jude Burkhauser (ed.), *Glasgow Girls: Women in Art and Design 1880–1920* (Edinburgh: Canongate Press, 1990); Janice Helland, *The Studios of Frances Macdonald and Margaret Macdonald* (Manchester: Manchester University Press, 1995); Patricia Panther, "Margaret MacDonald: The talented other half of Charles Rennie Mackintosh," BBC (published January 10, 2011), http://www.bbc.co.uk/scotland/arts/margaret_macdonald_the_talented_other_half_of_charles_rennie_mackintosh.shtml (accessed June 22, 2018).

10 It should be noted that the first exhibition catalogue of the Glasgow School of Art quoted both, see: *Charles Rennie Mackintosh and Margaret Macdonald Mackintosh: Memorial Exhibition Catalogue* (Glasgow: McLellan Galleries, 1933); George Rawson, "Select Bibliography with annotations," *Mackintosh's Marterwork: The Glasgow School of Art*, edited by William Buchanan (New York: Rutgers University Press, 2004), 173–192.

11 The Glasgow School of Art Archives and Collections, <http://www.gsaarchives.net> (accessed June 22, 2018).

12 For a recent contributions cf. Cynthia Green, "The Scottish Sisters Who Pioneered Art Nouveau," *Jstore Daily: Art and Art History* (published December 19, 2017), <https://daily.jstor.org/the-scottish-sisters-who-pioneered-art-nouveau/> (accessed June 22, 2018).

13 Juliet Kinchin, "Mackintosh and the City," *Charles Rennie Mackintosh*, edited by Wendy Kaplan (New York: Abbeville Press: 1996), 31–61.

14 Kate Cranston opened her first tea room in 1878. Alan Crawford, "The Tea Rooms: Art and Domesticity," *Charles Rennie Mackintosh*, edited by Wendy Kaplan (New York: Abbeville Press: 1996), 263–89.

Norah Geddes: a Talented Daughter and Creator of Children's Playgrounds

Although Patrick Geddes and his Outlook Tower in Edinburgh are well known, the role played by Norah Geddes (1887–1967) has received scant attention.¹⁵ Norah was one of a biologist-sociologist-town planner's children, and was deeply involved in her father's projects, even writing biographical notes on him and his archive.¹⁶

In 1915 she married Frank C. Mears, the architect with whom Geddes worked closely as his drawings could lend physical form to the latter's ideas. Norah worked, above all, in the context of the Outlook Tower Committees established to carry out the Outlook program in the absence of her father. It should be noted in fact that after its beginnings as a new kind of museum-laboratory in Edinburgh, the Outlook Tower project developed into a number of different activities. Several women were interested in Geddes cutting-edge project and were involved in the education and exhibiting program.¹⁷

Norah Geddes took part in various activities including design. She specifically signed some drawings of gardens and playgrounds for children. In the context of the hard living conditions of the industrial city, she focused particularly on the housing situation in the cramped old town as a social and philanthropic commitment. Her designs are clever reflections on rethinking unused urban spaces. In the courtyards as well as in marginal waste ground, she created and curated visions of a new and hopeful urban life. She certainly conceived her designs as forming part of Geddes' overall project for Edinburgh which included a survey of the city, also with the aim of introducing some improvements in urban life. Nevertheless, documentary traces of Norah's creativity do also provide evidence of her autonomy and independent spirit of initiative.

Norah has been overlooked by architecture historiography, but under her maiden name she did sign some drawings which redefined urban areas recognizable today as historical urban landscapes.¹⁸

15 The Outlook Tower was conceived as a proposal to establish a new kind of place for overlooking the city and at the same times a sort of laboratory for creating a new awareness among citizen about their city. Hellen Meller, *Patrick Geddes: Social Evolutionist and City Planner* (New York: Routledge, 1990); Rosa Tamborrino, "The City on Display: 'Entering' Urban History," *Built City, Designed City, Virtual City: The Museum of the City*, edited by Donatella Calabi (Rome: CROMA, 2013), 35–55.

16 Norah Geddes, memoir of Patrick Geddes, National Library of Scotland (NLS) Ms. 10508, in "Patrick Geddes and Perth," Murdo Macdonald (published January 7, 2017), <https://murdomacdonald.wordpress.com/patrick-geddes-and-perth/> (accessed June 22, 2018). Also Norah Geddes Mears, "Introduction to the Letters of Patrick Geddes," NLS, MS 10508, fol. 105. Some biographical information on Norah Geddes are in Tanya Cheadle, "Realizing a 'More Than Earthly Paradise of Love': Scotland's Sexual Progressives, 1880 –1914," (PhD thesis, School of Humanities College of Arts, University of Glasgow, 2014).

17 Walter Stephen, *Learning from the Lasses: Women of the Patrick Geddes Circle* (Edinburgh: Luath Press, 2014).

18 Historical Urban Landscape is defined as 'the urban area understood as the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of "historic centre" or "ensemble" to include the broader urban context and its geographical setting'. UNESCO's General Conference, *Recommendation on the Historic Urban Landscape* (Paris: UNESCO, 2011), UNESCO, <https://whc.unesco.org/uploads/activities/documents/activity-638-98.pdf> (accessed June 22, 2018).



Fig. 1. Drawings by Norah Geddes related to King's Wall Garden and Chessel's Court. Courtesy of University of Strathclyde Archives and Special Collections, United Kingdom.

A commemorative plaque in still-existing gardens celebrates as their creator Patrick Geddes, but makes no mention of Norah. Although a direct trace of her signature can only be found in a few drawings –e.g. *Garden of Saint George's School for Girls*, *Robertson's Close Garden Playground*, *Garden near Castle Wynd*, *Garden at McConnachie's Close*, *Portsburgh Garden*, *St John's Garden*, *Castle Terrace*, *Chessel's Court*, *Kings Wall Garden*– we could argue that she was responsible for other projects only identified as 'Outlook Committee' (Fig. 1).¹⁹

Her work was developed over a long period and also includes involvement outside the Outlook Tower Committee. She is responsible for the landscape design of the Scottish Zoological Park commissioned to her husband (Fig. 2).²⁰ Moreover, her endeavours were not limited to practice with her husband or to assisting her father. The extent of her significance in the broader cultural framework is finally attested by some drafts of papers which she wrote on teaching methods.²¹ A written text on *What educational programme will best meet the needs of our developing social & economic situation*, is the only printed one to have come to light to date.²²

More traces are available, albeit scattered among various archives around the world, as she had contacts with artists and intellectuals of the day including Lewis Mumford.²³ It is to be hoped that we will be able to shed greater light on new connections in the future.

Toward a New Concept of Digital Archive

New sources need to be explored if a multifaceted history of architecture and design is to be built. However, new sources will become available only through the shaping of new approaches and new research frameworks.

In the public institutional archives, in fact, files are classified according to criteria set out by the producers of the papers themselves. The so-called 'architectural archives' are more or less recent collections of selected materials, the classification structure of which is a question of specific

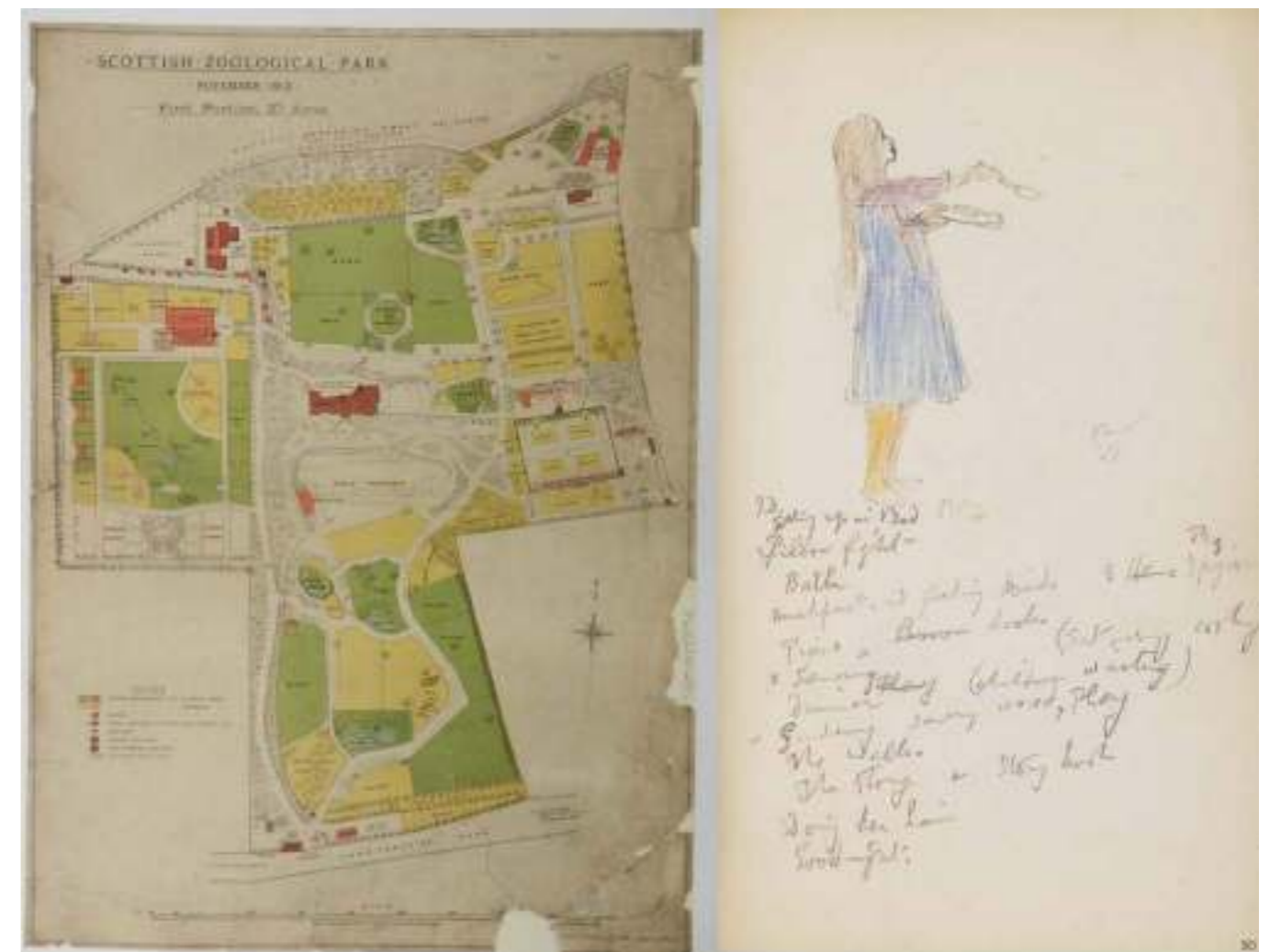


Fig. 2. (left) Frank C. Mears and Norah Geddes Mears, *Map of Scottish Zoological Park*, 1913, colour lithograph. Courtesy of University of Strathclyde Archives and Special Collections, United Kingdom. (right) John Duncan, *Norah Geddes Feeding the Chickens*, about 1890s, work on paper. Courtesy of National Gallery Scotland.

purposes. Choices and skeletons of the archives thus created are subordinate to cultural projects. Internationally, architecture archives have permitted an important conservation of recent materials from the design culture. By its very nature, in fact, modern documentation is especially fragile and specific actions are needed in order to collect and preserve them.²⁴

In western countries architectural archives were established in the years following the Modern Movement. Public and private repositories increased in the following years generating huge collections. According to Phyllis Lambert, the founder of the Canadian Centre for Architecture

19 Some drawings in the University of Strathclyde Archives and Special Collection: *Sketch of King's Wall Garden, arranged by [Open] Spaces Committee*, GB 249 T-GED/7/5/30/14, *Sketches of Chessel's Court*, GB 249 T-GED/7/5/30/1, *Sections and elevations of proposed steps at King's Wall Garden*, GB 249 T-GED/7/5/30/16.

20 Catherine Thompson, "Geddes, Zoos and the Valley Section," *Landscape Review* 10, no. 12 (2004), 115–19.

21 The drafts of some papers, University of Strathclyde Archives and Special Collection: "The Writing of English in Schools III," GB 249 T-GED/7/7/58; "Suggestion for method in teaching that would integrate several of the newer ideas already in use here and there," GB 249 T-GED/7/7/59; "Suggestions for group activity in the junior classes of a secondary school," GB 249 T-GED/7/7/60.

22 Norah Geddes Mears, *What Educational Programme Will Best Meet the Needs of Our Developing Social & Economic Situation?* 1917, National Library of Scotland, Edinburgh.

23 Norah Geddes, *Letters to Lewis Mumford*, Van Pelt Library, Philadelphia. See also the epistolary exchanges essential for the text of Philip Boardman, *The Worlds of Patrick Geddes: Biologist, Town Planner, Re-educator, Peace-warrior* (London: Routledge & Kegan Paul, 1978).

24 Susan Koskinen, "Architectural Archives," *Journal of Library Administration* 39, no. 2–3 (2003), 15–27.

CCA, the challenge facing architectural archives was to represent 'a new type of cultural institution, with the specific aim of increasing public awareness of the role of architecture in contemporary society and promoting research in the field'.²⁵ In the 1960s and the 1970s important nineteenth- and twentieth-century buildings had been demolished and their loss generated a new awareness in rethinking modern heritage and collections were established when the post-industrial trend also put the fate of industrial heritage in the spotlight in the 1980s.

Architecture repositories, thus, dealt with the strategic task of both collecting and exhibiting a wide range of documentation. As a result, archives fostered new approaches to the history of contemporary architecture by providing direct sources (i.e. architectural drawings and documentation about designs produced by the architect). They made it possible to focus on a richer notion of architecture, as the output of a design process (from the creation to the building site through variants and changes over time). On the other hand, the increasing importance of these specialized architectural archives drove research in directions guided by the sources and their structure around the figure of an architect.

Existing collections of documents need to be contextualized in the light of updated criteria and coherent aims through dedicated surveys. Digital archives could improve both collections and their contexts. They can also improve documentation, provide links to related data, and lastly improve research and interpretations in order to achieve a reformulation of architectural and design culture in the modern era, as well as its tangible and intangible heritage.

The online Italian archives portal SIUSA provides a perfect example and includes a section entitled 'The Archive in the Feminine' which has been conceived in order to enhance and make more 'immediately accessible' papers related to women's history and activities in various fields.²⁶ This approach correctly emphasizes the complexity involved in the production of archives, and the need to draw attention to some special papers which may be 'hardly known' by providing a dedicated access to sources. This recommendation implicitly suggests that the scarce visibility of sources can have consequences on studies.

The classification and recording criteria of repositories need to be reconsidered with a different structure being required to take into account more kinds of contributions in the conception and production of architecture, design, and planning. This method could best be combined with the women's approach. Newer research on Macdonald shows that 'more than two thirds of Macdonald's

work is collaborative; therefore, collectivism is a definitive characteristic of Macdonald's artistic vision.²⁷ The Geddes Papers also make reference to a project conducted through a range of activities requiring collaborations and creating further opportunities. Not to mention Geddes' wife, Anna, who organized musical and artistic meetings.²⁸

Digital Humanities methodologies now allow us to conceive of completely new kinds of archives in the digital environment. One aim will be to create new more inclusive and gender-oriented approaches. Some interesting experiments in online digital archiving show how 'to translate' a personal archive by making accessible more than just drawings and papers.²⁹

A digital platform conceived as a collector of information can shed light on a range of subjects and ultimately promote a new history. The purpose of digitization, indeed, is not mere data sharing, it is knowledge implementation too.

In this way, a digital environment makes it possible to shape new large-scale research frameworks, and also collaborative research, with the aim of introducing new critical approaches to the interpretation of data. One new strategy for digital archives on design and architecture culture might be to emphasize the links among data as a critical and cultural approach. As an alternative backbone, a digital platform can be created for the purposes of linking related data. In addition, instead of emphasizing the producer or collector of the repository, the digital archive could be better serve to highlight sources in remote small archives, making accessible a range of connected sources, and finally making visible other hidden women creators. To this end, digital archives can be related to digital libraries in order to make the specific issue (i.e. the artworks and craftworks as part of the women creative culture) more understandable within a larger cultural and topographical context. Digital libraries can also host narratives and collect the new digital cultural productions on the subject (i.e. 3D models, videos, virtual reality environments). While documentation in archives and libraries is almost always aimed at experts, this approach can enhance both research and this intangible heritage for all.

25 "About," CCA-Canadian Center for Architecture, Montréal, <https://www.cca.qc.ca/en/about> (accessed June 22, 2018).

26 "Gli archivi al femminile," Sistema Informativo Unificato per le Soprintendenze Archivistiche (SIUSA), MIBACT <http://siusa.archivi.beniculturali.it/cgi-bin/pagina.pl?RicProgetto=donne> (accessed June 22, 2018). This project has expanded on the initial project 'Archivi femminili in Emilia Romagna' conceived by the Emilia-Romagna region and begun in 2010. "Archivi femminili in Emilia Romagna," SIUSA, <http://siusa.archivi.beniculturali.it/cgi-bin/pagina.pl?RicProgetto=preg-emr-arfem> (accessed June 22, 2018).

27 Kristie Powell, "The artist couple': Collectivism in Margaret Macdonald's and Charles Rennie Mackintosh's Modern Interior Designs of 1900–1906" (PhD dissertation, Master of Arts at the University of Cincinnati, 2010), 24. Thesis Chair: Dr. Kimberly Paice, University of Cincinnati.

28 The role of Chaedle Geddes has been described by the French sociologist Edmond Demolins, "Le Mouvement Social," 1892–3, page 84, quoted in Tanya Cheadle, "Realizing a 'More Than Earthly Paradise of Love'" (PhD thesis, School of Humanities College of Arts University of Glasgow, 2014), 122, n. 117.

29 The "Charles Booth poverty maps and Policy notebooks" website is a smart example of a continuously evolving project allowing development of new access to a document collection. The website is a development of a digital database on Charles Booth *Inquiry into Life and Labour in London, 1886–1903*, developed by the London School of Economics. It shows how a huge amount of data could be managed and made available by linking nineteenth-century places to the current city. "Learn more," Charles Booth's London: Poverty maps and police notebooks, <https://booth.lse.ac.uk/learn-more> (accessed June 22, 2018).

Conclusion

An archive backbone needs to take into account a range of builders and creators. If design activities have always been 'produced' collaboratively in studios, women's contributions have always been by definition up to the task. Importantly, this approach could make sources on women more accessible. While their names are not immediately identifiable as those of 'producers' of the archives, many women designers did indeed strive to create. In a field traditionally unfamiliar to women, cultural and social mores meant that they were not permitted to lead studios, and even in forward-thinking contexts they were only rarely allowed to study. Nonetheless, their talents were developed in collaborative projects. This approach to sources and to digital archives requires us to reshape our notion of architecture production by reformulating questions about attributions as well as about processes of creation and construction. The role played by clients is another important feature of this reformulation in terms of co-creation in this type of production. Some accounts of the role played by some female clients, while fragmentary, do lead us to understand that this was by no means a negligible one. When Miss Schroder was interviewed she gave an idea of her role in conceiving her house together with Gerrit Rietveld, the architect who she had chosen. The house was intended to interpret her new life with her children again after her divorce: 'It wasn't that I was determined to make something "modern." That was the direction I preferred. It was a spontaneous choice ...' –she said and added– 'So, when Rietveld had made a sketch of the rooms, I asked, 'Can those walls go too'.³⁰

Such wide-ranging involvement is extremely common but, this notwithstanding, it still remains difficult to recognize the full extent of women's contributions without first revising archive criteria and concepts.³¹

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Intersectional and Transnational Feminist Histories: The Logic behind *The Bloomsbury Global Encyclopedia of Women in Architecture 1960-2015* (forthcoming 2021)

The Bloomsbury Global Encyclopedia of Women in Architecture 1960–2015 (forthcoming 2021) aims to address the limited representation of women architects, gender issues, theories of gender and non-canonical spatial practices in architecture's public sphere. The book's lengthy title declares its intention to include a wide range of women's spatial practices beyond the 'women architects' paradigm, by narrating the separate and 'intertwined histories' of women in architecture across the globe.¹ This publication directly addresses the MoMoWo conference theme of women as actors and agents in the production, reception and conceptualization of the built environment.

By situating women's agency in a global context, the *Encyclopedia* significantly refocuses histories of women in architecture; shifting the historical lens from the nationally delineated histories of the Global North to a transnational frame. This transnational history aspires to include a much wider range of practices and practitioners, and to unravel global networks. Our essay for MoMoWo 2018 will argue that the *Encyclopedia's* transnational and intersectional methods are key topics for renewed debates about histories of women in architecture. The *Encyclopedia* aims to situate intersectional feminism at the core of women's spatial histories. As we argue below, women's biographies provide important case studies of the specific intersections of gender, race, class, sexuality and geography; they allow us to understand how lived intersectionality impacts individual careers and lives.

30 Lenneke Buller and Frank den Oudsten, "Interview with Truus Schroeder," *Lotus 60: Living in Architecture-Lotus International* (1988), 38–58, 41

31 Ann Calhoun, *The Arts & Crafts Movement in New Zealand, 1870–1940: Women Make Their Mark* (Auckland: Auckland University Press, 2000.)

1 As Sibel Bozdogan observed in 1999 'the western canon and the cultural production of societies outside Europe and North America are not separate and independent.' Sibel Bozdogan, "Architectural History in Professional Education: Reflections on Postcolonial Challenges to the Modern Survey," *Journal of Architectural Education* 4 (May 1999), 210.

The *Encyclopedia* project assumes that gender is a historically and socially configured category. It does not take the topic of 'women in architecture' as a given but examines how this category has been constructed over time and in different local contexts. The *Encyclopedia* platforms diverse voices through content and editorial structure, to extend knowledge of the built environment beyond a focus on familiar metropolitan centres. The project is steered by two editors but this is undertaken in dialogue with ten area editors who have superintendence of entries from different regions. The production of the *Encyclopedia* is itself a feminist activist project. It will create new knowledge and by drawing on a diversity of editors and contributors aims to create 'solidarity across difference and national boundaries to have an effective transnational impact'.² We take our lead from the growing transnational alliances in contemporary architectural feminism and from the transnational turn in feminist history and theory.³

In what follows we briefly describe the project and then discuss the activist aspirations and theoretical framing of the project around an intersectional and transnational vision of women in architecture.

Project Overview

The Global Encyclopedia of Women in Architecture 1960–2015, gives students, scholars and the public an international compendium of women architects, their buildings and spatial practices, and key terms for gender and feminism in architecture. The *Encyclopedia* builds a cohesive global account by organising 1200 entries – many of them biographical – within a geographic framework.

The book divides the globe into ten regions, with each region subdivided into an alphabetised list of countries.⁴ Individual biographical entries are filed alphabetically under country name and

individuals are located according to where their architectural, academic or organisation's practice was centred.

Our period begins in the 1960s, as women entered social movements from their engagement in civil rights, to second wave feminism, to anti-colonial and liberation struggles and movements for indigenous self-determination. Women led the way in the new arenas of environmental action that came into focus after 1960: in cities, sustainable design, community activism, affordable housing, social inclusion struggles, shelter and settlements, and the everyday life of the built environment.

These histories are now of urgent interest. The *Encyclopedia's* time frame concludes in 2015, forty years after 1975, the UN declared International Year of Women.

Architectural Agency

Women have historically never been fully integrated or cast as equals in the architectural profession, so have been and continue to be instrumental in pursuing different possibilities to practice architecture. The *Encyclopedia* examines women's agency in changing the world and the discipline. Women created different spaces for architectural engagement which intersected with their political, economic and social locations.

They created new spaces for architecture's agency, with broader critical impacts and influences. These endeavours included working with communities, creating activist campaigns for family and women's housing, developing better planned and integrated neighbourhoods, more environmentally sustainable systems for building and working in the public sector and as policy makers. Women have been instrumental in expanding scholarship, publications and exhibitions through the inclusion of gender, equity and minority voices within the academy and broader public discourse.

Theoretical Underpinnings: Intersectionality

Feminism within architectural discourse has not fully embraced an intersectional approach. For complex reasons, the 'difference' propositions of third wave 1980s and 1990s feminism have failed to take general root in architectural culture and second-wave feminist ideologies have prevailed. It is critical for our feminist discourse, one based in both theory and creative practice, to become intersectional.

Intersectionality has been powerfully developed in North American theories by 'women of colour' but intersectionality defines every architectural subject. In the 1990s architectural theory and feminist

2 Linda Carty and Talpade Mohanty, "Mapping Transnational Feminist Engagements: Neoliberalism and the Politics of Solidarity," *The Oxford Handbook of Transnational Feminist Movements*, edited by Rawwida Baksh and Wendy Harcourt (Oxford: Oxford University Press, 2015), 88.

3 See Peggy Antrobus, *The Global Women's Movement: Origins, Issues and Strategies for the New Century* (London: Zed Books Ltd, 2004); Myra Max Ferree and Aili Marie Tripp (eds.), *Global Feminism: Transnational Women's Activism, Organizing and Human Rights* (New York and London: New York University Press, 2006); Valentine M. Moghadam, *Globalizing Women: Transnational Feminist Networks* (Baltimore: The Johns Hopkins University Press, 2005); Leela Fernandes, *Transnational Feminism in the United States: Knowledge, Ethics, Power* (New York: New York University Press, 2013); Nancy Naples and Manisha Desai (eds.), *Women's Activism and Globalization* (New York: Routledge, 2002); Deborah Stienstra, *Women's Movements and International Organizations* (London: Palgrave MacMillan, 1994); Christa Wichterich *The Globalized Woman: Reports from a Future of Inequality* (London: Zed Books Ltd, 1999) and Rawwida Baksh and Wendy Harcourt (eds.), *The Oxford Handbook of Transnational Feminist Movements* (Oxford: Oxford university Press, 2015).

4 The regions are USA / Canada, the United Kingdom, Latin and South America, Western Europe, Eastern Europe, the Middle East, Africa, South Asia, Central / East Asia and Oceania.

scholarship began to articulate the intersection of architecture and race and in North America, theorists tentatively explored the category of whiteness.⁵ Despite critical scholarship on postcolonial histories and urban geographies of race, the contemporary public sphere conversation on women and architecture has, until very recently, been dominated by white metropolitan middle-class feminism.⁶

In 1991 American legal scholar Kimberlé Crenshaw argued that within more mainstream liberal discourse, categories of race, gender, class and identity are generally understood as 'vestiges of bias or domination – that is intrinsically negative frameworks in which social power works to exclude or marginalize those who are different...The problem with identity politics is not that it fails to transcend difference, as some critics charge, but rather the opposite– that it frequently conflates or ignores intragroup differences'.⁷

Her essay argued for the structural intersectionality of race and gender.⁸ In her work on domestic violence she noted that Californian domestic violence shelters and policies were configured around white middle-class experiences that failed to understand the impact of migration status and cultural difference on the failure of women of colour to effectively access these services. In consequence, the immigrant woman of colour interacts with other pre-existing burdens that create additional degrees of disempowerment.⁹

Crenshaw argues that 'the failure of feminism to interrogate race means the resistance strategies of feminism will often replicate and reinforce subordination of people of colour, and the failure of antiracism to interrogate patriarchy means antiracism will frequently reproduce subordination of women'.¹⁰ Like Crenshaw, sociologist Patricia Hill Collins argues that intersecting paradigms of race, class, gender and sexuality shape peoples' experiences and understanding these provides insight into how domination is organized, 'which intersecting oppressions originate, develop, and are contained'.¹¹ And how domination changes over time, through relationships and by location and the role of transnational factors including citizenship status, age and social location.

By including biographies of the notable and ignored architects, educators, activists and theorists

we aim to uncover some of these intersectional histories and relationships. For example North American feminist, community activist, author of *Discrimination by Design* (1992) and pedagogue Leslie Kanés Weisman cut her 'activist' teeth organising in the Civil Rights movement and was committed to intersectional feminism.¹² Sharon Egretta Sutton, whose educational play environments were included in the *Women in American Architecture* catalogue (alongside excerpts from Frances Fox Piven's 1974 essay "Race and Class, Design & Environment," Spring 1974)¹³ has recently published *When Ivory Towers Were Black* detailing civil rights activism, black power activism and community based social justice agendas centred around a successful period of curricular and admission changes as well as outreach programming at Columbia University's Graduate School of Architecture, Planning and Preservation in the late 1960s.¹⁴ Individual biographies help us see these intersectional identities and connections.

The *Encyclopedia* project is dominated by individual biographical entries but will also include theoretical entries, including one on "Intersectionality" by Melbourne based scholar Anoma Pieris. In this excerpt from her entry she deftly describes and situates intersectional theory to theorise architecture's global labour hierarchies, educational training and career pathways:

By arguing for the social experience of multiple forms of subordination across race, class, gender and disability, Intersectional Theory, after the work of Kimberlé Crenshaw, challenged the narrower perspectives of Critical Race Theory and Second Wave feminism in the USA. While largely directed at civil rights law, its critique is applicable to socially insulated professions like architecture, where despite gender equity in education – social mobility, urbanity and privileged forms of cosmopolitanism remain prerequisites for professional success. These scenarios appear exaggerated in Asia where personal relationships and systemic corruption underscores the hegemony of patriarchal professional domains Women, guest workers and ethnic minorities occupy the lowest ranks of construction labour; their economic and political fragility exploited by industry. These groups are over represented among drafting staff The professionalization of architects as an elite global practice profits from these intersectional social inequities.¹⁵

5 See Cynthia Davidson (ed.), "Whiteness," *Any* 16 (1996); Ernest Pascucci and Jennifer Bloomer (eds.), "Pale Houses, Silenced Shadows," *Assemblage* 37 (December 1998), 46–67.

6 FAAC (Feminist Art and Architecture Collective, situated in North America) organized a 'Contested Histories' panel for the Chicago Architecture Biennial, December 1, 2017 to 'foreground issues of class, race and gender'.

7 Kimberlé Crenshaw, "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color," *Stanford Law Review* 6, 43 (1991), 1242.

8 Crenshaw, "Mapping the Margins," 1250.

9 Crenshaw, "Mapping the Margins," 1249.

10 Crenshaw, "Mapping the Margins," 1252.

11 Patricia Hill Collins, "U.S. Black Feminism in Transnational Context," *Black Feminist Thought Knowledge, Consciousness, and the Politics of Empowerment* (New York: Routledge, 2000, second edition), 227–8.

12 *Field: a free journal for architecture* 3, no.1: *Agency and Praxis of Activism*, (December 2009), <http://field-journal.org/portfolio-items/field-3-agency-and-the-praxis-of-activism/> (accessed June 1, 2018).

13 Susana Torre (ed.), *Women in American Architecture: A Historic and Contemporary Perspective* (New York: Whitney, 1977), 174.

14 See Sharon Egretta Sutton, *When Ivory Towers Were Black: A Story about Race in America's Cities and Universities* (New York: Fordham University Press, 2017).

15 Anoma Pieris, "Intersections," *The Bloomsbury Global Encyclopedia of Women in Architecture 1960–2015*, edited by Lori Brown and Karen Burns (London: Bloomsbury, 2020, forthcoming); Kimberlé Crenshaw, "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics," *The University of Chicago Legal Forum* 140 (January 1, 1989), 139–67; Patrick R. Grzanka (ed.), *Intersectionality: A Foundations and Frontiers Reader* (Boulder, CO: Westview Press, 2014).

The individual entries demonstrate the lived experience of historically specific and culturally configured identities. This is apparent in Anooradha Iyer Siddiqi's biographical entry on Sri Lankan architect Minnette De Silva (1918–1998):

The youngest of four surviving children of George E. and Agnes Nell De Silva, Minnette De Silva, born February 1, 1918, became the first woman from the island of Sri Lanka to practice architecture professionally. If her parents' 1910 Singhalese-Burgher marriage had expanded the social imaginary in the small hilltown of Kandy, their significant activity and international exposure, *Ceylon's universal franchise, and Independence movement in later decades arguably undergirded her perspective and ambitions*. Among other things, De Silva credits her mother's involvement in the related Arts and Crafts movement with her own interest in reviving the arts and crafts and incorporating artisanal elements into modernist buildings later in her career.

She deftly weaves larger historical conditions and career narrative together in the intertwined story of how changing structural education conditions achieved by Indian independence affected De Silva's training:

In 1938, De Silva began working as an apprentice in the Ceylonese firm of Billimoria and De Silva, and then moved to Bombay, working as an apprentice in the office of Mistry and Bhedwar and studying at the Academy of Architecture, a private school run by several Bombay architects. In 1941, she matriculated into the Government School of Architecture, a disciplinary division of the Sir J. J. School of Art led at the time by Claude Batley, who was known, among other things, for reinforcing a pedagogical tradition of measured drawing field trips for students to study heritage architecture: a practice that De Silva would draw upon as a lecturer much later. *Her studies were interrupted by the tumultuous Quit India protests of 1942*. She worked in 1944 and 1945 in the Bangalore office of Otto Koenigsberger, then the Chief Architect of the Princely State of Mysore. *With new regulations allowing Indian students to complete their architectural studies within British institutions, De Silva was able to matriculate into the Architectural Association, where she studied from 1945 to 1947, becoming a Royal Institute of British Architects Associate in 1948.*

De Silva's theoretical and historical work also warrants a place in the *Encyclopedia*:

In 1974, De Silva took a position as Lecturer in the Department of Architecture at the University of Hong Kong, where she taught a course titled "Asian Civilization Through Architecture and Art," which allowed her to continue research for a project on "A Comparative History of South and South East Asian Architecture," begun in 1965. Although this work was never published, her research contributed chapters to Sir Banister Fletcher's *A History of Architecture*.

South African architect Denise Scott Brown (b. 1931) provides another example of how circulation through colonial and imperial educational systems provide entry to global education and professional networks. As Lori Brown writes in her entry:

From an early age Scott Brown's educational experience of learning through doing, encountered

through the Dalton Plan, pedagogy influenced by Montessori, and the ideas of John Dewey, informed her intellectual and creative development. Her mother had worked for an engineer before enrolling to study architecture for two years at the University of Witwatersrand in Johannesburg, where Scott Brown also studied from 1948–1952. She spent her fourth year in London, England where she completed her undergraduate education. She received an Architectural Diploma and Certificate in Tropical Architecture from the Architectural Association in 1955.

In part due to Scott Brown's agency as a white South African woman, she was able to study abroad and the eventual enrolment and degree from the Architectural Association establishes an important transnational academic connection that eventually leads her to the United States. Encouraged by Peter Smithson to study city planning at the University of Pennsylvania in the United States, she moved to Philadelphia in 1958 to continue her education. Britons looked favourably on the University of Pennsylvania as a place to study city planning because Louis Kahn was a Faculty member. After finishing her Master of City Planning degree in 1960, she received an appointment to teach in the Graduate School of Fine Arts at the University of Pennsylvania in both the architecture and city planning programs. The *Encyclopedia* will foreground these transnational educational and professional networks. However, our project is also attentive to the asymmetries of global networks, mobility and agency. Feminist transnational history and theory investigate these differences and power relations.

Telling Transnational Stories: Difference, Diversity and Different Feminist Histories

Conferences, actions and individuals linked to the United Nations will be a key organization for connecting global histories of architecture, shelter, gender and equity policy. In 1946, the United Nations Commission on the Status of Women was established.¹⁶ Over 30 years later, the 1975 International Women's Year conference in Mexico City set the stage for the UN to declare 1976–86 the 'Decade for Women'. This created opportunities for women from the Global South to critique the framing of movements through narrow gender interests conceived by those from the affluent North.¹⁷ Subsequent UN conferences in Copenhagen, Nairobi and Beijing expanded the engagement of women from NGOs and other arenas helped establish a global identity for feminism. Transnational

¹⁶ Rawwida Baksh and Wendy Harcourt, "Introduction: Rethinking Knowledge, Power, and Social Change," *The Oxford Handbook of Transnational Feminist Methods*, 11.

¹⁷ Myra Marx Ferree and Carol McClurg Mueller, "Feminism and the Women's Movement: A Global Perspective," *The Blackwell Companion to Social Movements*, edited by David A. Snow, Sarah A. Soule and Hanspeter Kriesi (Malden, MA: Blackwell Publishing, 2007), 585–6.

feminist movements collectively articulated global ideas for women's rights and equality stemming from diverse viewpoints and experiences.¹⁸ The human rights framework that emerged provided opportunities for women from the Global South to mobilize both locally and regionally.¹⁹

Transnational feminist methods are invested in women's rights, human rights, and gender equality. They are connected to the complexities of social transformation at a variety of scales including the local, regional, national, and global. These movements operate on many levels – both within and outside of institutional structures. Those within transnational feminist movements are invested in structural change and altering the effects of globalization and its impact on gender, race, class and ethnic relations and are challenging the First World – Third World classifications.²⁰

The *Encyclopedia* will link disparate areas of the world, enabling us to see how architectural ideas and networks crisscrossed geographical borders. We aim to investigate how transnational feminist movements have impacted architecture, and created coalitions and connections at a variety of scales reflecting differences across the globe. We envision that the *Encyclopedia* will reflect local and regional awareness and generate new knowledge. As a result, we hope to further build alliances that will (in our wildest dreams) transform the architectural discipline at large.²¹

Activist Scholarship

As renowned academic and activist Angela Davis has observed, the dynamic intersection between theory and its activist application is a critical strategy for questioning the status quo and creating change. A feminist approach requires one to examine issues that are not always visible, to inhabit contradictions and to question what has become normalized and for who does this normalization protect.²² A number of architectural voices have been urging contemporary scholars to expand the current push for women's inclusion within architectural history beyond the strategy of adding women architects to the canon.²³ The *Encyclopedia* will acknowledge and contest the canon by expanding architecture's category of notability. We aim to include a wide range of engagement

within the built environment, from community activism to shelter and settlements and include scholars, journalists, educators, activists, and policy makers.

As Patricia Collins argues, by understanding the diversities of a group history, 'a new foundation for developing a transversal politics' is opened up. '[C]oined by Italian feminists, transversal politics emphasizes coalition building that takes into account the specific positions of "political actors"'.²⁴ Yet, to create this transversal approach, one must not be fixated solely on one's own centre but acknowledge the diversities of those around and beyond you. This requires a both/and approach toward cognitive frameworks, that groups are more fluid rather than fixed, a group's dynamics help create coalitions, groups are relational, but yet not equivalent and that because there are differences, coalitions are dynamic, shifting and changing as needed.²⁵

The transnational network built through this project aspires to have an enormous and powerful influence on architecture's global feminist activism, by building a coalition to work across differences, races, countries and class. Building these alliances and coalitions will help us all to continue to change our discipline's methods, practices and impacts. By reorienting current demands for the inclusion of women into architectural history to intersectional and transnational perspectives, new histories and historical actors can emerge. Feminist scholarship can transform the canon, not merely enlarge its current boundaries.

18 Baksh and Harcourt, "Introduction," 2, 8.

19 Ferree and McClurg Mueller, "Feminism and the Women's Movement," 586.

20 Baksh and Harcourt, "Introduction," 3–18.

21 Baksh and Harcourt, "Introduction," 2.

22 Angela Davis, "Feminism and Abolition: Theories and Practices for the Twenty-First Century," *Freedom is a Constant Struggle Ferguson, Palestine, and the Foundations of a Movement* (Chicago: Haymarket Books, 2016), 100–4.

23 See Feminist Art and Architecture Collective, "Field Note: Counter Planning from the Classroom," *Journal of the Society of Architectural Historians* 3 (September 2017), 277–80; Beatriz Preciado, "Architecture as a Practice of Biopolitical Disobedience," *Log 25* (Summer 2012), 121.

24 Collins, "U.S. Black Feminism," 245.

25 Collins, "U.S. Black Feminism," 246–48.

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Women in Architecture Initiative in Serbia: The Importance of Promoting Women's Work in Architecture

After my graduation from the Faculty of Architecture, University of Belgrade, Serbia, I spent several years abroad, pursuing a Master degree and professional experience. I was back in Serbia for about a year when in 2013 I started noticing an increased global attention to the topic of women's presence in architectural practices, a topic I never gave much thought before. Reading architectural web portals and magazines, it almost seemed they were all tackling this issue.

The avalanche was started by the petition to retroactively include Denise Scott Brown in the 1991 Pritzker prize awarded to her husband Robert Venturi. The petition was started by two Harvard graduates, Arielle Assouline-Lichten and Caroline James, and received attention from some of the biggest news outlets in the United States.¹ But it was the seeming failure of this petition that really made a difference. After the Pritzker committee declined to award Denise Scott Brown, in June 2013 retroactively,² the public outcry began. The question of acknowledgment of women's contribution and authorship in architecture was addressed in articles in all relevant publications and websites, portraits of 'forgotten' women architects were presented, top lists were made and everyone seemed to agree a big injustice was (and still is) being done.

It was this global movement (unfortunately, as most global movements, mostly Anglo-Saxon oriented) that inspired me these questions. As an aspiring young architect, still recently returned

to her home country, I wondered who my predecessors were and if there were any interesting role models, I wasn't aware. I tried to remember architectural history classes from the Faculty if ever any names were mentioned, but unsuccessfully. All I could remember was that the Museum of Contemporary Art in Belgrade, a work often attributed solely to Ivan Antić, had a woman co-author. A quick Google search revealed her name – architect Ivanka Raspopović, but nothing more about her.

On-line only one woman architect from Serbia was present – Jelisaveta Načić,³ the first woman architect. This was thanks to the research of her life and work, done by art historians that was published and presented as part of a "They were first" series of lectures at the Cultural Centre of Belgrade in 2010. The project highlighted important female pioneers from our history, such as the first medical doctor, first architect, writers, philosophers, etc. It was after this project that almost all Serbian news outlets published articles about Jelisaveta Načić, and she became all of a sudden a recognizable name. A street in downtown Belgrade was named after her in 2004, right opposite the social housing complex she designed in 1910.

I started interviewing friends and colleagues and continued researching to get a few more names: Milica Krstić,⁴ Milica Šterić,⁵ Ivanka Raspopović,⁶ Ljiljana Bakić.⁷ Some of them I already knew about – they were, like Denise Scott Brown, part of husband-wife architectural teams. But for all, there were scarce online, public resources: a name, a short Wikipedia page or a listing of their most important works. A more in-depth search showed a few academic papers,⁸ for example on the work of Milica Krstić or Danica Kostić, with references to others, but outside of the academic circles such resources are hard to find.

I wondered why we never spoke of these women and why students, especially female students, were never exposed to these successful examples of women practicing architecture. My curiosity

3 Bojana Ibrajter Gazibara, "Jelisaveta Načić – Talented Belgrade Builder," *Women in Architecture: Contemporary Architecture in Serbia since 1900*, edited by Milena Zindović (Belgrade: Centre for Architecture Belgrade, 2014), 42–9.

4 Milena Zindović, "Milica Krstić – Architect in Civil Service," *Women in Architecture*, 69–78.

5 Marija Pavlović, "Milica Šterić – Alfa and Omega of Energoprojekt's Architecture," *Women in Architecture*, 95–102.

6 Jelica Jovanović, "Ivanka Raspopović – Enigmatic Lady of Serbian Modernism," *Women in Architecture*, 114–21.

7 Milena Zindović, "Ljiljana Bakić – Ground-breaking Architecture," *Women in Architecture*, 128–35.

8 The most extensive previous research of women's work in architecture in Serbia was undertaken by architect Divna Đurić Zamolo, PhD in early 1990s. Her unfinished research was published in a raw form in 1996. See Divna Đurić Zamolo, *Material about the Work of Women Architects of Belgrade University (1896–1940)* (Belgrade: Community of Technical Faculties, Museum of Science and Technology, Lola Institute, 1996). Another notable research is by art historian Snežana Toševa, who while researching the work of architects in the Ministry of Construction of the Kingdom of Yugoslavia between the First and Second World War, published two articles about two notable women architects of the period – Milica Krstić and Danica Kojić, thus shedding some light into their particular biographies. See Snežana Toševa, "Architect Milica Krstić (1887–1964)," *Yearbook of the City of Belgrade* 44 (1997), 95–114 and Snežana Toševa, "Danica Kojić (1899–1975)," *Yearbook of the City of Belgrade* 43 (1996), 109–21.

1 Robin Pogrebin, "Partner Without the Prize," *The New York Times*, April 17, 2013, <http://www.nytimes.com/2013/04/18/arts/design/bid-for-pritzker-prize-to-acknowledge-denise-scott-brown.html?pagewanted=all> (accessed January 18, 2018).

2 Vanessa Quirk, "Pritzker Rejects Petition for Denise Scott Brown's Retroactive Award," *ArchDaily*, June 16, 2013, <https://www.archdaily.com/389074/pritzker-rejects-petition-for-denise-scott-brown-s-retroactive-award> (accessed January 18, 2018).

about who they were, and more importantly, how they built and led their careers, led me to venture into a research project of my own. I wanted to make readily accessible and easily searchable online contents on women architects from Serbia.

Women in Architecture Web Initiative

At the time I was not affiliated with any research or academic institution (nor am I today), so my knowledge and resources on research were limited. But I had a great desire for my Country to participate in this global conversation on women in architecture. I wanted to find out who are these women, where and how they worked, and publish my findings quickly and both in Serbian and English, for everyone to find and read.

I pitched this idea to an organization I was cooperating with at the time, in 2013, called Centre for Architecture Belgrade. It was a group of five people (including me) maintaining a web-presence and aspiring to raise general public's awareness of architecture and its importance in Serbia. The topic "Women in Architecture" I knew would be controversial, and I wasn't sure about their reaction to it. In Serbia, it seems to me, everything containing words woman or women in its title would be considered feminist, and for many people, feminism is a kind of dirty, derogatory word. It implies that you work against men, but also, which many consider worse, that you are focusing on women's issues in a Country that has many other issues – economic, political, national etc. Very often, gender is seen as a marginal issue, that should be tackled only once our Country has resolved all its other problems.

My pitch was received well, deemed by my colleagues as a good attention-getting project for an organization that was still emerging, and we decided to dedicate to it one month on our website. But only a few articles didn't seem enough for a whole month, so instead of being only research about historical figures, we also decide to include contemporary architects and showcase their work.

It is important to understand that this initiative was completely based on personal enthusiasm, with my colleagues' support in coming up with possible names to participate and acquiring their contacts. It was never meant to go any further, nor did it have an ambition of real, academic research. It was motivated by my desire to use the momentum created by the global movement to ask the question –who are the women architects in Serbia?

The choice of subject was not based on particular criteria, but rather on our possibility to reach them. Personal contacts were key in assembling original articles and obtaining contacts with contemporary architects. I was not able to get everyone I wanted – some declined to participate,

others accepted but didn't find the time to answer my questions. The result was a total of 13 texts, articles and interviews with women architects in Serbian and English language.

The articles were illustrated with archive photographs, as well as original photographs of the present-day condition of the buildings. I personally took most of the photographs, or asked friends and colleagues based in other cities to take them, in order to show the current state of the buildings, and create a possibility of immediate recognition. I felt it was important for everyone to recognize the buildings from their neighbourhood and city, in order to create a more lasting memory that women architects designed this.

A press release and visual announcing the initiative was distributed to regional, local online media: design websites, architectural associations, feminist forums, women's online magazines. After this announcement, in September, and all the way to mid-October, the material was published on Centre for Architecture's website and shared on social media. The initiative reached its goal – we got more visitors and followers, and people became interested in this topic. The initiative seemed to be an even greater success than I imagined – we were invited to organize a panel discussion at the International Architectural Conference BLOK, that took place in October 2013 in Belgrade.⁹

Stepping out into the real world

I understood this event to be a test of the seeming success, not so much among the general public (our site was more oriented towards architects, anyway), but among the professionals. We invited several of our notable participants, women who have achieved success in their careers, and represented professors, competition winners, CEOs. It was the fact that they readily accepted to participate and talk about their experiences as women in architecture in front of a professional public, at the well-visited conference, which made me realize this was a topic that deserved even more work and attention.

The online initiative resulted in another interesting collaboration. An elementary-school informatics teacher became interested in the articles as a cultural background for her pupils to learn the use of various presentation software. She contacted me, and together we created a children's workshop "Women as Belgrade builders,"¹⁰ using research of architecture and female authors to allow children

9 Milena Zindović, "Architecture is a She," Centre for Architecture Belgrade (posted Nov 4, 2013), <http://www.cab.rs/en/blog/arhitektura-je-zenskog-roda> (accessed January 18, 2018).

10 Milena Zindović, "Women as Belgrade Builders," Center for Architecture Belgrade (posted Feb 3, 2014), <http://www.cab.rs/en/blog/graditeljke-beograda> (accessed January 18, 2018).



Fig. 1. City walk with children as final of the Women as Belgrade Builders workshop, 2014. Photo by Katarina Aleksić. Courtesy of the author.

to learn how to use different online tools to create and tag images, make timelines and diagrams, and present their work. The children worked in groups researching the life and work of one of the women architects or learning more details about their buildings. All their work was published at a designated website.¹¹ The workshop ended with a city walk where we listened to their presentations in real life, in front of the subject buildings. (Fig. 1)

The workshop lasted several years, with the children from elementary school 'Branislav Nušić' in Belgrade, but also as part of the Belgrade International Architecture Week. The topics changed every year, introducing new women and buildings, or more creative tasks – such as proposing how to use and equip public space adjacent to buildings designed by women architects. This workshop was awarded the First prize at the Microsoft Creative School competition for teachers, acknowledging the quality and educational potential of our collaboration.

The Belgrade International Architecture Week also recognized the interest and importance of emphasizing women's work, so the "Women in Architecture between 1900–1960" Belgrade city walk has been regularly included in the programme since 2015 and well visited by the public.¹²

¹¹ The blog page designated to publishing the results of children's workshops – their group work, can be found at Graditeljke Beograda, <http://graditeljkebeograda.blogspot.rs/> (accessed June 1, 2018).

¹² The Belgrade International Architecture Week regularly announces their programme, including the Women in Architecture city walk, on their website. The 2016 walk announcement can be found at "Women in Architecture between 1900–1960," BINA (Beogradska internacionalna nedelja arhitekture) 6, <http://arhiva.bina.rs/2016/en/zene-u-arhitekturi-izmedu-1900-i-1960-godine/> (accessed June 1, 2018).

Women in Architecture Book

The book *Women in Architecture – Contemporary Architecture in Serbia since 1900* appeared at the end of 2014.¹³ Its publishing was supported by the Ministry of Culture and Information of the Republic of Serbia. Like the online initiative, the book is bilingual, in Serbian and English language. The book contains all of the articles and interviews published online, as well as three new articles – an Editor's note, which describes the road and activities that make up the initiative up until the book, and two contextual articles from Novi Sad and New York.¹⁴ The article from Novi Sad, written by Andrea Tamas Dačić, who together with Ivan Stanojev conceived the research Women Architects of Novi Sad, describes their own experience working with students to research the female architectural history of the capital of the Northern Serbian province, Vojvodina. Their project presents a mapping of important work done by women architects in Novi Sad, and thus reveals more about these women themselves. As they explain on the project website:¹⁵

The criteria for the initial selection of women architects were the authorship over a building constructed in Novi Sad and the presence of their work in the existing bibliographic resources. During the research process, within this specific discourse, we accepted and established two categories – women architects and architect couples. Deficiency and inconsistency of existing resources raised the awareness of this topic and set the goals toward a broad mapping of their architectural activities throughout history up to the present moment – basic biographical data, photo, audio, video and project documentation.¹⁶

To give a local context to the book and show that the 'Women in Architecture' initiative impacted other researchers (the Women Architects of Novi Sad project was done in 2014), I asked Andrea Tamas Dačić to write an article on the project and its results for the book. To get a global context, I had the help of colleagues from the United States based organization ArchiteXX, who agreed to also contribute with their own take (written by Shea Gilligan) on the importance of global networking of women's architectural organizations and initiatives.

Here I would like to look back to the reason why there was little new research material in the book, as compared to the online presence of the project, despite the support by the Ministry of Culture

¹³ The book press release was published on several local and regional architectural web portals, printed magazines, as well as on the website of the Architecture Faculty of the University of Belgrade. Internationally, it was announced on the website of the New York based organization ArchiteXX. See Milena Zindović "Women in Architecture Book Release," ArchiteXX, <http://architexx.org/women-in-architecture-book-release-announcement/> (accessed January 18, 2018).

¹⁴ Milena Zindović (ed.), *Women in Architecture: Contemporary Architecture in Serbia since 1900* (Belgrade: Centre for Architecture Belgrade, 2014).

¹⁵ The Women Architects of Novi Sad research website, showcasing the research result, can be found at WANS (Women Architects of Novi Sad), <http://w-a-ns.com/index.html> (accessed June 1, 2018).

¹⁶ "About," Women Architects of Novi Sad, <http://w-a-ns.com/about.html> (accessed January 18, 2018).

and Information. This is because the support from the founders of the Centre for Architecture Belgrade, the book's publisher, was withheld. Although the organization had profited from visibility and recognition from the 'Women in Architecture' initiative, they felt that putting any resources into the book was giving too much attention to a marginal topic. They felt that researching more in-depth the work of women architects was counter-productive, and that the organization should focus on architecture in general. Finally, they felt uncomfortable being labelled as feminist or even just concerned with women, as the initiative was gaining recognition.

To my disappointment, the book, like all of the activities that preceded it, was also a product of my own work, time and enthusiasm, and unfortunately couldn't become what I had hoped. Nevertheless, despite the difficulties, the book was published, and well received by many (if not all). The greatest acknowledgement was two honourable mentions from the juries of the Belgrade Salon of Architecture¹⁷ and the Novi Sad Salon of Architecture¹⁸ in 2016, two most important professional exhibitions in Serbia. It was at the 2016 Belgrade Salon of Architecture that a women author was for the first time awarded the Gran Prix: Professor Ljiljana Blagojević for the book *Itineraries: Modernism and Mediterranean: Following the Traces of Architects Nikola Dobrović and Milan Zloković*.

The book *Women in Architecture – Contemporary Architecture in Serbia since 1900* was also well received among the participants of the initial research. The women were happy to receive a copy, and buy more to distribute to friends, families and colleagues. But it also seems the book has helped to put into spotlight some of the participants and became the basis for their mutual networking and collaboration. Among several of the research participants, an idea was born – creating a professional society for women architects.

A Continuous Web Presence

After the break with the Centre for Architecture Belgrade, but not with the topic of women in architecture, in 2015 I started a separate web platform dedicated only to this topic. The regional forum for women's work in architecture 'Women in Architecture' that aims to 'establish an online space for original and research articles on women in architecture, interviews with successful

female colleagues and young architects, promoting activities that encourage female authors and showcasing projects and results of women's work in architecture and related fields.'¹⁹

Like all of the previous initiative's material, this site is also bilingual. Instead of posting all the material already available, new content is combined with the old. New research articles have been published, as well as projects, opinion pieces and interviews. The forum also serves as a sounding board for new activities of the Initiative or for publishing the acknowledgement it receives.

The level of activity on the website still depends on the time and resources we can allocate to it. The forum has no funding other than our own and isn't concretely supported by any institution or organization. However, we are encouraged by the continuous interest of the public to learn more about women architects in Serbia. Other web portals reported on our work, and we get visits and comments from users from around the world as the only comprehensive, bilingual, online source about female authors in Serbia and ex-Yugoslavia.

Our future work and growth are not without challenges. The latest topic in Serbia has been the use of gender-sensitive language, a divisive topic for many. Despite efforts from certain feminist organizations, the mainstream institutions, including the Serbian Academy of Arts and Sciences, have taken the position against the introduction of gender-sensitive language, claiming it is not in the spirit of the language. The Serbian word for the architect: *arhitekta*, is also one of the divisive ones. On the 'Women in Architecture' website this issue has been mostly left to the article's authors, since some adamantly insist on using male forms as general forms. It will be a future challenge for us to slowly introduce and normalize the use of gender-sensitive nouns in all of the articles published on the website.

Womenal!

'Womenal!' was one of the topics of the 2016 Mikser Festival, an important annual cultural event in Belgrade, organized and hosted by the Mikser organization. Mikser was founded by Maja Lalić, an architect, and her husband Ivan Lalić. The festival is an important annual exhibit of various cultural and artistic forms, always with a strong social aspect. In 2016 the main topic was "Sensitive Society"²⁰ as the Serbian capital and Mikser organization itself were actively receiving thousands of

17 *Open: Thirty-eight Salon of Architecture, 29th March – 30th April 2016*, edited by Ljiljana Miletić Abramović, (Belgrade: Museum of Applied Art, 2016), Exhibition catalogue.

18 Aleksandar Bede (ed.), *Rewiring: 20th Salon and Days of Architecture Novi Sad* (Novi Sad: Association of Novi Sad Architects, 2016), Special issue of *DaNS Magazine for Architecture and Urban Planning*, no. 81 (December 2016), Exhibition catalogue.

19 "About," Women in Architecture – Regional forum for women's work in architecture, <http://www.zua.rs/en/about-2/> (accessed January 18, 2018).

20 "Mikser Festival 2016: Sensitive Society / 8-12 June," Mikser House, <http://house.mikser.rs/en/mikser-festival-2016-sensitive-society-8-12-june/> (accessed January 30, 2018).



Fig. 2. Exhibition *Her Circle* in Kolektiv gallery in Belgrade, during the Mikser Festival 2016. Photo by Aleksandar Dmitrović. Courtesy of the author.

migrants daily, passing through on their way to more developed European countries.

Inclusion and the voice of women were an important aspect of that year's programme, and the Women in Architecture Initiative was invited to participate in the Womenal! programme of the festival. This was the opportunity to, again, show the importance of women's work in architecture to the Belgrade public. In collaboration with the Women Architects of Novi Sad, the exhibition *Her Circle: Women's Work in Architecture of the 20th Century in Serbia and Montenegro* was prepared.²¹

The exhibition consists of an 18 m long timeline, designed to show the development of architecture in Serbia and Montenegro through the lens of women authors. The data is chronologically organized on the timeline, and marked by typology as general biographical data, buildings designed by women architect, buildings designed by a couple and awards and recognitions. (Fig. 2)

The exhibition was the opportunity to organize and showcase the whole material gathered in previous years by myself and the Women Architects of Novi Sad. I did additional interviews with retired women architects, talking about their careers and work, and found new information, names and archive photographs. Finally, the exhibition included the data and work of about 30 women architects from 1900 until 1990, ranging from Neo-classic academic style, National-style to Modernism and Post-modernism. The work of women architects included buildings, urban places, interior design, furniture design, movie set design, publications and research. For practical reasons, as well as lack of historical distance, the last two and a half decades, from 1990 until today, were presented through a small selection of authors and works, mostly from the initial research.

²¹ "Exhibition Her Circle at Mikser Festival," Women in Architecture – Regional forum for women's work in architecture, <http://www.zua.rs/en/events-en/exhibition-her-circle-at-mikser-festival/> (accessed January 18, 2018).

The exhibition was held during the Mikser festival in June 2016 at the Kolektiv gallery in Belgrade, with the support of company Arhi.Pro, whose CEO is a women architect, one of the research participants, Anja Ivana Milić. Already at the beginning of July 2016, the exhibition was translated into English and French languages, and with the support of the Ministry of Culture and Information of the Republic of Serbia, moved to the Serbian Cultural Centre in Paris, where it was on show to the French public until mid-August. The timeline is accompanied by video material of interviews with women architects. In December 2016 the exhibition was shown in Novi Sad, at the Society of Architects in Novi Sad, and it will be shown again in May 2018, alongside the MoMoWo travelling exhibition *MoMoWo - 100 Works in 100 Years: - European Women in Architecture and Design 1918–2018*, at the Museum of Applied Art in Belgrade.

But Mikser's 'Womenal!' program had another important result for the architecture scene in Serbia. Women architects were invited to participate at a panel discussion "Her Circle: Women in Architecture, Urbanism and Design," as part of the "Mikser Talks: Womenal!" programme section. The participants of the panel ranged from retired, successful architects, through university professors and company CEOs, to young emerging female practices. The discussion was an opportunity to make an important public announcement: the founding of the Women Architects Society in Serbia.

Women Architects Society

Women Architects Society was founded in summer 2016, by 24 eminent women architects from Serbia and Montenegro. The founders come from different cities in Serbia and Montenegro and are university professors, CEOs, entrepreneurs, activists, researchers. These women have all rallied around the idea that it is only through female networking and solidarity that we can push forward our profession, its status in society, and the status of women architects. The Society has a strong web presence through its website, Facebook page and Instagram profile.²² It now has more than 100 women architects as official members from Serbia, Montenegro and Bosnia and Herzegovina. But the Society's web following is much larger.

Their activities include a bi-annual member's exhibition and catalogue, open-studio initiatives, organizing and supporting events that promote women architects, but also actively participating in and reacting to important professional events. The Society is still a young organization, but showing strong will and determination of its founders to promote and advance women architects in the region.

²² Women Architects Society's website can be found at the following web address: <http://www.zad.rs/>

A lot of the founders, including myself, participated or were otherwise connected to the Women in Architecture initiative. The same women who in 2013 were reluctant to take part in the research and have their interview published under the topic "Women in Architecture," readily accepted the invitation to co-found the Women Architects Society and support its activities. Many young architects have joined the Society, hoping to profit from the networking possibilities with their already established successful female colleagues.

Although there have been some negative public reactions, mostly by older male colleagues, the general reaction of the Society's appearance in the regional architectural scene has been positive and accepting. This is mostly due to the high-profile of its founders, who have all already achieved professional success, although they are still professionally very active. But that is exactly the importance of this event –that the Society was founded by women architects who serve as role-models and have professional results. These women chose to use their professional and personal integrity to back up this idea of female solidarity and networking, shifting the paradigm of the gender issue as a marginal issue to gender being the connecting force for general well-being (at least in architecture). With other architectural societies in Serbia weakening and having less and less influence, it will be interesting to follow if women mobilising will change the status of architecture in the Balkans for the better.

Conclusion

The 'Women in Architecture Initiative' was and remains a single-person's enthusiastic effort to illuminate the female architectural work in Serbia and the region. With the help and collaboration of (mostly women) colleagues, the Initiative was able to amass in the last five years a considerable amount of data on women architects in Serbia and Montenegro, which we will continue to publish and present.

But more importantly, the 'Women in Architecture Initiative' has succeeded in keeping the topic alive. In a professional society whose more eminent members readily forget women co-authors, make no note of all of the project participants, rarely award women, constantly lower the number of women university professors, publish job offers openly discriminating against women, publicly belittle women architects, and still consider architecture to be a male profession. I believe that keeping the conversation going and constantly reminding that women are very much (even in slight majority) part of the profession is a very important task.

Continuously having even some small activity or presence was enough of a reminder to the professional and general public that there are women architects, that they actively work in shaping

our built environment, and that their designs and contributions are around us. This reminder is especially important for the empowering of women architects in their professional work and career, finally providing young women with a whole range of different role-models, both historical and contemporary. Women architects are as diverse as their work, and this diversity is a crucial element in enriching and improving the architectural profession.

Teresa Sapey

Teresa Sapey Studio, Madrid | Spain

*'Io Donna Torinese, Falsa e Cortese'***The Story of My Life: Sketch to Success**

After I took the exam to become a professionally qualified practitioner, here in Turin, in one of the grey classrooms of the Polytechnic school, I remember that I arrived home and I felt like I could finally fly, all by myself, alone, from my parents' home. Although I was physically and mentally exhausted and I couldn't portray my future, at least there was one clear thing: I could finally call myself an architect. This feeling of fatigue has repeated itself throughout my entire career, but the mix of proudness and satisfaction that it makes me feel always returns too.

When I walked into my oral exam to become a qualified practitioner, and I saw that the President of the Examining Commission was Roberto Gabetti, the great Gabetti, so elegant and aristocrat, so snob and selective, my levels of stress multiplied exponentially. 'Miss Sapey, you draw very well, but your lack of experience is evident' he said. At that moment, I felt as if my world was either one step away from climbing one step higher or falling directly down a precipice. Finally, I passed the exam. From that day, finally, I could be called an Architect and not a doctor in Architecture, as it is the custom in Italy when you finish your career and you are not allowed to sign a project. I was 23 years old. I had never stepped outside, into the real professional world. I did not have the boots nor the helmet to go to work. I did not know the smell of cement, of wet plaster, of bricks. I did not know the 'different types of sewage systems,' as Gabetti asked me during the oral examination.

'Miss Sapey'... 'Signorina Sapey'... his pretentious tone of voice still echoes in my head 'Signorina Sapey, can you explain me a sewer system of white water and black water, please?' Shit, what did I do to you Professor Gabetti, to ask me such a question? Have you looked at me? Do you know who

I am? I was in class with your niece Caterina. I used to come to your family castle and run around and you were always terrified that we might break something. Surely this is why you are asking me this impossible question. MERDA. What can I say... I have never seen a sewer in my entire life... Or is this just your way of showing me your superiority? Or maybe demonstrating how vulgar and down to earth architecture can be? How could I respond to that question if when I was at school, I thought that the Pope did not go to the toilet because in my mind it was too vulgar for him.

'Then tell me, white water and black water...' he repeated. I still remember. I babbled a completely invented answer, so the system of white water and black water could only work in Wonderland. And that is how I climbed above the situation and controlled it by inventing an impossible answer.

What Gabetti did not know was that I did not want to be an architect, I wanted to be an artist. This is the story of my life. I studied Architecture because my father told me it was the most complete career in the creative field. This chapter of my life is very Turinese, and illustrated how I managed for drawings to accompany me for the rest of my life! Mind and hand are linked and joined together for me. I cannot imagine thinking without drawing or drawing without thinking. I have spent years and years of my life with dirty hands, stained by ink and markers. Drawings must smell, just like architecture does.

Do you know that architecture has its own smell? A strong smell that can devour all your senses. Hand drawing and painting have their own smell. A mix of toxic, bitter sweetness, characteristic scent. I learned to draw with a painter from Turin, Eugenio Comencini. I loved him; he was my great Maestro. He used colour as a material. He built images just by using the power of colours. He used acrylics and flashy tones and had a peculiar style for that time. I remember how much I liked to go to his atelier and learn all the artists' tricks. I was studying Greek and Latin and drawing Ettore and Agamemnon with Maestro Comencini. My life was calm and balanced, but I wanted to have more. I was becoming Teresa.

My biggest desire was to be an artist, but I quickly realized that my life would have probably been easier as an Architect –at least that was what I thought back then.

My first client was my father's secretary, Giuseppina. She lived in the countryside next to Asti and had a farmhouse. She wanted to make an extension. And I drew the project up by combining handwritings that used art and architecture altogether. I had a lot of fun, and Giuseppina paid me in truffles, a double pleasure for me. She raised truffle dogs in her free time. I will never forget that payment in truffles: a typical Piedmontese and an unmistakable smell.

Time went by, and so I did. I moved first to Paris and then to Madrid, where I currently still live. Life stepped on me several times, squashed me, flattened me, and I learned to grow, to become an adult, to realize I am mortal and imperfect. Yes, imperfection makes perfection. Mistakes carve your personality. Limitation defines your world.

From Pencils to iPens

As a romantic lover of the classics, at first, I did not like technology. Computers did not get my attention for years. My traditional mind still considered hands as the only instrument for craftsmen. And as an artist (I must confess I secretly always considered myself as an artist) I did not want to give technology a chance. I never really saw myself mirrored or related to any of the leading minds of the technology world, such as Steve Jobs or Bill Gates. Too wacky, too far away from my interests. I considered computers as the hands of a pilot without decisional power.

Obviously, computers arrived in my studio as they were fundamental to carry out our work. But it took me years to finally see the romantic side of technology. But one day, someone bought me an iPad for my birthday. I didn't open the box for two months. Then, on a hot Spanish summer afternoon, I decided to meet and learn how to use this tablet. It might sound extreme, but from this moment onwards, my life changed forever. Teresa and the iPad became best friends: we sleep together, we travel together, and we share everything. Sometimes I lose my iPad by leaving it on a plane because it is too flat, black and odourless, but I buy a new one, and I start a new love story.

In the words of Franco Raggi in conversation with Alessandro Mendini:

a sketch is a form of planning thought; the project in the head is vague, confused, hidden, unveiled to itself, liberated, sized, figured. Only the sketch puts the project in relation with its concrete future, at least according to my point of view. And then the sketch tells, is made of changes, errors, deletions, overlaps, remakes, repeated repetitions, comparisons and suppressions. It is useful to impose yourself on this mental discipline and at the same time manual, while it does not matter to draw well, to have the "beautiful hand." [To what Alessandro Mendini responds] It's true, those who have a good hand are screwed at the start. I was screwing myself too, but I stopped in time.¹

I recognize myself in Adolfo Natalini's words when he speaks about drawing: 'I used drawing as fishermen use nets. I spent days to be thrown away and then I waited for the ideas, darting and unpredictable fish, to get trapped inside.'²

I draw everything; my hand is directly connected with my brain. Although it looks like I am only doing doodles, in reality, I am thinking about the project. Often, I do drawings that make no sense, but they reflect my thought at that moment. Maybe my mind has gone blank. I draw, draw and draw,

and in the end, one of my scribbles ends up becoming the winning idea for a project. Very often I draw on tracing paper, the one that comes in rolls, and I live with these rolls, I carry them in my bag, alongside big black felt tips. When Carlo Scarpa taught Architecture at the University of Venice, he started by teaching his students how to sharpen their pencils without ruining the mine.

In the 'glass wall' (according to a lucky quote by Zygmunt Bauman), that is, on that tempered glass tablet and smartphone that divides the two universes, the physical and real from the digital and virtual, certain effects can be substituted. Now everything in my world has changed.

Although I still use tracing paper, I feel that the iPad screen is a never-ending white canvas, where I can develop my craziest ideas! The concept remains the same as space does not exist without a line, a line does not exist without a hand, and a hand does not exist without a head. For any architect, bringing the hand to the pencil and scribbling without creating an artwork, is a simple gesture that defines the start of a creative process.

My Piedmontese Soul

Piedmontese, 'false and courteous.' There is an anecdote in my professional life that has undoubtedly been the most successful audacity I have ever had. Several years ago, when I had the opportunity to talk with the CEO of Silken hotels, who was going to build the Puerta de America Hotel in Madrid, they had selected 17 of the most famous and established architects to deliver different components of the project.

For example, they commissioned the façade to Jean Nouvel, and then they divided the hotel to offer each area or floor to one famous archistar such as Ron Arad, Zaha Hadid or Marc Newson. While I was talking with the CEO, I boldly asked him if there was any chance I could also be involved in the project. He, laughing, said 'I am sorry, but there is not even one available square meter left on this project, not even the staff changing rooms.' And while I heard his crushing words echoing through the phone speaker, I asked myself how there was not even an available square meter!

We look at buildings like we look at trees: we only see trunks, branches and leaves. But really trees are always anchored to the ground through their roots. What are the roots of a contemporary building? Going back to the phone call. While the CEO was telling me they didn't have any space left, I boldly interrupted him and cheekily said 'And what if I found the space?' He said 'of course...'. And I replied 'How about the Parking?'. Silent. A silence as heavy as the Turinese fog, which requires a knife to cut through it and sometimes not even a knife will do the job. The CEO raised his concerned as he had never heard of an architect designing a parking space. That is when I confidently replied 'This will be the first'.

1 Franco Raggi, "Sul disegnare," *Interni* (posted September 7, 2015), <http://www.internimagazine.it/projects/sul-disegnare/> (accessed January 15, 2018). The quotes are translated by the author.

2 Adolfo Natalini, "On Drawing," *Drawing Matter*, <https://www.drawingmatter.org/sets/portfolios/adolfo-natalini-drawing/> (accessed January 15, 2018). About Natalini see "Adolfo Natalini targa d'oro UID 20," *Architetti.com* (posted October 12, 2016), <https://www.architetti.com/adolfo-natalini-targa-d-oro-uid-2016.html> (accessed June 1, 2018).



Fig. 1. and Fig. 2. Teresa Sapey Studio at the Parking Hotel Puerta de América, 2005.
Courtesy of Teresa Sapey Studio.

I knew that having the opportunity to design this project was like winning the lottery.

In this Project's world, where all the commissioned architects were superstars, the small Turinese had the marvellous idea of designing a space that no one else had thought of, the parking. We played with colour, using colour as a material, while always thinking about security. Using colour to help with wayfinding. You might forget a number but not a colour. (Fig. 1, 2)

Soon after this commission, I was invited by the city of Vitoria, at the offices of the hotel chain in charge of delivering the project. During the meeting, the director received a phone call from Frank Gehry. The architectural genius had heard of the project and was eager to be involved. The director told him that 'now we really don't have even one centimetre available!'. From that moment onwards, the false and courteous Piedmontese would become Madame Parking –renamed as such by Jean Nouvel during our work together.

Have you seen how feminine I am? My female sixth sense allowed me to find a space where according to the great minds there was nothing. As such, did you know architecture is feminine? The word architecture is of feminine gender. Furthermore, architecture is a female, a woman. I am not the only one who believes this. Also, Fabio Novembre defined it perfectly by stating:

Absolutely, architecture is fully woman. Architecture contains and withholds, like women. I will make a bit of a hard-core statement: men are damned to always wanted to enter a vagina, the place they originated and they want to always return to. It's an eternal, never ending story. A woman, instead, who is also generated by a vagina, feels perfectly balanced with the universe, and doesn't have such an obsession. Men live of obsessions. Women live of harmony. Architecture has to be more harmonious, not obsessive. Otherwise it kills you. Therefore, you have to follow the female harmony, you have to let women inspire you.³

These are strong, carnal, visceral, epidemic words that also Gae Aulenti shares. 'Architecture is a

male career, but I have always ignored this.' After all, even Vitruvius in his treatise *De Architectura*, when talking about the main traits that must characterise an architectural masterpiece, uses three keywords that –what a coincidence!– are feminine: *firmitas* (strength), *utilitas* (functionality) and *venustas* (beauty).

Or as Marialba Berardi points out so beautifully and clearly in her article entitled 'Architecture is a woman', how is it possible to attribute gender to architecture? If it must have a gender, it must be a woman.⁴ Creating and delivering a project is a creative act. And since the very early stages, architecture is a generator, a genitrix. Since its origins, it provides protection, repair, and hospitality. Architecture is a female because it's a dialogue with nature. Sometimes it tries to emulate it. Classical architecture is a continuous emulation of nature, becoming a tool to understand and interpret nature itself.

This being said, I must admit that a construction site is masculine, is male. In over 30 years that I have been going to construction sites, a woman who dressed like a man was not looked good for the rest of the people, people who thought that she wanted to be a man instead of thinking that she wanted to be treated like a man. I have learned a lot from all of these men that work on site and have helped me deliver my projects. I have learned a lot from this manly world, completely masculine: the builders, the contractors, the artisans, the partners. The construction site is male. And among all the stories I could tell you about my experience in construction sites, I have picked the following one, from over ten years ago.

One day I arrived on site, and I asked the painters to prepare some green, acid and mustardy green paint samples. Once these were ready, I realized I didn't like any of them. So, I told the painters, with my feminine squeaky voice, that I didn't like any of them, that I didn't want sad and deadly greens. I wanted a lively and solar green. The green that characterizes the mature green olives you see in Tuscany. This was the green shade I was after. The painter was speechless. I walked away, and he didn't say anything. Soon after, he approached one of the architects of my practice that was also on site and said 'Sorry, what is the green of the olives in Tuscany? Cause I've never seen it'. When I was told this, I felt bad, arrogant and out of place and I understood that no matter who, we all know what we know.

In addition to all of the above, as an architect and a woman, I can also offer you some advice ...

In my own way, I am a woman. I am an imperfect being and I am a sinner. My suitcase weighs and maybe I do not want to open it because maybe I do not like so much what it contains. It is like when you read a good book: it has been stimulating, but you do not want to read it again. It is like a song

³ Fabio Novembre, "L'architettura è femmina, contiene, come la donna," *OFF* (posted September 16, 2014), <http://ilgiornaleoff.ilgiornale.it/2014/09/16/larchitettura-e-femmina-contiene-come-la-donna/> (accessed January 15, 2018).

⁴ Marialba Berardi, "L'architettura è femmina... e non è una questione sessista," *Andrialive.it* (posted March 4, 2016), <http://www.andrialive.it/rubriche/4074/l-architettura-e-femmina> (accessed January 15, 2018).

that you have played one too many times, but you do not want to hear it anymore, because it has bored you.

But I would like to tell you what I wanted someone to have told me before, and that unfortunately nobody ever told me. I would like to give you some secrets to better understand this profession if you think I am exercising it.

Do not become a work-addict because you will leave your life in the profession;

Do not believe you are an artist, you are just an architect and as Adolf Loos said 'an architect is a bricklayer who has learned Latin';⁵

Do not hope to become rich because you will most likely become rich in smashing, bitter defeats and nothing else;

Do not dream of building bridges and skyscrapers, be content if you can build a kennel for your dog; Learn to read and read people;

There is no space without people and there is no Architect without space; Accept your imperfections.

Confessions, *Falsa e Cortese*

I do not know why I wrote this topic for this symposium; I really do not feel like it belongs to me and does not worry me too much the advent of the digital age, it rather appeals me and fascinates me.⁶

5 Joseph Mashek, Adolf Loos: The Art of Architecture (London: I.B. Tauris, 2013).

6 See as references Gustavo Amenedo, "El dibujo a mano alzada como herramienta en el proceso de diseño," *Reflexión Académica en Diseño y Comunicación* 15no. 22 (2014), 116–7; Fernanda Botter, "Verso una poetica dell'architettura: Il disegno come luogo dell'immaginario" (PhD Thesis, Politecnico di Milano, 2014); "Il disegno, l'architettura e i nativi digitali," *Architetti.com* (posted October 28, 2016), <https://www.architetti.com/disegno-architettura-nativi-digitali.html> (accessed June 1, 2018); Maria Evelina Melley, "Il disegno dell'abitare nella comunicazione del progetto di architettura," *Quarry & Construction* (posted April 26, 2017), <http://www.quarryandconstructionweb.it/rubriche/collaborazioni/Il-disegno-dell%E2%80%99abitare-nella-comunicazione-del-progetto-di-architettura.htm> (accessed June 1, 2018); Luisa Ferro, "Il colore e la forma," *Domus* (posted January 21, 2003), <https://www.domusweb.it/en/art.html>; Michael Graves "Il disegno architettonico è morto?," *Il Post* (posted September 3, 2012), <https://www.ilpost.it/2012/09/03/il-disegno-architettonico-e-morto/> (accessed June 1, 2018); Maria Cristina Loi, "Il nuovo 'Archivio del disegno contemporaneo' dell'Accademia di San Luca," *Il disegno di architettura* 36 (2009), 62–70; Maurizio Molinari, "Quelle città progettate per il cosmo," *La Stampa* (posted December 17, 2017), <http://www.lastampa.it/2017/12/17/scienza/quelle-citt-progettate-per-il-cosmo-leditoriale-di-maurizio-molinari-bGeT9YiyM4LS14yxXzQgzl/pagina.html> (accessed June 1, 2018); Lorenzo Pica, "Storia del disegno in architettura," *Freemaninrealword.com* (13 June, 2017); Isabel Piquer, "La tecnología ha cambiado la relación del arquitecto con su obra," *El País* (posted May 19, 2001), https://elpais.com/diario/2001/05/19/cultura/990223201_850215.html (accessed June 1, 2018); "Viaggio nel cuore del colore," *Interni* (posted April 10, 2017), <http://www.internimagazine.it/newsnativa/viaggio-nel-cuore-del-colore/> (accessed June 1, 2018). An inspiring reading is Yuval Noah Harari, *Homo Deus: A Brief History of Tomorrow* (London: Harvill Secker, 2015).

I really like playing with the tablet, touching this screen with which I live inseparably and move my fingertips like crazy.

Now I can no longer smell the turpentine, and I can show off my perfectly polished hands; as a female and not a labourer. I can travel anywhere carrying all of my painting techniques with me. I can draw with ink, crayons, markers, and rotring without staining, without blades. Do you remember the blades?

We used them to erase! It is an easier world, above all for a mess like me! Now it is odourless, silent and delectable.

I was taught not to use rubber because only the weak would erase. I was taught that from mistakes you had to learn. Now, now I can erase what I want, whenever I want. I can collage in layers and with a single design, create various sketches. Here, I do not have to use the word drawing but sketch. Here, I sketch what I think as a writer spews nonsense words on paper. Here, I no longer use the paper card but the screen. Here, perhaps what is dead is the paper, not the sketch. You have to scrawl because the sketch is a lively thought, palpating, fresh, sparkling and effervescent. It is an idea in its embryonic state. It is assessed because it will find its DNA in the creative genesis. What you should not do is throw yourself into the CAD and confuse the sketch with a drawing. CAD comes later, when the ideas are clear when the embryo is fertilized and begins its gestation period. After and not before. Always remember it.

I would like to convey my great concern for some of today's world situations: a world that forces us to have a nose stuck to a screen and the fingertips in continuous tactile movement, like a tambourine. People today, people go to check a project and not to experience it or live it. They have already virtually visited it, online. You have to learn to surprise them equally by climbing over this obstacle, the obstacle of a man who no longer is emotional. Today, the contemporary man does not discover anything anymore. It is flat and boring. It is like a controller of situations more than a user of emotions. We do not explore anymore, but we verify. This is such a shame.

I do not feel false or even courteous! Yes, I'm from Turin, or maybe better, I have 'Sabaudia' in my veins, the Piedmontese yellow blood flows, I love chocolate, and I always imagine the world being foggy and wet. I am not but I can be false and polite, and it is also thanks to this characteristic that I am an architect today. You must be wondering why I said this. I am a bit ashamed to tell you, and it makes me blush, but it is okay, I shall confess!

Many years ago, when I arrived in Madrid, I did not have a job. I was looking for clients, but everyone was asking me to show them my previous work, and I had nothing. One day, an elegant, wealthy Jewish man called me and asked me for a proposal for his house. I visited his apartment in a residential and luxurious area of Madrid, and I thought to myself 'I cannot lose this.'

The gentleman asked me politely to let him see some of my previous work and, very quickly, I replied that I had forgotten my portfolio at home but that I would have sent him a copy the following day. Although I had nothing to show! I arrived home and started to photocopy images and pictures from the all the housing magazines I had at home, picking projects that I thought he would like. I spent the night cutting and pasting, selecting and collating. The next day, as promised, I sent him my portfolio. A few days later he called me and told me that he had chosen me as the architect for his project. I could not believe it. I had made it! I, a Piedmontese woman, false, very false but courteous. That is how I was able to get my first client ... and so began my adventure!

I don't encourage nor recommend you to lie! However, I'd like to persuade you to believe that dreams can come true!

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The Role of Female Architects in Designing Schools in Belgrade (1918-1941)

Introduction

The end of the First World War brought both the shortage of architects and buildings on the territory of the newly formed Kingdom of Serbs, Croats and Slovenes. Belgrade, the Kingdom's new capital, lost around 25% of its buildings in war.¹ This led to an intensive reconstruction throughout the State, investing in the infrastructure and building new elementary schools, high schools, gymnasiums and University buildings.

Milena Zindović was one of the first researchers who noticed that a significant number of female architects who worked in the Ministry of Civil Engineering and the Belgrade Municipality were given project tasks which were often involved with educational architecture.² Interestingly, Snežana Toševa published some 15 female architects out of 43 employees who worked in the Ministry of Civil Engineering during the interwar period.³

Danica Kojić (1899–1975) was one of the Ministry's architects in charge of designing schools and developing educational architecture. She was the author of numerous schools which were built

1 Ranka Gašić, "Urbanizacija međuratnog Beograda: Primer naselja Kotež-Neimar," *Istorija 20. veka 2* (2009), 53; Ivona Fregl, "Draginja Petrović-Petković (1899–1995): Prilog proučavanju dela žena arhitekata u Srbiji," *Arhitektura i urbanizam 14–15* (2004), 91.

2 Milena Zindović (ed.), *Žene u arhitekturi: Savremena arhitektura u Srbiji posle 1900* (Beograd: Centar za arhitekturu, 2014), 69.

3 See Snežana Toševa, "Arhitektonsko odeljenje Ministarstva građevina Kraljevine Jugoslavije i njegov uticaj na razvoj graditeljstva u Srbiji između dva svetska rata" (PhD thesis, University of Belgrade, 2012), 336–9, <http://phaidravg.bg.ac.rs/o:6475> (accessed June 1, 2018).

throughout the country. These projects were typically similar since the priority was that they should be functional and well-designed on a low budget. This was especially visible on projects for village schools, which all were constructed with elements of local traditional architecture.⁴ Apart from her most significant contributions in school architecture, Milica Krstić (1887–1964) also designed the Elementary Schools in Godačica (1923),⁵ Slatina and Dugo Polje (1924),⁶ Gornji Matejevac (1925),⁷ Crnobarski Salaš (1926)⁸ and Vinicka (1928).⁹

Živana Bogdanović (b. 1897) worked in the Ministry of Civil Engineering and during 1925–26 she was in charge of developing school buildings.¹⁰ She designed the Elementary School in Zavidovič in 1928–29 and the Gymnasium in Jagodina in 1930–32 as an example of Modern architecture.¹¹

Stanislava Jovanović-Hristodulo (b. 1901) was also a part of the developing team for elementary schools.¹² Apart from constructing the College for Teachers and Faculty of Veterinary Medicine in Belgrade, Jovanka Bončić-Katerinić (1887–1966) also designed numerous elementary schools throughout the country.¹³

Draginja Petrović-Petković (1899–1995) designed two elementary schools in Skopje.¹⁴

Vera Ćirković (1912–2002), a female architect who had a significant impact on school architecture in post-war Belgrade, began her career in the Ministry of Civil Engineering. One of her first tasks was to be a committee member for the project of the Sixth Gymnasium in Belgrade from 1940 to 1942.¹⁵

Even though research has shown that many female architects worked on the development of educational architecture throughout the country, we will focus on three authors whose schools reshaped the educational systems in interwar Belgrade and also introduced a new and innovative design approach in school architecture.

Milica Krstić (1887–1964)

Milica Krstić is considered to be one of the most important female architects in Serbia and Yugoslavia during the first half of the Twentieth century. She started studying architecture at the Belgrade University in 1906. During her studies, she met Žarko Krstić (?–1941),¹⁶ whom she later married. She graduated in 1910 and worked in private praxis until 1915 when she started to work at the Department of Architecture of the Ministry of Civil Engineering.¹⁷ In 1938 she became the head of the Department for public buildings and in 1940 reached the highest position as an architect in the Ministry of Civil Engineering.¹⁸ However, in 1941 she retired from service. She received a medal of Saint Sava in 1928 and 1935 and a medal Yugoslav Crown in 1939.

Milica Krstić was fluent in French, Spanish, English and German.¹⁹ She was also a member of architectural societies, such as The Architect's Club, where she held several lectures. Milica Krstić was also active in women's societies, for example, *Kolo srpskih sestara* (The Circle of Serbian Sisterhood) and the Yugoslav Women's League for Peace and Freedom. Milica Krstić was an active spokeswoman of female equality, especially in the field of architecture.²⁰

The Second Gymnasium for Girls (1931–36)

For decades there was an initiative to erect a new building for the Gymnasium for Girls.²¹

Since Milica Krstić graduated from this school,²² her election for the project design was not unusual. However, this was the first example that a female architect had an opportunity to design such an ambitious project. The building covered the area of 3000 m², with over 5000 m² large courtyard.²³ Milica Krstić was also the supervisor over 300 workers on site during the construction.²⁴ The building

4 Snežana Toševa, "Danica Kojić (1899–1975)," *Godišnjak grada Beograda* 43 (1996), 99–121.

5 *Collection of Projects*, no. 098, Ministry of Civil Engineering Fund, Archives of Yugoslavia (or AY).

6 Slobodan Bogunović, *Arhitektonska enciklopedija Beograda XIX i XX veka: Arhitekti* (Beograd: Beogradska knjiga, 2005), 893.

7 *Collection of Projects*, no. 167, Ministry of Civil Engineering Fund, AY.

8 Bogunović, *Arhitektonska enciklopedija Beograda*, 893.

9 *Collection of Projects*, no. 145, Ministry of Civil Engineering Fund, AY.

10 Divna Đurić-Zamolo, "Građa za proučavanje žena arhitekata sa Beogradskog univerziteta generacije 1896–1940. godine," *PINUS Zapisi* 5 (1996), 18.

11 *Collection of Projects*, no. 057, *Ministry of Civil Engineering Fund*, AY.

12 Đurić-Zamolo, "Građa za proučavanje žena arhitekata," 36.

13 Đurić-Zamolo, "Građa za proučavanje žena arhitekata," 20.

14 Fregl, "Draginja Petrović-Petković," 96.

15 Ministry of Civil Engineering Fund, f-62-1454, AY.

16 Zoran Manević (ed.), *Leksikon neimara* (Beograd: Građevinska knjiga, 2008), 211.

17 *Personal files - Milica Krstić*, ff. 62–39, Ministry of Civil Engineering Fund, AY.

18 Toševa, *Arhitektonsko odeljenje Ministarstva građevina*, 46, 110.

19 Zindović Žene u arhitekturi, 69–72.

20 Zindović Žene u arhitekturi, 73.

21 "Druga ženska gimnazija će, u toku sledeće godine, dobiti veliku modernu školsku zgradu," *Vreme*, March 17, 1931, 6.

22 Snežana Toševa, "Arhitekt Milica Krstić (1887–1964)," *Godišnjak grada Beograda* 44 (1997), 100; Zindović, *Žene u arhitekturi*, 71.

23 "Druga ženska gimnazija," 6; Zindović (ed.), *Žene u arhitekturi*, 71.

24 *Documents for the first part of the construction of the new Second Gymnasium for Girls, Construction Diary*, Ministry of Civil Engineering Fund, f -62-1454, AY.



Fig. 1. Milica Krstić, The Second Gymnasium for Girls, 1931–36. Courtesy of Vladana Putnik Prica.

was finished by the end of 1932 and in October 1933 the school opened its doors to pupils, while the interior work lasted until 1936.²⁵

The Second Gymnasium for Girls is a rare and a remarkable example of the Serbo-Byzantine style in Belgrade architecture (Fig. 1). Since there was a brief initiative to form a monastery within the school complex, the Neo-Medieval architecture was not an unusual choice.²⁶ Although the architecture of the gymnasium was Eclectic, the elements Milica Krstić used were a clear example of Medieval Serbian architecture, such as rosettes, floral ornaments and 'chess-fields'.

The facade of the gymnasium was made of artificial stone, including all the ornaments. The central zone of the building, where the main entrance was located, had the inscription and coat of arms in the upper level. The building also had a chapel of Saint Natalija, whose apse is still visible on the facade of the courtyard. Unfortunately, the chapel was destroyed after the Second World War.²⁷

Although the architecture of the Second Gymnasium for Girls seemed rather traditional, the interior had many modern and functional elements. In this project Milica Krstić introduced xylolite floor with Dermas emulsion. However the Ministry of Civil Engineering refused her innovative proposal due to the fact that it had to be imported and the floors were eventually covered with parquet. On the other hand, she managed to place neon lights in classrooms.

Each classroom had its own cloakroom for pupils and the classrooms were wired for the first time so that the headmaster could audio-control the classes. The gym had a projector for sound films

25 *Construction Diary*, f-62-1454; *Construction billing*, f-62-1455; f-62-1457; Ministry of Civil Engineering Fund, AY.

26 Aleksandar Kadijević, *Jedan vek traženja nacionalnog stila u srpskoj arhitekturi (sredina XIX - sredina XX veka)* (Beograd: Građevinska knjiga, 2007), 240

27 Toševa, "Arhitekt Milica Krstić," 103.

and it occasionally served as a theatre.²⁸ A kitchen and a dining-room were additionally constructed for underprivileged pupils.²⁹

The grand opening of the Gymnasium was a significant event, especially for the fact Queen Marija Karađorđević (1900–1961) attended the ceremony. In her honour, the gymnasium was named after her.³⁰

Despite the fact that it was recognized as a remarkable architectural project, it was criticized at the time by architect Aleksandar Deroko (1894–1989), claiming Milica Krstić chose a completely inappropriate style for a modern gymnasium.³¹ Writer Rade Drainac (1899–1943) also criticized the building, thinking it resembled a casemate or a monastery more than a gymnasium.³²

Some contemporary historians of architecture, like Aleksandar Kadijević, also considered it to be a less successful example of this particular Eclectic architectural style. He claimed Milica Krstić pretentiously over-decorated and disproportioned the facades. However, he also underlined it to be one of the most representative and one of the most monumental school buildings in the country, and also one of the most explicit examples of the National style in Yugoslav interwar architecture.³³

The First Gymnasium for Boys (1936–38)

After she successfully conducted the construction of the Second Gymnasium for Girls, Milica Krstić was put in charge of designing another significant school building, the First Gymnasium for Boys. Once again, she was supervising the building's construction, with Vera Ćirković as her assistant.³⁴ It was noted she was very strict with the workers.³⁵ The project was finished in 1936, however, due to the limited budget, the building's construction was finished in 1938. The press noted that the gymnasium was built according to the latest standards in school architecture, with very good lighting.³⁶

28 Lj. B., "Učionice će biti vezane sa direktorovom kancelarijom mikrofonom," *Pravda*, May 20, 1932, 3.

29 *Construction billing*, f-62-1455, Ministry of Civil Engineering Fund, AY.

30 "Nj. V. Kraljica Marija prisustvovala je svečanom osvećenju Druže beogradske ženske gimnazije, koja nosi njeno ime," *Beogradske opštinske novine* 1 (1936), 66.

31 Miloš Crnjanski, "Naše starine," *Vreme*, April 15, 1933, 19.

32 Toševa, "Arhitekt Milica Krstić," 103.

33 Kadijević, *Jedan vek traženja nacionalnog stila*, 239–240; Aleksandar Kadijević (ed.), *Byzantine Architecture as an Inspiration for Serbian New Age Architects* (Belgrade: Serbian Academy of Science and Arts, 2016), 61–2, Exhibition catalogue.

34 Toševa, *Arhitektonsko odeljenje Ministarstva građevina*, 337.

35 *The First Gymnasium for Boys*, f-62-1446, Ministry of Civil Engineering Fund, AY.

36 "Beograd je dobio još dve moderne gimnazijske zgrade," *Beogradske opštinske novine* 5 (1938), 441.

Unlike the romantic Serbo-Byzantine style of the Second Gymnasium for Girls, Milica Krstić chose an uncompromised Modern design for her new project. A rational and functionalist approach was most likely led by the numerous limitations, from financial to urban disposition.³⁷ However, the radical turn Milica Krstić took with this project also indicates she most likely tended to improve her approach and avoid critiques that her previous project brought her.

The building consists of one central and two side wings framing a spacious courtyard. Milica Krstić emphasized the corners by making them convex. The main entrance on the facade was deliberately placed asymmetrically to the right. A slight protrusion emphasises the entire vertical corpus of the entrance zone from the facade line and the roofline. The entrance consists of three identical double doors. Interestingly, the main motif is the visible staircase zone, a vertical line of small windows with a mast on top, which balances the overall horizontality of the facade.

Jovanka Bončić-Katerinić (1887–1966)

Although she was the fourth woman architect in Serbia, Jovanka Bončić-Katerinić was the first one with a diploma from the High Technical School in Darmstadt in 1913. She was also one of the first woman architects in Germany.³⁸ During her university years, she met Andrija Katerinić (1883–1968), whom she married, and the couple lived in Russia/Soviet Union until 1922, when they came to Belgrade. Like her fellow colleague Milica Krstić, Jovanka Bončić-Katerinić was fluent in German, Russian and French.³⁹

While she worked in the Ministry of Civil Engineering, her two most significant works were University buildings: College for Female Teachers 'Queen Marija' and Faculty of Veterinary in Belgrade. Apart from these edifices, it is presumed she designed or adapted the Gymnasium in Smederevo and several elementary schools in Yugoslavia. Jovanka Bončić-Katerinić also assisted Petar Bajalović (1876–1947) during the construction of the Faculty of Law in Belgrade.⁴⁰ In 1928 she received a medal of Saint Sava and in 1939 a medal Yugoslav Crown.

Despite her successful career, her job in the Ministry of Civil Engineering was unstable during the Second World War. She managed to stay in service until 1944 when she finally got fired. She officially retired in 1946.⁴¹

College for Female Teachers 'Queen Marija' (1931–35)

Jovanka Bončić-Katerinić worked on the complete design of the College for Female Teachers from 1931 to 1932. She was also the supervisor during the building's construction.⁴²

The building had fifteen classrooms, seven classrooms for specific courses, two libraries, an ambulance, a congress hall, a gym and offices for professors with apartments for the director and the janitor.⁴³ The building also had a central heating system.⁴⁴ When it was finished, it was the largest college for teachers in Yugoslavia.⁴⁵

The college building represents an example of modernised classical architecture. The building is 'L-shaped' with a ground floor and three upper levels. The congress hall was typically placed above the main entrance with large windows, thus emphasizing the entire vertical zone. The entrance is designed in a more modern way, with three double doors. Above the entrance are a concrete canopy and two masts. However, unlike some typical examples of eclectic classical architecture, the entrance is not located in the central zone of the main facade, but to the far right, introducing asymmetry, similar to Milica Krstić's First Gymnasium for Boys. The monumental main facade, 50 m wide, was covered with artificial stone. The main staircase was made of granite, the hall floor was covered with terrazzo mosaic and the plinth was made of marble.⁴⁶

Faculty of Veterinary Medicine (1939–47)

After her successful project for the Teacher's College, Jovanka Bončić-Katerinić was put in charge of designing the Faculty of Veterinary Medicine in 1939. The building had an amphitheatre, a

37 Toševa, "Arhitekt Milica Krstić," 104–5.

38 Draginja Maskareli, "O delatnosti arhitekta Jovanke Bončić-Katerinić," *Leskovački zbornik* 43 (2003), 217–8.

39 *Personal files - Jovanka Bončić-Katerinić*, f-62-32, Ministry of Civil Engineering Fund, AY.

40 Maskareli, "O delatnosti arhitekta Jovanke Bončić-Katerinić," 218; Đurđija Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić u Beogradu: Ženske učiteljske škole i Veterinarskog fakulteta," *Godišnjak grada Beograda* 55–56 (2008–2009), 267.

41 *Personal files - Jovanka Bončić-Katerinić*, f-62-32, Ministry of Civil Engineering Fund, AY.

42 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 276.

43 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 271–4.

44 F-62-1463, Ministry of Civil Engineering Fund, AY.

45 "U Beogradu se podiže još jedna moderna školska zgrada," *Vreme*, June 6, 1932, 7.

46 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 220–1, 275–6.



Fig. 2. Jovanka Bončić-Katerinić,
Faculty of Veterinary Medicine,
1939–47.
Courtesy of Vladana Putnik Prica.

restaurant for students, several museum rooms, libraries and six Institutes.⁴⁷ Jovanka Bončić-Katerinić claimed she designed the edifice in accordance with the latest Veterinary Medicine Faculty buildings in Europe.⁴⁸ The construction of the building was interrupted by the Second World War. When her job was at stake, Jovanka Bončić-Katerinić pled to the officials not to fire her so that she could finish the Faculty of Veterinary Medicine.⁴⁹ When it was finished, the building had all the modern equipment which was necessary for working with animals. The classrooms had special air conditioning.⁵⁰ It was the most modern Faculty of Veterinary Medicine in the Balkans.⁵¹

Comparing to her previous project, the Faculty of Veterinary Medicine building is freed from most elements of classical architecture (Fig. 2). The vertical elevation is modern and the only 'decorative elements' are two masts and the inscription. Despite that, Jovanka Bončić-Katerinić called this style 'modernized renaissance'.⁵²

The building has one main wing with three smaller wings protruding from the central one, a ground level and four upper floors. However, since the building was constructed on a terrain lower than the street level, the access to the main entrance on the second floor is through a small bridge over a moat.⁵³ The entrance was covered with granite and like in her previous project; it has a massive canopy. The original facade was made of artificial stone.⁵⁴ Unfortunately, the building was

47 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 282, 284–5.

48 F-62-1485, Ministry of Civil Engineering Fund, AY.

49 F-62-32, Ministry of Civil Engineering Fund, AY.

50 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 286.

51 F-62-1485, Ministry of Civil Engineering Fund, AY.

52 F-62-1485, Ministry of Civil Engineering Fund, AY.

53 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 221–2.

54 Borovnjak, "Arhitektura dva školska objekta Jovanke Bončić-Katerinić," 284–286.

overbuilt and its original appearance is mostly lost. On the other hand, the interior design is mostly intact, where Jovanka Bončić-Katerinić used granite for the main staircase and marble for subtle decoration.

Desanka Manojlović

Desanka Manojlović's both personal and professional life are little known and the insufficiency of historic documents only emphasizes her obscurity.

Unlike the previous two female architects, Desanka 'Šanka' Manojlović worked in the Technical Direction of the Belgrade Municipality. Apart from her most known building, the Elementary School 'Queen Marija', Desanka Manojlović also designed two more schools: 'Karađorđe' in 1928 and the Elementary School on Topčider Hill in 1936. She is also the author of the Children's Health Centre from 1930.⁵⁵

Elementary School 'Queen Marija' (1930–33)

One of the new schools which were constructed in the Belgrade's suburbs during the 1930s was the Elementary School 'Queen Marija.' The newspapers of the time noted the school was designed in a Modern style, claiming it 'will be one of the most beautiful Elementary Schools in Belgrade.' It was also noted that this was the first elementary school that was designed in accordance with the newest architectural innovations and pedagogical standards.

Desanka Manojlović designed six classrooms for 400 pupils, as well as a gym with a bathroom. The school also had an apartment for the school principal. A park was especially designed in front of the school. Desanka Manojlović was also the supervisor during the building's construction.⁵⁶

The school's design could be easily considered one of the most elaborate and successful examples of Modern architecture with elements of Art Deco and Expressionism in Belgrade.

The building was ground-levelled, with two identical entrances on both sides of the main facade. The entrances were also the main visual motifs of the entire edifice. They were withdrawn from

55 For the information about Desanka Manojlović I thank Miloš Jurišić and Milan Milovanović; Manević, *Leksikon neimara*, 254.

56 "Podizanje nove moderne Osnovne škole na predgrađu Kraljice Marije," *Beogradske opštinske novine* 6 (1930), 70.

the angles but were placed within protruding cylinders. Both entrance zones were covered with expressive horizontal stripes, thus enlivening the non-ornamental calmness of the central body.⁵⁷

In 1981 the school was readapted to be the head building of the Faculty of Organisational Sciences and since then it was overbuilt several times, thus entirely losing its original architecture.

Conclusion

Regarding female architects who were the subjects of this research, it can be concluded with little doubt that their sex did not represent an obstacle to their career development. Apart from the several female architects who designed ambitious and elaborate projects, many of their colleagues like Jelica Vrako Mihanović, Danica Novaković, Anka Zečević and Živana Bogdanović were often placed as members of the project approval committees.⁵⁸

Interestingly, both the husband of Milica Krstić, Žarko Krstić and the husband of Jovanka Bončić-Katerinić, Andrija Katerinić, designed elementary schools during their carrier in the Technical Direction of Belgrade Municipality.⁵⁹ Even though both of them managed to make a strong impact on the development of school architecture, it can undoubtedly be concluded that their wives' contributions to the modernization of schools in Belgrade are far more significant than theirs.

Today, two gymnasiums by Milica Krstić have a status of historic monuments.⁶⁰ Unfortunately, other examples were not recognized in time as important examples of interwar architecture and had suffered multiple changes since. Despite that, the overall impact that the first generations of female architects had on the development of school architecture in Belgrade is immense and therefore deserves to be more thoroughly analysed in the future.

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The Design of Educational Buildings in Portugal: A Feminine Contribution in the 1960s

Introduction

During the first Republic, in the early twentieth century, a clear emphasis was given to educating people, since most Portuguese were illiterate. Many primary schools were built, and a national educational system was sketched.

The year 1934 was a turning point regarding school building construction due to the creation of the Department of Construction for Technical and Secondary Education (JCETS)¹ within the Ministry of Public Works and Communications. Up to its extinction in 1969, JCETS centralized almost all public schools building production, which included secondary schools (lyceum and technical) and middle education (industrial institutes, agricultural and primary teaching schools).²

JCETS was created in the year following the establishment of the dictatorial regime of the *Estado Novo* (New State) in Portugal that lasted until the 1974 Revolution, centralizing all stages of production and design and finishing the collaboration with architects outside the department. Maria do Carmo Matos worked in this department since 1955 until its extinction (1969), being the first female architect.

This paper seeks to contribute towards an understanding of the role of Maria do Carmo Matos in school building design, given the historical, cultural and technical conditions within the post-

57 f-X-42-1933, Technical Direction of the Belgrade Municipality, Historical Archives of Belgrade (or HAB).

58 *The First Gymnasium for Boys*, f-62-1446; *Construction Diary*, f-62-1454, Ministry of Civil Engineering Fund, AY.

59 Žarko Krstić, "Školske zgrade za osnovnu nastavu u Beogradu," *Beogradske opštinske novine* 16 (1931), 1037–1050; Manević, *Leksikon neimara*, 187.

60 *Official Gazette of the City of Belgrade*, 12 (1989); 26 (1992).

1 Junta das Construções Escolares para o Ensino Técnico e Secundário (JCETS) is the Portuguese office for the design and supervision of secondary school buildings.

2 Alexandra Alegre, *Arquitectura Escolar: O Edifício Liceu em Portugal (1882–1978)* (Lisbon: Fundação Calouste Gulbenkian, 2012).

Second World War context in Portugal, and stressing the importance to understand her influences, beliefs and outcomes. Maria do Carmo's contribution should be analysed within the national and international context, which influenced the architectural production and development of the time.

The methodology pursued for the development of this article encompassed several steps: initially, full research of the archives of the JCETS was made, scoping all the construction processes of all the schools built during its existence. This analysis covered the description and examination of 980 volumes related to 240 schools. An inventory of the JCETS library was made helping to grasp the national and international influences of the JCETS' team. Further on, an analysis of Maria do Carmo Matos' personal belongings (included in the Ministry of Education Archives) was carried out. This included her personal notes, bibliography, diagrams, sketches, correspondence, magazines, etc.³ Other national sources were also consulted, specifically the Board of Architects and the National Library and some interviews were conducted with former colleagues that worked side-by-side with Maria do Carmo.

This methodology allowed the reconstruction of Maria do Carmo's sources, influences and outcomes, to place her work into political, educational, architectural, social, and economic context.

The Historical and Architectural Background

After the Second World War, the Portuguese dictatorial regime allowed an opening to the exterior that promoted contact with intergovernmental organizations created in the context of post-war reconstruction and the Marshall Plan (United Nations Educational, Scientific and Cultural Organization (UNESCO); World Bank; Organisation for Economic Co-operation and Development (OECE); Organisation for European Co-operation and Development (OECD)) and with their international educational planning concerns, based on the adoption of rational procedures in school building construction.

In the background, the Human Capital Theory, which faced public education as an economic and social development factor during the 1950s and 1960s, was in the centre of the impulse given by different governments to education of the population and, consequently, required a new approach from public entities that should face the construction of school building in terms of a regular production.

³ See among the most relevant references: Direcção Geral de Equipamento Escolar, *Exigências funcionais na construção escolar (DGEE): Reformulação, normalização e actualização* (Lisbon: Ministério da Educação e Ciência Secretaria de Estado da Administração escolar, 1981).

This cooperation gave Maria do Carmo permanent links with the OECD Development Section, through Guy Oddie from the British Ministry of Education, as well as sharing experiences with other European bodies responsible for school construction. This allowed her to take part in field trips, internships, meetings, and workshops, to participate in the design of schools, and the contact with construction research institutes and school furniture companies. It was also an opportunity to observe new educational approaches and child-centered learning methods and policies.

By that time, the widespread use of reinforced concrete structures and the improvements of technical expertise led to a continuous trend to normalize construction in different dimensions. In addition, two events (National Congress of Architecture in 1948, the Inquiry into Regional Architecture in Portugal, started in 1955), national publications (*Arquitectura* and *Binário* magazines) and the access to international means of architectural dissemination (magazines, congresses, seminars, meetings) raised awareness to international production, which reacted against the functionalism of the Modern period – influences from North European countries, Italy and English Brutalism.⁴

Furthermore, Maria do Carmo Matos had an active role in the Religious Art Renovation Movement (MRAR)⁵ where she had the opportunity to contact not only with well-known architects of the time (she belonged to the managing board between 1965 and 1968), but also to participate in regular meetings and to coordinate the edition of the monthly publication, important means for architectural discussion and presentation of new projects. In fact, it was a time to revisit the social purpose of architecture and to overcome the International Style dogmas, towards a more humanized and informal architecture, where the functional programme, the relationship with the users, materials expression, and the design and use of internal space assume a crucial role.

In Portugal, from the beginning of the 1950s, changes in educational policies aimed at fostering the training of human resources led to an increased demand for technical schools. This led, in turn, to the need for new processes of design and construction of school buildings supported by the systematization of architectural solutions and rationalization of construction, where Maria do Carmo had a major role.

⁴ Ana Tostões, *A Idade Maior* (Porto: FAUP, 2015).

⁵ The Religious Art Renovation Movement (MRAR) was created in 1953 by a group of architects, artists and historians, such as Nuno Teotónio Pereira, João de Almeida, Nuno Portas, Diogo Pimentel, Luís Cunha, among others, who defend a new approach in the design of religious buildings in Portugal, reacting against traditionalist models built in the 1950s. See João Cunha, "O MRAR e os anos de ouro da arquitectura religiosa em Portugal no século XX" (PhD Thesis, FA Universidade de Lisboa, 2014).

The Early Years

Maria do Carmo was born in Lisbon the 7 July 1935. By that time 45,6% of the inhabitants of Lisbon were illiterate, increasing this percentage to 67,5% regarding Portugal.⁶ Her father, Gonçalo Ribeiro de Matos, a civil engineer, her mother, Maria Helena, and her youngest sister Maria do Rosário composed her family of four. They were a devoted Catholic family living in the centre of Lisbon.

By the age of 21, her father passed away leaving her mother, Maria do Carmo and her younger sister without any income. Her family struggled, so Maria do Carmo started working as a designer in her fathers' former place of work: the Educational Constructions Department of the JCETS. Maria do Carmo was a workaholic, demanding but fair professional, attending daily to the noontime mass.

In 1961, by the age of 26, she graduated in Architecture in the Escola Superior de Belas Artes de Lisboa and the 20 February 1962 she was admitted to the Portuguese Board of Architects.

At the end of the 1950s, a large school building programme was launched by the JCETS to build secondary schools throughout the country. To her and to José Augusto Brandão (1930–2018), an architect that joined the JCETS in 1955, it was an opportunity to develop a new approach in the school's design, in view of new educational and economical solution aiming at reducing construction costs and time. It was a shift to a new pragmatic, informal and human scale model, far from the official lexicon of the dictatorial regime from the previous phase, affiliated to a conception of strong nationalistic feeling reflecting the political and pedagogical ideals of the New State.

In 1960 Maria do Carmo designed and supervised the construction of two lower secondary vocational school buildings: Escola Comercial e Industrial da Guarda and the chapel of the Escola Comercial e Industrial de Santarém. At the same time, she pursued her professional work as a liberal architect, designing mostly chapels, namely the Community Centre of São João das Lampas (1960), the Chapel of Igreja da Graça's Summer Camp (1961), design competition of Sagrado Coração de Jesus' Church in Lisbon (1962), interior design of the Chapel of the Colégio da Cidadela in Cascais (1964).⁷

International Contacts

From January 1964 until December 1966, Maria do Carmo was part of the Grupo de Trabalho sobre Construções Escolares under the scope of the international Mediterranean Regional Project in strict collaboration with the OECD. During this period, she designed the Pilot Elementary School of Mem-Martins, where she pursued the search for standardized design solutions, which ensured a lower production cost and a fast construction time, both in architecture and interior design.

This OECD project was an opportunity to promote international contacts with intergovernmental organizations such as UNESCO, World Bank and the Organisation for European Co-operation and Development. In the scope of this project, Maria do Carmo attended an educational construction seminar in London in 1964 and took on a three-month internship in the Development Group of the Department of Education and Science in England in 1966.

Later, in 1967 she wrote a report on her technical visit to England. This report, entitled *School design in England*, comprehended a Brief Description of Architects' and Building Branch; Visits, Meetings and Studies; Main points of the new approach to school design by the development group and the possible contribution to the design of Portuguese Schools. Additionally, she developed a vast collection of photos that documented her visits to the different sites. These photos were not included in the report but worked as design and construction references.

After she stayed abroad, Maria do Carmo continued to correspond with many professional like David Medd (Principal Architect of the Architects and Buildings Branch, Department of Education and Science, London) and his wife Mary Medd, James Fairbairn and Leonard Merish. She organized their visits to Portugal and also coordinated the publication of lectures held in the country, in the scope of their professional visits.

Alongside, she kept visiting fairs, conferences and educational buildings in Portugal and abroad. In 1972 she visited Hannover for a fair with her peers. In her report, her peers signed a personal message: 'memory of the presence of the "eternal feminine" in Hannover – 72'.⁸ In 1976, Maria do Carmo attended the Symposium on School and Community Building about urban dynamic in Skokloster (Sweden).

⁶ Instituto Nacional de Estatística, *Censos Nacionais* (Lisboa: INE, 1930).

⁷ Filomena Beja and Júlia Serra, *Muitos anos de escolas*, Vol. 3 (Lisbon: Secretaria-Geral do Ministério da Educação, 2010).

⁸ In the original: 'recordação da presença do "eterno feminino" em Hannover – 72' signed by three of her four peers, who took part in the visit: Sérgio Coelho, Mário Trigueiros and Maria Graça Fernandes.

A Progressive Attitude

During her career, Maria do Carmo never stopped working as a liberal architect. She partnered up with her co-workers and engineers Vitor Quadros Martins, César Palha and Miranda in the Gabinete de Projectos, focusing on the design of educational facilities.

Maria do Carmo had been the open plan forerunner in the elementary education level in 1964, with the construction of the Elementary Pilot School.⁹ Her expertise facilitated the development of various educational facilities in her private practice.¹⁰

These projects enabled her to design the suitable functional program for various educational levels freely. In this scope, the Secondary School of Sintra,¹¹ built in 1967, was another professional milestone, which enabled her to design a compact lyceum solution for 300 upper-class students according to her updated educational references.

Her external and international references were notorious. The JCTES, besides encouraging its staff to visit sites and conferences abroad, it also acquired a lot of references in multiple scientific fields such as architecture, sociology, design, construction, and legislation, which included reports, magazines, as well as technical handbooks for the technicians. These references from the UK, Germany, Denmark, Netherlands, France, Belgium, USA, Asia and South America were at an arm reach away.

In her office, the Eveline Lowe Primary School,¹² appears in numerous supports: magazines and cut-out newspaper articles, explaining the conceptual and organizational model of the first open-plan school in Britain, designed and built between 1963 and 1966, in London. Many technical drawings and pictures of this and other settings are also present in her collection.

These inputs surely led to the development of insightful designs. The Open Plan Elementary School of Abrantes (1968), Moita (1968), Baixa da Banheira (1968–69), and Santo António de Cavaleiros (1968–69) built in the scope of her private office were determinant to experiment without the constraints of JCETS. She was able to test her design solutions for this educational level and assess the occupancy of its users, both teachers and students. This enabled Maria do Carmo to validate or discard the design and layout solutions enhancing what she originally conceived.

9 Original name: Escola Piloto de Mem-Martins.

10 The Neighbourhood School of the Gulf Oil Company of Cabinda in 1967 or the Kindergarten and Nursery of the National Civil Engineering Laboratory (LNEC) in 1966–68.

11 Original name: Secção de Sintra do Liceu Passos Manuel, renamed to Liceu de Sintra, nowadays Escola Secundária de Santa Maria.

12 This school was designed by David and Mary Medd (Department of Education and Science) in partnership with the Inner London Education Authority.



Fig. 1. Maria do Carmo Matos, Guy Oddie and Mabel Smith upon the technical visit in the scope of the OECD Cooperation Program, 1970. Courtesy of Arquivo de Secretaria Geral do Ministério da Educação.

Maria do Carmo had achieved something notorious in the Portuguese context: she was the reference for elementary educational design.

When Guy Oddie (1922–2011), architect and Senior Advisor to the Programme on Educational Building of OECD, visited Portugal, in the scope of the Mediterranean Regional Project in April 1970, the JCEST coordinated a technical tour to the schools built under this cooperation. (Fig. 1)

Upon this event, at least three national newspapers¹³ published such visit. The technical tour comprehended visits to the Secondary School of Cascais¹⁴ –designed by Augusto Brandão– the Secondary School of Sintra, and the Pilot Elementary School of Mem-Martins both designed by Maria do Carmo.

Most newspaper articles mention all the three visited sites and the heads of the host offices, but regarding the authorship of the design of the educational facilities, only Augusto Brandão's got acknowledged. Maria do Carmo is not mentioned once. Nevertheless, the single illustration corresponded to her elementary school.

In October of 1969, when she merged into the Directorate-General of School Construction (DGCE) of the Public Works Ministry she became the leader of the P3 Work Group of the Planning Office.¹⁵ Subsequently, Maria do Carmo also became responsible for the design of new Open Plan Elementary Schools (1970–72). Her efforts and interest in the systemization processes lead to her involvement in normalization studies, and she became the responsible for updating norms and guidelines on educational buildings by 1970.

13 *Diário de Notícias*, *A Capital* and *Diário Popular*.

14 Original name: Liceu de Cascais, nowadays Escola Secundária São João do Estoril.

15 See Beja and Serra, *Muitos anos de escolas*.

Later, in 1972 she actively tries to normalize school building design by recommending the simplification of construction solutions. However, these recommendations were not met given to the tight construction deadlines.

(Fig. 2)

The first P3 Elementary School was built in Quarteira (1972), a small city in the South of Portugal.¹⁶ Maria do Carmo was a progressive designer, given her North-European influences and innovative pedagogical modes references. These concepts were embodied in her solutions, which were socially fairer and straightforward. But the pedagogues did not grasp the potential of such a layout and rejected the solution. The elementary school teachers had been instructed to teach in a conservative expository manner and were not able to tutor in such an environment.

Nevertheless, by 1985 Portugal counted 371 P3 Schools.¹⁷

In 1972 she asked for exoneration of her contract with DGCE, as well as the national correspondent of OECD. She pursued her career in the Directorate-General of School Equipment of the Ministry of National Education (1973), where she participated in architectural design studies and the developments of middle and secondary schools.

As a liberal architect, in her office, she kept designing educational facilities, designed the ensemble of the Elementary (1972–73), Middle (1974–76) and Secondary Schools of Santo André (1976–79).¹⁸

Professional Maturity

Maria do Carmo joined the UNESCO team in 1980, which sought for the development and design of middle and superior schools in the Popular Republic of Angola. This external projection led her to write about the programmatic study on middle and secondary school buildings in Lubango.



Fig. 2. Maria do Carmo Matos, 1971.
Courtesy of João Messias.

Later in 1981, she was the delegate of Portugal in the Espaces éducatifs et culturels of the International Union of Architects (UIA).

From 1981 Maria do Carmo gathers many documents, processes and handwritten notes relative to career progression. In this scope, she writes a book for her board on Functional demands of school buildings in 1981, focusing on the reformulation, normalization and updating.

Later in 1986 Maria do Carmo publishes under her name an *Architectural Evaluation Conception Methodology for Educational Equipment*, which can be used to assess educational buildings.¹⁹

A memorandum on the opening of a head technical advisor and educational projects coordinator of PNUD/UNESCO in the Popular Republic of Angola is included in these files. The position would start the 10 February 1984.

Maria do Carmo was invited as a guest lecturer for a post-graduation course on Educational Journalism in the Catholic University. In her course, which took place between January and March 1989, she lectured on school estate and network. Her lectures were both comprehensive and dynamic, scoping various themes and problematic and supported by interesting schemes.

She passed away in Lisbon the 3 June 1989.

A Timid Reference

Maria do Carmo Matos should be a reference for both women and architects in Portugal. However, she is not recognized in either education or architecture fields, except by the ones that worked and contacted with her daily. In spite of her low profile, her work had a tremendous outlasting impact on the Portuguese society. She tried to 'remould' the way children learned, and the solutions she designed, in spite of being misunderstood and underused, accomplished the social aim of the Modern movement.

Nevertheless, she was able to promote new educational models in a very traditional society and educational system. Also, her continuous effort and study on modular and standardized constructive solutions were determinant to decrease the cost of the schools, promote the construction of such solutions in other functional uses and modernize the built system at the time. However, schools constitute simple and pragmatic buildings, without any particular architectural aspirations or significant expression of modern design vocabulary. In parallel to her full-time job at the JCTES/DGCE

16 Miguel Henriques Martinho, "P3' – Uma outra Conceção de Escola. Estudo de Caso" (PhD Thesis, DE Universidade de Aveiro, 2011).

17 Ana Almeida, "Atores, Regulação e Conhecimento nas Políticas Públicas de Construções Escolares em Portugal: As Escolas de Área Aberta" (PhD dissertation, IE Universidade de Lisboa, 2015), 191.

18 See Beja and Serra, *Muitos anos de escolas*.

19 Maria do Carmo Matos, *Metodologia de Avaliação da Conceção Arquitectónica Equipamentos Educativos* (Lisbon: Ministérios da Educação e Cultura, Gabinete de Estudos e Planeamento, 1986).

she pursued her professional activity, designing schools and also other typologies. She enrolled in competitions with her peers and some of them were awarded with honorary places.

Maria do Carmo was also an active element in the Portuguese board of architects, took part in the editorial team of the journal of architects (*Jornal dos Arquitectos*) and published many articles in multiple periodic, focusing especially on educational buildings.

Also, her active role in MRAR allowed her the contact with some of the well-known architects of that time such as Nuno Teotónio Pereira and Nuno Portas, and with the current architectural debate focused in principles of humanization, respect for the user and the environment, and the important role of history in the designing process. Those principles were largely applied in the child-centred environment of her schools, largely contributing to the pursuit of the right to education for all children determined in the Declaration of the Rights of the Child (1948, 1959).

Maria do Carmo achieved something outstanding: her schools were largely replicated throughout Portugal. In spite of having materialized a new pedagogical solution for the elementary schools, her work was never properly acknowledged by the society, and her premature death also hindered this acknowledgement.

This brief monograph synthesizes a progressive twentieth-century female architect; further studies should be done on Maria do Carmo to shed light on this knowledgeable woman.

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Foreign Women in Italian Architecture and Art during the Fascism

Apart from evoking some biographical facts to contribute to the still obscure history of women in architecture, the topic of this paper encourages to highlight a whole combination of social problems, state policies and customs concerning the female question in the first half of the twentieth century. Those problems are still relevant, not only in Italy but on an international scale. The Fascist regime in Italy –one of the first totalitarisms of the twentieth century– gives an opportunity to emphasize the different 'inconvenient' problems of Western society during the interwar period, many of which remain unresolved to this day.

Women, Foreigners and Fascist Italy

As it is known, the First World War made a huge contribution to the emancipation of women,¹ which began on the eve of the twentieth century and which was obstructed after the end of the war.

The idea of the role of women in Italian society, proposed by Fascism, which gained power in 1922, was quite ambiguous. Mussolini's regime opposed the ideology of Bolshevism, which had recently seized power in Russia and declared the legal and social equality of the sexes. So, in opposition, Fascism proposed a rather conservative view on the role of women. At the same time, the Regime declared itself as anti-bourgeois, trying to politicize the 'traditional' role of women, elaborating a

¹ See *La grande guerra raccontata cent'anni dopo per capire l'Europa di oggi*, edited by Wlodek Goldkorn and Claudio Lindner, (Roma: L'Espresso, 2014), 200–13. Please note: translations of quotations from Italian and Russian are by the author.

concept of an 'exemplary bride and mother,' and creating different fascist female organizations, such as the Fasci Femminili.²

The regulation of the Fascist Party completely deprived women of the possibility to have a position in the political hierarchy. Laws, propaganda and public opinion distanced them from the profession. But the reality was much more complicated, confirming the ambiguous character of the Regime.

Having recently gained power, Mussolini inaugurated, in May 1923, the Congress of the International Alliance of Women in Rome, where he promised: 'solemnly, to grant to women the vote in local elections'.³ Although the promise was kept,⁴ its effect was obsolete in a couple of years: on February 4, 1926, the elections to the local administrations were abolished. While in 1925, Mussolini said: 'I believe ... that the woman does not have the great power of synthesis, and so she is denied to the great spiritual creations', Margherita Sarfatti – art critic and creator of the *Novecento Italiano* and of the concept of *romanità*, the central idea of the fascist nationalist propaganda – published the first biography of the dictator.⁵

The same ambiguity is also present in the attitude of the Regime towards foreigners. Propaganda exalted the Italian nation, but at the same time, the Peninsula has never ceased to be hospitable to foreigners, especially artists and women artists as well. An exemplary case – the author of the official photographic portrait of the Duce – photographer Ghitta Carell (1899–1972), of Hungarian and Jewish descent, immigrated to Italy in 1924.⁶

The presence of foreign women in Italy in the years 1910–40 was mostly caused by the consequences of the First World War. In fact, we note that many protagonists of this essay came from Eastern Europe, from the parts of the Empires that disintegrated after the First World War: Austrian, German and, above all, Russian. During the war years, due to its distance away from the main theatre of war, the Italian capital became the international artistic stage. As the Russian sculptor, Catherine Barjansky, recalls, it was 'difficult to remember that somewhere real war was waged'.⁷

Some foreigners were visiting artists who travelled to Italy for international exhibitions or who

stayed for some time, continuing the tradition of the Grand Tour. Others moved to Italy for marital reasons. By Italian law, women were obliged to take the citizenship of the husband after marriage and renounce their original one. Although they became Italian citizens, they remained 'foreign' in the common perception.

Throughout the fascist period, the 'heated debate'⁸ on the role of women was developed between affirmation and negation, between the legitimization of inferiority and the exaltation of merits. The belief about the difference between the sexes was persistent as 'a biological foundation, based on the idea of natural inclinations, innate and independent of the historical context'.⁹ These convictions were not an invention of Fascism; they had deep roots in the Italian social structure of the time, in which the Catholic Church played a very important role.

Thus, even university education remained the prerogative of males for a long time. During the 1920s and 1930s, women represented between 13% of students enrolled in university courses in 1926 and 15% in 1936.¹⁰ Although not without preconceptions, the memoirs of the Soviet writer Nicolaj Asejev, futurist and friend of Vladimir Mayakovsky, written after his trip to Italy in 1927, offer a unique insight: 'At university, female students sit in groups alone, separately from male counterparts, so as not to inadvertently offend the academic decorum. Only foreigners, contrary to tradition, are chatting and joking during their meetings with the male students'. But foreign women, according to Italians, are all "more than females." In general, all women who had a different hair colour from that of Italian women were seen as a potential 'bed commodity' and had all the attention on them.¹¹

Foreign Women in the Faculty of Architecture

The Faculties of Architecture and Engineering remained the most 'male' faculties among with all the others. According to the Istituto Nazionale di Statistica (Istat, The National Institute for Statistics) data, the students enrolled in the Academies of Fine Arts in Italy, were around 30% of all

2 Victoria De Grazia, *How Fascism Ruled Women: Italy 1922–1945* (Berkeley; Los Angeles: University of California Press, 1992), 247.

3 Paola Benedettini Alferazzi, "Congresso dell'Alleanza Internazionale Femminile," *Almanacco della Donna Italiana* 4 (1924), 42.

4 November 22, 1925 for the first time in Italy, the government brought into force a law that allowed the right to vote in local elections to women.

5 Margherita Sarfatti, *Dux* (Milano: Mondadori, 1926, 1st ed.); Margherita G. Sarfatti, *The life of Benito Mussolini* (London: Thorntorn Butterworth, 1925).

6 Roberto Dulio, *Un ritratto mondano: Fotografie di Ghitta Carell* (Milano: Johan & Levi, 2013), 53–5.

7 Catherine Barjansky, *Portraits with Backgrounds* (New York: The Macmillan Company, 1947), 43.

8 Sabrina Spinazzè, "Artiste nel Ventennio: Il ruolo dell'associazionismo femminile tra emancipazione e nazionalizzazione," *Donne d'arte: Storie e generazioni*, edited by Maria Antonietta Trasforini (Roma: Meltemi editore, 2006), 57.

9 Ibid.

10 Maria Castellani, *Donne italiane di ieri e di oggi* (Firenze: Bemporad, 1937), 79.

11 See Nicolaj Asejev, *Razgrimirovannaja krasaviza* (Mosca: Federazija, 1928), republished in: *Sovetskije pisateli ob Italii* (Leningrad: Lenizdat, 1986), 68.

students in the period between 1926 and 1941,¹² while the female graduates were few. In faculties of architecture female students were much more sparse: e.g., in 1934, there were only seven female graduates compared to 1032 male graduates throughout Italy.¹³

Since the foundation of the first Italian Polytechnic Schools in Milan and Turin and the engineering Faculties of Rome and Naples, women's inscriptions were very rare. The first degree obtained by a woman at the Politecnico di Milano belongs to Gaetanina Calvi (1913, in civil engineering).¹⁴ The first women graduates in architecture appeared only in 1928: Carla Maria Bassi (1906–1971) and Elvira Luigia Morassi (1903–2002).

There was a more visible presence of women at the Royal School of Architecture in Rome, established in 1920; already in the first year, we notice some women, Elena Luzzatto (1900–1983) among others, the only woman of her generation who managed to pursue an impressive career. Luzzatto graduated in 1925, in the early stages of the Royal School of Architecture, and for several years she worked as an assistant at the course of the architect Vincenzo Fasolo (free of charge). She had several commissions and prizes during the regime and in the 1950s and she became the leader of the INA-Casa House. Nonetheless, there is no detailed monographic research conducted about her (except a degree thesis).

Giuseppe Bottai, Mussolini's closest collaborator and ideologue of various concepts of the Fascist State system, commissioned to the 28-year-old Luzzatto a project of his villa in Ostia in 1928, shortly after the dictator's speech in which he proclaimed that 'the woman ... is alien to architecture ... Ask her to build a shed, not a temple! She cannot'.¹⁵ In this ambiguity, women had to study and to undertake professional careers.

Among the few foreigners and even fewer women students of Royal High School of Architecture, there was 'Biriukova Alessandra, from Demetrio, from Vladivostok (Russia).' In 1920, Aleksandra Biriukova (1895–1967),¹⁶ together with her parents and sister, artist Yulia Biriukova (1897–1972),

left Russia, where the Civil War was underway, and they arrived in Rome in 1922. She was the daughter of the chief engineer of the Trans-Siberian Railway, Dmitrij Biriukov, and upon her arrival, she already had a degree in architecture from Women's Polytechnic Superior Courses in Petrograd, where she studied, from 1911 to 1914. The courses, established in 1905, had among the professors well-known architects, including Ivan Fomin and Vladimir Shchiuko, who were then protagonists of the new professional generation and later of the establishment of Soviet architecture. There is no mention about Aleksandra's early career in Russia; perhaps she simply had none because of the events of the First World War, continued by the Revolution and the Civil War.

This new formative path could be seen by Biriukova as the way of entering the Italian professional environment. Biriukova graduated in 1925 with one of the highest grades –106/110, and became, together with Elena Luzzatto, one of the first two graduates in Architecture in Italy.¹⁷

Since 1924, Alexandra already worked at the studio of her professor and the prominent Roman architect Arnaldo Foschini. Unfortunately, his archive was voluntarily destroyed by Foschini himself, so there is no mention of Aleksandra among the few documents remained.¹⁸ Therefore, we can only presume what type of projects Biriukova was involved in. In the 1920s, Foschini was engaged in several important projects (Art Decò style –cinema *Supercinema* in front of the Ministry of the Interior in Rome, several churches as well as the project for the reconstruction of the Trevi Fountain Square in Rome).

During the 1930s, Foschini became one of the key figures of fascist architecture; he was one of the winners of the Palazzo Littorio competition (1934), the author of several buildings of the new University of Rome (1935) and huge reconstruction interventions in Rome's city centre were his work. But Aleksandra left Rome before that.

In 1929, she moved to Toronto, Canada, where she became one of the first women registered as an architect. By 1931, she enrolled in the Ontario Association of Architects (OAA), intending to apply her two degrees in Architecture and five-year experience at one of the most influential Roman studios. The first commission arrived immediately.

The famous Candian artist, Lawren Harris (1885–1970) and founder of Group of Seven, who was close to Aleksandra's sister Yulia an artist, commissioned her to redesign the projects for his villa, executed by another architect, Douglas Kertland. The project proposed by Biuriukova struck Harris with its modern approach and unusual character for Toronto of that time.¹⁹

12 *Studenti iscritti per sesso e insegnanti nelle accademie di belle arti statali e nei conservatori e istituti di musica pareggiati - Anni scolastici/accademici 1926/27-2013/14*, Tav. 7.20, Istruzione e lavoro. Università, Accademie e Conservatori, Archivio Istat, http://seriestoriche.istat.it/index.php?id=1&no_cache=1&tx_usercento_centofe%5Bcategoria%5D=7&tx_usercento_centofe%5Baction%5D=show&tx_usercento_centofe%5Bcontroller%5D=Categoria&cHash=1b020e5419ca607971010a98271e3209 (accessed February 20, 2017).

13 Castellani, *Donne italiane*, 83.

14 "I primi studenti e le poche studentesse," Politecnico di Milano, <https://www.polimi.it/ateneo/la-storia/le-origini/> (accessed January 22, 2018).

15 Emil Ludwig, *Colloqui con Mussolini*, (Verona, Mondadori, 1932), 166, cit. in: Elisabetta Salvini, *Ada e le alter: Donne cattoliche tra fascismo e democrazia* (Milano: FrancoAngeli, 2013), 23.

16 "Biriukova Alexandra," Canadian Women Artists History Initiative, http://cwahi.concordia.ca/sources/artists/displayArtist.php?ID_artist=5704 (accessed June 1, 2018); O. Lejkind, Biuriukova Aleksandra, *Iskusstvo i arkhitektura russkogo zarubezja*, <http://www.artz.ru/places/1804815656/1805323334.html> (accessed January 29, 2018).

17 In the same year Biriukova passed the state exam for the qualification of the architect's profession: *Annuario della Regia Scuola di Architettura* (Roma, 1925–1926), 224.

18 *Archivio Arnaldo Foschini: Inventario*, edited by Patrizia Fermetti, Gianluca Capurso and Elisabetta Reale (Roma: Soprintendenza Archivistica per il Lazio, 2010).

19 "A Canadian Artist's Modern Home: Alexandra Biriukova, Architect," *Canadian Homes and Gardens* (April 1931), 40.



Fig. 1. Aleksandra Biriukova,
Lawren Harris Villa, Toronto, 1931.
From: *Canadian Homes and Gardens*
(April 1931), 40.

The three-story villa had an entrance with a front square, flanked by two side volumes. (Fig. 1) The window at the full height of the entrance space formed the symmetrical axis of the main façade. The distribution of rooms around the large central hall, the helicoidal staircase, the rigid lines of Art Deco and the white colour of the external walls stylistically recall the private buildings in Rome of that period, the works of young Roman architects, companions of Biuriukova studies – Mario De Renzi, Pietro Aschieri, Giuseppe Capponi, as well as their master, Arnaldo Foschini.

The first Canadian work by Biuriukova turned out to be her last. In 1934, Alexandra even withdrew from the OAA and began working as a nurse in the tuberculosis department of Free Toronto Hospital for the Consumptive Poor. We could speculate about the reasons: the economic crisis, the lack of commissions for a stylistically too modern architect, the dissolution of the *Gruppo dei Sette* (Group of Seven), which took place in 1933, after which Lawren Harris left Toronto and his villa, which was just finished.

A likely reason for this was the general conformism of the Canadian society of that time, unable to accept a woman having the job as an architect. In fact, it is known that she never mentioned to anyone her architect's past.²⁰ Although in contemporary studies, there are also conclusions like 'the client himself may have played a large hand in its design "because of the highly geometric plan aligns" with Harris's interests in the spiritual value of pure forms',²¹ they seem to ignore the 20 years of experience Aleksandra had in architecture.

Another international student of the Royal High School of Architecture in Rome, who had a much more successful career than Biuriukova, was Eugenia (later known as Genia) Averbuch (1909–1977).²² She was born in the city of Smila in Ukraine, which was still part of the Russian Empire and moved to Palestine at the age of two. She arrived in Rome from Tel Aviv in 1926 and enrolled to become a first year for the 1926–27 academic year.²³ After about two years in Rome, she moved to Brussels where she graduated in architecture in 1930 at the Royal Academy of Arts and then came back home. There, she immediately opened a studio together with the architect Shlomo Ginzburg, who was her husband for a year in 1933 and who remained her collaborator, even after she remarried.

The building that brought her fame was the avant-garde style complex of Zina Dizengoff Square in Tel Aviv, in the so-called 'White City' district, which Genia built in 1934, participating in a competition. After Second World War, she also worked as an urban planner in the municipality of Tel Aviv and participated in the city's masterplan. Her works were often of high social engagement: youth villages for Holocaust refugees, social institutions for women's organizations of Israel, as well as several public buildings (schools and even synagogues), becoming a prominent figure of the professional scene in Israel. Genia's experience she gained in the Roman school is well recognizable in her approach to design.

Sadly, we are yet to find the documented testimonies about the third foreign student in the register of Royal High School of Architecture, Meierovich Antonina da Leo, from Krievija (Russia), enrolled as a first-year of the 1933–34 academic year.²⁴ *Krievija* is the Latvian name for Russia, so it is possible to suggest that she originates from Latvia, which was within the borders of the Russian Empire before 1918. She was the classmate of Achillina Bo for two years, later known as Lina Bo Bardi (1914–1992), the famous protagonist of post-war Modernism. Most likely, Antonina attended only two years of study due to not overcoming the difficult barrier encountered by Lina Bo as well.²⁵ Lots of students left the School after the second year, because of the intensity of the program and the elevated fees. Another reason might be the approach of Italy to Nazi Germany, concluded with the Steel Pact of 1936, which was followed by the racial laws of 1938. A student with a Jewish surname could move away from her studies or even leave Italy.

These young women were disciples of the central figures of Italian architectural school during Fascism, the first actors of the transformation of Rome mentioned above: Foschini, Fasolo, but

20 Harris' villa became one of the first Art Deco buildings in Canada and in 1975 it was included in Toronto's Inventory of Heritage Properties.

21 Geoffrey Simmins, *Ontario Association of Architects: A Centennial History, 1889–1989* (Toronto: Ontario Association of Architects, University of Toronto Press, 1989), cit. in: Kaitlin Wainwright, "Historicist: A Building of Her Own: How a Russian Exile Came to Toronto and Designed Lawren Harris's Art Deco House," *Torontoist* (May 28, 2016), <http://torontoist.com/2016/05/a-building-of-her-own-architect-alexandra-biriukova/> (accessed January 29, 2018).

22 Edina Mayer-Malin, "Architects in Palestine: 1920–1948," Jewish women's archive, <https://jwa.org/encyclopedia/article/architects-in-palestine-1920-1948> (accessed 20/01/2017).

23 *Annuario della Regia Scuola di Architettura* (Roma, 1926–1927), 223.

24 *Annuario della Regia Scuola di Architettura* (Roma, 1933–1934), 164.

25 Rosanna Battistacci, "Achillina Bo nella Regia Scuola Superiore di Architettura di Roma," *Lina Bo Bardi: Un'architettura tra Italia e Brasile*, edited by Alessandra Criconia (Milano: FrancoAngeli, 2017), 152.

also Gustavo Giovannoni and Marcello Piacentini. They were the classmates of architects such as Mario Ridolfi, Adalberto Libera, Luigi Moretti who formed the first generation of Italian Avant-Garde architects and followed the debate on modern architecture, exporting their experience in the countries of their next residence.

As we see, all of the heroines mentioned above originated from different parts of the former Russian Empire. Between the late 1910s and early 1920s, there was a steady wave of immigration from former Russian territories, caused by the Great War and the Revolution of 1917. The immigrants mostly belonged to the middle and upper classes, aristocracy, the bourgeoisie, intelligentsia, driven to leave their homeland from the war and then more so due to the Bolshevik government being in power. Although they represent different ethnic groups and religions, they were all considered generically as 'Russians' in Italy.

Then, a specific image of 'Russian' or 'Slavic' women, based on specific stereotypes and prejudices, was born in Italian society. On the one hand, it was inspired by Russian literature, by the heroines of Tolstoy, Dostoevsky, Turgenev, who, at the beginning of the twentieth century, found great popularity in Italy.²⁶ On the other hand, the image was that linked to the erotic aspect, to the exotic nature of the 'woman of the East' and reputation of Russia as the Country of loose morals which developed 'the same literary tradition, Italian and otherwise, where Slavic, especially Russian, meet, condemned by their own charm to their own ruin or that of the men around them'.²⁷ Another contribution to that perception of Russian women, a great seductress of men without morality, was the character of Luigi Pirandello – a Russian actress Varia Nestoroff who was the protagonist of his novel *Si gira...*, published in 1916 and revised in 1925 with the title *Quaderni di Serafino Gubbio operatore*, which had great success. As Laura Piccolo, a specialist in Russian studies points out:

Slavo becomes a very particular adjective, with meaning consisting of series of semantic overlaps, due to its origin, but also due to the charm of women coming from a lesser known Eastern Europe, most commonly Russia, Siberia, Poland or Crimea. The term was quite flexible, sometimes including Indian or Middle Eastern artists and determining an aesthetic category rather than an actual ethnic or linguistic entity.²⁸

There was yet another side of the image of the Russian woman which was linked to the intellectual aspect, the rebellious spirit based on the courage of the participants of the revolutionary movements. For example, the artists Aleksandra Exter, Olga Rozanova, and also Natalja Gončarova, named the 'Amazons' of the avant-garde, were known in Italy on the occasion of the *International Futurist*

Exhibition (1914). The role of the salon held by the Russian Olga Resnevich Signorelli²⁹ is not to be underestimated; it was not only the meeting point of the Russian diaspora but, it was also one of the important hubs for international artists, writers, critics and art collectors, playing an important role in the inter-cultural communication note (among them –her compatriot artist Edita Zur-Muhlen (1886–1977),³⁰ one of the protagonists of the *Valori plastici* magazine).

Their arrival was anticipated by different Russian women closed to socialist ideas between late nineteenth - early twentieth century. An important figure in Italian political life was Anna Kuliscioff (1855–1925), one of the founders of Italian Socialist Party. Undoubtedly, there were news about the revolutionist activity of Nadežda Krupskaja (the wife of Vladimir Lenin, 1869–1939), Aleksandra Kollontaj (1872–1952), the terrorists Vera Zasulič (1849–1919), Maria Spiridonova (1884–1941) and Sofia Perovskaja (1853–1881).

Later, many participants of the Russian revolutionary movements emigrated to Switzerland, where they met with members of European and also Italian socialist groups. Precisely in these circumstances, during the period of his stay in Switzerland, Angelika Balabanoff (1878–1965), a prominent figure in international Socialism, noted among the Italian immigrant workers Benito Mussolini. The dictator himself owed a large part of his success to women, in particular to the aforementioned Margherita Sarfatti and to the socialist Angelica Balabanoff in which he recognized the 'great teacher ... who, by "structuring the incomprehensible" made it always easy to understand the roots'.³¹

Moreover, there was a lot of news in Italy about the new 'free' women of Soviet Russia. The first decrees of the Bolshevik government established equal rights between men and women and made profound changes in family relations. All of these realities were only a dream in Italy until the 1970s and during the interwar period were seen as inadmissible by the conservative Catholic society, supported by fascist doctrines. In addition, the 'infected' Bolshevik country of origin became another reason why the police supervisors and the common people considered 'Russian' immigrants as suspicious.

All these circumstances put the Russians in a very special category in comparison with other foreigners and certainly affected their existence and their professional paths.

26 Marina Sorina, "La Russia nello specchio dell'editoria italiana nel ventennio fascista: Bibliografia, scelte e strategie" (PhD dissertation, University of Verona, 2009), 21.

27 Laura Piccolo, *Ileana Leonidoff: Lo schermo e la danza* (Rome: Aracne, 2009), 57.

28 Piccolo, *Ileana Leonidoff*, 58.

29 See *Archivio Italiano VI: Olga Signorelli e la cultura del suo tempo*, edited by Elda Rosa Garetto and Daniela Rizzi, (Salerno: Vereja Edizioni, 2010); *Ol'ga Resnevič Signorelli i ruskaja emigracija v načale XX veka*, edited by Elda Rosa Garetto et al., (Salerno: Edizioni dell'Università di Salerno 2012).

30 See *Edita Walterowna Broglio*, edited by Giuseppe Appella, Mario Quesada and Anne Marie Sauzeau Boetti, (Roma: Leonardo De Luca, 1991), Exhibition Catalogue.

31 Angelica Balabanoff, *La mia vita di rivoluzionaria* (Milano, Feltrinelli, 1979), 46, in: Rossanna Ferrario, *Margherita Sarfatti: La regina dell'arte nell'Italia fascista* (Milano, Mondadori, 2015), 75.

Brides and Collaborators

There was also another road that led women to work in architecture: the one that transformed family into professional relationships. Precisely at that time, we find several examples of these collaborations. Starting from the 'architect of Mussolini' Marcello Piacentini, whose wife Matilde Festa (1890–1957), was a painter who also did several monumental projects for her husband's colleagues.

An example that concerns our topic is that of Aleksandra Olsufieva (1906–1989, then she also signed as Assia Busiri Vici), consort of Andrea Busiri Vici and the associate of the architectural firm of Michele and Clemente Busiri Vici, her brothers-in-law. She arrived in Florence in 1919, fleeing from the Revolution, together with her family, which was one of the most famous aristocratic Russian families.

Her education did not have a distinctly academic character, but she combined different experiences. She studied at the Academy of Fine Arts in Florence at Gaetano Spinelli and Felice Carena classes; then she took lessons from the sculptor of Czech origin, Hélène Zelezny-Scholz, an important protagonist of Art Deco, and also often frequented 'the lectures of the sculptor Marino Marini'.³² In the same period, she met two artists, the Michahelles brothers – Thayaht (Ernesto Michahelles) and RAM (Ruggero Alfredo Michahelles), who soon became her relatives.³³

Andrea was attracted 'by the beauty and nobility'³⁴ of the young Russian countess, and they were soon married by 1928, a few months after Andrea obtained his degree in Rome at the Faculty of Architecture. Aleksandra was immediately involved in the activity of her brothers-in-law and her husband, using her high skills as a miniaturist, watercolourist and sculptor for the execution of architectural drawings where she added trees and people, as well as works of interior decoration, 'no project by the Busiri Vici studio was presented to the client without the final touch up of Assia'.³⁵

Aleksandra took part in several works by studio Busiri Vici, even in two important commitments for the fascist regime. The artist created the stained-glass of the Luce Documentary Film Institute in Rome, built, winning the competition in 1937, and in 1939, she participated in the preparation of the Italian pavilion at the New York Universal Fair. According to the artist's testimonies, the pavilion was 'a resounding success'.³⁶

32 Assia Busiri Vici, *Profili sulla sabbia*, edited by Roberto Peliti (Roma: Stabilimento tipografico Julia, 1975), 82.

33 RAM married Aleksandra's sister, Olga, while the third brother, Marco Michahelles, a cereal geneticist, joined his sister Maria Olsoufieff, the future famous translator of twentieth-century Russian literature.

34 Testimony of their daughter Maria Cristina Busiri Vici Jatta, collected by the author during the meeting in May 2015.

35 Testimony of Alessandra Jatta, collected by the author during the meeting in May 2015.

36 Assia Busiri Vici, *Profili sulla sabbia*, 85.



Fig. 2. Alexandra Olsufiev Busiri Vici, *Italy at work*, 1939, Sketch for the stained-glass, Private collection

The crafts section was set up by Donna Alexandra Busiri Vici Olsoufieff. The artist also designed the stained-glass windows *Italy at work*, in the characteristic style of Italian monumental art of the 1930s. (Fig. 2) The work had an explicit ideological task, due to its destination, but also had to be elegant and with a taste of metaphysical art; it was placed above the portal of the main exit of the vestibule of the pavilion, which led to the gardens.

After the Second World War, Aleksandra and Andrea separated. Aleksandra did not stop working with the studio but devoted herself mainly to portraits, now present in several private collections, especially Roman ones. Such examples of a Russian collaboration with a Roman architecture studio are rare, especially due to the artist's social and familial status.

In conclusion, it must be emphasized that the foreign women architects, active in Rome during the fascist regime, were singular cases among the already limited number of female presences in general. Their main provenance was from the territories of the former Russian Empire which is primarily due to the war and the social conditions in their native country. They lived in very severe conditions caused by the political system but also by the conservative and rather hypocritical public opinion. In most cases, their presence was temporary and their work is not easily identifiable. However, sometimes they had a role of 'exporters' of the Italian professional approach to other geographical and cultural contexts.

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Stefania Filo Speziale and Her Long-Overlooked Legacy to Twentieth Century Italian Architecture

Looking for a Neapolitan Modernism

Modernism first came to Naples during the Thirties, when a Neapolitan current of Mediterranean Rationalism clearly started to take shape in works like Villa Oro (Luigi Cosenza, Bernard Rudofsky 1937).¹ Post-war economic and cultural modernization led local architects to develop a form of rationalist language, which can be included in the 'Italian Style' during the Economic Boom. In this panorama, Stefania Filo Speziale gave her own contribution, as a modernist architect and woman.

Stefania Filo di Torre Santa Susanna was born in 1905 from a noble family. She received an artistic education (at Accademia di Belle Arti), also based on language learning (French and German). She was the first female architect graduating in 1932 in the new Real Scuola di Architettura (Royal School of Architecture).² After the degree, at the advanced age of 35, she married to the historian Giuseppe Carlo Speziale.³

Stefania was a pupil of Marcello Canino, the master of all her generation of architects, and dean of the Royal School of Architecture, with whom she worked during the first phase of her career when she worked on the complex of the *Mostra delle Terre Italiane d'Oltremare* (Exhibition of the Italian

Overseas Territories). So, her training started during Fascism, when the profession of the architect was considered a male job, confirming just how determined her vocation was.

This Exhibition, inaugurated before the beginning of the Second World War, was an important step towards a Neapolitan Modernism, to which the young, newly graduated architects of the new Faculty of Architecture contributed. Overall, it was an eclectic and monumental intervention with an exotic and colonial touch, but there were examples of Modern architecture especially in some technical structures designed by the young generation of architects, like the Pavilion of Electro-technology (Stefania Filo Speziale), the Arena Flegrea (Giulio De Luca), or the restaurant with its swimming pool (Carlo Cocchia). For this complex, Stefania also designed the Pavilion of Industry and the North Entrance, decisively in a rationalist language in the geometrical use as well as in the materials choice.

After the Exhibition, success came with the cinema-theatre Metropolitan (1946–48), her only work published in those years in an architectural magazine, *Domus*. The project re-uses a natural cavity, taken as an air-raid shelter during the war and situated below the Palazzo Cellammare, owned by a noble family related to the Filo family. The relationship with the context in this architecture, excavated in the tufa stone, recalled the previous Villa Oro: a symbiotic association of architecture with the landscape that comes directly from the ground.

Afterwards, in 1954 the Filo Speziale office was founded, made up of Stefania and two young members: Giorgio di Simone and Carlo Chiurazzi (who tragically died in 1959). At the same time, she continued her academic career, becoming a professor in 1955 of 'Caratteri Distributivi degli Edifici' (Distributive Characteristics of Buildings) and then, in 1975, of 'Composizione Architettonica' (Architectural Composition).

During the 1950s the Filo Speziale office produced a lot of interesting works, both in the private and public sectors. Her name is linked to many working-class neighbourhoods of the early Reconstruction period, including the famous Ina-casa of Capodichino (1951), the other Ina-casa estates of Agnano (1954–57) and Soccavo (1957) and the Cep Rione Traiano (1959).

The Capodichino and Agnano projects are chronologically close but linguistically very distant. In the first case, the reference to German Rationalism of the *Siedlungen* is clear, analogously to what happened in that period in Italy, as well as in Naples, for other Ina-casa estates.

At Agnano, the orography is the compositional principle used by Filo to define the master plan. The lot designated by the Istituto Meridionale Edilizia Popolare (iMep – Southern Institute for Social Housing) occupies a promontory, which is itself altimetrically independent from the adjacent urban context.

Following the lot, the plan takes shape around a spiral road, from the access on the Southside to the highest point on the Northside. Continuing, at the sides of the road, in parallel or perpendicular, twenty-one buildings are inserted one by one. In a varied repertoire of building types, the height

¹ This research is a joint work by the two authors. However, the first paragraph is written by Chiara Ingrosso, while the second is by Aurora Maria Riviezzo, the conclusion is written by both authors.

² About the history of the Facoltà di Architettura di Napoli see Benedetto Gravagnuolo et al. (eds.), *La Facoltà di Architettura dell'Ateneo fridericiano di Napoli 1928/2008* (Naples: Clean, 2008).

³ See Sergio Attanasio, "Stefania Filo Speziale," *Fuori dall'ombra: Nuove tendenze dell'arte a Napoli 1945–1965*, edited by Nicola Spinosa et al., (Naples: De Rosa Editore, 1991), 563–4.

of the buildings gradually increased in an attempt to give compactness to the entire system.⁴ The different types of buildings also correspond to a diversification of the language and architectural features:⁵ from the 1950s Rationalism of the modular elevations of the multi-storey slats, buildings change into a more traditional language that uses native materials and elements, such as stone stairs, long bases in Vesuvian stone, and exposed tufa stone.⁶

But the 1950s and 1960s, which coincided with Neapolitan reconstruction and the economic boom, were characterized not only by the innovative social housing. Between 1951 and 1967, a total of 469,854 rooms were built in Naples, the same as a large city like Palermo.⁷ Despite the pervasive nature of this phenomenon, there is a lack of specific research on the subject that is able to overcome a number of consolidated historiographical paradigms, especially those referring to so-called 'Laurism' (from Achille Lauro who was the mayor of the city from 1952 to 1957 and a few months in 1961). Up to now, the history of architecture has endorsed a line that favoured the exceptional nature of speculative overbuilding in Naples, associating this with the idea of the Mayor-monarch, who was seen as a sort of *deus ex machina*, with the implied consent of everyone.

A historiographical reading of this kind based on this ideology largely prevented in-depth research into the private architecture for the middle-classes, while censoring the studies on architecture intended for the upper-middle class, which were of a high standard, but were nonetheless deemed speculative. Only public buildings were studied in-depth with the result that a large portion of contemporary Neapolitan architecture currently remains unwritten. The 1950s and 1960s were characterized not only by low-quality architecture resulting from building speculation and political malfeasance but also by many examples of private architecture designed by the Filo Speziale office during the 1950s worthy of being listed within the history of Neapolitan Modernism, such as *Palazzo della Morte* in corso Vittorio Emanuele (1955),⁸ the iMep compound in via Nevio (1955–69),⁹ her private residence in via Tasso (1955), and *Villa Grimaldi* (1959).

Palazzo della Morte is undoubtedly a masterpiece. It was entirely designed in relation to the context and especially to nature and to the sun exposure: from the staircase that clings to the ridge of the tufa stone of the Vomero hill, to the great central void among the buildings that represents the real green heart of the composition, with tall trees, bushes and planters. Overall, the use of covering materials, which, as always happens in Filo Speziale's projects, alternates with extreme skill ceramic inserts, mosaics of strong colours, traditional terracotta tiles, with glass, and plaster, bricks, and marble, in order to create effects with a strong aesthetic value, constantly seeking an anti dogmatic Modernism.

The 1950s, which was the richest period of Filo Speziale production, coincided with the competition for the *Grattacielo della Società Cattolica di Assicurazione* (*Skyscraper* of the Catholic Association of Insurance Company, 1954–58), whose victory will sign her entire career and life negatively. The fault of the skyscraper was to be situated in the historical city centre.

Isolated from academic colleagues, criticized by Cesare Brandi and Roberto Pane, the woman who designed the first skyscraper of the city was accused of being linked first to the regime, then to land speculation. In addition, being a woman probably contributed increasing the envy of the Neapolitan professional world all made up of men. All these factors led her to burn her archives so as not to leave any trace of her works, leaving a big problem for research and studies.

Fortunately, her memory is still alive (the architect died in 1988) and her works are mostly still standing, but a monographic study to deepen her legacy still remains to be written.

A Very Tall Sin

For a correct reappraisal of the work of Stefania Filo Speziale, we should focus on her best known and most controversial project: the *Skyscraper*. In the absence of a personal archive, the only way to provide a useful framework has been to search through all the reliable documents and papers we were able to find at the archives of the Soprintendenza (Superintendence) di Napoli. We found it really useful to rethink the complexity of the design process and also to retrace the troubled *iter* of its construction. First of all, let us consider the site.

The competition notice issued by the Società Cattolica di Assicurazione di Verona specified a skyscraper equipped with the hotel as well as with floors dedicated to offices and residential flats. The selected site was at the corner between via Medina and via dei Fiorentini, a very central location in the historical urban fabric known as Rione Carità-San Giuseppe. This area was covered by a significant Piano di Risanamento (Redevelopment Plan), which had been approved by Royal

4 Lilia Pagano, *Periferie di Napoli: La geografia, il quartiere, l'edilizia pubblica* (Naples: Electa Napoli, 2001), 150–1.

5 Alessandro Castagnaro, *Architettura del Novecento a Napoli: Il noto e l'inedito* (Naples: Edizioni Scientifiche Italiane, 1998), 177.

6 See Carolina De Falco, "Immagine e sviluppo della Napoli occidentale: Case pubbliche e ricostruzione," *Eikoncity II*, 1 (2016), 85–99; Carolina De Falco, "LINA Casa a Bagnoli, Agnano e Canzanella e gli interventi della Filo Speziale: Ripartire dalla Storia per la salvaguardia ambientale," *La Baia di Napoli: Strategie integrate per la conservazione e la fruizione del paesaggio culturale*, Vol. 1, edited by Aldo Aveta, Bianca Gioia and Marino Raffaele, (Naples: Arstudiopaparo, 2017), 204–8.

7 Andrea Geremicca, *Dentro la città: Napoli angoscia e speranza* (Naples: Tascabili Guida editori, 1977), 84–5.

8 See Marco Burrascano and Marco Mondello, *Lo Studio Filo Speziale e il modernismo partenopeo: Palazzo Della Morte* (Naples: Clean, 2014).

9 Cherubino Gambardella, *Posillipo* (Napoli: Clean, 1999), 139–41; Chiara Ingrosso, *Condomini napoletani: La "città privata" tra ricostruzione e boom economico* (Siracusa: Lettera22, 2017), 82–7.

Decree in 1913.¹⁰

During Fascism –adapting the plan using variants in 1930, 1934 and 1938– the urban structure was largely transformed demolishing old buildings block by block to build new government buildings: the *Palazzo delle Poste* by Giuseppe Vaccaro and Gino Franzi (the Post Office Building, 1933–36), the *Palazzo del Banco* di Napoli by Marcello Piacentini (Bank of Naples Building, 1939–40), the *Palazzo dell'Intendenza di Finanza* (Economic Police Building, 1935) designed by Marcello Canino with Filo Speziale. The redevelopment of that area, aimed at creating an administrative and financial centre, was re-proposed in Piccinato's Plan (1939) as well as by the successive Lauro-led city council during the post-war years, which promoted the implementation of four zoning areas. The zoning unit where today we find the skyscraper was already owned by Società Cattolica, except for a nineteenth-century building at via Medina 67, known as *Palazzo Ferrara*, which had been subject to preservation rules from 1913 due to its historical significance.

According to the *laissez-faire* governmental system, a deregulation loophole was easily found through the variant approved in 1938 in which that building was listed to be demolished for executive purposes. On 25 July 1955, as result of a really fast procedure, a decree approved by the District Magistrate (Decreto Prefettizio) validates the eminent domain and consequently, the preservation constraint was no longer considered as being valid.¹¹

When the old building had been demolished, a new stage began. In those years, the Regolamento Edilizio (Building Code) carefully regulated the height of new buildings and in Rione Carità the limit had been set as one and half times the width of the street. This meant that the maximum of 32 m had to be respected¹² – a standard already derogated in 1950 as to the 52 m high SME building designed by Renato Avolio de Martino. Ever since the competition notice had been published, the intention was to escape the law by the derogating system: two projects were required to participate, comparable but different, one not exceeding the legal height, another inexplicably about 100 m tall.¹³ At an early stage of planning, and evidently aiming to show the visual impact of the future skyscraper from the modern uptown area (Fig. 1), the Soprintendente of Naples, Antonio Rusconi, suggested mimicking its body by constructing its silhouette in metal tubes,¹⁴ as had been previously



Fig. 1. Naples, the Skyscraper into the urban fabric, 1960 ca. Courtesy of the Archives of the Superintendence of Architecture and Landscape, for Historical, Artistic and Demoethnoanthropologic Heritage of Naples.

done to the Pirelli's skyscraper (1955–58) in Milan.

Even then, the legal loophole was not in contrast with the law adopted by the Podestà of Naples Giovanni Orgeo in 1935, which had reserved the right for himself –and so for the mayor too– to modify the maximum height if the building was considered to play an 'important'¹⁵ role in the city's development. As a result, it wasn't long before the building height increased to 60 m, then 70, and finally 90 m: today the skyscraper is about 104 m high.

Long before the construction started, the skyscraper had already become an example of corruption and bad policy. There was a heated debate in the daily papers. Every day *L'Unità* published articles in reaction to *Roma*: one paper was in favour and the other against Achille Lauro and his committee.

Through the local media, the intellectual Neapolitan *milieu* expressed its disagreement especially with its designer, misjudging her relevant academic career. The newspaper *Il Mattino* published a number of articles using 'costruire alto per speculare bene' (building high to speculate successfully) as a topic, or borrowing from Cesare Brandi 'Rione Carità come Babele' (Rione Carità as Babele).¹⁶

In 1963, the skyscraper even turned out to be a good movie character in "Le mani sulla città" ("Hands over the City") by Francesco Rosi, who places in its penthouse the headquarters of the contractor Edoardo Nottola, who completely embodies the land speculation of those years.

The *Skyscraper*, today is known as Hotel Ambassador, is actually the cumbersome policy-making result and is something really different from the winning design proposal.

The first draft by Filo Speziale teamed up with Chiurazzi and di Simone, included a public square on via Medina in order to set the building line further back. The iron structural system kept up with

10 *Napoli – Risanamento Rione Carità-San Giuseppe – Licenze Edilizie Rilasciate dal Comune*, 15 dicembre 1954, Div. 23, 4247/4248, Archivio della Soprintendenza per i Beni Architettonici e per il Paesaggio, per il Patrimonio Storico, Artistico e Demoetnoantropologico di Napoli (or ASBAPPSADN) (Archives of the Superintendence of Architecture and Landscape, for Historical, Artistic and Demoethnoanthropologic Heritage of Naples).

11 *Napoli – Risanamento Rione Carità-San Giuseppe – Ricorso al consiglio di Stato della baronessa Enrichetta Ferrara Buono ed altri*, 3 gennaio 1959, Div. IV, 761, ASBAPPSADN.

12 *Napoli – Edificio in via Medina – Ricorso gerarchico al sindaco di Napoli*, 18 aprile 1955, ASBAPPSADN.

13 Roberto Pane, "Il grattacielo," *Il Mondo*, (February 4, 1948), 6.

14 *Napoli – Via Medina – Demolizione Palazzo n. 67 e costruzione di un grattacielo*, 21 aprile 1955, ASBAPPSADN.

15 *Napoli – Risanamento Rione Carità-San Giuseppe – Licenze edilizie rilasciate dal Comune*, 15 dicembre 1954, Div. 23, 4247-4248, ASBAPPSADN.

16 Cesare Brandi, "Processo all'architettura moderna," *L'architettura: Cronaca e storia* 11 (1956), 356–60.

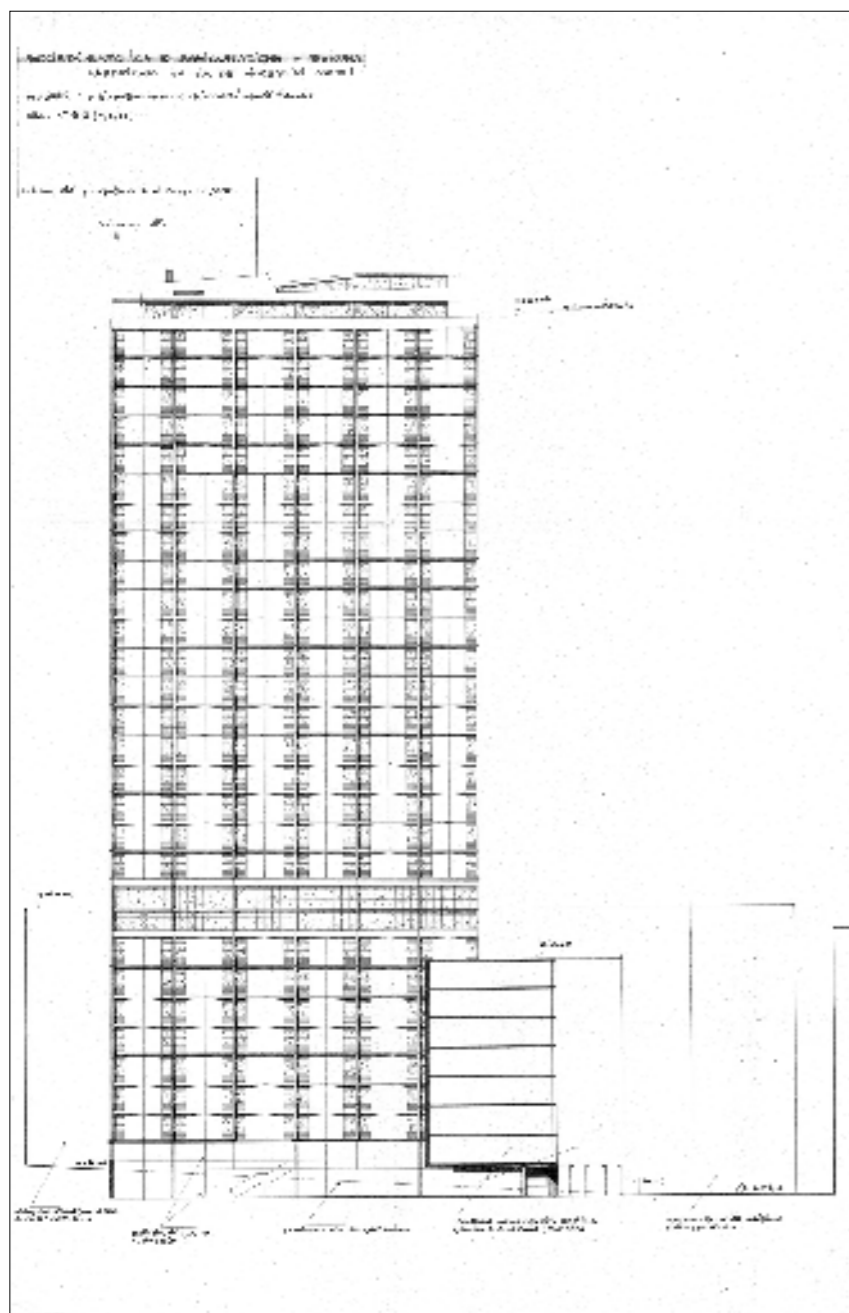


Fig. 2. Stefania Filo Speziale, Carlo Chiurazzi, Giorgio di Simone, *Fabbricato in via dei Fiorentini-Napoli*, proposal "A," South facade, 1955.

Courtesy of the Archives of the Superintendence of Architecture and Landscape, for Historical, Artistic and Demoethnoanthropologic Heritage of Naples.

the times. On the façade, wider balconies surrounded the volume all around, just as in the iMep compound and in the subsequent *Villa Grimaldi*. In its authentic draft, and without prejudice, the skyscraper could have been a pioneering project in the modern architecture panorama of Italy. But, unfortunately, after winning the contest, the Superintendence chose to distort completely the design in its size, shape and surface.

The proposal failed in its architectural terms as well as in the only partial use of the area. At street level, a base was required to replace the ancient building. The team was forced, therefore, to draw up two different proposals. In the first new draft – the one approved both by the Società Cattolica

and Rusconi¹⁷ – structure and shell were overlapping in a perfect match between plan and elevation, designing a stereometric body where the wider balconies are replaced with large glazed surfaces.

(Fig. 2)

The stretched octagonal plan and the elevation, emphasized due to the structural system, made the oversized mass lighter to the eye. The structure, carried out by the engineering firm De Lieto-Del Vecchio, turns to a cheaper and more manageable material: concrete.¹⁸ This was a revision of Le Corbusier's unrealized skyscraper in Algiers (1938–42), exactly like the aforementioned *Grattacielo Pirelli* in Milan and the *Pan-Am Building* by Walter Gropius and Pietro Belluschi in New York City (1958).

In the other draft, balconies go missing in a rectangular volume and are replaced by a mesh of small windows. Therefore, there is a huge discrepancy between the first idea and the final execution, especially due to the denial of a contemporary structural Expressionism. The *Skyscraper* is a 27-story monolith, a big hotel with cubicle-rooms with a single small window. At the loft-level, preserving the glass curtain wall makes the restaurant an amazing 360-degree belvedere above Naples and it can be considered the only remaining component of the original proposal by Stefania Filo Speziale.

Conclusion

Since the *Skyscraper*, Stefania Filo Speziale was easily set aside.¹⁹ The American icon, the modern building by definition has never been completely accepted because of its location. According to a preservation ethos, the chance to experiment with modern structure and international language had been wasted. For many years, the high-quality legacy of Stefania Filo Speziale has been denied and forgotten because of her 'original sin'.

The only real blame lies with the local administration and their policies: as in many other cases, they were unable to realise the re-development of the city through architecture as a medium. And, in some ways, the case of Filo Speziale's work removal from historiography exemplifies the *damnatio memoriae* process which covered the whole of Neapolitan architecture in those years, reduced to be the result of a near worthless speculation.

¹⁷ *Napoli – Via Medina – costruzione grattacielo*, 16 maggio 1955, ASBAPPSADN.

¹⁸ Attanasio, *Speziale*, 564.

¹⁹ In 2003, in collaboration with Stefania Filo Speziale's daughter, Maria Pia, was organized an exhibition about her work, *Le grandi opere napoletane dell'architetto Stefania Filo Speziale* (Most important Neapolitan Architectures designed by Stefania Filo Speziale) hosted at Ordine degli Architetti di Napoli, which is the first step in her reevaluation.

Fortunately, recent studies have made a serious contribution to the reevaluation of Parthenopean architecture at this time.²⁰ In Naples, architects, like other contemporary artists, always tried to find a different way of being compared with the general Italian scenario, carrying out their own original research. We can affirm, without doubt, that the 1950s Neapolitan architecture was expressing itself using a modern code, with a total adherence to a rationalist language band yet remained in effect mostly unorthodox.

Although, unlike other Italian contexts, this rationalist language maintained a constant dialogue with the natural scene it remained in constant tension with the surrounding landscape, as a result of the anthropogenic component considered. This architecture was not integrated into the landscape, nor constituted mimetic solutions, but rather was designed to be prominent on the natural scene. It was a kind of less strict Rationalism, more open to Northern-European influences, even organic, and of course, it reveals the influence of contemporary Italian models. For this reason, Neapolitan Modernism shows us another side of a lexicon which had for a long time been considered universal, homogeneous, and international and without contradiction, but which was full of nuances and exceptions.

In this panorama, Stefania Filo Speziale emerges as one of the most interesting exponents of Neapolitan Modernism. Her contribution –which regards all the fields of architecture– is undoubtedly in the same connection with the natural uniqueness of the city and its urban form. Any project by Stefania Filo Speziale could be considered in detail and they would reveal her perfect skills in designing architecture, an innate ability in getting in touch with the surroundings. Regarding the residential buildings, the link with the Gulf and the hilly landscape is really close. Her own residence in Via Tasso is a low building which evolves from a green space, seeming to camouflage itself in the midst of the Liberty architecture around. In the same way, as Palazzo della Morte is all about the natural altimetry: with a sloping development, the villa basically became a Mediterranean interpretation in a modern key, with an essential physical connection between land and architecture.²¹

However, in the Metropolitan the ground is also considered but contrarily and the entire project is hypogeum. And again, the already mentioned neighbourhood in Agnano is designed in harmony with

the orography as a whole. The process of defining the urban system and position, the orientation and typology of its architecture depends on the promontory's qualities.

In conclusion, there is another significant consideration to make. According to the European Council of Architects, the European average of women in architecture in 2017 was about 39%. But, despite the promising statistics, it still remains largely a male discipline. Stefania Filo Speziale remained for thirty years the only woman in a totally male-dominated professional background and, moreover, during the years of fascist propaganda. She is an example of how it is possible to achieve important results and overcome many difficulties and prejudices through determination.

²⁰ In order to fill the gap, many monographic studies have been recently published, for example: Giancarlo Cosenza and Francesco D. Moccia (eds.), *Luigi Cosenza: L'opera complete* (Naples: Clean, 1987); Antonio D'Auria, *Michele Capobianco* (Napoli: Electa, 1993); Giovanni Menna, *Vittorio Amicarella Architetto: 1907–1997* (Naples: ESI, 2000); Gaetano Fusco (ed.), *Franz di Salv.: Opere e progetti* (Naples: Clean, 2003); Sergio Stenti, *Marcello Canino* (Naples: Clean, 2005); Barbara Bertoli, *Giulio De Luca* (Naples: Clean, 2013).

²¹ Elena Manzo, "Architetture del moderno a Napoli tra progetto e prassi: La casa di Stefania Filo Speziale," *Il moderno tra conservazione e trasformazione: Dieci anni di Do.Co.Mo.Mo. Italia: ilanci e prospettive: Atti del convegno internazionale, Trieste, 5-8 dicembre 2005*, edited by Sergio Pratali Maffei and Federica Rovello (Trieste: Editreg, 2005), 155–65.

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Women as Design Partners: First Founded Husband and Wife Partnerships in Modern Turkish Architecture

In Turkey, participation of women in different professional fields has been directly connected with the modernisation policies of the newly founded State, after the proclamation of the Republic in 1923. One of the important elements in the build-up of modern society image by the State in line with its westernization ideals has been a modernisation of women. During this process, the visibility and contribution of a woman in public realm have been reinforced within the scope of statutory rights and legal regulations granted by the State. In addition, the State supported women to benefit comprehensively from educational rights, and the first women who graduated from higher education institutions in different occupational fields have played leading roles in the professional field.

The first female architects with higher education in architecture started to operate in the profession since 1934.¹ Turkey's first official architectural institution the Academy of Fine Arts (was founded as *Sanayi-i Nefise Mektebi* in 1883) became the first higher education institution to open architecture education for women.

The diversification of the architectural education with the Istanbul Technical University, Faculty of Architecture established in 1944 have been effective in increasing the number of women in the architecture profession since 1950s.²

1 In 1934, first women graduated from the Academy of Fine Arts are Leman Tomsu and Münevver Belen. Other women graduated from the Academy of Fine Arts until 1940s are Şekure Üçer Niltuna (1936) and Leyla Turgut (1939). For more detailed information see: Yekta Özgüven, "1934-1960 Yılları Arasında Türkiye'deki Mimarlık Okullarından Mezun Olan Kadın Mimarlar Üzerine Bir Değerlendirme," *Cumhuriyet Döneminde Kadın ve Mimarlık*, edited by Neslihan Türkün Dostoğlu, (Istanbul: TMMOB Mimarlar Odası Yayınları, 2005).

2 Founded in 1884, the Hendese-i Mülkiye Mektebi was named Higher Engineer School in 1928 and was named Istanbul Technical University by the Law on Universities which was published in 1944.

In the 1940s the number of women graduated from architecture schools were 34 while this number has been increased to 87 in 1950s.³

Until the 1950s Turkish architects were trying to exist with their civil servant or academician identities in the area of profession. Since the foreign architects were given duties in the important construction activities of the State and the construction of residential buildings were in the hands of foremen, this has considerably narrowed down the working area of the Turkish architects. On the other hand, as of the 1930s, the opening of some public buildings to construction by way of competitions provided an important opportunity for Turkish architects.

As of the 1940s, changing priorities in economic policies also brought changes in the structure of the political regime, the one-party political order has come to an end and in 1950 Democratic Party came to power.⁴ In 1950s Turkey entered into a new era when it started to be part of the international economic order of the Western World and the private sector started to create its own market.

While the State institutions maintained their determining role as the employer of the architects, the private sector requested its own architectural demands with its different needs and desires. As a result of the establishment of the first private architecture offices, the career of the architect has re-shaped. The architect started to have an existence independent of his/her civil servant status. Women were also among the founders of the first private architectural offices.

Hande Çağlar Suher⁵ and Perran Doğançlı⁶ who graduated from Istanbul Technical University in 1951 are the first women who are known to have carried out their own private offices. In 1950s women also had a significant role within the different collaborations participating in the architecture competitions regarding number.⁷ As of 1960s women's activities in collaborations that were established within the framework of architecture, competitions have started to exist in a more institutionalised structure. It is seen that the practices that were established mainly as husband-and-wife partnerships at the beginning of the 1960s effectively continued their position in the free market and their contribution to the built environment until the mid-1980s.

3 Yekta Özgüven, "1934-1960 Yılları Arasında Türkiye'deki Mimarlık Okullarından Mezun Olan Kadın Mimarlar Üzerine Bir Değerlendirme," 47.

4 Afife Batur, "Cumhuriyet Döneminde Türk Mimarlığı," *Cumhuriyet Dönemi Türkiye Ansiklopedisi*, edited by Yıldız Sey (Istanbul: İletişim Yayınları, 1983), 1400.

5 Hande Çağlar Suher, Altay Erol and Tekin Aydın established PIA Partnership in 1956 to participate architecture competitions. Between 1957 and 1960 she worked as a design partner in AHE Architecture and Town Planning Office.

6 Perran Doğançlı established her own office, right after her graduation in 1951. She participated to architecture competitions and had a long-termed collaboration with Yılmaz Ergüvenç. She continued to work until 2000s.

7 The contests index of the Chamber of Architects Ankara Branch covering the architecture competitions held between 1930 and 2004, provides a comprehensive database in connection with the participation of women.

The Determining Motivations in Terms of Architectural Education and Professional Field during the 1950s

The first private architectural offices, founded in the 1950s, transformed the working system of the architectural practice maintaining their activities based on efforts of a single person. The difficulty in the sustainability of architectural offices under free market conditions made partnerships more advantageous rather than individual works in practice. Participation in the competitions for the projects of various public buildings opened by the Ministry of Public Works⁸ and the Bank of Provinces⁹ have been important in the sustainability of the first architectural offices of the period and their capability to maintain their independent existence in the free market.

The transformation of professional field in the 1950s under the influence of free market has been influenced the architecture education. The dynamism created by the new education program and staff of the Istanbul Technical University (ITU), Faculty of Architecture, influenced students and encouraged their participation in architecture competitions.

The achievements accomplished in architecture competitions brought excitement to the school environment. Architecture competitions became an important part of the education and they have increased their effectiveness as of the 1950s. Almost all the professors of the Faculty of Architecture, and from amongst students, those who were interested, participated in the competitions throughout their educations.¹⁰

Competitions have been significant for the couples that they had the opportunity to practice together before founding their partnerships at the beginning of the 1960s. Hayzuran Hasol (1938)¹¹ emphasises that the exchange of architectural ideas in the joint study atmosphere of the university has contributed to their professional development and mentions the close friendships that were set up thanks to this exchange. Their friendship with her spouse Doğan Hasol (1937), which started at university years, transformed into the partnership which they founded right after their graduation in order to join architectural competitions.

Şaziment Arolat (1935) and Neşet Arolat (1934) joined architecture competitions with a team of six persons comprised of their classmates, and thus started to work and produce since their university years. Whereas, Altuğ Çinici (1935) founded her partnership with Behruz Çinici (1932–2011) who

she knew from university years, and who used to work as an assistant. Right after her graduation, to participate in the Middle East Technical University Campus Project competition, they have started to work together.

New generation academicians of the 1950s have watched the Western Modern architecture approaches and architectural education models closely. Searching for new architectural education models in ITU at the end of the 1950s, resulted in the invitation of foreign academicians and architects for giving short-term lectures and conferences. Foreign leading architects of the period like Rolf Gutbrod, Jürgen Joedicke, Richard Neutra, Gio Ponti, Bruno Zevi were among those who were invited to the school.¹² German professor Rolf Gutbrod visit between 1957 and 1959, has been important as he influenced the architectural design studios and he offered job opportunities for the graduates in Germany.¹³ This has been a great opportunity for graduates to get to know and experience the modern architecture in Europe. One of the students of Gutbrod, Sevinç Hadi had the opportunity to work in Stuttgart for one year, right after her graduation in 1959.¹⁴ She mentions that her architectural visits in Germany have made a great influence on her architectural view.

Şaziment Arolat and Neşet Arolat, who were also the students of Gutbrod, had the chance to work in Stuttgart for one-half years, after their graduation in 1959.

On the other hand, architecture offices of the 1950s Turkey also offered important opportunities for new graduates to experience free market and to become introduced to Modern architectural approaches of the period. New generation young architects who had control in the free market through competitions became practitioners of Modernist approaches, defined as the International Style.¹⁵ Contrary to architectural education in schools, international and contemporary architectural publications became instructive for the formal forms of the new style. The ideas of representatives of the Modern architecture such as Frank Lloyd Wright, Le Corbusier, Mies van der Rohe and Alvar Aalto were transferred to the architecture environment through publications.¹⁶

The free market experiences that women carried on along with their architectural education provided a multi-faceted and qualified infrastructure for their development as architects.

Sevinç Hadi's works with Turgut Cansever and Nezi Eldem, city planning experiences of Hayzuran

12 İnceoğlu, *Anılarda Yalnızlar*, 120.

13 Rolf Gutbrod has been invited to ITU in 1957, while he has been practicing at the Technical University of Stuttgart.

14 Zeynep İrem Küreğibüyük, Interview with Sevinç Hadi, (İstanbul, January 17, 2017).

15 The International Style is a reinterpreted form of combination of the European Modernist tendencies of the pre-Second World War era with the technical and commercial experience of the skyscraper architecture of the United States.

16 Doğan Tekeli, *Mimarlık: Zor Sanat* (İstanbul: Yapı Kredi Yayınları, 2012), 87.

8 Founded in 1928, Turkey Ministry of Public Works, Building and Urban Affairs Chairmanship has been the authority responsible for regulating architectural activities for governmental authorities.

9 Founded in 1933, the Bank of Provinces has been the authority responsible for financing provincial special administrations and development plan implementations of municipalities and villages.

10 Necati İnceoğlu, *Anılarda Yalnızlar* (İstanbul: YEM Yayınları, 2008), 102.

11 Zeynep İrem Küreğibüyük, Interview with Hayzuran Hasol (İstanbul, April 17, 2017).

Hasol with Turgut Cansever, Şaziment Arolat's works with Kadri Erdoğan and Yılmaz Sanlı during her school years, and Altuğ Çinici's works in the Doğan Tekeli and Sami Sisa Partnership have been important experiences.¹⁷

Strong academic and professional practices in ITU at the end of the 1950s provided women with privileged and influential experiences. Sevinç Hadi¹⁸ indicates that there were 13 girls in the same class, for the first time in ITU. And these young women became the new generation of representatives of the 1960s Modern architecture. Professional achievements of the first husband-and-wife partnerships, shortly after they were established are the most important proof of this.

The Determining Motivations in Terms of Development of Their Common Architectural Approaches

The politic and social structure of Turkey has been transformed after the military intervention in 1960. The new constitution that was announced in 1961 created a transformative effect that expanded democratic rights, liberalised ways of thinking and organisational initiatives in society.¹⁹ The cultural and economic transformation also had its repercussions in the architectural approaches and the practical field.²⁰

With the establishment of State Planning Organisation in 1960 within the scope of economic reforms of the new constitution, have started implementation of mixed economy policies. The new economic policies have been formulated with the five-years Development Plans which have been an important factor that broadened and diversified the architectural activities of the free market.²¹

Construction of major public buildings with investments in fields like education and health within the scope of development plans have had an important place in the agenda of the architecture environment.

The competitions have been an important tool that caused the design partnerships become visible in architecture environment and architecture media of the 1960s.

Extensive coverage of competitions in periodical architecture publications of the period *Arkitekt* and *Mimarlık* has been important from this aspect. The only partnership that gathered their studies in a publication in 1970 and have kept a systematic office archive is the Çinici couple.²² Women as design partners, had a very little expression in publications in the years when they designed. This strengthens the impression that women are in the backstage as design partners. Contrary to what is seen, women have managed to establish strong design partnerships. While co-maintenance of marriage and partnership together made it easier for women to organise the office and home life. The close relationship and communication between couples thanks to marriage have turned into an advantage that strengthened the design partnerships.

Şaziment Arolat and Neşet Arolat who founded their partnerships in 1961 in Ankara is one of the partnerships that drew attention with their participation in several competitions during the 1960s and 1970s.

In several public buildings which they designed through the competitions, they have made an effort to produce a modern public image. Şaziment Arolat,²³ who states that they believe in intensive mutual communication and the force of criticism in developing a common architectural approach. They have worked separately at the stage of creating the main idea in the projects, but the final decision has always been taken together. Their common architectural approach which they developed based on the rational planning principles inherited from the architectural thinking of the 1950s, prioritised responding to functional requirements and seeking economy in practice.

Arolat couple drew attention especially with their design and construction of health complexes. They searched for form in the innovative, functional solutions through the hospital designs. The purpose of their analytic approaches to functional solutions is not only to design mechanical parts that reflect the function but to produce buildings with strong architectural identities.²⁴

Their first big achievement in architecture competitions has been Hospital of Social Security Administration in Zonguldak in 1963. Among their important constructions, Officer's Club Theatre in Ankara (1965), Children's Hospital in Istanbul, Şişli (1967), State Hospital in İzmir (1967), Mental Health Complex in Adana (1969), Government Office in İzmir (1972) and *Yapı Kredi* Bank Building in İstanbul (1979) can be counted.

Altuğ Çinici and Behruz Çinici partnership was established in Ankara in 1963 after they won Middle East Technical University (METU) Campus Project competition. The experience they gained in

17 For more detailed information on the prominent private architecture offices of the 1950s in Turkey see Enis Kortan, *1950'ler Kuşağı: Mimarlık Antolojisi* (İstanbul: YEM Yayınları, 1997).

18 Küreğibüyük, Interview.

19 İlhan Tekeli, "Türkiye'de Cumhuriyet Döneminde Kentsel Gelişme ve Kent Planlaması," *75 Yılda Değişen Kent ve Mimarlık*, edited by Ayşe Berkay Hacimirzaoğlu (İstanbul: Tarih Vakfı Yayınları, 1998), 15.

20 Brutalism, Regionalism and Organic Architecture have been Modernist approaches that were implemented synchronously in the architecture until 1980s.

21 Afife Batur, "Cumhuriyet Döneminde Türk Mimarlığı," 1409.

22 Altuğ and Behruz Çinici have a comprehensive office archive and it has been opened to researchers in Salt Research Centre since 2015.

23 Şaziment Arolat, "Mimar Hanedanları Söyleşileri," *Arredamento Dekorasyon* 9 (1997), 71.

24 Neşet Arolat, "Arolat Mimarlık," *Tasarım* 12 (1991), 72.



Fig. 1. Exterior photo of Middle East Technical University Faculty of Architecture; the building complex was built by Altuğ Çinici and Behruz Çinici between 1962 and 1963 in Ankara. From: Altuğ Çinici and Behruz Çinici, *ODTÜ Mimarlık Fakültesi Dış Mekan Fotoğrafları*, 1961-1980, ID no. TABCODTUP0050, SALT Research Center, http://saltresearch.org/primo_library/libweb/action/search.do?vid=salt.

the project whose construction had taken for 20 years has carried the position of the couple in the professional field to a different place. The organisational skills of Altuğ Çinici have been an important factor in their completion of this major and important project which they undertook at a young age and they have managed to bring it a structural quality at international level. Altuğ Çinici²⁵ draws attention to her role in the stage of maturation of the design, rather than the stage of production of the idea. Her interventions on a smaller scale and details regarding design have been influential in transforming the main idea into a successful construction.

METU Campus Project is one of the leading and unique constructions in Turkey of multipart planning approach composed of small geometric forms that was inspired by the Organic Architecture. (Fig.1) In formation of the masses, solutions with a low number of storeys, divided according to requirements were sought, and the connections between the interior and the exterior was created through the use of inner and outer courtyards. The Brutalism has been the architectural approach that complemented the design. The Exposed Concrete technique was first developed in the construction of METU campus project in Turkey. Also use of precast concrete and plastic industry are other important aspects of the project.²⁶ They have been open to innovative designs and construction methods thanks to their investigative personalities.²⁷

25 Altuğ Çinici, "Mimar Hanedanları Söyleşileri," *Arredamento Dekorasyon* 9 (1997), 76.

26 Uğur Tanyeli, "1. Dönem Kadanslar," *Improvisation: Mimarlıkta Doğaçılama ve Behruz Çinici*, edited by Uğur Tanyeli (İstanbul: Boyut Yayıncılık, 1999), 40.

27 Behruz Çinici's architectural observations have had during his visit to United States in 1963, has been important for the construction process of METU Campus project.

Sevinç Hadi (1934) and Şandor Hadi (1931–86) partnership founded in 1964 in Istanbul. Before that, Sevinç Hadi had founded her own planning office and realised master plan projects of different regions of Turkey that were tendered by the State at the beginning of the 1960s. (Fig. 2) Their working in separate offices also continued after the establishment of their partnership. However, Sevinç Hadi emphasises that the process at the time of designing was always together.

We used to start thinking together. We used to sit down before our desks and we both continuously drew from morning until evening. We used to place our drawings on top of each other. There were times we started separately in order to see how we started with different thoughts. There is something definite, and that is we always worked together on the projects. We did the projects after discussing and talking together.²⁸

The main principles in the rational approaches of the couple were based upon the close relationship between the topography and the structure, the arrangement of wall openings and the use of daylight. Sevinç Hadi²⁹ emphasises that they particularly focused on the issue of spatiality in their designs. Their principle of designing a big central space and small side spaces positioned around the centre, referring to mosque architecture, is effectively demonstrated in the Istanbul University Central Library (1969) and Boğaziçi University Library (1974) designs competitions.

Milli Reasürans Head Office which they designed in 1987 has been their last competition project and construction which reflects all design principles of the couple. The vernacular approaches of the couple have helped to create their common architectural approach, and it has enriched by their house designs at the end of the 1970s.³⁰

Couples' designs in the 1970s have become special by their private and mass housing designs. Hayzuran Hasol and Doğan Hasol couple have focused on restoration of historic buildings and private house designs during the first years of their partnership. Hasol couple's waterside houses in



Fig. 2. Photography of Sevinç Hadi and Şandor Hadi of the 1980's. From: Şandor Hadi, "Şandor Hadi İle Bir Söyleşi," *Mimarlık* 1 (1986), 44.

28 Küreğibüyük, Interview.

29 Küreğibüyük, Interview.

30 The vernacular approaches in Turkish modern architecture are classified under Rejyonelizm. For more detailed information see Bülent Özer, *Rejyonelizm, Üniversalizm ve Çağdaş Mimarimiz Üzerine Bir Deneme* (İstanbul: İstanbul Teknik Üniversitesi Yayınları, 1964).

İstanbul constructed in the 1970s and 1980s are designs that draw attention with their fine-tuned structural details and careful artistry, blending Modern architecture with vernacular approaches.³¹

Among their important constructions, the restoration of Sinan Erdem House in İstanbul (1976), Waterside House in İstanbul, Yeniköy (1977), İntes Erenğül Waterside House in İstanbul, Ortaköy (1980) and the restoration project of *Çavuşoğlu Kozanoğlu Waterside House* in İstanbul (1982) can be counted.

During the 1970s, Çinici couple has designed important house projects, and their design approaches have diversified through vernacular approaches in different architectural themes.³² *Binevler Housing Estate* in Çorum (1971), *Tatsan Summer Houses* in Güllük (1976) and *Aytan House* in Marmaris have been their early important house constructions.

Private house projects designed by Hadi couple at the end of the 1970s also have an important place in their professional careers. *Valerie Szasy House* (1974), İbrahim Ömer *Hortaçsu House* (1976) and *Oktay Öge House* (1977) which they constructed in İstanbul, Rumeli Hisarı, they enriched their rational planning solutions with structural details that make references to traditional Turkish residences. The plain structure with modest measurements which they designed as their own family residence in İstanbul, Tuzla in 1978 becomes special with the local material details.³³

Conclusion

Women as design partner of the husband-and-wife partnerships established at the beginning of the 1960s are pioneering figures that have been contributed to the development of qualified building environment, contemporary architecture and urban culture in Turkey from the 1960s to the mid-1980s. They are important figures with their achievements in architecture competitions and their contribution to the sustainable institutionalization of their architectural offices. Furthermore, thanks to the open communication they set up with the next generation, they are also keeping their architectural and institutional heritages alive today. Can Çinici, the son of Altuğ and Behruz Çinici, Tülin Hadi, the daughter of Sevinç and Şandor Hadi, Emre Arolat, the son of Şaziment and Neşet Arolat and Ayşe Hasol, the daughter of Hayzuran and Doğan Hasol, are continuing their architectural works today in the footsteps of their families.

31 Kortan, *1950'ler Kuşağı Mimarlık Antolojisi*, 120.

32 Uğur Tanyeli, "2. Dönem Çeşitlemeler," *Improvisation: Mimarlıkta Doğaçlama ve Behruz Çinici*, edited by Uğur Tanyeli (İstanbul: Boyut Yayıncılık, 1999), 64.

33 Turgut Cansever, "Şandor Hadi'nin Anısına Saygıyla," *Mimarlık* 1 (1986), 43.

The husband-and-wife partnerships have been an important role model regarding continuity and sustainability of the activities of women in Turkey in the practice of architecture. The ability to share the responsibilities of working and living together, sharing different ideas and taking common decisions, are the realities which seem to be internalised over time in husband-and-wife partnerships.

At this point, the production of architecture has also become a part of everyday life, and therefore, the desire to create and maintain a common ideal has increased. Husband-and-wife partnerships in which spatial and temporal arrangements were made possible have provided advantageous conditions in setting up the balance between the working lives and private lives of women. As of the 1960s, many husband-and-wife partnerships have had professional achievements in modern Turkish architecture. And it is seen that women in the architecture environment of today still widely continue entering into design partnerships with their spouses. By considering personal archives and oral history datas, while this paper focuses on four women as design partners of the above-mentioned partnerships, there are many other women needed to be uncovered under interim layers of history.

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Pioneer Architects: The Open Source Catalogue Architectuul

Introduction

To understand better what *Architectuul* is, we need to begin with Gropius and his essay *The Development of Modern Industrial Architecture* (1913)¹, which can be intended as foundations for Bauhaus on the inspiration from the American Midwest. The published photos of Midwestern grain silos had a big impression on him. These photos became a media phenomenon and Le Corbusier used them for his book *Towards a New Architecture* (1927).² Taut as well mentioned the same photos in *Modern Architecture* (1929)³ and Mendelsohn in *America: Bilderbuch eines Architekten* (1928).⁴ Burkhard brings out the fact that none of them had seen the mentioned photographed silos in person neither didn't know where is the location, who is the author of the building or how was the construction carried out. He states that

[...] as our means of communication, especially in architectural production, have evolved a lot, is important to create new ways of architectural presentations. One of the important channels is digital, distributed via Internet. Besides creating powerful imagery, the Internet can do more than that. Brought to its best use, it can enhance our understanding of the physical world and enrich our knowledge of buildings by relaying local information about people, habitat, design, programs, technology and ideas.⁵

1 Walter Gropius, *Die Entwicklung Moderner Industriebaukunst* (Deutscher Werkbund: Jahrbuch des Deutschen Werkbundes, 1913).

2 Le Corbusier, *Towards New Architecture* (Dover: Dover Publications, 1985).

3 Bruno Taut, *Modern Architecture* (London: The Studio limited, 1929).

4 Erich Mendelsohn, *Amerika: Bilderbuch eines Architekten* (Braunschweig: Friedr. Vieweg & Sohn Verlag, 1991).

5 Christian Burkhard, *Architectural Digital Catalogue*, <http://architectuul.com/> (accessed November 12, 2017).

For this purpose, *Architectuul* was created as an open worldwide architecture community. Its goal is to share and promote building projects constructed by architects in last hundred years. From the very start in 2010 several research projects were executed. They all promoted and disseminated different architectural works with the help of its community. In such way has the open source catalogue became one of the world's largest international community-based architecture database and web publication with more than 100,000 registered users and more than 500,000 followers on social media.⁶

Let's now look at the structure of the catalogue; composed by entries of architects and architectures function as an *Archipedia*.⁷ The entries involve works from all over the world, categorized according to the location, dates of creation and keywords, which are related by the algorithm with other projects. Pictures, schemes and text documentation are related directly to their references. The generated content is edited by different users, which are divided by their role within the community in three types, the regular users, the expert user and the editors.

The regular user is browsing the catalogue and sometimes communicates with the main editorial board via social media. Expert user login the catalogue to upload new data and participate with written text for weekly features. Editors are communicating with the community via social media channels, uploading and editing catalogue entries, preparing topics for the weekly featured and monthly campaigns and researching different topics presented in Dossier format. Editors prepare daily updates and work on communication with the community and prepare topics for weekly-featured stories discussed and accepted by the editorial board. The proposals for topics are also accepted from the community via social media channels. (Fig. 1)

Besides communicating with the community is the editorial board responsible for the organization of collaborations, meetings, publishing acts and events with partner institutions like museums, universities and publishers. Such collaboration enables following researches, digitization of data, plans or maps. This is later presented in collaboration with different organizations, festivals, platforms, like for example Future Architecture Platform, Lisbon Architecture Triennial and Docomomo International.

The regular monthly blog posts include interviews, book reviews and campaigns like 'Forgotten Masterpieces', 'Architects in Love' and 'Pioneer Architects'. The monthly curatorial campaign 'Forgotten Masterpieces' is discovering and documenting unknown buildings all over the world. Collaboration with different institutions enables the possibility of collection and documentation of the material and gives possibilities of presentations in lectures, talks or seminars.

6 On December 25, 2015 a post had 15K Likes and 7038 shares via Facebook.

7 Relating to the encyclopedic format as Wikipedia but containing architectural database.

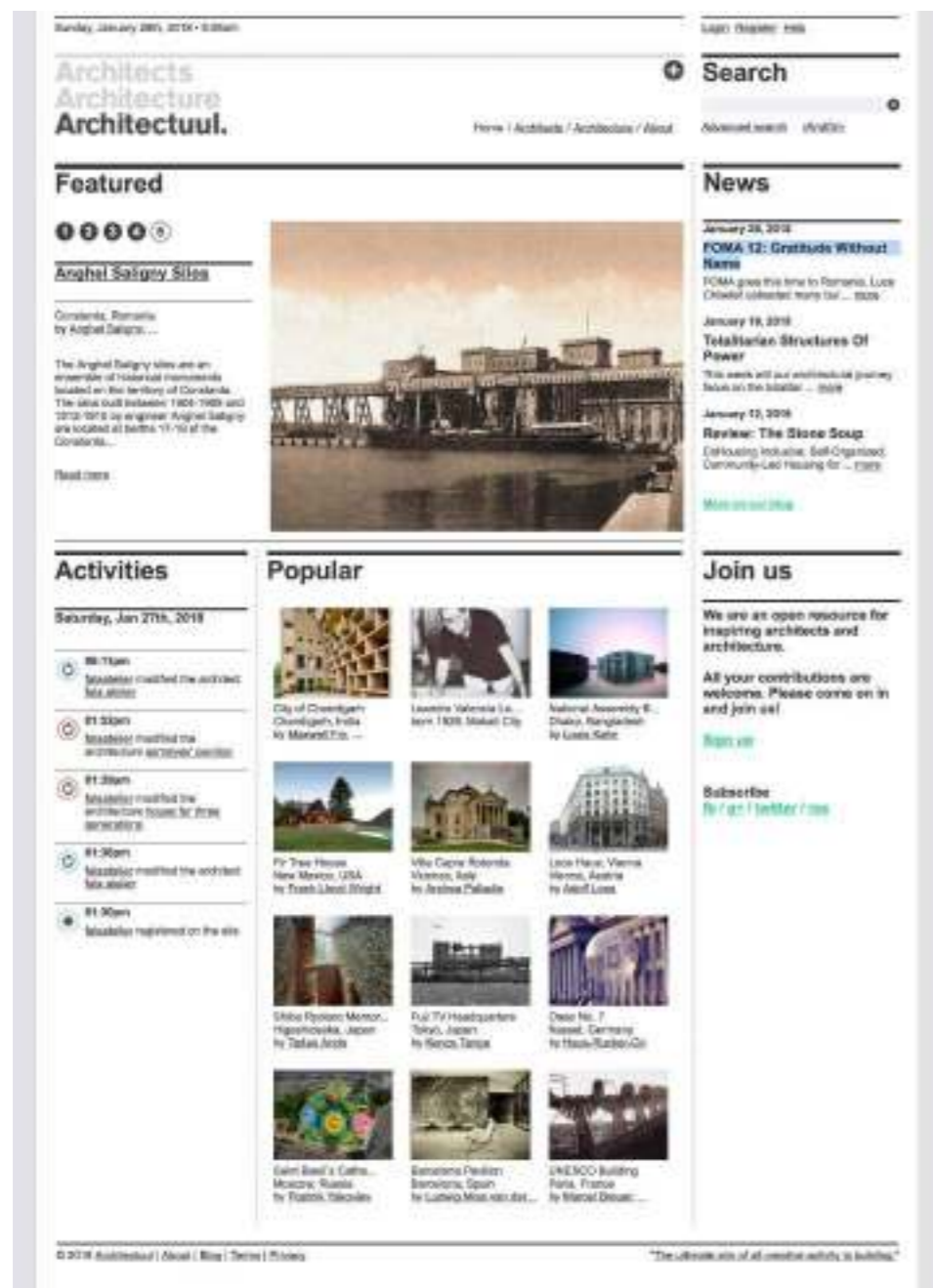


Fig. 1. Architectuul – Architectural Digital Catalogue, 2010.
 From: Architectuul, <http://architectuul.com> (accessed January 12, 2018).

This campaign aims to expose architectural treasures and thus encourage the wider community to engage with the project. The second monthly campaign 'Pioneer Architects' brings in the forefront the topic of women in architectural production. The similar structure of the campaign as 'Forgotten Masterpieces' opens the possibilities to develop a strong database with freshly digitized documentation, plans, photography and works of 'Pioneer Architects' all over the world. The editorial board encourages the wider community to engage with the project. In the next part will be explained which methods are important to fulfil the goals of the campaign.

Pioneer Architects Campaign Methodology

The methodology of the 'Pioneer Architects' campaign is conceived of the research phase, the digitization phase and presentation phase. A research phase involves the *Architectuul* community and function via social media channels. The collaboration with international organizations functions as a check proof of the quality of the digitized material as well for preparing final reviews. In the concrete case of 'Pioneer Architects' MoMoWo play this role.

Each campaign has a curator, who prepares blog posts in collaboration with the editor. This collaboration functions on national levels with museums and universities in different countries and on an international level like involving Docomomo International. The curatorial work consists of the definition of five featured architects, which shall be already in the database or uploaded if not yet digitized. Editors define the keywords and they relate to similar ones, like for the 'Pioneer Architects women in architecture'. The international presentation includes audience at international conferences and lectures.

The last conference was 'Modernistki, Violence in Architecture and Urban Space'⁸ in Kiev. Organized by Urban Forms Centre in September 2017 collaborated within *Architectuul* in one of the blog post, which was shared via social media. The traffic analysis shows that world audience from *Architectuul* is in January 2018 composed by four countries: USA with 10.9%, India with 10.6%, the Philippines with 2.5% and Russian Federation with 0.7%.⁹ According to the analysis, editors generate the content, which also includes other campaigns like 'Forgotten Masterpieces' or 'Architects in Love'. The content fosters research in Countries with low audience reach like the last edition of 'Forgotten Masterpieces' in Romania.¹⁰

Online Results

'Pioneer Architects' campaign raises the visibility of the neglected and forgotten works of important women's authors. The research campaign presents architecture designed by women from 1918 to 2018 in terms of protection, conservation, restoration and enhancement of the architectural heritage of the Modern Movement.

8 "Violence, Respect and Pover," Architectuul: the blog (posted September 8, 2017), <http://blog.architectuul.com/post/165103061707/violence-respect-and-power> (accessed June 4, 2018).
 9 "Architectuul," Easycounter, <https://www.easycouter.com/report/architectuul.com> (accessed January 15, 2018).
 10 "FOMA 12: Gratitude Without Name," Architectuul: the blog (posted December 1, 2017), <http://blog.architectuul.com/post/170142157337/foma-12-gratitude-without-name> (accessed January 26, 2018).

Until now there were several published campaigns,¹¹ starting with the most influential female architects, whose work was not credited enough because hidden by the shadow of male architects. Anne Tyng's architecture was driven by her sense of mathematics with a consistent geometry as in a bee's honeycomb but mostly not represented as Louis Kahn's.

Mies van Der Rohe and Lily Reich designed together with the Barcelona Pavilion with modern furniture design Chair. In 1929 Reich became the artistic director responsible for the German contribution to the Barcelona World Exposition, where the Barcelona chair made its first appearance. However, she is rarely mentioned in textbooks nor given proper credit for her contributions.

Marion Mahony Griffin's watercolour renderings became synonymous of Frank Lloyd Wright's work, again never credited. The list of important female architects in theory and practice include as well Margarete Schütte-Lihotzky, Eileen Gray, Lina Bo Bardi, Jane Drew and Jane Jacobs.

In 2017, Thuroczy selected architects from Romania, Poland, Hungary, China and Japan: Henrieta Delavrancea, Halina Skibniewska, Olga Mináry, Lin Huiyin and Nobuko Tsuchiura,¹² while the fourth edition brought to the forefront a generation from the 1930s. Spending their youth in wartime affected on their functionality, which is visible in the work of Gaetana (Gae) Aulenti, Denise Scott Brown, Alena Šrámková and Alison Smithson.¹³

A special edition was dedicated to Norma Sklarek,¹⁴ followed by architects from ex-Yugoslavia Ivanka Raspopović, Svetlana Kana Radević, Ljiljana Bakić, Iskra Grabuloska, Srebrnka Sekulić-Gvozdanić, Mimoza Nestorova-Tomić, Marta Ivanšek and Gizela Šuklje.¹⁵

Discovering the United States of America in the two last editions with Gertrude Lempo Kerbis, Alice Constance Austin, Elisabeth Close, Fay Kellogg, Judith Deena Edelman, Eleanor Raymond, Sarah Harkness, Jean Bodman Fletcher and Natalie Griffin de Blois.¹⁶

Conclusion or New Start

As a special edition of the Pioneer Architects for MoMoWo symposium entitled 'Women's Creativity since the Modern Movement (1918–2018): Towards a New Perception and Reception' has presented a narrative about emerging architects from 'Future Architecture' Platform, a collaboration with Museum of Architecture and Design MAO, involving international institutions from the Future Architecture network.

Five young emerging architects were selected from 2015 to present. Starting in 2016 we present Lavinia Scaletti, an architectural and urban designer living and working in London, with previous professional experience in France and Chile. She undertakes independent research investigating issues of housing and urban development. Her expertise about the Seven Sisters Market, belonging to the London's Latin community and being currently under threat of closure, was a source for the *Citisation Podcast* dedicated to the exploration of the city and its communities.¹⁷ Lavinia's project *Zip City: Houseless not Homeless* is an urban programme exploring a new way of living in cities without a house, redefining the concepts of ownership, sharing and home.

From the second generation of *Future Architecture in 2017* a selection of three female alumni, Lucia Than, Bika Rebek and Fani Kostourou, was done because of many appealing projects and collaborations.

Fani, originally from Greece, currently living and working in London as a postgraduate teaching assistant at The Bartlett School of Architecture, and Development Planning Unit, UCL. Her project collaboration Mutual Growth is featured in the book *Minha Casa Nossa Cidade: Innovating Mass Housing for Social Change in Brazil*, published by Ruby Press. She was also a curator for 'Forgotten Masterpieces' campaign *Built Projects That Inspired*,¹⁸ where she explored five urban housing cases being celebrated for the development and enhancement of musical heritage.



Fig. 2. Pioneer Architects VIII, Architectuul – Architectural Digital Catalogue, 2018. From: Architectural blog <http://architectuul.com> (accessed January 12, 2018).

11 "Pioneer Architects," Architectuul: the blog, <http://blog.architectuul.com/tagged/pioneerarchitects>.

12 Maria Thuroczy, "Pioneer Architects III," Architectuul: the blog (posted December 1, 2017) <http://blog.architectuul.com/post/162970653737/pioneer-architects-iii> (accessed January 12, 2018).

13 "Pioneer Architects IV," Architectuul: Architectural blog (posted May 18, 2017), <http://blog.architectuul.com/post/160793191212/pioneer-architects-iv> (accessed June 4, 2018).

14 "Norma Sklarek: Rosa Parks of Architecture," Architectuul: the blog: Pioneer Architects (posted June 30, 2017), <http://blog.architectuul.com/tagged/pioneerarchitects> (accessed January 12, 2018).

15 "Pioneer Architects V," Architectuul: the blog (posted December 1, 2017), <http://blog.architectuul.com/post/162970653737/pioneer-architects-v> (accessed January 12, 2018).

16 "Pioneer Architects VII," Architectuul: the blog (posted December 1, 2017). <http://blog.architectuul.com/post/162970653737/pioneer-architects-vii> (accessed January 12, 2018).

17 Boštjan Bugarič and Giulia Carabelli, "Citisation Podcast: London," KUD C3 (posted May 2017) <http://www.kudc3.net/citisation-podcast/> (accessed November 10, 2017).

18 "FOMA 8: Built Projects That Inspired," Architectuul: the blog: Forgotten Masterpieces (posted December 1, 2017), <http://blog.architectuul.com/post/165586217542/foma-8-built-projects-that-inspired> (accessed January 10, 2018).

Return to Zion by Lucia Than draws from a material-semiotic approach to critically translate cultural paradigms into urban tactics and proposes a rooted rehousing of settlers into the Israeli urban fabric while exposing the spatial implications of conflicting political agendas. Her independent research is based at the intersection of architecture and politics.

Bika Rebek is practicing within heterogeneous formats, from performances, installations and writing, acting as catalysts for open-ended thinking about architectural production. Bika's project *Invisible Blanket* is a simple device creating a protected zone on a downtown Manhattan roof. Made out of emergency blankets creates an infinitely thin and virtually invisible surface against New York surveillance cameras as the average pedestrian in downtown Manhattan is recorded by 78 cameras per minute.

Tania Tovar is an architect, writer and curator from Mexico City with interest in narratives where architecture stands as the main character. She created a documentary *In Articulo Mortis: Chronicles for an Afterlife* that explores the histories of buildings on the eve of their demise. The campaign will continue spreading knowledge and including more institutions collaboration. (Fig. 2)

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Female Design and Architectural Archives in Italy: A Preliminary Investigation among Online Search Tools

A 'long-lasting history,' but also an area investigated only recently, the history of women emerges as a specific field of study in the 1970s, when social demands became urgent and the student activism exploded, thus facilitating the recognition of the fact that the issue had been neglected, until then. Some disciplines before others, such as anthropology and social history, understood the need to expand their field of study and rediscover neglected areas, including the history of women, usually ignored.

The preservation of memories produced by women, however, had to wait further to be taken into consideration by the institutions¹ while, in the 1970s, the importance of preserving archival sources for the history of modern architecture was recognised. Thus an international network of centres for the knowledge of architecture and the protection of its sources were established (Nosk Arkitekturmuseum, Oslo, 1975; CCA, Montreal, 1979; etc). Even in Italy, such centres (CSAC, Parma, 1980; etc) were established in addition to public institutions (Archives Authorities, State Archives, Libraries, etc.). Now many private foundations spread throughout the national territory.

Thanks to the fact that the value of the sources was now recognised, the research could open up to a field that had remained strangely neglected: that of women's contributions to the design disciplines. Strangely neglected because both the history of women and the rediscovery of archives of architecture and design date back to the mid-1970s, but their paths have intertwined only in recent years.

¹ Rosalia Manno Tolu, "L'archivio per la memoria e la scrittura delle donne: Dieci anni di attività di un progetto pilota," *La memoria femminile negli archivi del Trentino-Alto Adige: Seconda giornata di studio per la valorizzazione del patrimonio archivistico del Trentino-Alto Adige: Atti della giornata di studio, Trento, 7 dicembre 2007*, edited by Giovanna Fogliardi and Maria Garbari (Trento: Società di Studi Trentini di Scienze Storiche, 2008), 69–76.

Similar Paths: The Censuses of Women's Archives and Architectural Archives

The Archival Administration for the documentation produced by women began to officially approach this field of study in 2001 when the Directorate-General for Archives promoted a meeting to respond to the need expressed by historians and archivists to protect the documentation produced by women or concerning their living conditions. It is, in fact, following the developments of social, political and economic history that greater attention was paid to women's activity and thought, and associations linked to individual personalities or to politically engaged contexts were often the first to deal with this problem.

The Archive for Women's Memory and Writing in Florence can be considered today as a pilot experience. It was launched in 1996 and was followed by a strategic plan in 1998, involving for the first time, institutions such as the State Archives, the Archival Superintendency, the National Library, as well as universities and the Gabinetto Vieusseux.² This first experience in Florence was followed by initiatives undertaken by Roman University departments and conservation institutes until 2006. Then the Ministry for Cultural Heritage and Activities (with a circular letter from the Directorate-General for Archives) asked Italian conservation institutes to promote a census of documentary funds produced by women or, in any case, that could help understand the living conditions of women.³ The Superintendencies of Tuscany, Lazio, Trentino-Alto Adige, Emilia-Romagna, Marche, Lombardy and Campania were involved in this initiative.⁴

This commitment was accompanied by an effective census and protection of architectural archives by the current Directorate-General for Archives, already at the end of the 1990s, followed, in 2001, by the protocol agreement with the Directorate-General for Architecture and Contemporary Art for a national plan to protect the documentary heritage of Twentieth-century architecture. The project gradually obtained the participation of the Superintendencies of Lombardy, Piedmont and Valle d'Aosta, Veneto, Friuli Venezia Giulia, Tuscany, Lazio, Emilia-Romagna, Marche, Umbria, Abruzzo, Campania, Basilicata and Sicily as noted by Elisabetta Reale.⁵ To date, designer archives are also

censused in Liguria, Trentino-Alto Adige, Calabria and Sardinia. This research is continuously implemented and that, thanks to digital technologies, is updated online.⁶

The Presence of Women in the Censuses of Architectural Archives

The presence of women is quite limited in the first censuses of architectural archives. The reason derives from the chosen period: a little number of women could practice from 1860 to the immediate Second post-war. Another reason is that at the beginning the censuses did not consider design, graphic, history. Printed editions and their updates, however, show a minor but steady growth of these contributions, up to the recent worksheets published online on the thematic path "The archives of contemporary architecture," through SIUSA, the Unified Information System for Archival Superintendencies increasing their number.

The objective pursued by the censuses was and is aimed at protecting architectural archives of historical interest by identifying, above all, the private archives located throughout Italy and, therefore, at greater risk of dissemination. The work is usually carried out in collaboration with local universities or professional associations: this was the case for the first Superintendency involved, that of Lazio, which initiated it together with the Faculty of Architecture of 'La Sapienza' University, in Rome, and with the Institute of Architects.

This resulted in three printed editions that have been gradually expanded and updated by Margherita Guccione, Elisabetta Reale and Daniela Pesce (1999; 2002; 2007). In 2002, were included Irene De Guttry and Maria Paola Maino (historians of architecture and decorative arts), Diambra De Sanctis is mentioned along with Alberto Gatti, while Zenaide Zenini is only mentioned in Sergio Musumeci's worksheet. In 2007 were described the funds of Uga De Plaisant and Guliana Genta, 'new entries' that have obtained the declaration of historical interest, and Laura Thermes along with Franco Purini.⁷

This is also the case for the census of Lombardy, developed between 2000 and 2002 and updated in 2011. The transition from the 2003 printed edition to the 2012 edition, was marked by an expansion of the field of research, as already declared in the title, which becomes the archives of architecture, design and graphics in Lombardy. The presence of women is already documented in 2003 by seven names, including some well-known names (Gae Aulenti, Cini Boeri, Anna Castelli Ferrieri, Liliana

2 Rosalia Manno Tolu, Ernestina Pellegrini and Anna Scattigno, "Dall'Archivio per la memoria e la scrittura delle donne," *LEA - Lingue e letterature d'Oriente e d'Occidente* 4 (2015), 79–93. The Association LEA was founded in 1998 and is dedicated to Alessandra Contini Bonacossi.

3 Anna Pia Bidolli, "Gli archivi delle donne: Linee di indirizzo e programmi della Direzione Generale degli Archivi," *La memoria femminile*, 49–54.

4 Anna Pia Bidolli, "La conservazione e valorizzazione degli archivi delle donne nei programmi della Direzione Generale degli Archivi," *Memorie disperse: Percorsi e progetti di recupero e valorizzazione degli archivi femminili: Atti del convegno, Jesi, 18 marzo 2010, Ancona, 19 marzo 2010*, edited by Maria Palma and Mauro Tosti-Croce, (Jesi: Edizione della Biblioteca Planettiana, 2012), 3–6.

5 Elisabetta Reale, "Il Portale degli Archivi degli architetti del sistema archivistico nazionale: Presenza e contributi dall'Abruzzo," *L'architettura sulla carta: Archivi di architettura in Abruzzo*, edited by Franca Toraldo, Maria Teresa Ranalli and Roberto Dante, (Villamagna: Editrice Tinari, 2013), 9–14.

6 The censuses of Lazio (1999; 2002; 2007), Lombardy (2003; 2012), Tuscany (2007), Marche (2011), Sicily (2011), Abruzzo (2013) are printed.

7 Margherita Guccione, Daniela Pesce and Elisabetta Reale (eds.), *Guida agli archivi di architettura a Roma e nel Lazio: Da Roma Capitale al secondo dopoguerra* (Gangemi Editore: Roma 1999; 2002; 2007).

Grassi, Rosanna Monzini, Franca Helg with Franco Albini, Enrica Invernizzi with Sergio Crotti). Other names can be extrapolated from the worksheets dedicated to their husbands, more famous colleagues or architectural firms. These names are: Anna Bertarini Monti, under the name of GPA Monti architectural firm; Luisa Aiani Parisi and Lica Covo Steiner, in the worksheets dedicated to their husbands; Ico Parisi and Albe Steiner, Terry Dwan and Patricia Viel, in the worksheet dedicated to Antonio Citterio.

The 2012 edition includes three other names related mainly to design and graphics: Antonia Astori, Paola Lanzani, Nanda Vigo, as well as Anna Bertarini Monti and Lica Covo Steiner, who are explicitly mentioned.⁸

A comparison of the total figures of both censuses, of Lazio and Lombardy, shows both the predominance of men in the design field, at least until the Fifties, and low awareness of the actual presence of women in the field. (Fig. 1)

Focusing on the results of the Marche census is interesting the collection of marquise Cristina Colocci Vespucci Honorati that consists of drawings and prints including works by architects. This noblewoman maintained the documents found in her family palace and played a significant role in the conservation of documents, as already noticed by Paola Pettenella about women's funds at the Archive of 900 in Rovereto (Mart).⁹

We should also mention architect Paola Salmoni who, along with her brother, who was an engineer, founded her technical office and her presence has been hidden in the name of the firm itself, with minor changes, until today.¹⁰ But there are also some surprises in the census of Abruzzo, where we find, even if they are just mentioned, Maria Luisa Cucullo, wife of architect Carlo Enrico De Simone, who was an architect as well, and a series of names deriving from collaborations or from worksheets not directly referring to the professional who produced the archive. We are talking about Donatella Veluscek (Ervinio Veluscek's archive), Serena Boselli (Luciano Tosone's archive), Maria Gabriella Pinagli, Sandra Poggiali, Alda Santicioli (Luigi Alici's archive).¹¹



Fig. 1. Cover of the conference proceedings about *Female memories in the archives of Trentino-Alto Adige* (2008); *Lost memories: Archival archives in Marche* (2012) and *Architecture, design and graphic archives in Lombardy: Census of sources* (2012)

The census of Sicily (1915–45), focusing mainly on Maria Emma Calandra, who as an architect, Enrico's daughter and Roberto's sister, both architects, is also important: women started to work as architects also because of their families, especially at the beginning.¹²

The last printed censuses to examine are that of Tuscany and Emilia-Romagna, available also as 'open source' pdf documents: in both these cases, there aren't women architects.¹³ However, the professional contribution of historians is widely discussed, as already with the census of Rome, which is extremely important today.

8 Graziella Leyla Ciagà (ed.), *Gli archivi di architettura: Censimento delle fonti* (Milan: Casva, 2003); Graziella Leyla Ciagà (ed.), *Gli archivi di architettura, design e grafica in Lombardia: Censimento delle fonti* (Milan: Casva, 2012).

9 Paola Pettenella, "Custodire e costruire: Archivi femminili al MART," *La memoria femminile*, 361–6.

10 The biography of Paola Salomoni is well described in the Studio's sheet. Antonello Alici and Mauro Tosti-Croce, *L'architettura negli archivi: Guida agli archivi di architettura nelle Marche* (Rome: Gangemi, 2011), 128–31, 141–4.

11 Franca Toraldo, Maria Teresa Ranalli and Roberto Dante, "L'architettura sulla carta," *L'architettura sulla carta: Archivi di architettura in Abruzzo*, 15–20.

12 Paola Barbera and Maria Giuffrè (eds.), *Archivi di architetti e ingegneri in Sicilia 1915-1945* (Palermo: Edizioni Caracol, 2011), 78–9.

13 The census of Tuscany introduces the historians of design, planning and also art historians who were influential in architecture: Giovanni Klaus Koenig, Roberto Segoni, Paolo Sica, and Roberto Papini. Maria Grazia Pastura, "Presentazione," *Guida agli archivi di architetti e ingegneri del Novecento in Toscana*, edited by Elisabetta Insabato and Cecilia Ghelli, (Florence: Edizioni Firenze, 2007), 3–4. The census of Emilia-Romagna mentions the projectworks of Architectural History at the Engineer School in Bologna. Maria Beatrice Bettazzi (ed.), *Archivi aggregate: La sezione di architettura e i fondi degli architetti moderni* (Bologna: Archivio storico Università, 2003).

Online Research: Women's Architecture Archives in *Sistema Informativo Unificato per le Soprintendenze Archivistiche (SIUSA)* and *Sistema Archivistico Nazionale (SAN)*

Continuing with the study of the censuses of the Superintendencies on the web means consulting SIUSA, the Unified Information System for the Archival Superintendencies, and the thematic portal of the SAN, National Archival System. SIUSA is the online portal of public and private archival heritage: it consists of some descriptive files (corresponding to printed censuses, where published), which makes information available on the web and collects regional contributions.¹⁴

Within it, we find 'Thematic paths', which make the research projects and the censuses promoted by the Directorate-General for Archives on the national territory, according to unified 'criteria', available. Among others, there are 'The archives of contemporary architecture and Women's archives' whose files, through the correct header of the archive producer, interact with each other: what is entered in a file, if relevant, is also visible in other files, and this allows to obtain an overall report of archives of women designers recognised in the country.¹⁵

The research within these paths provides fifteen additional names of women architects and that of an English photographer and architecture historian. These names are: from Friuli, Annamaria Brovedani, Anna Buffa, Maria Antonietta Cester Toso, Luisa Codellia, Mariateresa Grusovin and Luisa Morassi Bernardis; from Emilia-Romagna Ada Defez and Franca Stagi; from Lazio Laura Gallucci, Gaia Remiddi (Studio Paolo Angelillo & Gaia Remiddi), Sara Rossi, Francesca Sartogo and Marion Johnson, also known as Georgina Masson; from Trentino-Alto Adige Giorgia Toniolatti, and from Veneto Gigetta Tamaro (Semerani e Tamaro Architetti Associati) and Egle Renata Trincanato. We should also add Maria Luisa Cucullo, earlier only mentioned concerning her husband in the census of Abruzzo, and also just like marquise Cristina Honorati before her, Giulia Torres, daughter of architect Giuseppe Torres, whose role was to preserve and promote her father's project. Furthermore, the joint archive of Maria Carla Lenti and Gian Pio Zuccotti, a couple that also worked together should be currently under study. From a quantitative point of view, therefore, there are about 40 archives of women architects identified and described from the end of the 1990s until today. However, female contributions to creative professions are not limited to this: if we remove the professional filter from the research in the 'Women's archives' thematic path, we find Rosetta Amadori Depero, whose contribution to the work of her husband, Fortunato, was crucial. But we can

¹⁴ These sources have been fully investigated by the research team of the Polytechnic of Turin (Enrica Bodrato, Francesco Fiermonte, Caterina Franchini and Emilia Garda) to in order to implement the mapping of the online MoMoWo Database "Database on Women Architects and Designers with Geographic Information System (GIS)," MoMoWo, <http://www.momowo.eu/database-webgis/> (accessed June 4, 2018).

¹⁵ "Percorsi tematici," SIUSA, http://siusa.archivi.beniculturali.it/cgi-bin/pagina.pl?RicVM=percorsi_tem (accessed January 15, 2018).

also identify some protagonists of similar disciplines, sometimes close to the world of architecture, such as art historians Margherita Sarfatti and Palma Bucarelli, or art gallery owners, collectors, painters, designers or photographers.

Finally, the 'Archives of Architects' portal in the SAN which, in addition to archive data taken from SIUSA, rewrites the biographies and describes with some texts and images some projects by architects that have been published, as well as thematic and chronological paths, offers a more discursive analysis. Promoted by the Directorate-General for Archives, it is supported by major institutions and associations involved in the study of documents on contemporary architecture. So far, 129 architects, including three that we already know: Giuliana Genta, Liliana Grassi, Egle Renata Trincanato. (Fig. 2)



Fig. 2. The *Archivi degli Architetti* (Architects Archive) portal. The homepage and the *Protagonists* web page; letter T: Egle Renata Trincanato.

Further Research Opportunities: Some Excellent Cases

The result obtained thanks to the apparatus provided by the archival administration can be enriched by consulting the indexes of other important institutions, also on the web and constantly updated, or through other projects, such as the National Census of Italian architecture of the late Twentieth century, which can provide a list of architects and archives.

If we examine the indices of some of the major Italian conservation centres such as the Centre for Studies and Communication Archive (CSAC University of Parma), the Projects Archive (IUAV), the Archives of 1900 (MART), Casva-Centre for Visual Arts Studies (Municipality of Milan), MAXXI Architecture Collections (Rome), Historical Archives (Politenico di Milano) we can see that more recent acquisitions or details on these collections are not yet included in the censuses, as in the case of the designer and graphic designer Luciana Amelotti Roselli at CSAC, or Brunetta, Jacqueline Vodoz with Bruno Danese, Afra with Tobia Scarpa, Carla Venosta. This also happens to Nani Valle (Fernanda), architect and professor at IUAV in Venice, Raffaella Crespi with Marcello Grisotti at the Historical Archives of the Politecnico di Milano, or Zenaide Zenini with Sergio Musumeci at MAXXI. Here we can also find individual works by Matilde Cassani, Zaha Hadid, Elisabetta Terragni, Laura Vinciarelli, and some young associates or founders of different architectural firms such as Maria Laura Arlotti (ABDR), Alessandra Cianchetta (AWP), Stefania Manna (IaN+), Maria Claudia Clemente (LABICS), Sandy Attia (MoDusArchitects), Paola D'Ercole and Pia Pascalino (Studio Labirinto). Moreover, hidden in the CASVA archives, we can also find architect Zita Mosca Baldessari, the first to preserve Luciano Baldessari's archive, and Carla Scolari, Paolo Lomazzi's ex-wife and co-author of several projects, also with Jonathan de Pas and Donato D'Urbino.

Continuously monitoring both individual institutions and ministerial projects, such as the National Census of Italian architecture of the late twentieth century, promoted in 2002 and managed today by the Directorate General for Contemporary Art and Architecture, can be important. It consists of a map of works to be protected or to be brought to the attention of the authorities and designers, prepared according to shared criteria and in collaboration with the Regions, the Superintendencies and local Universities.

Recently expanded in Lombardy (2013–15), it mainly contains major works, but also minor and local architectural works that are important for the history of the area: so, thanks to these architectures we can rediscover women architects who have long been forgotten. Leaving aside already famous designer women, among the approximately 70 women identified, 1/3 probably worked as employees, collaborators or freelancers in simple collaboration, but another one third were owners of individual or associate firms, also because of their families.

Among them we find Teresa Arslan Ginouhliac, Margherita Bravi, Marisa Bonfatti Paini, Luisa Castiglioni, Maria Cittadini, Nora Fumagalli, Giuliana Gramigna, Piera Ricci Menichetti Valle, up to a younger generation: Liliana Bonforte (lilinterior), Marina Dallera (Creativefirm), Ada Ghinato,

Stefania Guiducci (Archigem) Elena Manara (PA+N Design), Ida Origgi (Ifdesign), Angela Maria Romegialli and Erika Gaggia (actRomegialli), Michela Tessonni (Studio Campanella+Tessonni).

Finally, occasional collaborations reveal the importance of professional specialisations, as in the case of Elena Balsari Berrone and Maddalena Vagnetti (green spaces) or of engineers Luisella Garlati and Donatella Guzzoni (buildings).

Conclusions

The importance of preserving sources that are of primary importance for the history, whether it is the history of architecture or women's history, is one of the reasons that led Italy to pay more attention to project and writing archives produced throughout the Country. This awareness became more evident between the 1990s and the beginning of the twenty-first century, when the foundations of an operational synergy were laid, the same synergy that still characterises the relationships between the Ministry, superintendencies, universities, professional institutes, archives/museums and associations.

The latter, through their own initiatives, have almost anticipated major national projects: in 1990, the Italian section of Documentation and Conservation of the Modern Movement (Docomomo_Italia) was founded, whose *Journal* contains a column dedicated to archives. In 1996, the Archive for the memory and writing of women in Florence became a reality and, in 1999, the Associazione Nazionale Archivi di Architettura (AAA Italia, National Association of Contemporary Architecture Archives) was founded. Almost contemporaneously and in rapid succession, project archives (at the end of the 1990s), architectural archives (2002) and women's writing archives (2006) were censused, and the results are already partially available online. Although the censuses are not up to date, they show significant elements on the evolution of women in the design sector. Initially, they were just those who preserved works and sources or worked with major architects; only a little number of women worked alone or became famous (Gae Aulenti, Franca Helg, Cini Boeri). Then they became associates or even founders of their firms (Giuliana Genta, Liliana Grassi, Giuliana Gramigna, Patricia Viel, etc.); however, it should be pointed out that, in this case, the role of their families was crucial (Teresa Arslan Ginouhliac, Piera Ricci Menichetti Valle, Angela Maria Romegialli, etc.). Furthermore, women often work in fields very close to architecture or design, such as photography, art history and art, also making their contribution to the entire universe that revolves around it, from galleries to collecting, without forgetting fashion.

Finally, the presence of women can also be identified in the history of architecture and design (Irene De Guttry, Maria Paola Maino and Marion Johnson), where, regardless of the genre, we can notice a gradually increasing interest in archives produced by historians, which implicitly suggests the chronological nature of the development of recent Italian historiography.

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Making (Hi)stories of Women in Scottish Architecture

Where and How Are Women Found?

In accounts of twentieth century Scottish architecture, architects, and related work, women are rarely visible as explicit subjects in their own right. How can they be recognised, acknowledged, placed and found? Names, institutions, social, cultural, political and educational networks of historical research endeavour and genealogies of practice underpin and consolidate disciplinary education and public discourse.

Where are the existing historical sources in Scotland? David Walker's ambitious *Dictionary of Scottish Architecture* project (DSA), now maintained by Historic Environment Scotland (HES), including the research notes for the project, is the most in-depth and consolidated public database.¹ It was built from *Scottish Architects' Papers: A Source Book*, a conscious salvaging of the records, documents and other donations from private architectural practices, working between the Royal Institution of Architects in Scotland (RIAS) and HES.²

Other significant inventories include legal records of drawings, specifications, construction and alterations, found in publicly accessible Local Authority or City Council Archives collections across the country. Architectural projects are also recorded in the broad-based systematic photographic site surveys undertaken by the Royal Commission for Ancient and Historic Monuments (RCAHMS) from

1 David M. Walker, *Dictionary of Scottish Architects*, <http://www.scottisharchitects.org.uk/themes.php> (accessed October 5, 2017).

2 Rebecca M. Bailey, *Scottish Architects' Papers: A Source Book* (Edinburgh: RIAS Publishing, 1996).

the 1980s, including low/oblique aerial photography.³ Material can be gleaned from organisations such as The Saltire Society, who have been reviewing the best public and private housing in Scotland for sixty years, and from the *Pevsner Architecture Guides: Buildings of Scotland* series led by Colin MacWilliam and John Gifford, developed to include public buildings and schools as well as the more familiar monumental projects of churches, civic buildings and large country houses.⁴

The focus and approach of historians working with Scottish Architecture and Architects in Scotland directly influence what is valued and transmitted through education and professional networks. This has been defined over the past thirty years as two primary threads. Firstly, framings of the nation motivated by nationally based organisations and professional bodies *in tandem* with the political climate.⁵ Secondly, weighty monographs by teams of scholars with associated exhibitions continue to reinforce the singular, authorial architect and architectural object.⁶ There are few reviews of the history of the architectural profession although David Walker's DSA essays begin to sketch this out.⁷

In the recent publication, *Scotstyle*, only one female architect is named in all the projects selected over the last one hundred years: Brit Andreson, who with Barry Gasson and John Meunier is credited with the design of The Burrell Collection, won in a competition in 1971.⁸ Only one female architect, Margaret Brodie, was celebrated in a recent 2016 Festival of Architecture in Scotland exhibition.⁹ Significant family and practice archives gifted with conditions of subsequent time and resource to analyse and interpret them, ensure an ongoing legacy and presence in professional and institutional narratives. More recent typologically driven work positions architecture within the complexity of

3 "Canmore database," Historic Environment Scotland, <https://www.historicenvironment.scot/archives-and-research/archives-and-collections/canmore-database/> (accessed 5 October, 2017).

4 *Pevsner Architectural Guides: Buildings of Scotland*, series (Newhaven: Yale University Press, 1988–2015); The Saltire Society, <http://www.saltiresociety.org.uk/about-us/> (accessed 21 June 2018).

5 Alan Reiach and Robert Hurd, *Building Scotland: A Cautionary Guide* (Edinburgh: The Saltire Society, 2nd edition, 1944); Miles Glendinning, Randal MacInnes and Aonghus Mackechnie, *A History of Scottish Architecture* (Edinburgh: Edinburgh University Press, 1996); Miles Glendinning (ed.), *Rebuilding Scotland: The Postwar Vision 1945–1975*, (Edinburgh: Tuckwell Press, 1997); Neil Baxter and Fiona Sinclair, *Scotstyle: 100 years of Scottish Architecture (1916–2015)* (Glasgow: RIAS Publications, 2016); Neil Gillespie, *Re Building Scotland* (Edinburgh: Saltire Society Scotland, 2016).

6 Jonny Rodger (ed.), *Gillespie, Kidd and Coia—Architecture 1956–1987* (Glasgow: The Lighthouse, RIAS, 2007); Miles Glendinning, *Modern Architect: The Life and Times of Robert Matthew* (London: RIBA Publishing, 2008); Lousie Campbell, Miles Glendinning and Jane Thomas (eds.), *Basil Spence: Buildings and Projects* (London: RIBA Publishing, 2012); Diane Watters, *St Peter's, Cardross: Birth, Death and Renewal* (Historic Environment Scotland, 2016).

7 David M. Walker, "The Architectural Profession in Scotland, 1840–1940: Background to the Biographical Notes," *Dictionary of Scottish Architects*, <http://www.scottisharchitects.org.uk/themes.php> (accessed October 5, 2017). David M. Walker, "Recent Developments in Scottish Architectural History," *Dictionary of Scottish Architects*, http://www.scottisharchitects.org.uk/themes_developments.php (accessed October 5, 2017).

8 Baxter and Sinclair, *Scotstyle*, 155.

9 RIAS Festival of Architecture Programme, *Out of Their Heads*, Exhibition at Scottish National Portrait Gallery (2016).

the Twentieth century social and political history.¹⁰ However, little work has been done to question what kind of (his)stories might be more attuned to the actual collaborative, negotiated realities of architectural practice in Scotland: the politics and hierarchies of work, programmatic evolution, and how architecture is occupied, used and altered, rather than just viewed or received. Feminist perspectives have been proven in other disciplines to offer a sharper, 'other' gaze of critical distance, situated practice and uncovering of hidden histories. These have begun to influence and open up new spaces in architectural publishing and discourse.¹¹

Hints of the collective and complex aspects of architectural work are evidenced by women generating and gathering archive material as doctoral researchers or as family members, such as Gillian Blee in relation to the Spence archive/legacy.¹² 'Grey literature' embedded in schools of architecture, around the creation of curriculum, lecture delivery and dissemination, educational philosophies and practices, and examples of student project work tends not to be consistently valued, archived or easily accessible.¹³

While interviews are used in broader historical work, methodologies that foreground experience, or attend to working relationships, the actual rather than the image of architectural work, are limited. Peggy Deamer writes of '... architecture's peculiar status of material embodiment produced by its immaterial work, work that is at once very personal and yet entirely social.'¹⁴

The challenge then for considering women 'as subjects' in the historical and theoretical documentation, methodology, interpretation and enhancement of twentieth century architecture in Scotland, is more than just inclusion and addition to the existing canon. The idea of 'subject' needs to be interrogated and expanded to engage with the personal, social and immaterial as well as

the professional and material, to include the archivist, historian, institutional network, and informed by feminist perspectives and interdisciplinary lenses. Even the subject of architecture has 'weak' disciplinary edges contested in contemporary practice and theory, 'I am not sure the term architect really describes what we do anymore.'¹⁵

In the relatively small literature field of historical work which has taken professional (and other) architectural practice as its subject, Andrew Saint's book, *The Image of the Architect*, drew attention to the lack of focus and documentation of the realities of architectural practice in accounts of architects and the profession in the UK and USA in the twentieth century.¹⁶ Saint identified conflicts between these realities and dominant 'ideals of creativity', setting out tropes where these were most at 'odds': the architect as 'Hero and Genius', as 'Medieval', as 'Professional' (nineteenth century UK), as 'Businessman' (nineteenth century USA), as 'Gentleman', as 'Bauhausian', as 'Entrepreneur'. More reflective practice and a questioning of the subject of the individual practitioner and their autobiographical authored outputs and processes underpin *Desiring Practices* and *The Architect: Reconstructing her Practice* which aims to uncover, write, and name new and emerging actualities of architectural work.¹⁷

The Limits of Telling and Reading (Hi)stories through Biography

'Architectural biography in particular has favoured the imaginative approach because here the individualism natural to the purer arts finds its easiest outlet'.¹⁸ The DSA advertises its scope as being the period from 1660 to 1980, but the most detailed information covers the one-hundred-forty years between 1840 and 1980 when professional records provide primary source material. Out of around 5000 entries, 194 feature women. Numerically there seems to be a general increase

10 Miles Glendinning and Stefan Muthesius, *Tower Block: Modern Public Housing in England, Scotland, Wales and Northern Ireland* (Yale: Yale University Press, 1994); Diane M. Watters (ed.), *Homebuilders: Mactaggart & Mickel and the Scottish Housebuilding Industry* (Edinburgh: RCAHMS, 2015); Florian Urban, *The New Tenement: Residences in the Inner City Since 1970* (Abingdon: Routledge, 2017).

11 Jane Rendell, Iain Borden and Barbara Penner (eds.), *Gender, Space, Architecture: An Interdisciplinary Introduction* (Abingdon: Routledge, 2000); Jane Rendell, "Tendencies and Trajectories: Feminist approaches to Architecture," *Architectural Theory Handbook*, edited by Stephen Cairns, Greg Crysler, Hilde Heynen and Gwendolyn Wright (London: Sage, 2012); James Benedict Brown et al. (eds.), *A Gendered Profession* (London: RIBA Publishing, 2016); Hélène Frichot, Catharina Gabrielsson and Helen Runtig (eds.), *Architecture and Feminisms: Ecologies, Economies and Technologies* (Abingdon: Routledge, 2017); Jane Rendell, "Feminist Architecture: From A to Z," *Reading Design*, <https://www.readingdesign.org/feminist-architecture-a-z/> (accessed June 21, 2018).

12 Campbell, *Basil Spence*, 60, 65, 68, 156; Glendinning and Muthesius, *Tower Block*, 9.

13 Suzanne Ewing, "Tales and Tools: The Design Studio Brief in Architecture's Expanded Field," *Charette: Journal of the Association of Architectural Educators* 3, 1 (Spring 2016), 6–18, <http://docserver.ingentaconnect.com/deliver/connect/arched/20546718/v3n1/s2.pdf?expires=1528114493&id=0000&titleid=75008746&checksum=8CAB3FCECD4B654558F8524D36A60845> (accessed June 4, 2018).

14 Peggy Deamer (ed.), *The Architect as Worker: Immaterial Labour, the Creative Class and the Politics of Design*, (London: Bloomsbury, 2015), 31.

15 Steve Parnell, "Flora Samuel: 'I'm not sure the term architect really describes what we do any more,'" *Architect's Journal* (February 26, 2010), 12 <https://www.architectsjournal.co.uk/home/flora-samuel-im-not-sure-the-term-architect-really-describes-what-we-do-any-more/5214835.article> (accessed June 4, 2018); Igea Troiani, Suzanne Ewing and Diana Periton, "Architecture and Culture: Architecture's Disciplinarity," *Architecture and Culture* 1, 1–2 (2013), 6–19, <https://doi.org/10.2752/175145213X13760412749917> (accessed June 4, 2018).

16 Andrew Saint, *The Image of the Architect* (New Haven and London: Yale University Press, 1983), 138, 161.

17 Sarah Wigglesworth and Katerina Ruedi (eds.), *Desiring Practices: Architecture, Gender and the Interdisciplinary* (London: Black Dog publishing, 1996); Francesca Hughes (ed.), *The Architect: Reconstructing her Practice* (Cambridge MA: MIT Press, 1997).

18 Saint, *The Image of the Architect*, 163.

in recorded qualified female architects in Scotland until the 1960s although more recent entries act more like place-holders.¹⁹

There is ambiguity around the definition of a 'Scottish architect', which encompasses an individual's upbringing, education, and/or involvement in projects based in Scotland at some point in their life. The changing nature of admission to the UK profession over the course of the Twentieth century also affects DSA's scope and methodology.²⁰ A large proportion of women did not seem to progress beyond architectural study as they were only ARIBA student members, particularly in the 1950s and 1960s. The entries become very patchy and less consistent by the 1970s, showing how reliant the 'criteria' for entry to DSA is on already recognized figures. The (in)visibility of women or the 'not famous' in architectural work in Scotland includes many omissions, including participants in the *VoE* project.²¹

Of the 194 women in the DSA, only seven 'heads' or faces of women are visible with images included in the biographically organised record. The earliest female 'face' of a Scottish Architect is Edith Mary Wardlaw Burnet Hughes (1888–1971). The text emphasizes her family and social relations – daughter, granddaughter, niece, tutee, wife, assistant lecturer, 'assistant in the offices of'. She studied art and architecture in Paris, Dresden, Leipzig, Florence and other parts of Italy. During the First World War she was involved in teaching architecture in Aberdeen, and later in Glasgow.

Some parts of the account seem to need untangling, particularly around her controversial nomination to be admitted to the professional body of the Royal Institute of British Architects in the late 1920s, and the claim by some historians that she may be the UK's first female practicing architect, though she seems likely to be the earliest in Scotland.²² The most publicly visible work attributed to Wardlaw Burnet Hughes is Glasgow's Mercat Cross (1930), with possible involvement in the urban building

behind. Other work was domestic as she specialized in kitchen design, indicating both the limited scope for non-male architects at the time and a familiar put-down: you can only design from your sphere of female experience.

The DSA entry on Edith Mary Wardlaw Burnet Hughes suggests she might be understood as an 'Architect Professional' according to Saint's categories. As part of the dynasty of John Burnet, she is also linked to a 'Hero and Genius' tradition of architects. Kathleen Veitch (1908–1968) could perhaps be termed a 'Gentlewoman architect'. Studying in London, she also travelled to Spain and Bombay, before returning to Scotland in the 1930s, becoming active in the local Art Club.

Alongside what is available from Scottish Architects' papers, many of the DSA entries are based on RIBA Nomination papers, where all proposers were men. One of her few known works, Little Salt Hall, also appears in local Scottish Borders accounts and historical archives as this building, was listed in 2008.²³ Margaret Brodie (1907–1997) was also working in the 1930s. She grew up and studied in Glasgow, worked in Scotland, London and East Anglia during the Second World War, and latterly in Edinburgh and Lochwinnoch, running her own practice. She is acknowledged as the architect for the site layout and some buildings of Glasgow's 1938 Empire Exhibition while working as an Assistant at the offices of Burnet, Tait & Lorne.²⁴

Two less detailed entries are Margaret Love (1913–1979), admitted to ARIBA in 1938, and Margaret Makins (1913–1980), admitted to ARIBA in 1941 and also Chief Architect for Mauritius in the 1960s. There is a scant record for Margaret Beveridge (1926–?). Finally, Anne Duff, who is a contributor to the *VoE* project, was Assistant Principal Architect of Abrohill Development Plan for Cumbernauld New Town Development Corporation from 1966 to 1968, including some of its housing and community facilities. As David Walker admits, 'While much has been written about Scotland's most famous architects less is known about the many hundreds of architects who also

19 Nine women are listed who were born before 1900; 15 born over the next ten years; 29 born after 1910, qualifying around the 1930s; 33 born in the 1920s; 42 born in the 1930s or who qualified in the 1950s; 26 who qualified in the 1960s; 39 who qualified in the 1970s/1980s.

20 The Architects Registration Act was passed in 1931. ARCUK was established with an independent register with legal status, though admission to the profession continued via nomination papers to the RIBA. In 1985 the Women Architects' Forum was established in the UK, when less than 5% of registered architects were women. In 1997 The Architects' registration Board (ARB) replaced ARCUK as the regulating body of the profession.

21 See Elspeth King, *The Hidden History of Glasgow's Women* (Glasgow: Mainstream Publishing, 1993) which emerged from an impetus to rebalance the macho urban and civic histories that had been constructed around the city's Year of Culture. More broad attempts to reveal women architects in specific national, professional and educational contexts include: Despina Stratigakos, *Where are the Women Architects* (Princeton University Press, 2016); James Benedict Brown et al. (eds.), *A Gendered Profession* (London: RIBA Publishing, 2016); "Women in Architecture," ArchDaily, <http://women-in-architecture.com>; Lynn Walker and Elizabeth Darling (eds.), *AA Women in Architecture 1917–2017* (London: AA Publications, 2017).

22 In the UK, Ethel Charles is recognised as the first woman admitted to the RIBA in 1898, <http://women-in-architecture.com/index.php?id=39> (accessed Oct 5, 2017).

23 "Rosalee Brae, Little Salt Hall," British Listed Buildings, <http://www.britishlistedbuildings.co.uk/200400091-rosalee-brae-little-salt-hall-hawick#.Wdocd0yZOu4> (accessed Oct 5, 2017); "Hawick, Roselea Brae, Little Salt Hall," Canmore, <https://canmore.org.uk/site/316373/hawick-roselea-brae-little-salt-hall> (accessed Oct 5, 2017); "Hawick, Roselea Brae, Little Salt Hall," Scotland's Urban Past, <https://scotlandsurbanpast.org.uk/site/316373/hawick-roselea-brae-little-salt-hall> (accessed Oct 5, 2017).

24 David Walker (DSA 2006/2016) mentions Margaret Brodie as featuring in an exhibition of Thomas Smith Tait's work, held in Paisley in 1998; Rory Olcayto, "Who designed the 1938 Empire Exhibition's women's pavilion?" *Architects' Journal* (posted February 7, 2013), <https://www.architectsjournal.co.uk/comment/who-designed-the-1938-empire-exhibition-womens-pavilion/8642299.article?search=https%3a%2f%2fwww.architectsjournal.co.uk%2fsearcharticles%3fkeywords%3dEmpire+pavilion+Rory> (accessed June 4, 2018); "The Fashion Theatre, Women of the Empire Pavilion Mitchell Library, Glasgow Collection," The Glasgow Story, <http://www.theglasgowstory.com/image/?inum=TGSA00413> (accessed October 5, 2017).

made an enormous contribution to our built heritage up and down the country.²⁵ And while the DSA privileges textual sources over the visual, there are some extraordinarily image-based, anecdotal comments not far below the objective veneer of this database, '[Brodie] retired in 1990 ... where she lived with her sister: although tall and extremely good-looking, even in old age, she never married.' 'In December 1957 Eleanor Thompson won a BBC TV competition for the viewer with the best dress sense.'

A recent exhibition and publication examining 'the ebb and flow of opportunities for women to train and practice as artists' in Scotland reveals the social and legal limitations of work in the Twentieth century.²⁶ It was not until 1945 that The Education (Scotland) Act ended the Marriage Bar which prevented women from holding full-time teaching positions.²⁷ As in Architecture, the pursuit of art education by women was often only for those born into artistic families. Anne Redpath was the first female painter to be elected as a full member of the Royal Scottish Academy, and many women worked across the Applied rather than Fine Arts. Men-only membership continued of the Glasgow Arts Club and Scottish Arts Club until the 1980s. The Scottish Schools of Art encouraged crossover between Art and Architecture, nurturing, for instance, the well-known collaborative artistic group of Margaret and Frances Macdonald, Herbert McNair and Charles Rennie Mackintosh, educated under Fra Newbery at Glasgow School of Art at the very end of the Nineteenth century.²⁸ However, there is yet to be a female architect elected as a Royal Scottish Academy academician. In the professional context, there have been few females' leads in commercial practices or Architecture schools, with only one female president of the RIAS to date.²⁹

Dominant practices of history, documentation and dissemination through biography are evidenced by the DSA. As alphabetical dictionary, it emphasises the historian and historical interpretation, the artefact, professional record, institution and reading. Searching by architect or building assumes pre-knowledge and correlative textual/archival/ published evidence. The discipline of architectural history and its historiographic practices, are usually a project of sifting, selecting, ordering, prioritizing, and distilling, but when looking for (hi)stories of women in Scottish architecture, these research practices have to be inverted to inventive searching, exposing, and explicit accumulation.

25 David Walker (DSA, 2006/2016); In design and cultural history research, attention to the contextual conditions of design and architectural practice in the twentieth century include Jessica Kelly, "Behind the Scenes: Anonymity and Hidden Mechanisms in Design and Architecture," *Architecture and Culture* 6, no. 1 (March 2018).

26 Alice Strang (ed.), *Modern Scottish Women: Painters and Sculptors 1885–1965* (Edinburgh: National Galleries of Scotland, 2015), 7.

27 Strang, *Modern Scottish Women*, 10, 119.

28 Strang, *Modern Scottish Women*, 70.

29 Joyce Deans was President from 1991 to 1993, "Dr Joyce B Deans," RIAS, <https://www.rias.org.uk/rias/about-the-rias/past-presidents/dr-joyce-b-deans/> (accessed January 30, 2018).

Being open to architecture's expanded field and all its immaterial and material dimensions means working at the edges of, outside and beyond the existing domains which steward formal knowledge sustaining and controlling the canon.

So how to Construct Histories of Experience and Practice?

The preoccupations, confluences, and contradictions between the image and identity of individual architects, the profession as a body, and the realities of architectural practice and work, frame the context and motivations for the *Voices of Experience* project. We actively explore alternative (hi) stories, practices of documentation and dissemination which might open and clarify the complexity and ecologies of 'what architects look like', and 'what architects do'. We do this by foregrounding conversation –the social, personal and relational– over authored biography.

Secondly, the project builds documentation in-situ –overlapping testimony in time and through experience– rather than focusing on already represented and completed artefacts and other professional sources which have inbuilt 'attributes and aims'.

As the project develops, we draw from and investigate oral history practices. The Scottish Oral History Centre undertakes thematic projects on the effects of de-industrialisation, minority cultures and local groups, but with little direct intersection with the making of the built environment.³⁰ The British Library Sounds National UK Archive has 1264 items under "Architecture," including the *National Life Story collection: Architects' Lives*. This is searchable by interviewee, an alphabetical list which constructs through biography.³¹ A section on "Pioneering Women" has 174 entries.³²

However, more methodologically relevant is the Listening Project, broadcast since 2012, where the material is categorized by the geographical radio station, the relationship between two participants and the chosen subject.³³ Working through the evaluation and design of methodological and pragmatic practices and parameters is essential to build a resilient, useful archive. The Glasgow Women's Library (GWL) is not subject specific or specialist, so attracts broad interest via women's studies and activities. Setting up an accumulative audio-archive of the *VoE* conversations that can be listened to as well as read demands making precise and inclusive search categories, conversation subjects,

30 Scottish Oral History Centre, University of Strathclyde established in 1995, "About the Scottish Oral History Centre," University of Strathclyde Glasgow, <https://www.strath.ac.uk/humanities/schoolofhumanities/history/scottishorallhistorycentre/> (accessed January 30, 2018); Angela Bartie and Arthur McIvor, "Oral History in Scotland," *Scottish Historical Review*, 234 (2013), 108–36.

31 "Architecture," British Library: Sounds, <http://sounds.bl.uk/Oral-history/Architects-Lives> (accessed January 30, 2018).

32 "Pioneering women," British Library: Sounds, <http://sounds.bl.uk/Oral-history/Pioneering-women> (accessed January 30, 2018).

33 "Listening Project," British Library: Sounds, <http://sounds.bl.uk/Oral-history/The-Listening-Project> (accessed January 30, 2018).



Fig. 1. Eight conversations in 2016–17, www.voices-architecture.com. Courtesy of *Voices of Experience* project.

transcription and translation practices, allied with sustainable recording and listening technologies.

Since 2016 we have constructed a series of eight conversations between a highly experienced architect or maker of the built environment in Scotland, and an architect or another professional at the outset of their career. Insights have been broad-ranging and generous, very much personal and social, and include: how architects discover their preoccupations, strengths, range and niche through different working relationships and formats; resonating experiences of women entering into architectural education decades apart; and the making and remaking of homes and work at different stages of life and outlook.³⁴ (Fig. 1)

Each conversation has a project or thematic concern in common, often crossing significant timespans of engagement, and the participants discuss their work on location, *in situ*, open to contingencies of encounter and the environment. Outline structuring ques-

tions including: how did you start? Who inspired you? What is/was your dream project? What is your advice to young architects? These have branched out into hours of fascinating reflection and connection.

Excerpts have been shared at the "Architecture in Conversation" ArchiFringe/ GWL events in October

2016 and July 2017, where the paired conversations offered the opportunity to listen into others' conversations and became a larger, more public conversation around tea and cake. *Voices* embody the different ages, backgrounds, bodies and geographical journeys of participants, and the conversations engender a wonderful sense of 'listening in' where the personal is mixed with quite significant insights as 'valuable first-hand testimony of the past.' (Fig. 2) Audiences at events have responded positively to the social history aspects of the conversations. They state favourite aspects to be 'The modesty of these great architects', 'The variety of issues raised that show bold insights and achievements' and 'An insight into all aspects of architecture'. This project has demonstrated to us a public appetite to understand what architects actually do rather than what some selectively choose to show. We are learning about the ranges, tones and scales of conversation which reveal different types of insights and exchanges: one-to-one, panel discussion, public listening and reflecting.

Architecture is the most public of arts, entangled with conceptual and literal constructions of society and environment. It determines how we shape neighbourhoods and expresses the hopes and dreams of the communities we dwell in and move through. Yet, how do we 'see, hear and talk' about architecture in public life? Architectural projects and the people who make them are usually exposed through professional and academic channels. The authority of formally designated critics, designers and historians of architecture, validated by their media, professional or educational institutional status, tend to hold a monopoly on who can speak for and about architecture. Histories are hidden, always in relation, personal and social, and there are many gaps that we need to re-read and re-make. They reach public audiences through grand design media stories only when they become controversial – or through the persistent self-publication and cult of the figure-head, the 'starchitect'. Making good architecture is a complex endeavour that is potently significant within our collective public life. Architectural knowledge is practice-based and experiential. We, therefore, need to pay more attention to the real sophistication of the production of our built environment, the teams, interrelationships and roles of expert and skilful practice and negotiation positioned deeply within it, and all the many women who have made –and are making– Modern Scotland.



Fig. 2. Project participants in conversation, Glasgow Women's Library, July 17. Courtesy of *Voices of Experience* project.

³⁴ Contributors to the project include architect Margaret Richards, conservation architect Fiona Sinclair, architect/historian Dorothy Bell, teacher/architect Anne Duff, planner Kirsteen Borland, conservation architect Jocelyn Cunliffe architect, Denise Bennetts and architect, Kate MacIntosh. They have been joined by Mairi Laverty, Nicola McLachlan, Cathy Houston and Emma Fairhurst of Collective Architecture, planner Heather Claridge of Glasgow City Council, designer-activist Grace Mark, conservation architect Melanie Hay and local council architect, Elaine Keenan. Over a series of autumn and late spring site days, they discussed their work and shared their experience of working within Cumbernauld New Town, Glasgow Necropolis, Linlithgow, on schools, housing and Edinburgh's historic centre. The *VoE* project was initiated by Jude Barber and Suzanne Ewing.

Adam Nadolny

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Women Architects in Polish Feature Film of the Sixties

'The job the architect does is not just craftsmanship but a mission.'¹
(Lech Niemojewski, 1949)

Professional Work of Female Architects in Poland

In the 1960s, the profession of architect in Poland was dominated by men, even though women did also design, their professional position was much lower than that of men.² During the socialist era, women, apart from professional work, would also in many cases look after the children and manage the household. Because of that only few of them succeeded in making a name for themselves or in gaining equal professional status with men in the architectural society.

Due to the manner how a state-owned architectural studio would be organised in communist Poland, in many cases, women were rather entrusted with reproductive tasks than conceptual work. As women were viewed as having inborn meticulousness and accuracy, they were mostly entrusted with the completion of design documentation and working plans and designs. Conceptual design works were in many cases inaccessible to them. The enclosed photo presents a typical state-owned architectural studio in the centre of Warsaw in the second half of the 1960s. (Fig 1)

1 Lech Niemojewski, *Uczniowie cieśli: Rozważania nad zawodem architekta* (Warsaw: Trzaska, Evert i Michalski, 1948), 11.

2 The present article is part of the research entitled *Architecture and the City in Polish Feature Films of the 1960s, 1970s and 1980s, Stage V* carried out by the author at the Faculty of Architecture of Poznań University of Technology.



Fig. 1. Grażyna Rutowska (1946–2002), View of an interior of an architectural studio in Warsaw, around 1968, in the background is a pair of architects at the drafting tables. Photo Archives of Grażyna Rutowska, case file no. 40-3-175-3. Courtesy of Digital National Archives in Warsaw.

Regarding Poland in the post-war period, all architectural design studios were state-run design offices in charge of urban planning in the territory of the Polish People's Republic in the years 1945–89. The space of an architectural design studio was a place intended for conceptual work as well as drawings, designs or mock-ups. The designs were drawn on tracing paper with the use of ink technical pens. Drafting tables were used for technical drawings. For a contemporary viewer familiar with the specific nature of the architect profession, plastic stencils used for manual inclusion of pieces of furniture in the premises or details of bathrooms or toilets in the drawings would be a certain type of novelty. All that made the professional work of female architects, who also had to share their lives between work and family.

In this article, I would like to show two portraits of female architects recorded in Polish feature films of the Sixties. The first one is Joanna, the main character of *A Cure for Love* (1966) and the second is Małgorzata, the main character of *The Game* (1968). (Fig.1)

The Polish Film Making Industry in the Second Half of the Twentieth Century

The position of the Polish filmmaking industry, without doubt, depending on a number of factors. One of these, and indeed the most important, was political. It must be stated that in the case

of Poland after 1948 we can observe the establishment and continuation of the influence of the socialist way of thinking.

Slight manifestations of the democratisation of the country voiced between 1945 and 1948 ceased to exist. Between 1948 and 1956³ we can observe very strong influences of the Soviet Union upon practically all spheres of life in Poland. This situation also contributed to the fact that the film was used as a tool of propaganda and respectively structured⁴.

In the period under this analysis, many films focused on the topic of the Second World War period or the inter-war period (1918–39) which were seen by the new authorities as the times of the development of ruthless capitalism and oppression of the working class.

The democratisation of the country, which commenced after 1956 with Władysław Gomułka, was at the beginning a stimulus for the creation of films featuring more extensive and ambitious plans.⁵ A modern film was intended to reflect the reality as well as to describe modern times and comment on them. This short period of freedom unfortunately soon came to an end. The then active censorship prevented the film directors from presenting topics related to current social and political situation. This contributed to the production of numerous adaptations of literary pieces belonging to the canon of national literature as well as to the production of entertainment films.⁶

In the years from 1968 to 1980, Poland faced another turbulent period in its history. The reforms which were introduced at the beginning of the 1960s were suspended. A strong group of democratic opposition appeared. The group tried to fight the socialist system and to restore free, democratic

3 Death of Stalin in 1953 was a turning point for political changes in many communist countries such as Poland. The inception of Władysław Gomułka (1905–1982) rule is viewed as a breakthrough date and return to democratic reforms and opening of Poland to the world.

4 The history of Polish post-war architecture in the Polish People's Republic was inter-related with the political doctrine of the socialist country. At the turn of the 1940s and 1950s, classical models of social realism were followed. Therefore, in those times, architecture was a utilitarian material dedicated to the implementation of post-war conceptions of the reconstruction of many of the Polish cities. Images of the reconstruction period were preserved among others in numerous Polish film chronicles. The onset of social realism was officially announced by President Bolesław Bierut (1892–1956) on 3 July 1949 at the Conference of the Polish United Workers' Party in Warsaw. In his report entitled "Six year plan for the reconstruction of Warsaw" the President outlined the directions of development of numerous spheres of life in Poland, including the architecture. The social realist style in architecture was demonstrated with monumentalism, symmetry and numerous references to classical architecture - the use of pillars, columns and attics in the buildings.

5 This period in the most recent history of Poland is called 'small stabilisation' and comes from the play title written by the Polish playwright Tadeusz Różewicz (1921–2014) "Świadkowie albo nasza mała stabilizacja" (Witnesses or our small stabilisation), 1964. The play can be described as showing minimum needs and passivity. Różewicz discusses here the historical situation and the cultural position of the 1960s. The characters in the play can only see the deficiencies and malfunctions of the reality around them. However, they do not want to change it, as they fear they might lose the material values they have gained.

6 In the years 1961–66, 119 films were made in Poland, 24 of them were classified as comedies.

Poland. On the other hand, the next generation of communist activists got the power and opened the country to the West. The economic situation improved thanks to the loans from the western banks. Consumption in the society increased, more and more Poles visited other countries of the Eastern Block.

Polish cinema started to perceive reality and daily routine in a different way. Many Polish films, made by young directors, posed questions related to the actual life going on outside the windows of the large panel tower blocks and inside them. What the filmmakers of the 1960s loved about the modern architecture was space, modularity, the play of block bodies in space, was dismissed in the 1970s⁷ and replaced with the diagnosis of the situation of the society that lives in such modern space.

On the Selection of Research Material

Research material for the needs of this publication was downloaded from the website with a database of Polish films, www.Filmpolski.pl, which is a collection of Polish films made, among others, in the decade under the research.⁸ According to the specific nature of this research, have been assumed the following criteria to be met by research material: full-length Polish cinema feature films made in Poland by a Polish director, with Polish being the language of the plot.⁹

The analysed database of Polish films also includes collections of other types of films such as short-feature films, television films, television plays, documentaries, cartoons and students' first short films. According to the purpose of the research, we have further analysed exclusively full-length cinema feature films.

The preliminary research intended for the selection of the films collected in the database has shown that the number of Polish films made in respective years is very high. The scale of the Polish film production in the analysed decade is presented in the following table

7 As far as Poland is concerned, the 1970s were the period of political changes, which for a while changed the field of impact of the communist system upon the architecture, which could again become part of modern society. Cubic forms in space made the hearts of many Polish architects beat faster. In Poland modernism as a style was perceived as the embodiment of the vision of modernity. This modernity was in many cases, as already mentioned, recorded on a film tape and on the films dating back to those times. We must remember though, that from today's perspective, the ideology is no longer valid. What was once perceived as the spatial reality to be shown and glorified has now become a record of history.

8 The database of films was worked out by the Leon Schiller National Film, Television and Theatre School in Lodz.

9 Filmpolski also includes films which show any other types of interdependency with the Polish film industry such as a Polish director, Polish actors, Polish landscapes or frames. These films, because of the assumed research criteria, have been excluded from the research for formal reasons.

Year	Number of films produced	Year	Number of films produced
1960	312	1966	509
1961	355	1967	573
1962	353	1968	601
1963	396	1969	607
1964	395	1970	598
1965	523	Total	5222

Table 1. A number of films made in the years 1960–70 drawn upon the basis of the database of Polish films. The total of all the films made in respective years includes the following types of film productions such as cinema full-length feature films, television feature films, documentary films, cartoons, students' first short films, television series, television plays. (Elaboration by the author)

Another stage for the selection of the research material was the selection of cinema feature films meeting the adopted at the beginning criteria from the list of films included in the database of feature films. As I have already mentioned, only Polish films made in Poland and presented in the Polish language were taken into account within the process of detailed selection.

It must be stated that from the point of view of the assumed time period, in our further research we shall exclusively focus on films with plots featuring contemporary times, which include the time period under our analysis. The film director operating within the Polish cultural zone shall make up another decisive factor.

As a result of the research, two films have been selected. The first one is a comedy, made in 1966, entitled *A Cure for Love* and the other one, made in 1968, entitled *The Game*, is a psychodrama. In further part of this text, the selected films will be thoroughly analysed with regard to the image of a female architect presented to them in the background of the spatial reality of Poland in the 1960s.

The Personage of a Female Architect and a Male Figure in the Polish Feature Films

In the 1960s, the profession of architect was in a way an idealised profession due to its specific type of freedom in creating the spatial and social reality of the Polish People's Republic. On the one hand, an architect is a person who creates space and on the other hand, a person who works in the real space of an architectural studio.

In the socialist system, because of the political views, architectural studios were state-run enterprises, where architects were supposed to design architecture and draw up urban plans for the benefits of the socialist country.



Fig. 2. Joanna Jerzy Bielak (b. 1926) an architect and main character in *A Cure for Love* (1966) in the architectural studio. Photo no. 1-F-2306-31. Courtesy of of Kadr Film Studio, The National Film Archive – Audiovisual Institute in Warsaw.

In case of Poland, the work potential of state-owned architectural studios was practically fully booked until 1989. Private architectural studios in practice did not exist. Such state of affairs prevailed from the 1940s to half of the 1980s as regards organisation of work of Polish architects.¹⁰

The profession of an architect, because of its creative connotations, was perceived as a work dedicated to creating spatial reality for the needs of a new Socialist society. Shaping the space of Polish towns and designing buildings was in many cases a certain type of an escape from drab socialist reality. As already mentioned here before, architecture and urban planning were like windows opening towards the West. Architects, as representatives of a profession characterised by certain features of a freelancer's job, had opportunities to travel in Western Europe.

Personal and professional contacts would let architects draw the inspiration from the culture or experiences of the European countries. Inspired by the Western culture, they would, however, shun any explicit declarations on the origins thereof and their belongings to the Communist Party in Poland. An architect, a freelancer, could well be a positive protagonist of Polish films. In 1968, Maria Keller published in the *Kino* magazine: 'In our films Poland is the country of freelancers living in flats or houses designed in Cepelia or Art style, with no problems with employment or earnings, who, however, have to face certain subtle conflicts.'¹¹ (Fig. 2)

¹⁰ In Communist Poland (1948–89) there was no private architectural practices. The most of architect used to work at architectural offices, which belong to the Polish state.

¹¹ Maria Keller, "Praca–zawód-kariera," *Kino* 11 (1968), 10. Cepelia was a state-run enterprise set up in 1948. Affiliated artists, painters and sculptors created their art pieces on the basis of folk patterns and in compliance with the culture of respective regions of Poland. Folk art of the mountaineers from the area of Zakopane was a leading theme in numerous interpretations in applied arts, furniture, ceramics, carpets and others.

The present research focuses on the general image of the architect in Polish feature films and is presented into two thematic groups.¹²

The first theme focuses on the presentation of male architects, in the selected research material. Within that theme, we were able to find only one film entitled *Jowita* made in 1967 with Daniel Olbrychski playing the main character young architect Mark Arens. To a certain extent, we may feel surprised that we were able to find only one image of a male architect as at the time the profession was dominated by men.

The other focuses on female images. Whereas the presence of female architects in the architectural culture of the Polish People's Republic was only marginal, therefore it is quite surprising that it was possible to find, from among the films of the era, two films featuring female architects, namely Joanna (played by Kalina Jędrusik) in *A Cure for Love* in photo no. 2, in the background and a typical architectural studio of the times and Małgorzata in *The Game*. The two differ from each other in the temper and personality. Each film provides its own perception of the role of a female architect.

Joanna: An Architect in *A Cure for Love*

In case of Joanna (Kalina Jędrusik), a female architect is presented as a day-dreaming and disorganised person, who attempts to write a critical review of the modern interior design. Due to the fact that the film is a comedy, the professional image of the main character is in a way ironic. The plot of the film does not provide any information on Joanna's point of view on architecture, as the viewers, we also do not learn whether she can design independently or is just an assistant in the studio.

In my opinion, Joanna is a certain type of a rhetorical figure, a character, that in the film works in an interesting profession, which distinguishes her from other film characters. Maria Keller, in her article published in *Kino* in 1966, the year when the film was first shown, very aptly characterised a figure of an architect: 'Among protagonists of our films, we can find engineers, mainly architects, furthermore journalists, actors, sportsmen, representatives of intellectual elites. ... The phenomenon reflects the mass culture trends to idealise certain social groups.'¹³

¹² The figure of an architect as a creator also appears in Polish literature of the 1960s. The novels by Joanna Chmielewska such as "Lesio" and "Klin" are good examples. The plot of the latter served as screenplay for the comedy with Kalina Jędrusik entitled *A Cure for Love*. The screenplay of *Jowita* (1968) with the main character played by Daniel Olbrychski was also based on another Polish novel *Disneyland* by Stanisław Dygat.

¹³ Maria Keller, "Praca – zawód-kariera," *Kino* 10 (1966), 8.

The profession of an architect, with its aura of creativity, perfectly matched the image of the society of the times. A figure in cord trousers, tweed jacket and horn-rimmed glasses or in a tight-fitting suit would be then associated by the Poles with an image of an architect.

Małgorzata: An Architect in *The Game*

Małgorzata (Lucyna Winnicka), a female architect in the film entitled *The Game* is a more down to earth person. In several film sequences, she can be seen as a person fighting for her place in this male-oriented world of architecture. Based on several dialogues, we can conclude that, because of her age and work experience, she is not just an assistant in a team of designers. She participates in competitions as a team member and comes up with architectural concepts.

In one of the film scenes she is informed by her colleague 'You are going to be an official co-author of the design'.¹⁴ As spectators we can only infer that on the one hand, it is a distinction of a team member by its manager, but on the other hand – is it really a distinction – being merely a co-author. Another question arises. Is not a smart take-over of a design by a male boss only for the reason that the author is a woman? Of course, we will never know.

An Architectural Studio in *A Cure for Love* and *The Game*

The image of an architectural studio is an interesting element of the scenario presented in both films analysed. Each of the images is characterised by typical attributes of an architectural studio, namely open working space, architect's tables, rolls of tracing paper, conversations focused on current and future designs. In a way, this image represents the workplaces of hundreds of Polish male and female architects in the state-owned architectural studios. The architectural studio where Joanna, the main character of *A Cure of Love*, works are presented in the film as an open-space characterised with such interior design items as architect's tables and drawing boards with slide up pencil ledges. Architects bent over the designs create visions of bright future.

There is a particular scene in the film, which will let the viewer understand the professional status of the main character in the architectural studio and her position in the hierarchy of an architectural career. Joanna is entrusted with finishing a mock-up of a housing estate and previously she can get down to the job her male colleague comments on it with a bit of derision 'Now Joanna you are

¹⁴ From the audio track of *The Game* (1968), translated by the author.

planting the trees'.¹⁵ From this short comment, we may infer that Joanna's position is one at the lowest level of the professional hierarchy.

The architectural studio of Małgorzata is presented in a different way. Through a large glazed window, from a busy street, we can see architect's tables positioned at different angles, which form a unique spatial composition. Unlike in the former film, here the architectural studio is not populated with so many architects. You may have an impression that Małgorzata has just popped into her workplace to talk to her friend, another architect. An architectural studio, with the view to the downtown, from where you can see a very busy street, may in a way evoke the embodiment of the glass house concept, a popular architectural metaphor of modernity in the second half of the twentieth century.

On the other hand, an architect is shown as a figure suspended in a 'glass bubble' over the urban space of the city, which prospers irrespectively of his/her concepts or attempts to put the space into the proper order. There is a meaningful fragment in the film, where Małgorzata, walking along the streets of Warsaw with her husband (played by Gustaw Holoubek) can hear such words from him, a commentary on her professional work:

And so what that your mock-up was displayed at the exhibition of mock-ups which had won no award. A display of an architectural conception, what conception is it? You have neither materials nor contractors. You don't even know what steel, aluminium or plastics look like ... and then you aspire to make designs for the countries you have never seen.¹⁶

We might wonder if this comment is intended exclusively for Małgorzata or it is rather an overall perception of the profession of an architect by the society as a whole.

The actual process of designing fails to be presented in either of the films under our analysis, nevertheless, from certain film frames, it can be concluded that the job of the architects in the films is to design modern architecture. Both in *The Game* and *A Cure for Love*, the main characters focus on designing multi-family residential building complexes. In the socialist system, housing solutions were the subject of numerous discussions at the party meetings as well as the subject of ideological discussions. The developing society absolutely needed new housing, however, due to the top-planned economy model, even if flats were in demand, their supply much lagged behind.

The work of female architects these two films present does not consist in defining a modern residential housing; they are just the authors or rather parts of the puzzle in the entire process of designing new residential buildings. The aforementioned films do not discuss the quality of

architecture or its meaning for the country and the society, which obviously must have been discussed in the articles published in the specific field magazines or periodicals of the times. In a way, we can observe that professional work is only something extra to their life stories.

Each of the characters perceives her profession from a different angle. In case of Joanna (*A Cure for Love*), her work is a burden in view of her love affairs, she, however, must do it as it is her source of income. Of course, we may assume that due to the fact that the film is a comedy, the main character could not have been presented in any other way than as a totally disorganised and naive person, in fact, very much divergent from real-life professional architects.

Małgorzata (*The Game*) is a totally different character. Some scenes of the film present her as an ambitious person, who aspires to an equal position in a team of male architects. Her design activities fail to be precisely defined, based on the film dialogues we can infer that she participates in the conceptual designs as well as theoretical works. This aspect of her professional work is not positively perceived by her husband, who, as cited above, has a rather negative opinion of her overall design experience. Out of the presented figures of different architects, Małgorzata is the closest portrayal of the true image of an architect in the socialist system. She is exposed to constant competition for her position in the male-dominated world of architects.

Conclusion

At this stage of our considerations, it is time to look at the image of a female architect presented in Polish feature films from several points of view. From the point of view of the emancipation of women in the Polish People's Republic, this image has been aptly presented by Iwona Kurz, who wrote

Emancipation of women was a strongly highlighted part of the social program of the new authorities. At the same time, however, women were granted equal rights with men in a society where an individual voice was not really heard. Indeed, women could earn higher social status, mainly due to their professional work and more and more of them made a decision to work professionally.¹⁷

A female architect was in a way perceived as an architect assistant, for cultural and professional reasons, in the society of Polish architects, men were deemed the pioneers of Modern Architecture. The films analysed in this research coin an image of a female architect who, with her work,

¹⁵ From the audio track of *A Cure for Love* (1966), translated by the author.

¹⁶ From the audio track to *The Game* (1968), Translated by the author.

¹⁷ Iwona Kurz, *Twarze w tłumie: Wizerunki bohaterów wyobraźni zbiorowej w kulturze polskiej lat 1955-1969* (Faces in the crowd: Heroes of collective imagination in the Polish culture), (Izabelin: Wydawn. "Świat Literacki," 2005), 13..

contributes to a working team, but who, nevertheless, is not its main driving force but an important component of a mechanism called an architectural studio. The example of a male architect is not so positively presented. One may get the impression that work is something extra to his life, mere means of income he needs for his hobbies that far diverge from designing.

The figures of female architects, described in this text in more details above, have been presented with all attributes of the job such as drafting tables, white coats, rolls of tracing paper, architectural studios and others.

It must be remembered that a film plot adheres to individual rules, which allow a film to portray a given profession in a manner that serves the purpose of the script or to portray it as a component of the script. The aforementioned attributes allow the viewer to identify an architect among other characters, nevertheless, do not comprehensively show the specific nature of the profession of an architect resulting from creative activities and his/her juxtaposition with designing realities in the Polish People's Republic.

The two women, presented in this article, perceive their profession of an architect in two different ways. Joanna, the main character in *A Cure for Love* sees her job as an extra activity posing a burden to her personal life, whereas Małgorzata, the main character in *The Game*, sees her profession as an important part of her life mission.

Ceylan İrem Gençer

Turkey Yildiz Technical University | Turkey

Işıl Çokuğraş

Turkey Istanbul Bilgi University | Turkey

Sophisticated Professional Life and Archive of Mualla Eyüboğlu-Anhegger

Building a Career, Rebuilding Anatolia

With the establishment of the Republic in Turkey in 1923, the physical and social structure of the State started to transform as modern institutions were introduced both to the urban and rural scene. As a part of the construction of a new identity of the new State; urban plans, public buildings, housing projects, etc. were executed. In this dynamic environment for design and construction, women architects were very active. When compared to their European colleagues, their roles in the profession were more diverse. They had participated in design competitions and constructions of large-scale public buildings as well as restoration projects.

Unfortunately, being active members of the profession did not aid their visibility. Their names appeared in the journals, but rarely were their professional careers mentioned. Mualla Eyüboğlu-Anhegger was one of them. Belonging to the fourth generation of women architects of Turkey –as she puts it¹– she had graduated in 1942 from DGSA (Fine Arts Academy), Istanbul. Although she was active in different fields of the profession all over the country, there was so little written about her career,² nor were there much documents or drawings. Mualla Eyüboğlu-Anhegger was also an important collector and her house was referred to as a museum of Anatolian artefacts. After her

1 Ömer Madra, "Mualla Eyüboğlu Anhegger ile Söyleşi 'Restorasyonda Orijinali Bulamazsanız Hiçbir Şey Yapmamanız Lazım'," *Arredamento/Dekorasyon* 13 (1990), 36–42.

2 There is a comprehensive PhD thesis on preservation history in Turkey and mentions Mualla Eyüboğlu-Anhegger's restoration works: Burcu Selcen Coşkun, "İstanbul'daki Anıtsal Yapıların Cumhuriyet Dönemindeki Koruma ve Onarım Süreçleri Üzerine Bir Araştırma" (PhD dissertation, Istanbul, MSGSÜ, 2012). There is also a book focusing on her personal life rather than her professional career, Tuba Çandar, *Hitit Güneşi Mualla Eyüboğlu Anhegger* (Istanbul: Doğan Kitapçılık AŞ, 2003).

death in 2009, the house was emptied and her collection was said to be dispersed. However, in 2015, we reached her niece who had reserved most of the collection along with the architectural drawings, documents, photographs and notes.

We have been classifying this tremendous archive that will not only make Mualla Eyüboğlu recognized but will also provide an insight to the changes of Turkey and Turkish architecture between the 1940s and 1980s. Famous painter Bedri Rahmi Eyüboğlu and writer Sabahattin Eyüboğlu were her brothers. Thus she was a part of a family which had an important role in the intellectual life of Republican Turkey. Not only had she witnessed to the changing socio-political scene, but she was an active member of the change.

With the encouragement of Sabahattin Eyüboğlu, she started to serve in Hasanoğlan Village Institute as the Head and Instructor of the Construction Section following her graduation. The Village Institutes aimed to meet the needs of modern and secular education and development of the neglected villages through hands-on training. This novel model for education demanded a divergent architecture that did not evolve around a single building but required ateliers, dormitories, guesthouses, warehouses, garages, stables, poultry-houses and other buildings according to the needs of the region and climate. Thus, twenty-one village institutes all around the country were designed via architectural competitions and students of the Construction Section executed their buildings.³ As the head of this section, Mualla Eyüboğlu, in the age of 23, travelled around the country for these constructions. In her archive, there are various notes, sketches and drawings related to these implementations. Through these notes, we witness the impressions of a young woman and an architect of Anatolia torn by the war and neglect over the years and villagers' reactions to the new developments.

She had also designed the site plan, classrooms and instructors' lodgings for Ortaklar Village Institute (Aydın) and Pular Village Institute (Erzurum). Mualla Eyüboğlu and Ahsen Yapanar were responsible for the project of Pazarören Village Institute (Kayseri). From her notes and architectural drawings in her archive, we know that she designed the site plan, administration building, dormitories, ateliers and guesthouse of this campus.⁴ The architectural approach of the Early Republican Period, appreciating a Functionalist-Modernist approach can be seen in all her drawings. However, special care for climatic conditions, selection of materials to be within reach of the district, a design suitable for fragmentary constructions regarding the budget and labour force can be seen clearly.

3 Ebru Baysal, "Erken Cumhuriyet Döneminde Köy Mekânına Bakış ve Köy Enstitülerinde Mekânsal Deneyimler" (Master thesis Gazi Üniversitesi Ankara, 2006); Ebru Baysal, "Köy Enstitülerinde Mekân Kurgusu ve Mimari Yapılanma," *Düşünen Tohum Konuşan Toprak: Cumhuriyet'in Köy Enstitüleri 1940-1954*, edited by Ekrem Işın (Istanbul: İstanbul Araştırmaları Enstitüsü, 2012), 136–58.

4 Mualla Eyüboğlu-Anhegger, hand-written autobiography, Mualla Eyüboğlu-Anhegger Archive.

The Construction Section was not only established to execute the construction works of the Village Institutes but regarded as raising young people from villages equipped with the knowledge and skills of modern construction. They were to guide the construction of required buildings in their own villages after graduation. So, as the instructor of the Construction Section, Mualla Eyüboğlu directed her students in designing functional buildings of a regular village according to different climates. For example, in one of her students' work, a design for a stable for three animals and a hennerly can be seen. (Fig. 1) With the help of the master builder Sili Lajos, some of the courses would include on-site practice. One of her students, Özkucur remembers her courses to be very helpful for future construction activities in the villages.⁵

In her memoirs, Mualla Eyüboğlu-Anhegger admits that the education in the Village Institutes was not unilateral, but through the years, she was equipped with the knowledge of the numerous traditional construction systems of Anatolia which guided her all through her career.⁶ She had also fallen in love with Anatolia which she could never leave for long.

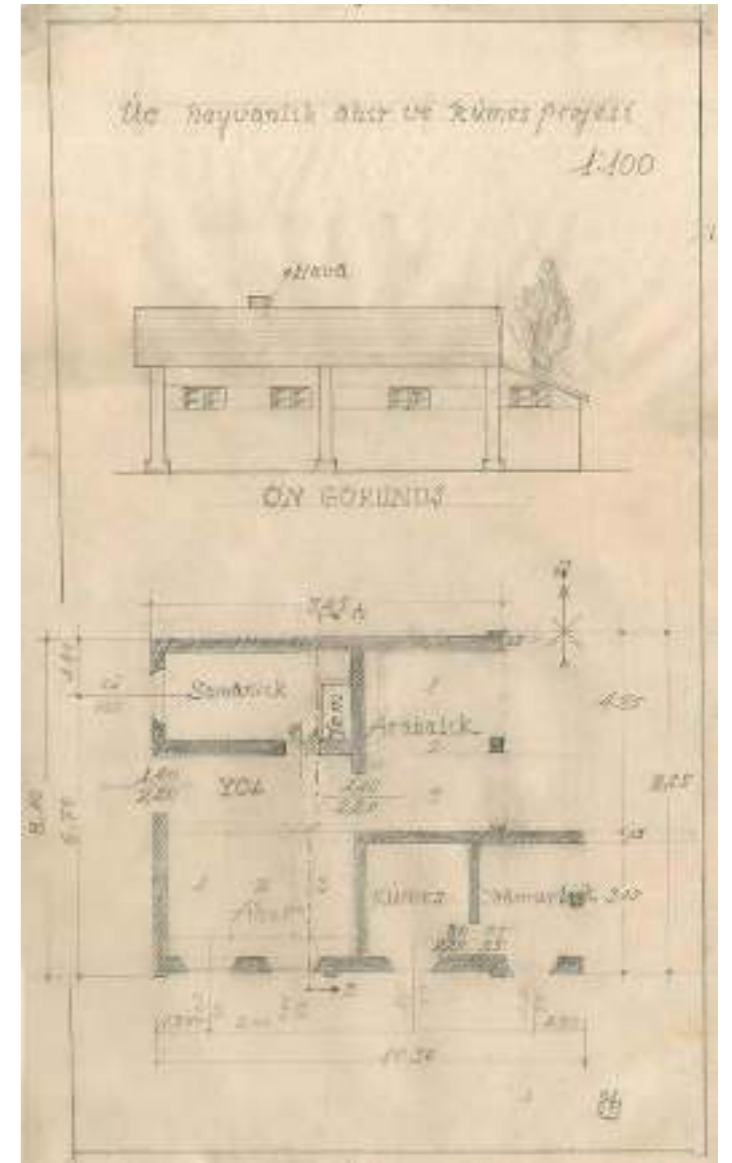


Fig. 1. A Village Institute student's work: a design for a stable for three animals and a hennerly, plan and façade. Courtesy of Mualla Eyüboğlu-Anhegger Archive.

Encounters with Turkey's Architectural Heritage

Due to health problems, Mualla Eyüboğlu-Anhegger was forced to leave her work in Village Institutes and return to Istanbul. There, she started to work as a research assistant in Fine Arts Academy in

5 Abdullah Özkucur, *Hasanoğlan Yüksek Köy Enstitüsü* (Ankara: Selvi Yayınları, 1990).

6 Eyüboğlu-Anhegger, hand-written autobiography.

1946 and started to give lectures. Here she met with Professor Albert Gabriel, the head of French Archaeological Institute (IFEA) and Halet Çambel, one of the first women archaeologists in Turkey, with whom she started to participate in archaeological excavations in Yazılıkaya (Hattusa) and Ephesus. Once more, she had found a chance to work in Anatolia. Filled with the new regime's idealism to serve the Country, she gladly accepted to work under very restricted conditions in excavation sites.⁷

Meanwhile she assisted in the preparation of Professor Celal Esad Arseven's book *Turkish Art History*⁸ and Professor Gabriel's book on Bursa.⁹ Between 1945 and 1947, she worked with Dr. Robert Anhegger, a Turcologist, who later became her husband, in the documentation of early Ottoman monuments in former Yugoslavia, Thrace, Greece and Anatolia. These photographs comprise a major part of her archive and seem to be the most important part of it as they exhibit not only the conditions of the buildings at that time but the daily lives in these cities and villages as well. Altogether these site works and documentation studies gave a new direction to her professional career. Her never-ending passion for working in Anatolia and fascination for Turkey's cultural heritage guided her into becoming one of the pioneering women architects in historic preservation.

Restoring Monuments, Restoring a Country's History

In 1952, Mualla Eyüboğlu-Anhegger was appointed as a rapporteur for the recently established High Board of Antiquities with the recommendations of Professor Gabriel and Professor Arseven. The Council was responsible for approving the restoration projects and controlling their implementation on site. Here, she worked as a site supervisor and travelled all over Turkey, controlling the implementation process in restoration sites. She was also responsible for preparing cost estimates and quantity surveys for restoration works. With her prior experience on vernacular architecture and construction techniques, which she gained in Village Institutes, as well as in documentation and archaeological excavations, she accepted this rigorous work 'with fortitude' in her own words.¹⁰ Starting from the end of 1950s, she undertook the restoration of major cultural heritage assets, including Rumeli Fortress and Topkapı Palace, as well notable Turkish monuments, such as Buruciye Madrasa (Sivas), tombs and ablution fountain in Hagia Sophia, Serifler Mansion and Siyavus Pasha Mansion in Istanbul, to name a few.

7 *Notebook on Yazılıkaya Excavations*, 1949, Mualla Eyüboğlu-Anhegger Archive.

8 Celal Esad Arseven, *Türk Sanatı Tarihi* (Ankara: MEB, 1956).

9 Albert Gabriel, *Une capitale Turque Brousse Bursa* (Paris: E. de Boccard, 1958).

10 Mualla Eyüboğlu Anhegger, "Katkıda Bulunabildiğim Eski Mimari Eser Onarımları," unpublished text of a speech, Mualla Eyüboğlu Anhegger Archive.

The period between 1950 and 1980, during which Mualla Eyüboğlu-Anhegger played an active role, was the transition period for the systematization of preservation field in Turkey. During this time, various organizations undertook the restoration of major monuments, preservation education was established in architecture faculties and a legislative framework was organized. Considering the lack of a comprehensive preservation law until 1970s, the Council of Monuments was one of the key organisations in trying to establish the right approach to historic preservation amidst the rapid urbanization movement in 1950s Istanbul, during which many monuments were destroyed to open new roads. (Fig. 2) Even though she was 'not trained as a restoration architect,' Eyüboğlu-Anhegger's position as a rapporteur allowed her to make observations in every aspect of restoration, which were reflected in her reports.¹¹

Harem Quarter in Topkapı Palace, the imperial palace of the Ottoman State, was her most prominent restoration work, lasting between 1961 and 1971. Initially established in the Fifteenth century, Topkapı Palace developed and expanded gradually without a plan. The Harem, housing the sultan, his family and his servants, was a complex compound extending over an inclined terrain, changing several times with the reign of sultans until the Nineteenth century. Even after the sultan moved to another palace, Harem continued to house the retired servants. With the foundation of the Republic, Topkapı Palace was converted into a museum in 1924. Therefore, some of the buildings were repaired and opened to the public, except Harem, which remained closed most of the time.

So, when Mualla Eyüboğlu-Anhegger entered the Harem, most of the buildings were in urgent need of repair. First, she was commissioned to restore a seventeenth century kiosk dedicated to the heir princes. In order to comprehend the original use of the building, which was infilled with additions

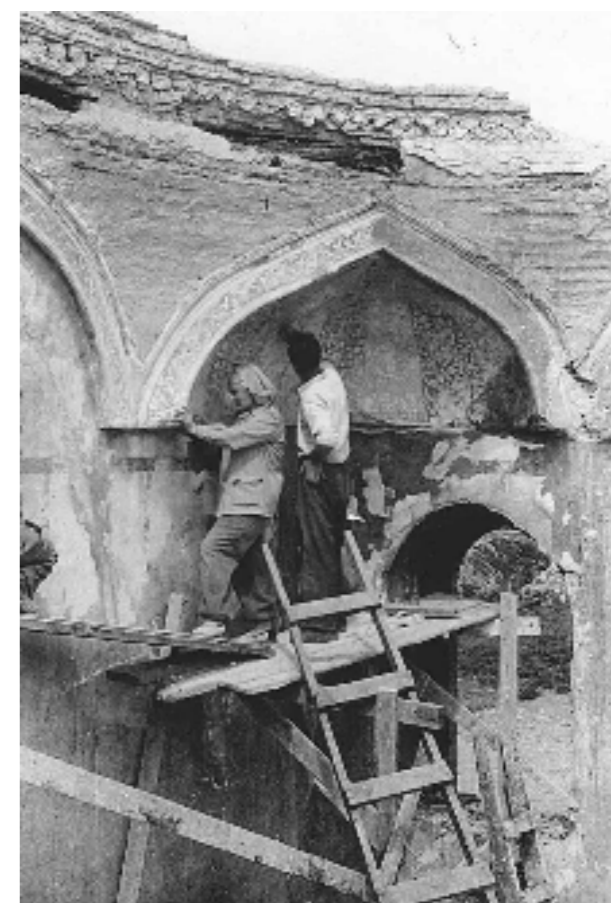


Fig. 2. Mualla Eyüboğlu-Anhegger working at Ebul Fadil Efendi Madrasa. Courtesy of Mualla Eyüboğlu-Anhegger Archive.

11 Eyüboğlu Anhegger, "Katkıda Bulunabildiğim Eski Mimari Eser Onarımları."

and partitions in the eighteenth and nineteenth centuries, she wanted to visit the rest of the Harem, but she was not allowed in some sections. Working with limited equipment, unqualified labour force and a minor budget, she also had to struggle with the museum administration, which she repeatedly mentions in her chronicles.¹²

She initiated with a thorough investigation in the building, scraping off the later additions while searching in the palace archives for its history. She found out that the original building was covered with a timber dome embellished with intricate decorations, which was hidden under a timber ceiling added later. According to her restoration approach, 'without removing these unqualified additions and reflecting the initial design stage, it was not possible to display these spaces as a part of the sultan's house.' After the princes' kiosk, she restored many other buildings in the Harem Quarter, discovering hidden places with excavations, such as the sultan's pool which was covered with earth over time.¹³ Since there were limited scientific studies on Harem, Mualla Eyüboğlu-Anhegger's restoration works and discoveries became very important contributions to understanding the architectural layout, functions and different layers of its history.

Her contributions to cultural heritage preservation were not limited to restoration works. She gave many lectures on Harem buildings, presenting her findings in Turkey and abroad. She published a book on the history and architecture of Harem, including her restorations.¹⁴ Her presentation of the Harem as 'a school for the women' was recorded by documentary films.¹⁵ Through her efforts, the Orientalist image of the Harem as the sultan's brothel could be changed.

Mualla Eyüboğlu-Anhegger was one of the first women architects to undertake such a large scope of work in a wide geography. There were also two other women architects, Cahide Tamer and Selma Emler, who were her contemporaries and worked in the restoration of Topkapı Palace and Rumeli Fortress.¹⁶ These women were the leading actors in historic preservation field in Turkey, which started to develop in the 1950s.

In Lieu of Conclusion

We tried to depict a general view of Mualla Eyüboğlu-Anhegger's career as an architect and her archive, based on our long-term project. Although our project consists of interviews with her colleagues, friends and students and research in related institutional archives, this paper focuses only on her archive. Mualla Eyüboğlu-Anhegger's archive is significant because it will be the first classified archive of a woman architect in Turkey with such a comprehensive content.¹⁷

We classified her archive in three major categories: documents, architectural drawings and photographs. The documents include educational records, official correspondences, personal notes (mostly written in Village Institutes on Anatolia), reports on historical buildings, interviews and articles, her published work, letters and postcards. Under architectural drawings category, drawings and sketches are belonging to Village Institutes, Islamic monuments, master plans for two towns (Yayladağ and Eceabad) and other architectural projects. Photographs consist of photographs of Village Institutes, panoramas of Anatolian cities and towns dating to 1945–7, monuments in Anatolia and Istanbul, and personal photographs.

The unique documents in the archive render a sophisticated professional life. Mualla Eyüboğlu-Anhegger was one of the architects who worked for re-construction of secular Turkey and a pioneering professional in the restoration of Islamic monuments. She did not regard herself only as a practicing architect, but one that learned and taught all throughout her career. She had a deep belief that she had a role in modernizing the society and recognizing its historical backgrounds. Although not published, her archive contains drafts on these subjects.

Mualla Eyüboğlu-Anhegger defines herself as a 'master architect, teacher, scientist'.¹⁸ We hope that she finds her place in Turkish architectural historiography through this archive and generates new researches in the field. She was not only an important figure in the history of architecture but also in the history of modernizing Turkey. Her archive reveals the networks and environment of the period.

Trying to reconstruct the professional life of every architect is demanding work, especially in Turkey where there are only a few personal archives. In our case, we thought to go through piles of paper of thousands of documents, photographs and drawings and to classify them was the hardest part. However, in the process of writing a book about Mualla Eyüboğlu-Anhegger,¹⁹ we realized that those are nearly the only sources we have, as there are few publications on her work. This makes it tougher, but more precious.

12 Mualla Eyüboğlu-Anhegger, *Notes on Harem Restoration*, Mualla Eyüboğlu-Anhegger Archive.

13 Mualla Eyüboğlu Anhegger, *Topkapı Sarayı'nda Padişah Evi: Harem* (Istanbul: Sandoz Kültür Yayınları, 1986).

14 Eyüboğlu Anhegger, *Topkapı Sarayı'nda Padişah Evi*.

15 *Schule der Frauen-Geschichte aus dem Harem*, 1998, director: Manfred Blank, writers: Manfred Blank, Merlyn Solakhan.

16 Burcu Selcen Coşkun, "Koruma Uzmanı Üç Kadın Mimar ve Türkiye Koruma Tarihindeki Yerleri," *Kültürel Miras ve Kadın* (Aydın: Adnan Menderes Üniversitesi, 2017) 43–58.

17 Neslihan Türkün Dostoğlu and Özlem Erdoğan Erkarlan, *Leman Cevat Tomsu* (Ankara: Mimarlar Odası Yayınları, 2013). It is the first monography on the first woman architect in Turkey, however her archive is not intact.

18 Mualla Eyüboğlu-Anhegger, *Autobiography*, Mualla Eyüboğlu-Anhegger Archive.

19 The exhibition and the book is planned to be launched in 2019 April by Istanbul Research Institute.

Raffaella Poletti

Elvira Badaracco Foundation, Milan | Italy

The Marta Lonzi Archive: Subjectivity in the Creative Process

Marta Lonzi took part in the activity of the feminist collective Rivolta Femminile (Rome, 1970) together with her sister Carla, a leading exponent of feminism in Italy and an art critic and discoverer of the artistic avant-garde in the 1960s. And in 1971 in Milan, Marta took part in founding the publishing house having the same name. As the supporter of a creative process that sought to avoid inflicting violence on the pre-existing, she engaged in a continuous and systematic confrontation with official architectural culture, producing projects, competitions, debates and publications.

The reorganisation of the archive begun last autumn thanks to funding from the Lombardy Region, is still underway and has already made it possible to provide a coherent picture of Marta Lonzi's published works, comprising monographs, articles and contributions to works by various authors. Further study will make it possible to catalogue the other documents (notes, correspondence, project reports and documents, papers presented at conferences and seminars, etc.).

***L'architetto fuori di sé* (The Architect Beside Himself)**

In the early months of 1982, at the height of Postmodernism, a very atypical book on architecture entitled *L'architetto fuori di sé*, was published in Italy.¹ The front cover bore the icon of the typical architect sketched in Indian ink (by Pietro Consagra), with black-framed glasses and bowtie à la

¹ Marta Lonzi, *L'architetto fuori di sé* (Milan: Scritti di Rivolta Femminile/Prototipi, 1982).

Corbu, and an outburst of ideas erupting from his head. The book was soon taken up by Bruno Zevi, who reviewed it in *L'Espresso*, terming it an 'emotional autobiography' and then 'a pamphlet with a thesis,' which it would be unfair to dismiss as simple and impassioned invective.²

In fact, it does belong to the category of the pamphlet, not so much by its dimensions (it is over 200 pages) but by a vein of polemic running through it. It was written in the first person by the author. Marta Lonzi, presented herself in the brief biographical notes as follows: 'Born in Florence on 13 April 1938; graduated in Architecture from the University of Florence in 1963. She practised professionally in Rome. Since 1970 she has been a member of the group Rivolta Femminile.'³ This concise account is followed by the text, programmatically intended as bearing 'heterodox testimony to the current practice of architectural design.'⁴ Hence testimony, meaning a statement putting something on record: her own experience as an architect and a woman. 'For me to choose architecture was a normal gesture, a spontaneous need combining my enthusiasm and my urge to live ... It was my project for entering the world'⁵.

Marta graduated from the Urban Planning Institute directed by Ludovico Quaroni and from the Science of Construction Institute run by Riccardo Morandi with a thesis that received the 1963 prize awarded by the Unione Italiana Applicazioni Acciaio (U.I.S.A.A.). A brilliant beginning, followed by participation in various competitions (Municipal Theatre, Cagliari, 1965; the Chamber of Deputies in Rome, 1969, with Quaroni). She also embraced reflection on urban planning issues, crowned with awards such as the 1966 Olivetti Prize for *La città nuova* (with M. Cusmano, B. Gabrielli, R. Mazzanti,



Fig. 1. Marta Lonzi, Cover layout for *L'architetto fuori di sé*, 1982. Courtesy of Marta Lonzi Archive at Fondazione Elvira Badaracco, Milan.

² Bruno Zevi, "Professioniste fuori di sé," *L'Espresso* April 23, 1982, 188. The following quotes from the book are translations by the author.

³ Lonzi, *L'architetto fuori di sé*, cover laps.

⁴ Marta Lonzi, *Che cosa è per una donna creare*, typescript draft for cover laps, 1982, Marta Lonzi Archive at Fondazione Elvira Badaracco, Milan.

⁵ Lonzi, *L'architetto fuori di sé*, 5.

R. Rozzi). But she soon passed 'from the enthusiasm of a voluntary and intense apprenticeship of concentration and stimulation [of her university period] to a state of disappointment,' which her entry into the profession aroused 'in a way that was almost unexpected in the violence of its crisis'.⁶ She explains in her book:

I worked with others, but was alone in disappointment ... Everything happened by chance, the rigour was only apparent. Where did I concern that idea? ... I felt everything was aleatory and outside me: I was unable to begin that process of consciousness that makes the project a mirror of the self.⁷

At the same time, she fell in love and got married and within a few years, three children were born. The difficulty of reconciling her new role as mother with her already critical role as a designer impelled her to deepen her study of architecture.

I needed to clarify what happens in that interval of thought that takes place before the project and which the architect, though thinking of it, does not recognise as such. Just as I needed to ignore what the architect says after the project, given the premises from which he starts ... I designed alone to understand the phases, to know myself in the act of formulating, to trace back the path from the experience to the underlying truths. I had to restore the design process to that clarity which I needed. I could no longer remain in that interval of thought that seeks to suspend all knowledge of the expressive process, relying on the confusion claimed by the inspired act. I also felt the need to produce works through which I could then speak.⁸

She returned to the university in 1967 as a voluntary assistant, first of Alberto Samonà and then of Quaroni himself. She found that the discussions with students 'in front of the white sheet to be transformed into a project'⁹ became the focus of her interest. She explained 'It was not easy to fix it or subject it to the investigation that mattered to me since the transition from nothing to the idea was not recognised as a fundamental phase of design, but a leap into the void: it suddenly appeared.'¹⁰

The turning point came in the spring of 1970. Marta subscribed to the first *Manifesto of Rivolta Femminile*, one of the founding documents of Italian feminism, which grew out of the reflections of women involved in various ways in creative activities, outstanding among them the figures of Marta's sister Carla Lonzi, an art critic, and the artist Carla Accardi.¹¹ In the *Rivolta Femminile* and the practices of self-awareness, which also reconsidered a large part of cultural interpretation from

6 Lonzi, *L'architetto fuori di sé*, 6.

7 Lonzi, *L'architetto fuori di sé*, 11–12.

8 Lonzi, *L'architetto fuori di sé*, 16.

9 Lonzi, *L'architetto fuori di sé*, 31.

10 Lonzi, *L'architetto fuori di sé*, 31.

11 Carla Lonzi, Carla Accardi and Elvira Banotti contributed to the drafting of this Manifesto.

the point of view of power relations between the genders, Marta found the key to understanding the disquiet that she felt as 'circumscribed and personal',¹² and which she associated with the more general theme of conflict with male creativity.

Within a few years a rift emerged within the group: Carla Lonzi rejected cultural production as irredeemably marked by the patriarchal imprint; Accardi and, in a different way, Marta herself, will continue the search for an approach that, despite everything, would make it possible to think and act as creative subjects. For Marta it was clear that only by consciously accepting the subjective dimension of the project would its 'authenticity', namely its validity, be guaranteed. This placed her at an immense distance from the practice of university teaching, as we can argue from her words:

They talked about design but were silent about the experience of designing ... Everything took place indiscriminately in the third person. ... Every necessity could find its theoretical support. Because the subjective phase ... is censored by the architect.¹³

Marta was increasingly interested in the process rather than in the results of the project, namely the object. As a result, she resigned from her university post in 1974 with a letter to Ludovico Quaroni:

I think that serious experimentation cannot be carried out fully without recognising the need to start from a cultural background truly open to every possible meaning and value ... The authenticity of the process will become the verification of experimentation.¹⁴

Strong in this awareness, Marta undertook to analyse the mechanisms of culture. 'I know that I accept only those truths of culture that bring the self into play, while I feel no emotion for all formulations that fail to imply involvement: the latter form a large part of the thought in circulation,' she wrote in 1978, in *Diritti della mia soggettività*.¹⁵ Then, she proceeds by considering the relation between the self and the project.

Of the current cultural canon, I cannot stand that presumption of being outside oneself, of understanding and of proposing in objective terms and from necessity, which corrupts the reasoning My continual question is: Why do I design? ... It is the individual that needs to manifest the self and not society that needs the individual's manifestation, namely the object. It is from this premise that derive, as corollaries, all those mechanisms of culture towards which my rejection is incessant. It is one thing to start from the consciousness of satisfying a need for subjective expression –knowing that it is a universal constant that unites or divides people– and quite another thing to project onto others this necessity that is within oneself,

12 Lonzi, *L'architetto fuori di sé* 30.

13 Lonzi, *L'architetto fuori di sé*, 40.

14 *L'architetto fuori di sé*, 44

15 Marta Lonzi, "Diritti della mia soggettività," in Marta Lonzi, Anna Jaquinta and Carla Lonzi, *La presenza dell'uomo nel femminismo* (Milan: Scritti di Rivolta femminile, 1978), 11.

transforming it into an external, objective need. It was Le Corbusier who needed the Plan Voisin, not Paris that needed the Plan Voisin!¹⁶

She had studied Le Corbusier deeply, as well as other figures in architecture, recent and remote, in search of a trace revealing their inwardness. At this point of the investigation, she saw herself as very distant from the Swiss architect, to whom she imputed a sort of instrumental cynicism. She also felt distant from all those, including her contemporaries, who shielded themselves behind the presumed 'scientificity' of architectural design. She considered they stripped it of all subjective implication, hence of any responsibility.

By contrast, she took an interest in Louis Kahn's 'desecrating action' and his method of proceeding 'independently of the architectural design canons'.¹⁷ She was impressed by the work of Ralph Erskine (to whom she thought of devoting a publication), because of his attempt to reconcile the desire for expression with his social role as architect. She accepted the positions of Adolf Loos, who 'does not give formulas',¹⁸ aiming at the authenticity of the project.

Infinitely remote from architecture understood as an expression of the will to power, she thinks rather of an encounter of subjectivities, between those –individuals or collectives– of the client/commissioning body and the designer.

A good architect is not one who builds new architectures, who designs unusual solutions, but the one who succeeds in stimulating in people thoughts and feelings that otherwise would not be expressed in consciousness. The civilisation of the object versus the civilisation of relationships: this is the line of demarcation between the culture expressed by a man and that experienced by a woman, which has as its peculiarity (and limitation?) the 'impediment to sublimating the object at the expense of the relationship'.¹⁹

What Is It for a Woman to Create?

These were themes that she took up and developed when the book was published, at presentations and debates and in various Italian and foreign schools of architecture where she found attentive and interested interlocutors. An example was the following year in France, at the *École d'Architecture de Strasbourg*. Often her lectures were followed by involvement in the teaching of courses or seminars.

16 Lonzi, *L'architetto fuori di sé*, 57.

17 Lonzi, *L'architetto fuori di sé*, 38.

18 Lonzi, *L'architetto fuori di sé*, 92.

19 Lonzi, *L'architetto fuori di sé*, 131.

This was the case in Berlin, first at the IBA in 1987 and then at the Hochschule der Künste (1989); then again in Malaga (1993), Strasbourg (1993–94), Toledo (1994) and La Coruña (1994–95). Each of her lectures led to a deepening of her thought, as can be seen from the documents kept in the archive.²⁰ The first publications were focused on the topic 'What is it for a Woman to Create?', a topic also dealt with interviews and articles, such as the one published in the French periodical *Pignon sur la rue*, which devoted a monographic issue "Architecture féminin pluriel." Marta wrote:

I always disapprove when I hear someone talking about "female architecture" because I do not think there is such a thing as female architecture, but rather different kinds of female consciousness that make architecture, just as I do not believe there is such a thing as male architecture, but rather different kinds of male consciousness that make architecture. That is to say, the object is the result of a creative process and it is there –in the process– that the difference should be sought.²¹

It was along these lines that she would direct her subsequent investigations, from the late 1980's on. "From Object to Subject: An Innovative Inversion of the Creative Process," "A Real and Unsublimated Relationship with the Object"²² are the titles that allude to the new format in which she would present the results of the research that she was accumulating, parallel with professional experiences and competitions. The latter, in the absence of a concrete public commissioning body, provided an opportunity to extend the reflections she had developed to the urban dimension. Bologna, Vicenza, Berlin, Granada, Rome.

Her design projects, which were increasingly distinctive, met with the appreciation of juries without being understood. Such was the one she developed for the International Competition for the redevelopment and regeneration of Borghetto Flaminio Roma (1994–95). Her proposal was judged 'The best project in terms of environmental insertion, with the best layout of the productive cultural functions, and the best in its treatment and conservation of places'.²³ Yet it was ultimately rejected by the jury on the grounds that 'the merits are also the limits of the project: the central space is not a project but a garden. The tendency to leave the space free is positive, but it involves a *renunciation of designing*'.²⁴ What was assessed as a shortcoming was actually the crux of the project; the judgment, paradoxically, certifies its effectiveness.

20 Cf. *Series Writings and conferences*, Marta Lonzi Archive at Fondazione Elvira Badaracco, Milan, ongoing filing.

21 Marta Lonzi, "Une femme architecte: Sa propre démarche créative," *Pignon sur la rue* 49 (1983), 24–25.

22 Cf. *Series Writings...* cit.

23 Marta Lonzi, *Autenticità e progetto* (Milan: Jaca Book, 2006), 163.

24 *Ibid.*

Goodbye Beautiful Cities?

Her insights into Rome and its outer suburbs, in particular for Pietralata, were embodied in the project *Del Sistema Direzionale Orientale* (1997).²⁵ Its premise challenged the illusory possibility of founding a perfect urban development on a scientific basis.

To the previous simplification of the city as an object should be added another fundamental one, which is the transformation of the concept of society, therefore of humanity, into an entity, itself abstract, which together with the conception of the territory, which is also abstract, frees the creative process from every real reference in order to predispose it to reasoning of scientific value. These new values will lead the city to be structured according to an aesthetic that is intended to be objective, arising from an analysis that is objective and reasoning that is intended to be scientific.²⁶

Her proposal for Pietralata, endorsed by the neighbourhood associations and committees, flowed four years later into a new publication: *Roma è da salvare: Pietralata New York Istanbul*.²⁷ This also explains her strenuous debate with the city administration of Rome.

Through a project of *real methodology*, respecting the same urban weights as envisaged by the administration, the Author demonstrates the possibility of arriving at a new urban renaissance, provided that the architectural culture is willing to take stock of its failures. ... The project method supported and documented ... induces a dynamic of enhancement of the territory, creates a new awareness of the pre-existing and of the "modern" and makes *building* an environmentally beneficial project and an investment for the community.²⁸

In the spring of the same year, Marta was invited by Annarosa Buttarelli to the School of Contemporary Culture in Mantua where she gave a series of lectures entitled "Goodbye Beautiful Cities? An Original Rereading of Urbanism and its History, its Sublimations and its Creative Possibilities for Urban Recognition."²⁹ The content of these lectures constituted the first draft of the theses that were given a definitive form in a book, "Autenticità e Progetto," published in 2006.³⁰ The book, therefore, constituted the synthesis of the dense path of reflections and practices, which, as we have seen, profoundly involved the existential as well as the professional dimension.

25 Resumed later in Marta Lonzi and Francesca Garavini, *Roma è da salvare: Pietralata, New York, Istanbul* (Milano: Prototipi, 1999).

26 Lonzi and Garavini, *Roma è da salvare*, 13.

27 Lonzi and Garavini, *Roma è da salvare*.

28 Lonzi and Garavini, *Roma è da salvare*, back cover.

29 Cf. Series *Writings*.

30 Marta Lonzi, *Autenticità e progetto* (Milan: Jaca Book, 2006).

Autenticità e Progetto (Authenticity and Project)

Marta saw the crisis of contemporary architectural culture as stemming from the inability to conceive the project about the historical and environmental context, due to the abstraction that the creative process, and the culture that embraced it, developed and celebrated.

Today, the architect is stuck at a stage where he is at one with what he develops. Having allowed the subjective and therefore conscious relation between himself and the object to decline, he resides immanent in the project he presents in objective terms, believing them illusorily to be true. This tautological spiral of design leads to the decline of the process and, therefore, of the object: no longer architecture, but cubature; no longer cities with a human dimension, but periphery, meaning soulless agglomerations; no longer territorial integrity, but fracture. ...

She is convinced that the awareness of one's own creative act modifies the setting of one's own action, because it generates in the designer awareness of the value of life with respect to the work, of authenticity with respect to the illusion of immortality, directing the architect towards more conscious creativity. The stake is no longer the object but oneself as the subject that devises it, at a higher stage of knowledge.

This is the level of design that enables the architect to be credible as a designer, inasmuch as one is a person,[... in showing the real values in which one believes and whose fulfilment one pursues, in relation to oneself and the human race, and not as a sublimated being. In short, in offering the phases through which one develops the creative process through which one passes from the blank sheet to *one's own truth*.³¹

Exemplary in this respect is her comparison between Borromini and Le Corbusier. The former expresses each step of his design process in a natural way, while the latter presents the creative act as a numinous element, in an urge to self-representation that would have profound and 'real' repercussions on our cities. She emphasises:

From the writings of Le Corbusier ... some values of his design process appear evident First of all, the need to put in objective terms the truth to which he "gives birth" By presenting (the gesture) in terms of an uncontrolled and uncontrollable event he has no choice but to present the project in terms of Truth, entrusting to theory, to the meta-historical, the task of validating his work. The second implication is the replacement of reality with an abstraction The third and immediate consequence is the elimination of the real client, also reduced to an abstraction, a projection of the designer's will.³²

31 Lonzi, *Autenticità*, 10.

32 Lonzi, *Autenticità*, 28.

How far this is from the approach of an architect like Eileen Gray, for whom 'theory was not sufficient to life and did not meet all its needs,'³³ while reiterating that she wanted to 'continue to work with these formulas and push them to the point where they rediscover the contact with life ...'.³⁴ Or of a Margarete Lihotzky, who stated, 'what is decisive in every system that affects the organisation of work is to know for whom it is made, who will profit by it and whether, finally, it will be a blessing or a curse to humanity'.³⁵

Marta found herself 'in perfect harmony with this way of designing in the first person and with this sense of belonging to the human race, which I had found in the thought and action of two women architects ...'.³⁶ In their work, we confirm the fact that not 'objectivity', but 'authenticity' validates the proposition developed by the designer. This value unhinges every expedient of sublimated relationship with the object because it imposes a 'real relationship with the object,' but before all else a 'real relationship with oneself'.³⁷ This perspective has its roots in the Renaissance tradition, while 'the dissociation between the self and the object is the price that the modern architect has paid to celebrate the self as I design, therefore I am'.³⁸ A process that has had 'the effect of transforming the design into a commodity on a par with all other goods ... in which the split between design and ethics prevails'.³⁹

'Authenticity,' therefore: the keyword in the feminist lexicon that Marta, 25 years after the writing of her first book, and more than 35 since the probing of self-awareness, uses here as a litmus test to reread the history of architecture in search of ethical connotations. But it is an expansive process from the subject to his practices that now affects the whole social body. 'Architectural culture is not capable, today, of giving any guarantee of authenticity. Vitruvius would say of correspondence between theory and practice'.⁴⁰

33 Lonzi, *Autenticità*, 47.

34 Lonzi, *Autenticità*, 53.

35 Lonzi, *Autenticità*, 60.

36 Lonzi, *Autenticità*, 62.

37 Lonzi, *Autenticità*, 33.

38 Lonzi, *Autenticità*, 149.

39 Lonzi, *Autenticità*, 147.

40 Lonzi, *Autenticità*, 163.

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Building Genealogies. Learning from Feminism: Women as Designers and Planners

The idea of a history of women working in the transformation of physical space, as professional designers, is very recent and there are still very few female names in architecture textbooks. Traditional research has so far favoured monographic studies aimed at highlighting the figure of the great master, describing monuments, illustrating signature masterpieces, ignoring the context and the characters in the background, allowing for only a 'HIStory' as opposed to a 'HERstory', on which there remains much to be written.

Today, we have gained a real awareness of our role in inventing space. Our field of consideration has expanded from the house to the city, released from being only lived and narrated to becoming experienced.¹

The theme of female historiography has been deepened with a patient work of memory organization based on the study of some figures, the so-called 'pioneers'. It is essential to know, mention and remember the first women who studied and practiced architecture; to bring up the collaborations that they had, and to properly recognize their role. In order to build a feminine genealogy, I have explored different approaches.

Catalogues

The catalogue was the first initiative intended to fill in the gaps of historiography referring only to men. Chronologically ordered, it served the purpose of organizing personal data but also to sketch

¹ See Laura Gallucci and Claudia Mattogno, "Le autrici della città," *Duemilauna: Donne che cambiano l'Italia*, edited by Annarosa Buttarelli, Luisa Muraro and Liliana Rampella (Milano: Pratiche Editrice - Il Saggiatore, 2000), 45–8.

biographies, document summaries of the works and collect photographic evidence. Catalogues are often associated with exhibitions, as was the case in 1977 in New York for the Architectural League² and a few years later for Arkkitehtejä (1982), as well as the catalogue prepared in Helsinki for the 40-year anniversary of the Association Architecta.³

However, the catalogue edited by Susana Torre goes far beyond the simple collection of projects created by women. It draws the attention of the public to women who had contributed to change the physical space as users, designers and researchers. It was in 1977 when, perhaps for the first time, a gender approach to architecture appeared so explicitly. Criticism and accusations of provocation made the break with the dominant culture blatant, in an attempt to introduce a new perspective for looking at and writing the history of architecture.

It was no longer a matter of mentioning only the great figures, acclaimed for their major works, for their belonging to a movement or a style; rather, it was a matter of bringing out the background figures, who were able to reveal the cultural and social conditions surrounding a project. Therefore, the exhibition aroused heated controversies. The world of architecture split into two: for some, it was a 'separatist' exhibition, because it questioned a discipline previously seen as neutral and universal; for others, it was too 'general' not selective enough.

Even the feminists continued to be polemic. Only in 1981, the famous magazine *Heresies* was able to publish the dossier *Making Room: Woman and Architecture*, which had been in preparation since 1976. The editorial, collectively written by the curators, clearly demonstrated the scepticism with which the theme was conceived. According to the editors, other feminists believed that the topic of architectural space was less pressing and there were much more urgent issues, such as work, health or sexual division of roles.

Nowadays we have gained greater awareness of women designers: Their works begin to be known and numerous biographies are elaborated to deepen their careers. In Switzerland, an editorial series focuses on the theoretical thinking of women who have developed critical reflections on the city and its urban and social transformations.⁴

A broader survey was recently undertaken by a network of European scholars who are working on the creation of active memory. Their goal is to shed new light on the creativity of a large number

of women professionals who have worked in the field of architecture, urban planning, landscape and interior design during the twentieth century. How wonderful find out that the catalogue they just published is full of works by 100 designers from all over the world! In this way, it is possible to appreciate their lives and works, but also to observe their portrait and in this way know their faces.⁵

In more recent years, the catalogue was often accompanied by a series of quantitative and qualitative surveys, such as the 'Women in Architecture Survey'.⁶ This survey is periodically carried out by the British magazine, *The Architectural Journal*, and contains the results of surveys conducted with reference to those enrolled at the Royal Institute of British Architects (RIBA), in addition to profiles and illustrations of projects. Deeply rooted prejudices, different levels of remuneration between sexes, and difficulties in reconciling family life and work schedules emerged. Other forms of catalogues refer to databases, such as in New Zealand, where the Order of Architects has established a website (*Architecture + Women*) specifically dedicated to making the work of women designers visible all around the world.

Archives

Some professional bodies have promoted the systematic collection of materials, projects, photos, and bibliographies. More successfully, this kind of archive is based at universities that use it as an indispensable research tool. As it was the case for the Istituto Universitario di Architettura di Venezia (IUAV) that, since 1987, has embarked on a policy of acquisitions and made the original documents accessible, providing space for tribute exhibitions, like that dedicated to Egle Trincanato (1910–98), ten years after her death.

A specifically gender-based archive is the International Archive of Women in Architecture (IAWA), established in 1985 at the University of Virginia Tech. At first, it received a collection of materials related to the so-called 'pioneers', but subsequently it has been expanded to house even more recent collections. More recently, Bologna University has undertaken the organization of an online dictionary of Italian scientists with the explicit aim of compensating for the forgetfulness and omissions in history and acknowledging the role that women played in the scientific culture of modern and contemporary Italy.

2 Susana Torre, *Women in American Architecture: A Historic and Contemporary Perspective* (New York: Whitney Library of Design, 1977).

3 *Architects: Architecta's 40-year anniversary exhibition: Helsingin Kaupungin Taidemuseo September 24 – November 14, 1982* (Helsinki: Architectan Julkaisuja, 1982), Exhibition Catalogue.

4 Katia Frey and Eliana Perotti (ed.), *Theoretikerinnen des Städtebaus: Texte und Projekte für die Stadt* (Berlin: Reimer, 2015).

5 Ana María Fernández García et al. (eds.), *MoMoWo: 100 Works in 100 Years: European Women in Architecture and Design: 1918–2018*, (Ljubljana: ZRC Publishing House, 2016).

6 "Women in Architecture: Survey," *The Architectural Journal*, <https://www.architectsjournal.co.uk/women-in-architecture/survey> (accessed January 23, 2015).

Anthologies and Journals

Miscellaneous collections of texts and projects have contributed to turning the spotlight on some of the most outstanding figures of the recent past, highlighting how often these female figures have been overshadowed by more famous colleagues working with them, frequently their husbands. Other collections have reconstructed forgotten biographies, including those related to lesser-known figures.⁷ Usually, such collections offer an overview of contemporary international production, starting with *Women in Architecture*, one of the first books to illustrate the production of works by female designers from over twenty countries.⁸

Some journals, more widespread and general, devoted monographs to female exponents of the so-called 'star system'; this was the case with *Casabella*.⁹ However, there are fewer female architects and they have received fewer awards compared to their male colleagues.

In number 467 noticeably, the first female architect to receive the Pritzker Prize (existing since 1979) was Zaha Hadid in 2004 and the second was Kazuyo Sejima in 2010.

Monographs and Critical Essays

Monographs and critical essays are a genre of more in-depth analysis and more historical depth, such as *Une vie de creation*,¹⁰ which reconstructs the life of Charlotte Perriand in her private and professional life. Other forms of monographic studies have highlighted the skills and intuition of some women, who enabled and strongly supported the construction of some of the most famous houses in the history of modern architecture. For example, the Farnsworth House built by Mies Van der Rohe for Edith Farnsworth, and Villa Stein by Le Corbusier for Sarah Stein. And so, in this way, next to those plans and sections, so widely studied in contemporary architecture courses, one can finally see also faces of the women who lived there.¹¹ Confirming the awareness of women's important role in the architectural process, from idea to build reality, the monograph by Phyllis

Lambert about the Seagram Building (2013) traces its history and clarifies her decisive role as a promoter.¹²

Another type of publication is that of analytical essays, presented in thematic issues of magazines as well as specific volumes. These begin to appear in the 1970s, first in the USA and then in Europe. They coincide with a twofold phenomenon: the increase in the number of women in the faculties of architecture and the emergence of the Feminist movement, which implemented a more general rethinking of the concepts and epistemology of each discipline. In this sense, the contents of and approaches to these disciplines were reinterpreted, initially emphasizing the marginal role to which women were confined, and, subsequently, adopting a more vengeful tone.

The focus on the segregating aspects of physical and social space is common in the English-speaking world, where the rigid zoning of suburban residential areas has accentuated the division between home and work, women's and men's worlds.¹³

Women from Users to Designers

The fact itself of naming arouses awareness. Accordingly, the historical reconstruction becomes a fertile ground for finding ancestors and grant visibility to those women whose work was little known, if not completely ignored. Naming, recalling and creating portraits constitute fundamental steps in the process of knowledge that is not limited to filling in the gaps of historiography referring only to men.

In this respect, many American female scholars have documented figures and innovative proposals developed between the nineteenth and twentieth centuries, popularizing works which had been out of print for a long time. Thanks to this, we have come to know that the first wave of American feminists had theorized, but also realized, alternative models of inhabiting, new forms of neighbourhoods and public kitchens, community services and child care, in order to free themselves from the burden of housework and change old patriarchal notions.¹⁴ Moreover, we find out about the contributions of the Beecher sisters, Catharine (1800–1878) and Harriet (1811–1996), who wrote *The American Woman's Home* in 1869. Perhaps this is the first treatise on 'domestic economy' as a science,

7 See Sarah Allaback, *The first American Women Architects* (Champaign: University of Illinois Press, 2008).

8 See Clare Lorenz, *Women in Architecture: A Contemporary Perspective* (New York: Rizzoli, 1990).

9 See Tomas Maldonado and Patrizia Violi (ed.), "Condizione femminile e condizione abitativa," *Casabella* 467 (1981), monographic issue; Chiara Baglione e Mercedes Daguerre (eds.), "Oltre il labirinto," *Casabella* 732 (2005), monographic issue.

10 Charlotte Perriand, *Une vie de creation* (Paris: Odile Jacob, 1998).

11 See Alice Friedman, *Woman and the Making of the Modern Architecture: A Social and Architectural History* (New York: Abrams, 1998).

12 Phyllis Lambert, *Building Seagram* (New Haven: Yale University Press 2013).

13 See Matrix, *Making Spaces: Women and the Made Man Environment* (London: Pluto Press, 1984); Clara H. Greed, *Woman and Planning: Creating Gendered Realities* (London: Routledge, 1994).

14 See Doris Cole, *From Tipi to Skyscraper: A History of Women in Architecture* (Cambridge MA: The MIT Press, 1973); Torre, *Women in American Architecture*; Dolores Hayden, *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities* (Cambridge MA: MIT Press, 1981).

which contains plenty of useful information for the design and care of home environments. From there we learn about the role of significant figures such as Melusina Fay Pierce (1836–1923) who founded the Cambridge Housekeeping Cooperative Association in 1869 with the aim of collectively organizing housewives' work in order to facilitate their emancipation. The writer Marie Stevens Howland (1836–1921) and the journalist and attorney Mary Livermore (1820–1905) have actively cooperated with her. We also discover two other important women. Henrietta Rodman (1877–1923) was a teacher and feminist, founder of the Feminist Alliance in 1914, who undertook the project of a new type of housing, closer to women's needs. The second one was Alice Constance Austin (1862–1930) who designed a neighbourhood of patio houses around Los Angeles, devoid of private kitchens and endowed with a canteen and other community services.

Until a few decades ago, women were believed to have been absent from the field of design, except for a few sporadic appearances. And even today there are very few female names in the most popular History of Architecture manuals. More recently, also thanks to the feminist movement, the historical approach has undergone profound changes regarding the methodologies of analysis and study with the consequence of leading scholars paying more attention to the aspects of daily life, observing those small things that usually go unnoticed. So many female scholars have engaged in finding past roots, tracking names, faces and stories from the past, highlighting figures ignored for too long, establishing the correct attributions for a project.

The result is a large overview including the figures of protagonists and mothers already well known, such as Charlotte Perriand, Margarethe Schütte Lihotzky, Eileen Grey, on the international scene, or Lina Bo Bardi, Franca Helg and Gae Aulenti in Italy. Above all, one can see numerous and diversified figures. Designers whose work has been overshadowed by that of a colleague, such as Lilly Reich and Marion Mahony; others who are remembered by the name of their spouse, like Aino Marsio Aalto, or in pairs, like Ray and Charles Eames, Alison and Peter Smithson, Raili and Reima Pietilä. Many were civil servants as Jacoba Mulder in the municipality of Amsterdam; others were reformist like Henrietta Barnett Weston.

Some women are remembered as pioneers for having 'forced' the access to education (formally prohibited to female students for a long time) and the profession. As it was the case when Mary Pages graduated in Illinois in 1873; with Louise Blanchard Bethune who, in 1888, opened an independent architectural firm in Buffalo; with Julia Morgan who graduated first in Berkeley in 1894 and then at the *École des Beaux-Arts* Paris in 1902. In Europe, except for Signe Hornborg, who graduated in 1890 in Helsinki, and Ethel Mary Charles, who managed to join the RIBA in 1898, still very few women graduated in architecture in the first half of the Twentieth century; even fewer became part of professional bodies or received public offices.

The first Italian female designers were engineers. Emma Strada graduated in Turin in 1908;¹⁵ an old photo depicts her at work on a construction site. On the contrary, Gaetanina Calvi, who graduated in Milan in 1914, faced the hostility of the professional world to the point of 'choosing' to teach mathematics instead. In Rome, in 1925, Elena Luzzatto graduated in the Faculty of Architecture, which had been opened only a few years before. She established herself as a professional in the field of public housing and also worked at the 'technical department' of the city of Rome. A few years later, in 1927, her mother, Annarella Gabrielli, graduated too. But in the prestigious faculty of Valle Giulia in Rome, only one or two women a year achieved the title of architect. Achillina Bo, better known as Lina, obtained her diploma in 1939, the only woman in that session. It was the Fascist period and the dominant culture reserved only the traditional and consolatory role of mother for women.

Since then, the presence of female students, designers and town planners has grown, although not always consistently. The end of Second World War marked the first turning point, along with the right to vote for women in 1946 along with compulsory primary education. In the following years, the number of women graduates rose slowly to ten per year, then fifteen, and suddenly surging after 1968.

Many of these female architects became my teachers and charismatic figures in a faculty traditionally for men: Diambra De Sanctis, Luisa Anversa and Paola Coppola Pignatelli taught project; Vittoria Calzolari, Marinella Ottolenghi, and Sara Rossi taught urbanism; Hilda Selem taught interior architecture. Others were involved in housing reconstruction of the country. Serena Boselli graduated in 1950, designed the collective services of the neighbourhood UNRRA-Casas San Basilio in Rome. Similarly, Giuliana Genta and Rossana Bucchi, graduated, respectively, in 1946 and 1950, worked at the design offices at INA-Casa and then at Gescal.¹⁶ They contributed to the preparation of guidelines for good practice, through popularizing examples from Northern Europe; the definition of design criteria for combining an appropriate use of materials with the need to contain costs; the creation of invitations to tender; and the design of parts of neighbourhoods and community facilities. In addition, personalities such as Piera Pieroni and Franca Santi Gualdieri were engaged in architectural communication, founding and becoming directors of new journals, such as *Abitare*, starting in 1961.

The need to provide for the social and economic reconstruction in the second half of the Twentieth century was, indeed, a widespread need in most European countries, ravaged by war. In some

15 Caterina Franchini, "Women Pioneers in Civil Engineering and Architecture in Italy: Emma Strada and Ada Bursi," *MoMoWo: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot et al. (Ljubljana: ZRC Publishing House, 2017), 93–100, <https://doi.org/10.3986/wocrea/1/momowo1.04> (accessed June 18, 2018).

16 INA-Casa is a program of public housing (1949–63) with the task of contributing to boosting employment and to the construction of low-cost housing through funds managed by a specific organization at the Istituto Nazionale delle Assicurazioni (INA). GESTione CAse per i Lavoratori - Gescal (Houses Management for Workers), a fund for the construction of houses for workers, created in 1963 from the transformation of the program INA-Casa.

European countries, a different relationship with users began to take shape, those users being asked directly to identify their most pressing needs. The responses that emerged were subsequently used to provide recommendations to experts, allowing them to identify design solutions best suited to the needs of the low-income population.

Although one of the underlying objectives was to gain consensus on current projects, it is important to note that this type of investigation helped to establish new relationships between users, planners and governments, often soliciting the opinion of women as primary users of the domestic environment. In Britain, some surveys regarding living standards and the most common deficiencies became common and they took the shape of design catalogues commissioned by groups of influential women such as the Electrical Association for Women¹⁷ or by newspapers that had a large number of women readers.¹⁸

The Italian scene was very different, the backwardness and poverty of the population making the practice of such innovative direct involvement of users difficult. They preferred different approaches, which were oriented to build a 'community' as a ground for the convergence of needs and interests, as was proved by the establishment of social services in the new neighbourhoods.¹⁹ Female social workers, 'heirs' of a 'welfarist' attitude that had its roots in Catholic culture and Fascism. Those women operated within basic services, such as kindergartens and clinics to provide services to the population. At the same time, they assist to facilitate urbanization, to accompany schooling, or to promote integration.

It was not until the years of the economic boom that the Union of Italian Women (UDI) demanded social services as a crucial stage within the process of women's empowerment, still incomplete in Italy.²⁰ After having been, historically, just providing for their families, combining demands and needs through their skillful initiative, women began to transfer this skill outside, in the city. They connected parts and functions of the city, becoming vehicles within the territory linking, with their active presence, kindergartens, swimming pools, schools and markets, which would otherwise be unreachable and deserted.

17 Association for Planning and Regional Reconstruction, *Housing Digest: Report 1941–46* (London: Art & Educational Publishers, 1946).

18 See Millicent Frances Pleydell-Bouverie, *Daily Mail Book of Post-war Homes: Based on the Ideas and Opinions of the Women of Britain* (London: Associated Newspaper, 1944).

19 See Costanza Caniglia Rispoli and Amalia Signorelli, "L'esperienza del piano Ina-Casa tra antropologia e urbanistica," *La grande ricostruzione: Il piano Ina-Casa e l'Italia degli anni '50*, edited by Paola Di Biagi (Roma: Donzelli, 2001), 187–204.

20 See Cristina Renzoni, "Measuring Italian Welfare: The Debate on Spatial Quantification of Social Services and Amenities in Postwar Italy," *Architecture for Leisure in Postwar Europe, 1945–1989*, edited by Janina Gosseye and Hilde Heynen (Leuven: Katholieke Universiteit, 2012), 108–23.

The innovative contribution of temporal policies emerged, however, only after a few decades, with the support of the Women's movement and the women belonging to the Italian Communist Party. The combining of parental care, working hours and time were chosen for oneself was finally placed as a collective problem, public and political, and spurred an innovative reflection on the organization of the times of the city and the territory. Accordingly, in 1990, converging popular initiatives led to the approval of law 142, implemented in many large cities through the adoption of zoning schedules.²¹ It was a 'modest revolution' but was meant to adjust the opening of public services taking into account the fragmented organization of the daily life of women, which, at the same time, promoted the computerization of many services and the spread of the so-called bank of time.²²

Let's Claim the City Back: Feminist Groups and Theme of Care

The Feminist movement distanced itself from the subject of care, still ruled by the cramped and stuffy aspect of constricting caregiving. The movement considered care as a practice encrusted with stereotypes regarding women, such as dedication and subordination; bringing women, who were now active protagonists in the public arena, backward.²³

Especially in Northern Europe, these were the years when numerous interventions of renewal redesigned the most out-dated urban centres, with heavy construction as well as gentrification that aroused several stances in favour of the poorest inhabitants, who had been expelled from their homes. No wonder that in Britain, where field surveys were well entrenched, the disruptive action of the feminist collective Matrix emerged and became one of the best known and most active in London in the 1970s. Having developed within the movements of the New Architecture and women's liberation,²⁴ Matrix consisted of female architects who implemented a kind of space pedagogy to the point of quickly becoming one of the references for women in the ethnic communities in London.

21 Article 36 of Law 142 from 1990 grants Mayors the power to coordinate schedules of public services based on the needs of users. Examples of applications of that article and the literature on them are extensive. For an evaluation of the experience see Maria Carmen Belloni and Franca Bimbi (eds.), *Microfisica della cittadinanza: Città, genere, politiche dei tempi* (Milano: Franco Angeli, 1997); and Marco Mareggi, *Le politiche temporali urbane in Italia* (Firenze: Alinea, 2000).

22 Time banks were initiatives generated from the ground up, by the initiative of women, as places of solidarity between people who shared and exchanged time evenly, building social ties. See Sandra Bonfiglioli and Marco Mareggi, "Il tempo e la città fra natura e storia: Atlante di progetti sui tempi della città," *Urbanistica Quaderni* 12 (1997), monographic issue.

23 Letizia Paolozzi, *Prenditi cura* (Milano: Et al./Edizioni, 2013).

24 Janie Grote, "Matrix: A radical approach to architecture," *The Journal of Architecture and Planning Research* 2 (1992), 158–68.

These women were taught to 'read' and to decipher the technical drawings of which they were passive recipients, so as to be able to be actively involved. In doing so, Matrix contributed to challenging those roles traditionally attributed to women in the use of space, and openly denounced forms of urban segregation. Their practice subverted the established role of the architect and was able to transform the needs of users into the foundation of an architectural composition through a participatory method of collaborative work entirely without hierarchies and placed at the service of the community residents.

It is a total disruption of the cliché that sees the architect as a demiurge. As a result of the popularity of these initiatives, Matrix was requested to intervene in a more direct way. The collective transformed into Spatial Agency, a design office which was working for about a decade, especially for associations and communities in need.

The feminist reflection of those years explored different lines of thought regarding personal experiences and returned the ability to be actively involved to too many women, thus becoming protagonists. This is the case with Marta Lonzi who, after graduating in architecture in Florence in 1963, lived in Rome and was one of the souls of the group Rivolta Femminile.²⁵ Marta talked about herself in one of her most famous writings, *L'architetto fuori di sé*, where she dealt with a sort of self-consciousness regarding the process of making architecture.

She explicitly criticized the self-referential attitudes, so common in the dominant male approach. She highlighted the way in which the arrogance of designers made use of purely figurative choices, cloaked by an alleged universality of criticism in architecture. She proposed ways of working according to the feminist practice of 'starting from myself' that challenged many approaches and revealed a new awareness. Her method of work originated from her being a woman.

Through this awareness, she critically analysed the experiences of physical space. So she found out that designing with care is not limited to the identification of original solutions or the exploration of new paths, but rather is based on dialog with the client. It meant investing in 'thoughts and feelings that would otherwise not be brought to awareness ... the project is the meeting of two individualities, that of the recipient and that of the designer, which the project should not prevent from confronting, rather being their representation ...'.²⁶

25 Created in 1970 by her sister Carla, art critic and essayist, together with painter Carla Accardi and writer and political activist Elvira Banotti. In the rich constellation of Italian feminist groups, including Lotta Femminista in Padua, Via Dogana in Milan, Pompeo Magno in Rome, Rivolta Femminile was characterized by an explicit separatist position, anticipating the instances of the 'difference theory' and developing an intense activity of theoretical reflection.

26 Marta Lonzi, *L'architetto fuori di sé* (Milano: Scritti di rivolta femminile, 1982), 131–2.

From Care to Project

Addressing the issue of care in design means speaking of the experiences of the group Vanda, the female community active from 1990 to 2000 within the Architecture Faculty of Milan. They contributed in reinterpreting the familiar role of captivity represented by the work of care to shed light on the precious wealth of skills and knowledge involved in this practice. This reinterpretation was able to draw on the model of domestic intelligence to turn it into the paradigm of the coming time, leaving the house and acting as competence in the world. From this perspective, the practice of care was reconsidered to grant it an extra value, which is exactly the opposite of the neglect in which we find ourselves today. From this perspective, the practice of care was reconsidered to grant it an extra value, which is exactly the opposite of the neglect in which we find ourselves today.

The Group of Wednesday, which met for a long period in Rome, organized intense discussions at The International House of Women, focusing on the different meanings of care. For some of those women, care had the political function of 'creating a bond'; for some, it was a 'strategy for governing complexity'; for others, it was a way of maintenance for what had already been built. There was a wealth of knowledge and skills that strengthened by the experience of self-determination and reflection on the difference. In this way, it was possible to operate an 'overturning of the idea of care' and reconsider its potentialities and richness without falling into the trap of a *new feminine mystique* or a residual and servile job.²⁷

Reconsidering care is, therefore, an essential operation to avoid its exclusive identification with the private sphere and to extend it to the public sphere. It allows for the rethinking design approaches and the questioning the paradigms of expansion and economic development in favour of containing land consumption. While dealing with the transformations of the existing, urban terminology has used for several years some keywords that stem from traditionally feminine skills, such as mending urban fabrics, reconnecting paths and sewing fragments.

Recently, signs of renewed awareness are emerging, both from many landscape projects as well as from the consolidation of new forms of social cohesion. Movements and associations take action in neighbourhoods, where residents implement forms of active citizenship and, at the same time, contribute to regenerate small residual spaces, restoring their vitality and shared uses. It is still a matter of partial approaches. Their adoption of the principle of mending, as a method of work regarding the existing, reveals a turnaround. That also helps to bring out attitudes of responsibility. Such attitude is indispensable if we want to make those radical changes in the patterns of behaviour that the planet itself demands from us.

27 Gruppo del Mercoledì, "La cura del vivere," *Leggendaria* 89 (2011), 20, supplement of this issue.

The halting of land consumption, of resources exploitation, of the abandonment of fragile territories, requires a careful and continuous practice of care of the land apt to renew those ties of meaning that are a necessary prerequisite for conscious living. Interpreting the practice of care regarding urban planning can help to combat the disease of dominant individualism and allows for forms of alliance and solidarity as opposed to the dynamics of exclusion that increasingly characterize our cities.²⁸

In this sense, the care is realised as civic engagement and active citizenship, ecological responsibility, the building of relationships and networks, interaction with the existing, dialogue with and listening to the histories, geographies and people. Carefully planning requires the imagination and creation of spaces for public use for everyday life and coexistence, promoting interventions of micro-transformations able to actively involve the inhabitants. Carefully planning is believing and contributing to implementing a pluralistic city, welcoming and inclusive, that fights against lawlessness and implements cooperation.

²⁸ See Elena Pulcini, *La cura del mondo: Paura e responsabilità nell'età globale* (Torino: Bollati Boringhieri, 2009).

Design Drawings

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Design Drawings

Modern Movement Design Drawings (MV)

In order to be able to talk about the ways in which the design Drawing was used by the protagonists of the Modern Movement, from its origins to the most advanced phases of this season, it is necessary to make some clarifications on the practice of Drawing in a general sense, to circumscribe and define some peculiar characteristics of it that allow to evaluate in a broader and more articulated way the graphic outcomes of the period under examination.

With regard to Drawing we can distinguish two different approaches: it can be understood as an instrument that describes reality in a more stable form than reality itself, even in the discretization of the information that connotes it, or as a tool to imagine reality through design, explicating cultural references, its meaning in the culture of origin, the logic of construction and concatenation of spaces, structural thought, poetics, etc.

In the design field, Drawing is not intended as a simple outcome of an ideation process or even as a work tool, which adapts itself to the purposes for which it is used depending on the fields of application: we must understand Drawing as an extension of the designer's mind, an instrument that structures the forms of thought and leads, through an iterative path, to the maturation of the design idea. The outcomes strongly depend on the type of representations used, testifying to the fact that Drawing is not a neutral tool.

Furthermore, we cannot forget the important value of Drawing as an instrument of reasoning and control of the ideation process:

The syntax that, through projective geometry, structures the language of representation relates to the geometry of architecture, becoming the vehicle of connection between two-dimensionality and three-dimensionality; in this sense, in the place of Drawing, the *ratio* goes alongside the magical power of the plastic invention. In the language of drawing geometry ... offers in the design process its logical reasons for ordering and measuring the architectural space.¹

The role played by Drawing in the process of design development can be further specified and divided into two distinct phases: the first one, in which Drawing is the intermediary of a dialogue of the designer with himself, and the second one in which designers, through the communication possibilities of Drawing, addresses their work to the various referents that in a democratic society are required to participate before the realization of architecture.

At the beginning of the twentieth century, in the architectural field, we witness the break with the nineteenth century tradition produced by the season of historical avant-gardes, in contrast with the strict control exercised by the academies. The early stages of development of the Modern Movement, which start from it, encourage a further departure from the past and from tradition: architecture, abandoning all sorts of decoration, becomes a vehicle for progress and new social commitments, in a utopian and idealistic key.

The Modern Movement, considered in its entire temporal development, is expressed in a very articulated way, to the point that we can speak of a sort of collection of movements, which produces a very wide and diversified architectural proposal, conveyed through a representation (sketches, drawings, etc.), which reflects the essence of protagonists, of their value systems, of the critical points on which they are questioned, of the materials used and of the formal appearance of the buildings.² On the one hand we witness the fascination for modernity in a technological and industrial sense, to which, on the other, we associate a refusal of the excessive decoration of academies' time and the search for clarity and cleanliness of architecture through simple and primary geometries.

Drawing becomes the founding instrument of a multifaceted spatial research. The characteristics of modern architecture -including symmetry, blocked volumes, the tendency towards simplification and order- seem to be conditioned on the one hand and translated, on the other, by a harsh drawing, which is committed to define new formal parameters: think, for example, at the drawings by Wagner, Loos and Hoffmann, from which a graphic rigor emerges tending to enhance the stereometric and purity of the volumes of a simple and lasting architecture.

In order to frame the graphic production of the architects of the Modern Movement it is very interesting to consider the aspects related to the formation and transformation of the profession of architect. The architects of this period are educated for the most part in technical schools and institutes for Arts and Craft, such as the Bauhaus. Most of young architects dedicated themselves to visiting famous sites to learn from the observation and sketch of historical monuments and contemporary architecture, reworking their characteristic traits in a personal way.

Many of young architects found employment at the 'Greats', such as Le Corbusier and Walter Gropius, make use of this experience to develop their own personal style. 'This cross-fertilization created some interesting ancestry through offices and lineage of influence. This was part of the internationalization of the international style ... and part of its fallacy'.³

Starting from a common base and sharing of ideals, the young people of the Modern Movement developed their own style according to their attitudes, local building techniques and regional traditions.

The identification between building and designer transforms architecture into an object of personal ideology. The leading figures in the international architectural scene dictate headlines that reflect their talent and their efforts. This also brought about a change in the organization of the architectural offices 'since they required a larger number of drafts-people. Many factors were affected, including who controlled design, the methods of presentation for commissions and competitions, and how drawing were used for publicity'.⁴

This reconfiguration of the design teams, implemented by a high number of professionals related to the fields of structures, territorial planning, etc. contributed to a profound change in the role of architects in the design and construction process, with a considerable impact on the quantity of drawings, sketches, etc. The architect, in fact, loses the control of architecture in its entirety, having to confront many projects at the same time and with many other professionals: Drawing becomes, in this way, the main means of communication between the professionals involved and a document that establish the division of responsibility linked to the different phases of construction. The era in which the architect completely controlled the construction process ended, where only a few drawings and a close relationship with the workers were needed to effectively control the entire construction process. Consequently, the drawings needed to be more thoroughly explanatory, leaving nothing to chance, to ensure that the building was constructed as it was conceived.

What previously could be defined in the construction phase now has to find a solution in a previous moment: the architect must therefore make an unprecedented effort of imagination to anticipate

1 Roberto de Rubertis, *Il disegno dell'architettura* (Roma: La Nuova Italia Scientifica, 1994),159.

2 Luigi Vagnetti, *L'architetto nella storia di Occidente* (Padova: Cedam, 1979).

3 Kendra Schank Smith, *Architects' Drawings: A Selection of Sketches by World Famous Architects Through History* (Oxford: Elsevier, 2005), 164.

4 Schank Smith. *Architects' Drawings*, 165.

the three-dimensional construction through the drawings. The concept of the project takes place entirely in the abstract, before its constructed manifestation: sketches and drawings are a means to explore the construction of its whole, from the geometric shapes involved to the solution of details, to the choice of materials and to the calculation of the structural system.

Since the architects of the Modern Movement were very conscious of the revolutionary nature of their theories and their work 'they composed manifestos heralding a 'new' architecture, and with this change in attitudes, philosophies about the design process also changed'.⁵ In contrast to a tradition that was interpreted through a new idealism, the 'famous' architects of the Modern Movement were also conscious of having to confront the inheritance they left behind: in this sense drawings and sketches take on a new role and are produced and stored in order to guarantee future generations to understand their philosophies and intentions.

Modern architecture, which expresses itself through the search for sincerity, order, logic and clarity,⁶ shows these objectives also in representation, which uses traditional techniques with new purposes: still using plan, section and elevation the architects of the Modern Movement also employed axonometric drawing. The plan is considered of primary importance, since it explicit proportions, relations between the parts, distribution of spaces on a free plan. The axonometry, placing the point of view at infinity and showing the object represented by an angle, constituted a measurable version of the three-dimensional representation in which the observer, removed from the architectural space, poses in an unemotional stance. Moreover, with the advent of the use of the metric system to replace units of measures referring to the human body, the Modern Movement reaffirms an abstract idea of architecture. The representation is not, as in perspective, the result of the choice of a particular point of view, but gives each side of the construction the same emphasis, objectifying the subject without focusing on the participation and involvement of the observer. The axonometry can be constructed more simply than perspective, ensuring a more rational volumetric view, because it does not distort the proportions, where it is possible to have free access to the measurements along the axes that hold up the representation. The same projective methods rule sketch representation, animated by the same communicative intentions.

Newly refined precise media and instruments are introduced in the realization of the drawings, including rapidograph pens and felt tip markers, which together with new technologies make the reproduction of the drawings possible, adding a very important innovation in the design process.

Issues of Enhancement and Sharing of Archival Drawings (RS)

Contemporary architectural archives constitute more than a documentary heritage, recently recognized and validated.⁷ Since the end of the Seventies, effectively, the principal North-American and North-European institutions engaged in the knowledge and diffusion of Architecture have been working hard and more carefully into conservation and enhancement of contemporary architectural drawings, which need specific standards for their description, preservation and fruition guaranteed by international associations, like ICAM (International Confederation of Architectural Museums) and ICA (International Council on Archives).

The international archives take part to the ICA, whereas the archival cooperation in the European Union sphere is developed by a working group called European Archives Group (EAG), born in 2006.

Such a recent interest about architectural documentary heritage is carried out by different fields of research that starts from the drawings' analysis and is elaborated according to numerous disciplines: history of representation, history of architecture and city planning. Moreover, its value is justified by the same meaning taken being a proof of a phase in the design process that could be ended with the construction or remained on paper. For this reason, recently various institutions arose, engaged in the promotion and fruition of architecture in general, and particularly focused on the safeguard of the documentary heritage, made up of heterogeneous material. This trend, still of north European and North American origin, led to the foundation of museums or hybrid structures containing collections of architectural documents.

Graphic project documents could be classified as cartographic material, survey drawings, sketches, preparatory and/or demonstrative drawings, final drawing, construction drawing, detail drawing, renderings, digital videos. These types could be group as aid materials for work or as products under preparation phase: design, definition, execution, construction site, communication, maintenance, management; they could be made also for different purposes: competitions, contracts, promotions, and customers: private or public.

Issues of conservation, enhancement and sharing have to face the characteristic of the different materials used during the last century.

Restricting the reasoning to the design drawing it must observe that since the twentieth century, the traditional paper supports have been juxtaposed by other types of support, including acetates and derivatives from plastics.

Since the twentieth century, the material traditionally used in the drafting of the architectural

5 Ibid.

6 Nikolaus Pevsner, James Maude Richards and Dennis Sharp, *Anti-Rationalists and the Rationalists* (Oxford: Architectural Press, 2000).

7 Riccardo Domenichini and Anna Tonicello, *Il disegno di architettura: Guida alla descrizione* (Padova: Il Poligrafo, 2004).

drawings, has been juxtaposed by new supports and techniques. In addition, the same paper differs significantly in its composition depending on the era it was produced in. The same argument is valid to the tracing papers, which differ mainly with the introduction of new materials and related techniques of graphic reproduction. So, in a contemporary architectural archive there are miscellaneous supports, including: traditional paper, cardboard, tracing paper of different matrix (traditional and/or tissue paper, vegetal parchment, etc.), sheets of acetate.

Even the graphic techniques of the architectural drawing are extremely varied (pencil, charcoal, pastels, felt-tip pen, water-colour, ink of various types, etc.), sometimes of artistic origin. Another peculiar aspect of the contemporary architectural archives is the use of the reproduction techniques of the drawings, necessary for the design activities: the need to represent quickly different executive variations involved the drawings duplication using techniques that have appeared since the twentieth century, resulting from the evolution of photography and the research on light-sensitive substances. Therefore, in an architectural archive, multiple copies of the same drawing could be often group, made by means of different techniques such the blueprint, the ectography (or aniline process), the heliography (or diazotypes) and the xerography, that lend themselves to the use of other supports than the traditional ones. The radex corresponds to this case, because it is a heliography print on a polyester sheet.⁸

An ontologically different type of worksheet has been introduced by technologies and software for architectural design diffused since the Eighties, therefore only in the last years concerned by the research promoted by MoMoWo. These innovations led to significant impact not only in the design phases, but also in the products in the matter of architectural drawings in digital formats. This phenomenon involved the formulation of other conservative and communicative strategies.

If, on the one hand, the IT revolution has produced an exceptional speed of obsolescence of hardware, storage media and drivers for reading storage devices, on the other hand, software are replaced by new releases that make it sometimes impossible to opening files created in past years.

Moreover, often, not all the files saved in the original format are correctly transmitted together with their links (reference files, images, drawing templates), with indications to the expected printing scale, and to the pen thickness tables necessary for an optimal print. Saving file's formats such as the ever more established .pdf, are currently enhancing their reading tool potentialities by facilitating sampling of measurements and revisions, as well as free explorations by the user, such as three-dimensional model cut sections.

Systems of Dissemination and Enhancement of Documentary Heritage and Specific Values of Female Archival Drawings (RS)

Architectural digital archives, as well as they provide research systems that could be queried to find the documents, are managed by methodologies useful to the safeguard and enhancement. The knowledge of the archive is the first key moment of safeguarding: for their constitution, archives are the containers of information not to be easily group without a direct survey of the institutions dedicated to the fruition. The first step to the knowledge is the catalogue consulting; this initial research, even if it is remotely conducted, usually provides the descriptive metadata of the objects.

The system of sharing archival collections by digitizing or photographic reproduction of materials and creating a database that can be queried to facilitate research is becoming increasingly widespread. This happened for the documents of the masters of the twentieth century owned by the foundations (Le Corbusier, Alvar Aalto, Frank Lloyd Wright, ...) and for the most prestigious museum collections (MoMa, Tate Modern, Accademia Nazionale di San Luca, ...). While this operation involves all or most of the materials owned, the selection for sharing on the web is generally focused on iconographic products.

The transition from the analog source to the digital product by scanning or photographs produces files with different mass-diffusion standard extensions (.pdf, .tiff, .jpeg, .png), thus promoting the dissemination of the material to a wide public.

Digitization is a subject of debate among the various institutions, so that drawing unequivocal conclusions that could be applied to the different areas of expertise is still impossible. The need to address this issue arises from the awareness that about the 80% of digital documents created in the nineties will be (or has been) lost due to the rapid technological evolution whose preservation problems have not been solved yet. The digitization of the architectural archival heritage is penalized by the high initial costs and software and hardware maintenance for data management, but it is a potential storage medium that ensures the enhancement broadening the range of public, running as security storage of information. The use of ICT is not necessarily limited to the communication: its propensity as a means of education facilitates the learning thanks to the immediacy of message delivery and the simultaneous establishment of hyperlinks.

By restricting the interest to the drawings, which are at the centre of our focus as scholars, the two processes of digitization and networking, including the selection of the metadata that accompany the drawings, entail a series of issues.

Indeed, the displaying of architectural drawings turns out to be quite unsuited to the survey and interpretation of the document, because the image files, rarely downloadable, generally has a low-resolution, preventing the reading of the graphical information. In addition to the inadequate under-

⁸ Roberta Spallone and Francesca Paluan, "Digital Archives for Preserving and Communicating Architectural Drawings," *Encyclopedia of Information Science and Technology*, edited by Mehdi Khosrow-Pour. (Hershey, PA: IGI Global, 2017, Fourth edition), 5213–5225.

standing of the graphic message, the diffuse lack of the dimensional scale prevents the recognition of the drawing dimensions while the presence of the written measurements may be relatively useful if they are insufficiently visible. These considerations emerge during Web navigation. Digitalized drawings only sometimes could be downloaded: also in this case the resolution remains most often inadequate. Despite the innovative technologies related to the scanning offer ever more efficient performance, architectural drawings inserted in a database remain icons that could be partially zoomed in. These limits are attributable to several factors: i.e. the images are bound by strict regulations of copyright which force the user to a superficial study of the drawing, or the results of digitization realized in different times, with different technologies and standards are not homogeneous.

The exhibition of drawings from the architectural archives is another way of promotion and divulgation of such heritage. The physical exposure, however, is not always practicable especially for preservative reasons (extreme fragility of the documents, impossibility of their mobilization into other spaces). For this reason, the online virtual exhibitions fulfil effectively this purpose, allowing the physical safeguard of the drawings and the active participation of visitors in a multimedia and interactive exhibition. In this context, the technological development in telecommunications and computer graphics field has made possible innovative educational experiences in the Cultural Heritage fruition, using the Web or mobile devices to display new digital products such as animations, applications for immersive experiences, virtual and augmented realities designed to offer the users engaging experiences.

The result could be the creation of dynamic products, updatable also by the public involved in the resources exploration according to free interpretative readings. The online virtual exhibition is also developed according to thematic itineraries that are paths that allow the public an extremely independent approach in relation to the space-time location and the origin of the documents.⁹ Actually, some kits dedicated to the creation of online virtual exhibitions exploiting the open source software have been developed,¹⁰ taking advantages of the Web potentialities to make the invisible visible and available this sector of cultural heritage risking the oblivion, such as the extremely scattered architectural drawings in public and private archives.

Different attention requires the so-called minor archives that are the testimony of figures that will not enter as protagonists in the history of architecture but, especially in the twentieth century in the Western world, contributed to the transformation of the shape of cities and territory, from post-wars reconstructions, to the economic boom, to the de-industrialization.

These collections are very widespread and generally stored by the descendants of the designers, with great sacrifices of resources and space, to preserve the memory of their family members. They generally consist of definitive and executive technical drawings, urban, architectural, structural, and plant design, and other iconographic documents, as base maps, surveys, cadastral maps, photographs, textual documents, correspondence with the clients, suppliers, colleagues, and project collaborators, technical documents, calculations, etc.

The minor archives of women, architect and engineer, involved in the projectual activities related to the construction of cities and buildings, acquire, in the overall project of MoMoWo, a particular importance. Studies presented in previous MoMoWo Workshops-Conferences¹¹ highlighted the value that the discovery of such Archives can assume.

Indeed, as Franchini and Garda stated 'contemporary history of women in design profession and the tangible cultural heritage or legacy produced by their works are still mostly unknown today.'¹² Moreover, while architectural profession was practiced by a fair number of women, civil engineering one was reduced to very few women, mainly operating in the second half of the twentieth century.

The stories of these women, that we can reconstruct through the archival documents, can help us to understand their role in the studies, in the firms, in the building sites; their way of working, autonomous or in group, their relationships with other professionals, ... and to highlight their real contribution to the territorial and urban transformation.

Digital archives of female architects and engineer could be established to prevent the risk of their dispersion and oblivion: the fragility of such cultural heritage depends on the low visibility except for a highly specialized field. Digitization is therefore an approach that first tries to make recognizable this hidden heritage, making it available to an increasingly connected public. Breaking down the barriers of space through navigation and remote access to the data and the temporal ones through the devices running in real time, the possibility to view documents is finally satisfied, if the documents will be equipped with the information that addresses to a more specific analysis regarding the iconographic message.

9 Schubert Foo et al., "From digital archives to virtual exhibition," *Handbook of Research on Digital Libraries: Design, Development and Impact*, edited by Yin Leng Theng et al. (Hershey, PA: IGI Global, 2009), 88–101.

10 See "5 Free and Open Source Tools for Creating Digital Exhibitions," OEDb, <http://oedb.org/ilibrarian/5-free-and-open-source-tools-for-creating-digital-exhibitions/> (accessed June 4, 2018).

11 Roberta Spallone, "The Archives of a Professional: Maria Luisa Spineto, Civil Engineer and 'Thorough Designer'," *MoMoWo: Women Designers, Architects and Engineers between 1969 and 1989*, edited by Ana María Fernández García et al. (Ljubljana: ZRC Publishing House, 2018), forthcoming..

12 Caterina Franchini, and Emilia Garda, "Making Women's Works Visible: The MoMoWo Project," *MoMoWo: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot et al. (Ljubljana: ZRC Publishing House, 2017), 16–20, Series Women's Creativity, Vol. 1, <https://omp.zrc-sazu.si/zalozba-zrc/catalog/view/2/1/61-1> (accessed June 4, 2018).

Digital Strategies and Proposals for Enhancing and Sharing Female Drawings Heritage (MV)

Digital reconstructions of contemporary architectures which were demolished, transformed or that have never been built, is now a method of investigation of considerable heuristic value, allowing to read and preserve the memory, also by creating new images, of cultural heritages that no longer exist in their original shape or never reached a material construction.

Digital reconstructive modelling is currently the field of investigation on which the research of large numbers of scholars who address the subject through different disciplinary approaches converge, ranging from history of representation, history of architecture, and architectural composition.

Several digital reconstructions, mainly realized by Italian scholars, are inspired by theories and methodologies on graphical analysis that could be applied to archival design drawing as well to existing buildings.¹³

In particular, the research of Giuseppe Pagnano on five houses by Adolf Loos, represents the milestone of the method: graphic analysis, using digital tools, increases its possibilities of investigation on architectural criticism providing new contributions of knowledge that highlights, through the integration of historicized information, the figurative reasons of architectures' visible conformation. Through digital reconstruction it can be conferred to unrealized architecture a form of existence that make them verifiable objects in the same way as those built.¹⁴

The application of the method requires the researcher to re-construct in a virtual space the consistencies of the architecture whose digital representation connects, through a reasoned and critical comparison, the various cognitive data, returning them in a synthetic way.

The different phases of the 3D reconstruction of architectures, from the gathering and interpretation of information from the sources to the development of a geometric model on which to apply texture mapping and light for the rendering, do not constitute neutral operations towards the studied object. They are stages in a process which changes one model into another through a critical selection of the information: with an interpretative intent they aim at the creation of 'an abstract model... that we can identify in the project idea'.¹⁵

13 Giuseppe Pagnano, *La lettura critica: analisi di cinque opere di Adolf Loos* (Catania: Istituto Dipartimentale di Architettura e Urbanistica dell'Università di Catania, 1975); Mario Docci, *Disegno e analisi grafica* (Roma-Bari: Laterza, 2009); Piero Albisinni and Laura De Carlo (eds.), *Architettura disegno modello: Verso un archivio digitale dell'opera di maestri del XX secolo* (Roma: Gangemi, 2011).

14 Giuseppe Pagnano, "Presentazione," in Francesco Maggio and Marcella Villa, *Architettura demolita* (Palermo: Edizioni Caracol, 2008), 7–10.

15 Riccardo Migliari (ed.), *Drawing as Model* (Roma: Edizioni Kappa, 2004).

Kent Larson, remarking on his own reconstruction of six Kahn's unrealized buildings, raises some important questions related to the role of digital modelling for the reconstruction of unrealized projects. He observes that the incomplete evidence left by the architect could be the score of a performance, where personal interpretation and addition of details are permitted.¹⁶

The creation of a 3D digital model offers, as a result, infinite possibilities of observation and survey: from the objective visualization of a cylindrical projection, orthographic or isometric, to that subjective of a conical projection, perspective.¹⁷ The model thus becomes an essential tool to check and control the validity of reconstructive hypotheses and the congruence between the building elements.

Moreover, 3D computer models allow more enhanced and controlled interaction with users due to the fact that they are able to cover the whole range of possible models in a single system of representation.¹⁸

As Gaiani notes

conceived as real maquettes, which live in a virtual space perfectly corresponding to the real one, so much to offer all the four dimensions, the models carried out by means of computer are then observed through a screen..., with capacities to vary the point of view in order to simulate the mobility and the transformability in the time and in the appearance.¹⁹

The increasingly enhancements of digital technologies, also in the field of renderings, makes possible that many reconstructions appear with a high-level of photorealistic imagery: digital processed images seem to be photographs of a real object, represented as if it had just been built. In this case, photorealism become sometimes hyperrealism overcoming the limits of truth likeness.

On the other hand, Dotto notes that the use of drawing and modelling as tools of communication, differently from the photograph, activates the processes of imagination and interpretation of spaces and shapes. For this reason he promotes the use of orthographic projections, isometric cutaway, perspective sections, and graphic overlays. Similarly, surface treatments and lightings rather than pursuing photorealism and truth likeness should evoke the visible reality using the instruments of graphic abstraction.

16 Kent Larson, *Louis I. Kahn: Unbuilt Masterworks* (New York: The Monacelli Press, 2000).

17 Roberta Spallone, "3D digital modeling as a method for the reconstruction of the historical image of the city: the case of piazza Bodoni in Turin (Italy) at the end of nineteenth century," *ISPRS Archives* 36, no. 5/C53 (2007), 685–690.

18 Tomas Maldonado, *Reale e Virtuale* (Milano: Feltrinelli, 2005).

19 Marco Gaiani, "About the drawing and the model: Representation for industrial design," *Drawing as Model*, edited by Riccardo Migliari (Roma: Edizioni Kappa, 2004), 91–98.

We share Dotto's figurative choices preferring 3D models characterized by conceptual materials, diversified by opacity, transparency, reflection and natural enlightenment. This latter kind of render allows appreciating the shape generation, the geometric relationships between the building and its context, the perception of the interior and exterior spaces.

Moreover, we share with Ogleby the idea that 'what is lacking presently is both an ontology for visual literacy in the area of virtual heritage, and some method of adding to the viewer's understanding through the supply of supporting information'.²⁰

According with Ciagà the 'revolutionary capacity of current 3D models is inherent to the specific characteristics of digital technologies which offer the possibility to directly explore virtual spaces and "enter" inside with the aid of specific applications of interface design and interaction design'.²¹

Moreover, 3D modelling provides 'methods of visualization which are otherwise impossible in the tangible reality, allowing the integration of fragments, the inspection of objects in all their physical coordinates, their three-dimensional existence: in short, they exponentially heighten tools of analysis, research, study, but at the same time even those for the communication of historical information'.²²

The ability to access the fourth dimension, through the construction of a sequence of images, constitutes a specific prerogative of the digital representation, which goes beyond the static constraint imposed by the conventional methods of representation.²³

Manovich dates back the rise of the movie camera as a universal paradigm for interaction with data represented on three dimensions to the 1980s and 1990s, when the interaction between users and virtual models through an interface began to use actions like zooms, tilts, pans and tracks.²⁴

The production of movie and animation of 3D models has to focus on well-organized sequences relating to space, event and movement.

As Engeli noted, the creation of specific messages relating to space requires an in-depth knowledge of the characteristics intrinsic to the different possibilities and to the aspects that are wished to emphasize.²⁵

The animation, as a tool of the digital reconstruction, highlights its potential in enabling the exploration and dynamic perception of objects, spaces and contexts that no longer exist, or never really existed, but also to represent thematic readings such as periodization, decompositions, building sequences that find the most effective means of communication in the fourth dimension.

During the previous MoMoWo Symposiums, several works by female architects were highlighted by means of reconstructive digital modelling. These analyses were proposed by a research group led by Francesco Maggio, a pupil of Giuseppe Pagnano, who started in the early 2000 to apply the graphical analysis and reconstructive digital modelling methods to unbuilt architectures by female architects of the Modern Movement.

Among the works which constitute the State of art on the topic we can remember the research led by Piero Albisinni and Laura De Carlo aimed to create a digital archive containing models of the Twentieth century masters,²⁶ the one aimed at the construction of the digital archive on Palladio,²⁷ the one that relates architectural heritage of the late Twentieth century in Milan with the archives that document their design history.²⁸ Moreover, recently, a prototype of interactive model collection has been developed by Roberta Spallone and Francesco Carota for gathering reconstructive digital models and archival materials concerning several Mollino's masterpieces.²⁹

20 Cliff Ogleby, "The 'Truthlikeness' of Virtual Reality Reconstructions of Architectural Heritage: Concepts and Metadata," *ISPRS Archives* 36, no. 5W47 (2007).

21 Graziella Leyla Ciagà, "Digital reproductions and reconstructions: Historical research, knowledge dissemination and performance," *Design & Cultural Heritage. Immateriale virtuale interattivo / Intangible Virtual Interactive*, edited by Fulvio Irace (Milano: Electa, 2013), 164.

22 Fulvio Irace, "The Animated Archive," *Design & Cultural Heritage: Archivio Animato / Animated Archive.*, edited by Fulvio Irace and Graziella Leyla Ciagà (Milano: Electa, 2013), 13.

23 Giorgio Garzino, Roberta Spallone and Massimiliano Lo Turco, "Digital strategies for knowledge based models," *Drawing (and) Information: Polytechnic Drawing*, edited by Giorgio Garzino (Sant'Arcangelo di Romagna: Maggioli, 2011), 70–111.

24 Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2001).

25 Maia Engeli, *Storie digital: Poetiche della comunicazione* (Torino: Testo&Immagine, 1999)...

26 Piero Albisinni and Laura De Carlo (eds.), *Architettura disegno modello: Verso un archivio digitale dell'opera di maestri del XX secolo* (Roma: Gangemi, 2011)..

27 Fabrizio Ivan Apollonio et al., "Geomodels for the PALLADIOLibrary," *Disegnare: Idee Immagini* 47 (2013), 46–59; Marco Gaiani et al., "A Mono-Instrumental Approach to High-Quality 3D Reality-Based Semantic Models: Application on the Palladio Library," *Digital Heritage* (2015); Guido Beltramini and Gaiani Marco, "Palladio Library - A growing virtualization project to understand Andrea Palladio," *Scires-It* 7, no. 2 (2017), 73–84..

28 Graziella Leyla Ciagà, "Digital reproductions and reconstructions: Historical research, knowledge dissemination and performance," *Design & Cultural Heritage: Immateriale virtuale interattivo / Intangible virtual interactive* edited by Fulvio Irace (Milano: Electa, 2013), 162–172.

29 Roberta Spallone and Francesco Carota, "Digital interactive Mollino: A Collection of 3D Models from Carlo Mollino Design Drawings," *Putting Tradition into Practice: Heritage, Place and Design*, edited by Giuseppe Amoruso (Cham: Springer International Publishing AG, 2017), 607–7.

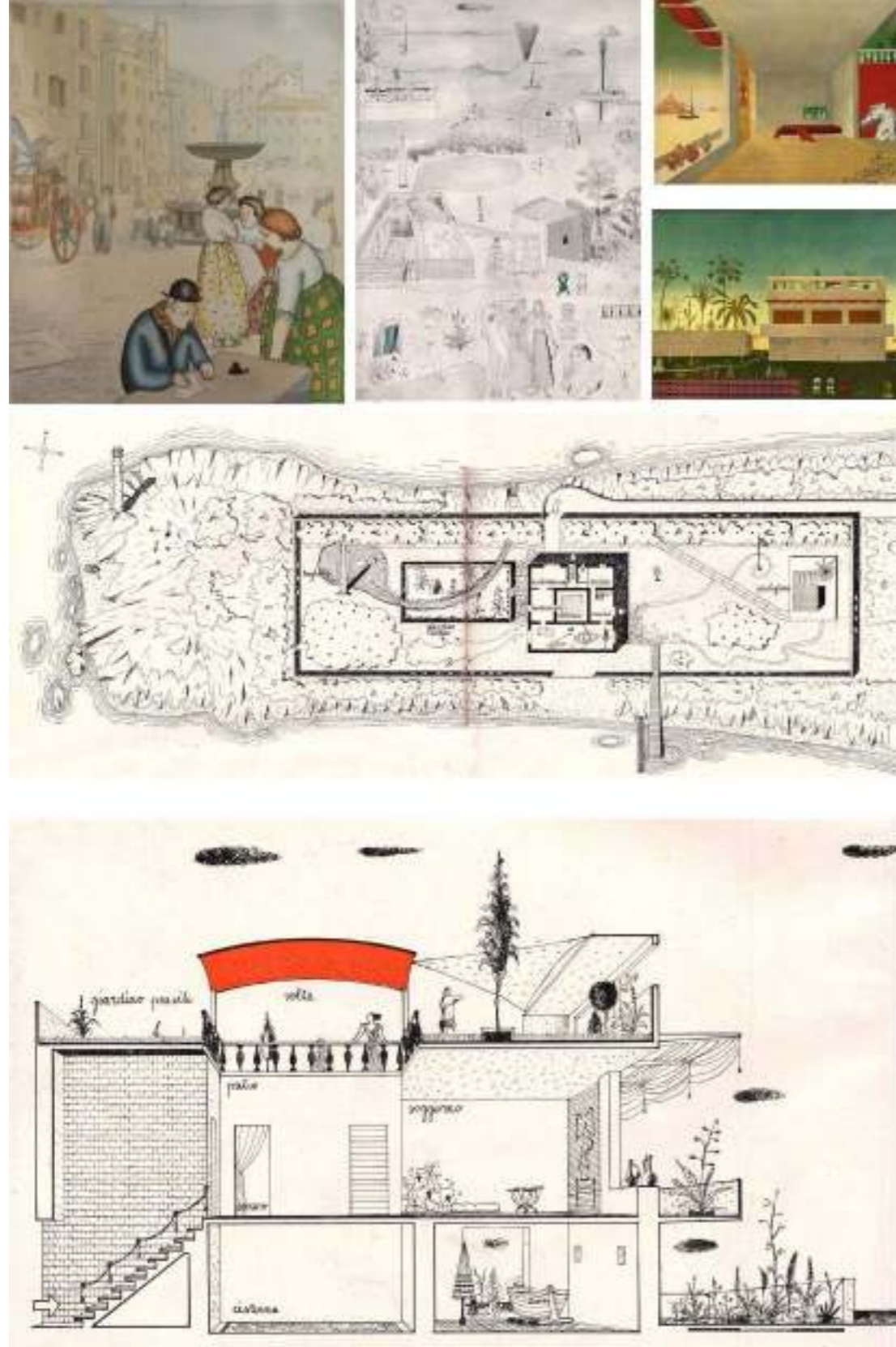


Fig. 1. Autograph concept drawings by Lina Bo Bardi for a house in Sicily. From top, left: Bo Bardi, *Piazza Montanara*, watercolor, 1929. From: Marcelo Carvalho Ferraz (ed.), *Lina Bo Bardi* (Milano: Edizioni Charta, 1994); *Bo Bardi and Pagani, ideas sketches for a house in Sicily*, coloured interior perspective, coloured perspective of the façade, contextualized plan, perspective section, in Lina Bo Bardi e Carlo Pagani, "Casa sul mare in Sicilia," *Domus*, Agosto 30, 1940. (From: Francesco Maggio, "Lina Bo Bardi: Unbuilt in Sicily," *MoMoWo: Women Designers, Craftswomen, Architects and Engineers between 1918 and 1945*, edited by Marjan Groot et al. (ZRC Publishing House, 2017), <https://doi.org/10.3986/wocrea/1/momowo1.25>).

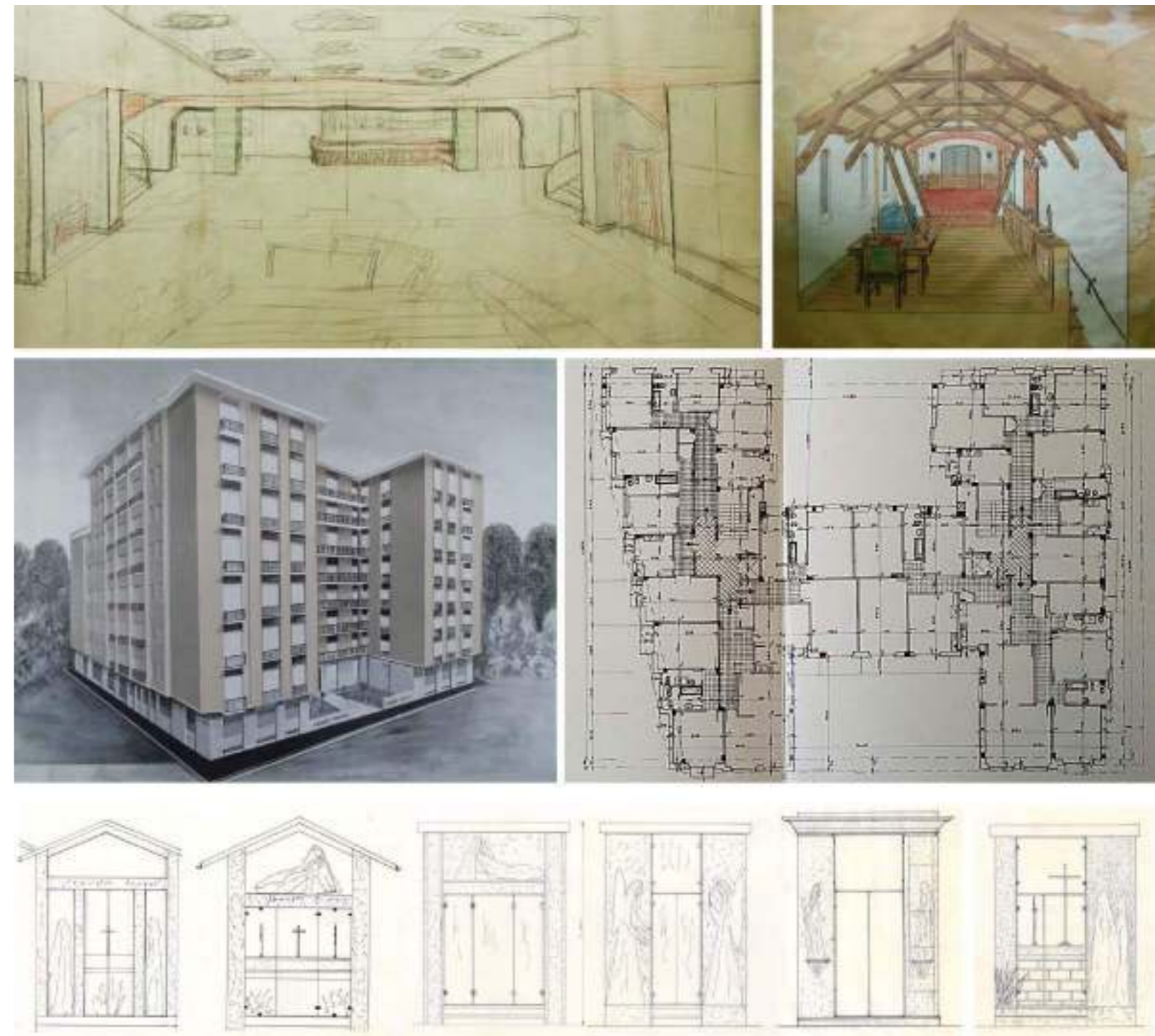


Fig. 2. Drawings from the professional archive of civil engineer Maria Luisa Spineto. From top, left: perspective sketch of *Teatro Margherita* in Genova, 1955, Private Archive (Pacco 12); water-colored perspective view of the interior of *Casa Bellini* in Arquata Scrivia, 1958, Private Archive (Pacco 24); perspective view and plan of *Condominio Libarna* in Arquata Scrivia, 1967–72, Private Archive (Cartella A12); study drawings for the façade of *Tomba Lasagna* in Arquata Scrivia, 1967–69. Private Archive (Pacco 35).

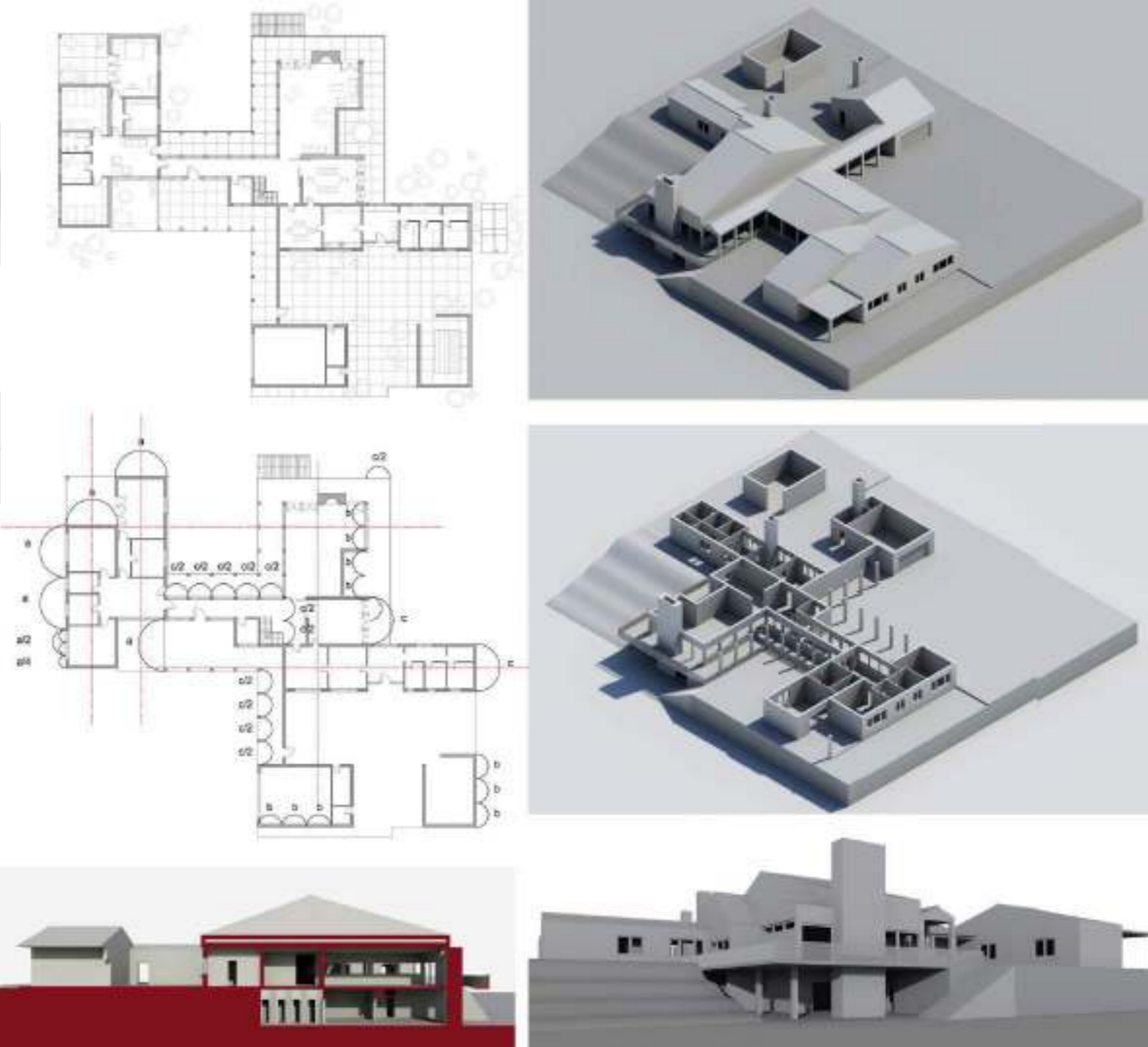
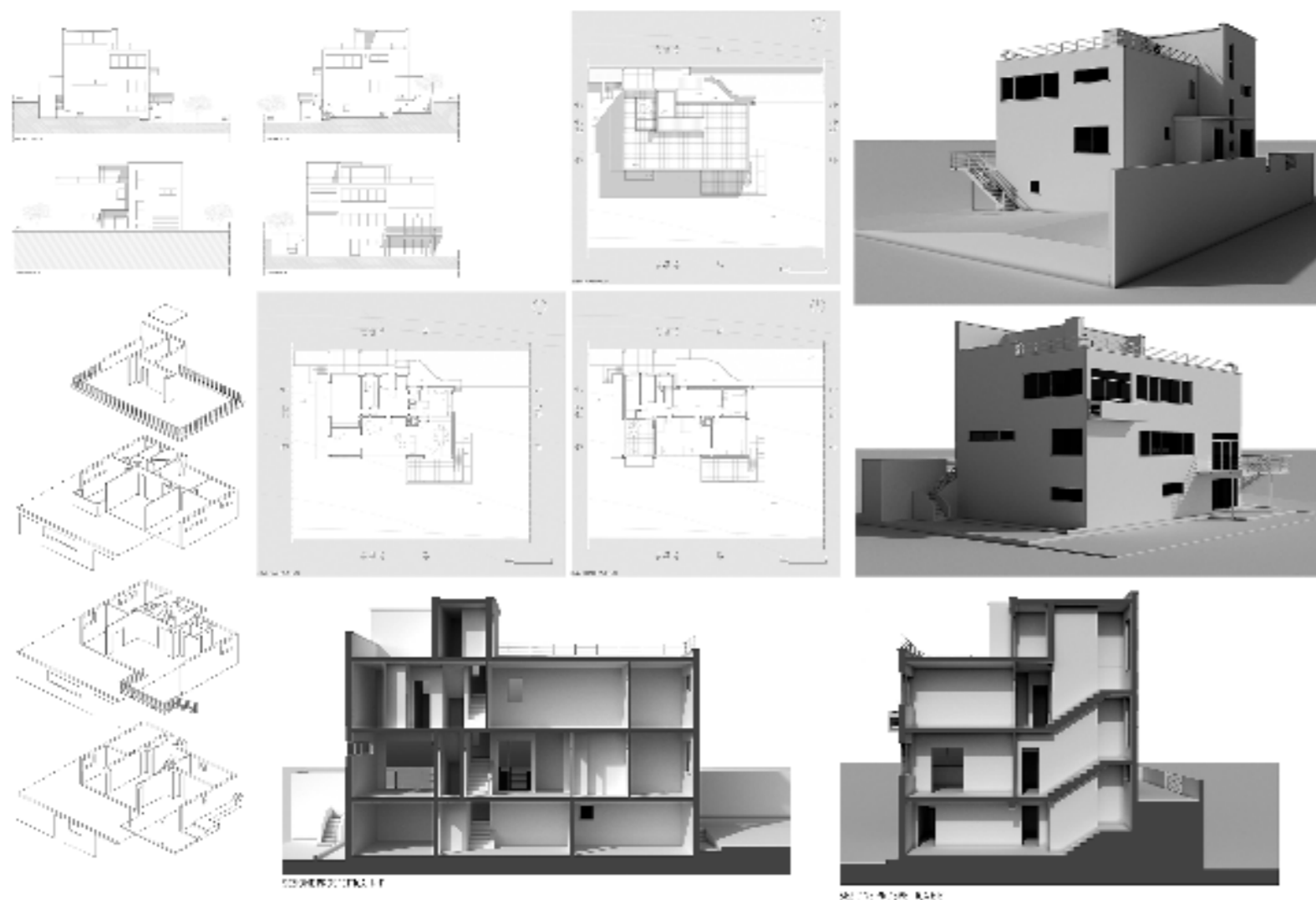


Fig. 3. 3D reconstructive models of *Villa Balling*, in Prague, 1932, by Hana Kučerová Zaveská. Plans, perspective sections and elevations, exploded axonometric view, perspective views of the exterior (3D modelling by Cinzia Garofalo, 2015).

Fig. 4. Graphical analysis and 3D reconstructive digital models of *House for Vicente Sebastian Llega*, Pradolargo-Pozuelo de Alarcón, 1968–71, by Matilde Ucelay Maörtua. From top. Left: redrawing and graphical analysis of the ground floor plan, exploded 3D models, section, perspective view of the exterior. (Graphical analysis and 3D modeling by Starlight Vattano, in Vattano, 2016).

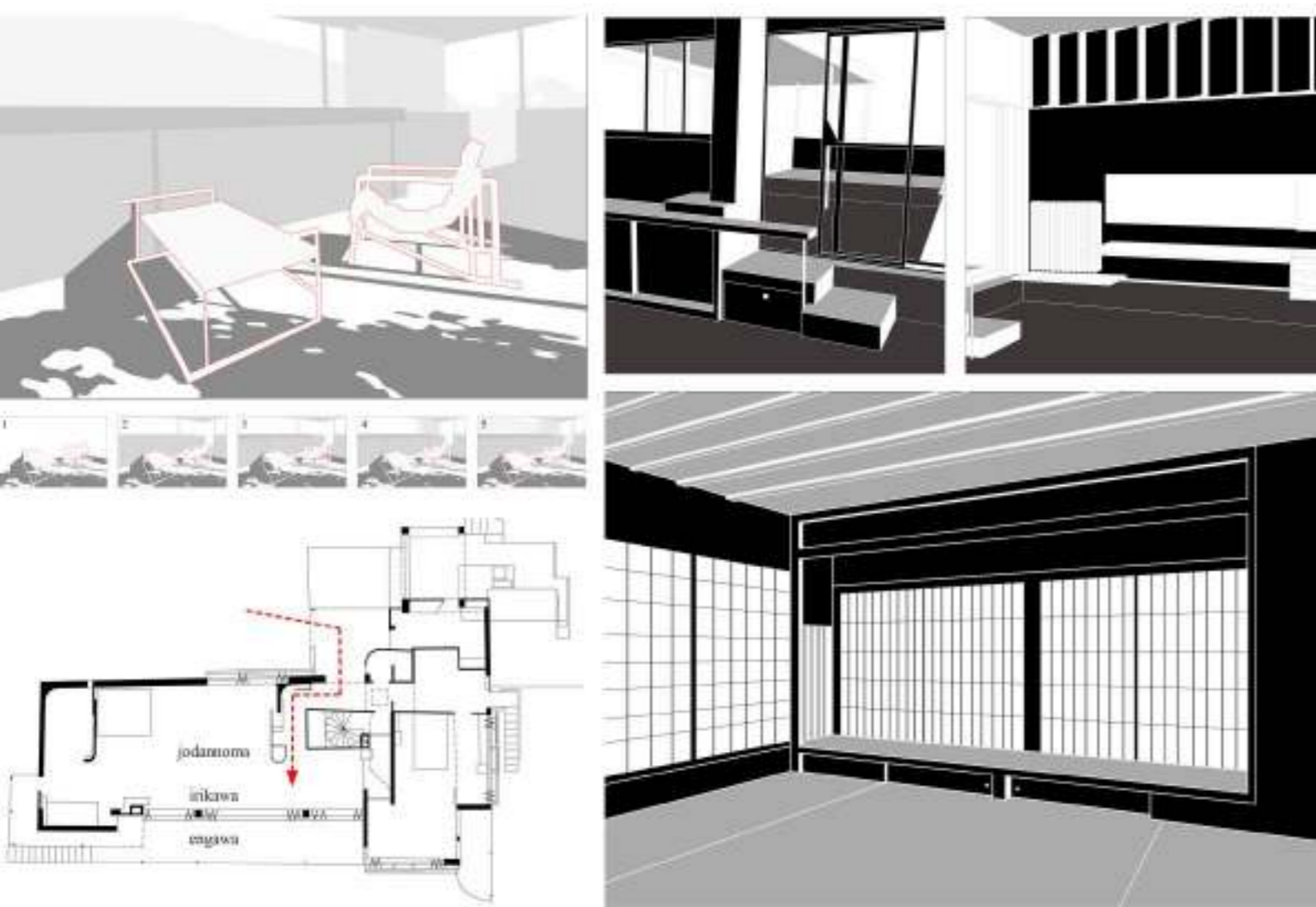


Fig. 5. 3D models and representations of *House E.1027* (1928) and *Tempe à Pailla* (1932–34), by Eileen Gray. From the top: *Tempe à Pailla* layers into the experience of domestic space and 3D modeling. At the bottom: *House E.1027*, private and public areas/zones in the spaces of the house and 3D modeling (3D modeling and representations by Serafina Amoroso, 2015).

Annex

Fermina Garrido López

Mara Sánchez Llorens

Superior Technical School of Architecture of Madrid | Spain

Two Design Drawings Makers.

Lina Bo (Bardi) and Ray Kaiser (Eames)

Two Design Drawings Makers

For many years two creators Ray Eames and Lina Bo Bardi represented into a canvas the world around them. In fact, both artists had the same purpose of transforming reality. They achieved it through lines, colours, forms, space and paper.

The first known illustrations of Ray Eames represent her family home, dolls and daily scenes. In high school she joined the art club and since this moment she began to draw with passion. The ones from Lina represent as well personal landscapes, popular stories characters or feminine figures. She learnt basic artistic skills from her father and therefore she always sensed that tracing into a paper was a gesture that linked her with her memories.

Ray and Lina draw during all their lives. They will transform their personal infantile drawings in projects drawings. The transformation happened in the decade that goes between 1930 and 1940.

Lina got her secondary diploma in the Liceo Artistico between 1930 and 1934. In the drawing of this period,¹ she developed not only isolated objects and buildings but complete atmospheres, places where the life could be possible.² For instance, the front door of a popular house is not complete without a mother sit at the step with a child in her knees, or the drawings of the beach show women enjoying of the sun.³

1 Some of them are available in the web page of the Lina and Pietro Bo Bardi Foundation..

2 Zeuler R. M. de A. Lima, *Lina Bo Bardi* (New Haven and London: Yale University Press, 2013), 10.

3 1930, no. 001ARPd0139 y 1933, no. 001ARPd0107 and no. 001ARPd0108.

In fall of 1934 Lina enrolled for the Facoltà di Architettura. Few designs were preserved from this time, even not many images from her final project were well-known, only some pictures of the model. The project was *Nucleo assistenziale di maternità e infanzia* (Maternity and childcare welfare unit) and Lina didn't feel attached to it. It was design and judge following fascist rules. Since those years Lina wanted to write their memoirs.⁴ She rewrote her life story beginning by changing the name of her project to a Hospital for Single Mothers, that way she got doing it hers.

After finished their studies, in 1940, she moved to Milan. It was there where she experienced Modernism. A lithograph of 1943 could illustrate this period in Milan and how Lina take on Modernism with a critical attitude. In *Camera dell'architetto* (The Architects's Room), modern and historical buildings were represented as object settle in the furniture. A feature could be observed in this drawing that will be repeating in her whole work: the idea of playing. The composition is a game; she played with scales, with the relation between interior and exterior, with interchanging objects and buildings. It should be highlighted from this period in Milan the relation to editorial architecture circles and how consequently the research for magazines as Domus allowed Lina to understand the situation of inter-war design in Italy.

Ray after finished high school in Sacramento moved to east coast with her mother in order to live nearer to her brother. She studied two years in Bennett School for Girls in Millbrook, New York, from 1931 to 1933. She graduated in fashion design. The dolls drawings were replaced by fashion ones that were rounded with profusely colourful patterns.⁵ After that, she moved to Manhattan. Ray thought in joint engineering in Cooper but finally she decided to join the Hans Hoffmann classes where she attended for six years.

She underlined that Hoffmann taught her how to relate the experience of life to a canvas.⁶ Her paintings from this period explore different movements as Cubism or Surrealism; however all of them share similarities like to establish tensions with forms and colours, and to look for a three-dimensional space.

She belonged to the American Abstract Artists (AAA) since the group was founded in 1936. The lithograph included in the first 1937 exhibition of AAA and the oil painting including in the 1939 one includes features like the continuous curved lines and the use of black surfaces that got wrinkled which were going to be repeated constantly in their life.

She enjoyed and absorbed the cultural scene of New York theatre, cinema, exhibition. In 1940 Ray's



Fig. 1. Covers of *Ars & Architecture* and *Interiors*, design by ray Eames and Lina Bo Bardi

mother died. She went with her in Florida. When she returned to New York she didn't feel the city as a place to develop her inquisitiveness and career.

She decided to stop in Cranbrook to take some practical classes about design and then, came back to California and built a house for herself. She narrated her experience:

I hadn't had any practical training, and I thought that would be a very good thing to know—you know, to increase my knowledge of how things are done. At one time, just before finding Hofmann, I was going to go study engineering... somehow I've always been interested in structure, whatever form it was—interested in dance and music, and even my interest in literature has that base, I think...as structure in architecture. This [Cranbrook] seemed the perfect place...⁷

Ray never stops painting. In her old ages a young student asked her, 'Mrs. Eames, how did it feel to give up painting?' Ray succinctly replied, 'I never gave up painting; I just changed my palette.'⁸ (Fig. 1)

4 Lima, *Lina Bo Bardi*, 18.

5 Demetrios Eames, *An Eames Primer* (New York: Revised Edition Rizzoli International Publications, 2013), 71. There are some of these drawings in the Eames official site.

6 Eames, *An Eames Primer*, 69.

7 Donald Albrecht, *The Work of Charles and Ray Eames: A Legacy of Invention* (New York: Harry N. Abrams Publications, 2005), 54.

8 Eames, *An Eames Primer*, 75.

Design Drawings for Transform Modernity

Lina and Ray as creative makers use trips to transform their practical work. They were passionate for discovering through traveling. They travelled, observed, learned and transformed their surround. Of that way they created new worlds. The world was a huge canvas to be paint.

If their first moved was in relation with education and professional training the second and crucial was because their personal projects with their lives partner, their husband.

Ray participated in the students Cranbrook team to draw the sketch for the MoMa home furnishings competition. Their teachers and promoters were Eero Saarinen and Charles Eames. In 1941, Ray and Charles married and they moved to Los Angeles.

During war years they lived in the Neutra apartment Strathmore. In the living room they built the Kazam! machine. A prototype to compound curve plywood.

While they research in the fold technical condition Ray realised twenty-seven covers for Arts & Architecture magazine. The whole number of illustrations helps to understand how they were going to build their idea about design: technical innovation, formal experiments and mass-media concepts and images. In fact, the transformation of Ray thinking happened since the start of this collaboration. In September 1943 issue of Arts & Architecture affirmed: 'My interest in painting is the rediscovery of form through movement and balance and depth and light'.⁹

After their first interiors and compilation of chairs they developed *La Chaise* in 1948 together with their Armchair design. They inaugurated the fiberglass models. The two pieces could be understood as complementarians even sharing material and design philosophy: industrial-artisan or efficiency-potential. In both seats and in their advertising photographs we could observe the features of Ray paintings.

In summer 1946 Lina and Pietro married in Rome and decided to abandon Italy.

Waiting for the departure of the boat *Almirante Jaceguay* Lina begun to draw and document their journey.

They stopped in Rio de Janeiro. Since the beginning, Bo Bardi was thrilled with the city ambience: 'I felt I was in an unthinkable country, living in a humane and cordial atmosphere'.¹⁰ Her enthusiasm for the country and the people is reflected in her personal drawings but her project drawings kept the European modern influence. The reason of this dichotomy could be for one hand the period of

adaptation Lina needed to process the new and quite different culture.¹¹ On the other hand, the first projects Lina got in Brazil were to transfer the Modernism in design and art to the carioca traditional culture.

She began working in the establishing of the Museu de Arte de São Paulo (MASP, Museum of art of São Paulo) with her husband and Assis Chateaubriand. Bit by bit Lina developed her independence practice: an exhibition about the history of chair design, the Instituto de Arte Contemporânea (IAC, Contemporary art institute) that promotes industrial design and where Bo Bardi taught for a year, and the magazine *Habitat*, a new cultural publication.

During 1951, Lina worked at the same time in the sketches of *Casa de Vidrio* (Glass House) and Bowl chair. Two projects that condensed the whole knowledge Lina had got in Italy, and at the same time they preceded and marked their own professional development.

The trips that make the difference in these two artists happened in 1958. Ray Eames began a trip to India with Charles in order to elaborate a report about design conditions. At the same time Lina Bo Bardi were invited by Salvador de Bahía University. Both were trips to unknown and exotic places, where they discover what means "the difference" and some kind of extraordinary crafts.

In 1957, the Eames were invited to evaluate the problem about the impact of Western design and technology on Indian culture.¹² They journeyed throughout India during almost six months. After the trip they wrote The India Report. The experience could be ended there but the Eames kept it live during all their lives not only in their feelings but in their facts.

They recommended the creation of a National Institute of Design (NID) which they visited regularly, they taught there and 'were regarded as spirtual godparents'.¹³ They design the exhibition Nehru: The Man and His India in 1965. And they produce the film *Banana Leaf*. The philosophy and the use of Lota was a design experience that made them to consciousness about tradition, artisan and no name process.

Lina moved to Salvador de Bahia in 1958. She spent her time there exploring the North-East of the Brazilian country. She collected many craft and popular object which were exhibited in *Bahia en Ibirapuera* in Ibirapuera park in São Paulo. The objects of the exhibition represent a tautology of themselves, quotidian Brazilian object in Brazil to the Brazilians. Lina, playing with modern art theories, raised handmade and recycling object to the category of art objects.

¹¹ A culture so far from the Italian and European which Lina had learnt from.

¹² John Neuhart, Marilyn Neuhart and Ray Eames, *Eames Design: The work of the Office of Charles and Ray Eames* (London: Thames and Hudson, 1989), 232.

¹³ Eames, *An Eames Primer*, 29.

⁹ Albrecht, *The Work of Charles and Ray Eames*, 62.

¹⁰ Lima, *Lina Bo Bardi*, 39.

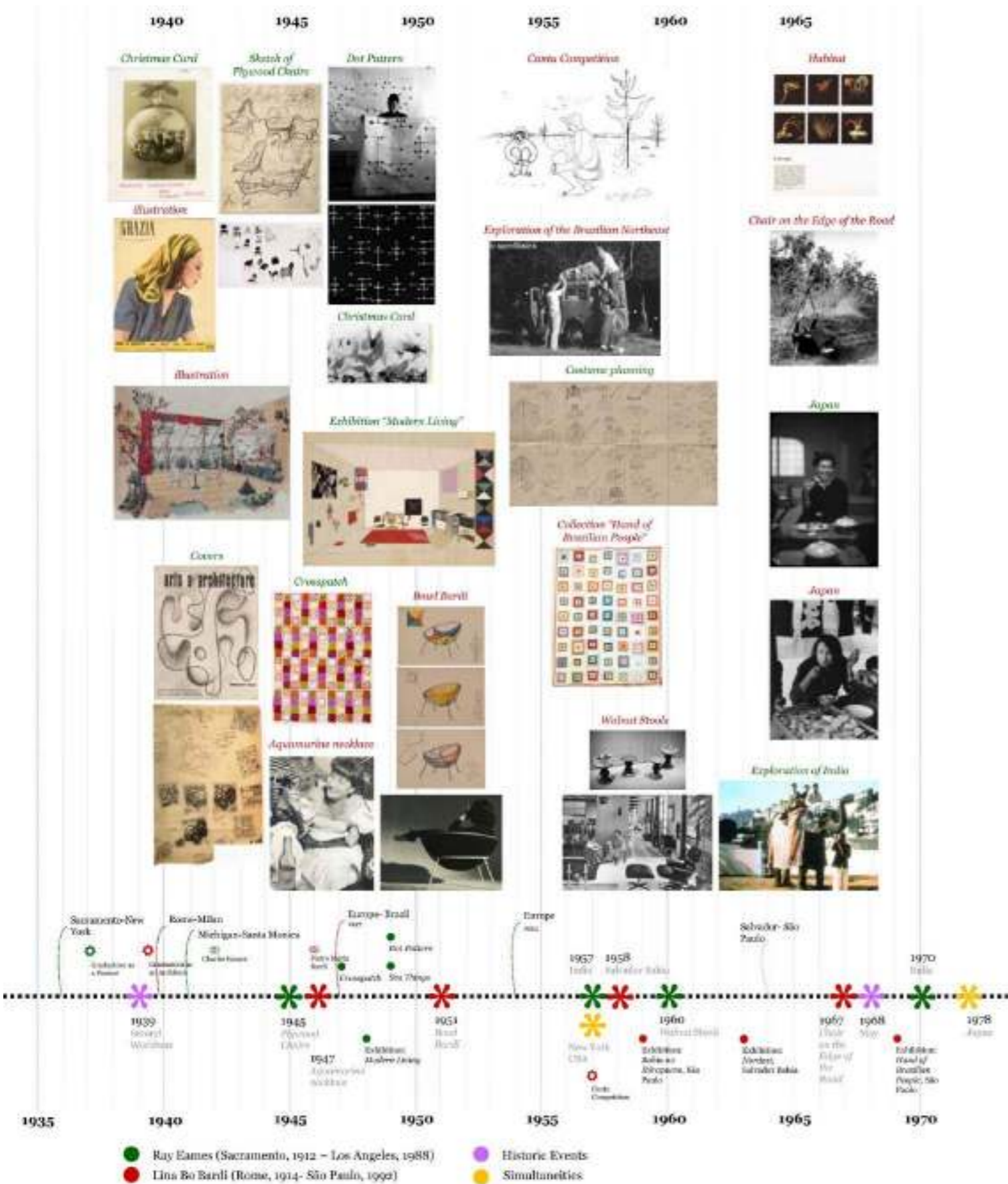


Fig. 2. Roberta Spallone and Marco Vitali, Timeline of main items of professional life of Lina Bo Bardi and Ray Eames

The years in Salvador meant a critical transformation in the design Lina idea. She realised the industrial occidental transformation wasn't valid for Brazil. She proposed the idea of evolution of 'pre-artisan' in the text *Por que o Nordeste*.

Since the experience of Salvador de Bahía, the project and design drawings of Lina changed. From that moment Brazil was in every trace. She incorporated the lush vegetation, the colouring objects and pieces and the traditional shapes, figures and materials.

Lina and Ray in 1958 had been developed a concept about design but this concept was nuanced with these two exotic trips. They were bored of Modernism by this time and they transformed it through trips with the idea of 'make it more human'. (Fig. 2)

Drawings as Architecture of the Body

The corporal transformations are equivalent to the corporeal paintings, to the masks and to the disguises to the capacity to be another and that represents the individual and primal inhabit in its dialogue with the outside. The adornments designed by Ray and Lina take part of the geometry of the human body, an anatomical geometry that involves constructive processes and vital materials such as moulding and tissue creation.

It is a mechanism analogous to the construction of masks. These, after an overflowing pedagogical attitude, contained a plastic language of extreme rigor and visual asceticism, adding in a personal synthesis that transformed it, an idealistic element, and a magical background.

This attitude accords with the attitude of many women artists that until the 1960s and 1970s did not represent themselves in an open way, but slightly hidden and transfigured.

Fashion industry and jewellery are both issues that passionate Lina and Ray since their youth. Thus, in addition to finding feminine adornments like jewels, we found that Ray and Lina designed daily outfits that created a character that individually confronted the world in a cautious way. They two made use of these architectures of the body in their selves; they were pioneers and made themselves a kind of character.

On the other hand, both were disguised or hidden behind masks that also made them be others and to present themselves to the world in a different way. Lina presented herself faced with the readers of the magazines, that she collaborated, behind a mask that covered her eyes and called herself 'Alencastro'. Ray did the same behind a feline mask.

Lina and Ray symbolize a heterodox alternative of the masculine archetypes last century in the world, as Jean David Jumeau-Lafond describes as 'the face of Modernity'. Lina and Ray were neither dandies nor aesthetes nor decadents.

Ray Eames drew her own attire, she used to combine shirts, skirts, and aprons. She was a maker, so, she needed pockets too. She was covered in ties and aprons that made her a candid woman closer to the Victorian style than to the Modernity that her designs were looking for. She took care of the details of her clothes thanks to the adornments that she used to change daily and in which she combined bows and brooches with forms of insects, natural stones and even brooches with forms of bows.

Ray planned and designed that outfit for the entire year. The cut and tonality, its appearance, is maintained over the years which makes Ray a timeless object. The patterns she designed were timeless too. The hairstyle that does not vary substantially over the years contributes to this. In India, at a reception, in a photo shoot for Times, cooking, working in the studio, Ray always dressed in a similar way fleeing fashions and trends. Ray protected her figure by designing her outfit, a type of utility dress halfway between the work uniforms and the children's outfits that she commissioned to the 'Oscar' Dorothy Jenkins.

Lina arrived at Brazil in 1946, one year later she designed her 'famous' Aquamarine necklace that was, not only an ornament but a manifesto about the meaning and the symbology of its materials. The necklace represents her resistance to precious stones: stones against diamonds. For Lina, the ornaments, the masks, and the costumes are also transformers of those who wear them. By wearing the aquamarine necklace Lina not only transforms her appearance, she presents herself in a different way that also transforms her.

With these objects, they transformed the aspect of their bodies that they show as objects of their own architecture and atmospheres, where they always photographed themselves.

In Spanish we use the same word for two ideas: feeling myself and sitting. 'This is how I feel' and 'This is how I sit' is expressed as 'Así me siento'. For us it is a pun.

If we think about Ray and Lina, this pun implies a double question that we can answer with this paper, because maybe they sat in the way they were. The works of Lina Bo and Ray Kaiser can be interpreted, in some designed items as a form of 'architecture of the body'. We use these words to refer to their designed furniture, fashion, costumes, masks and jewelleries as a synthesis of the avant-garde of Europe and United States and the 'ancestral reality' of Brazil and India takes place: process against product. They were not a product, but they felt themselves as a metamorphosis between the modernity and the popular.

'The idea that sharing a social environment causes people to develop similar activities as well as similar ways of thinking, feeling and acting' is the "habitus"; that 'set of ways of seeing, feeling, and acting that, although they may seem natural, are social'. We consider that gender also registers in a similar way: it is presented in a naturalized way that, as Judith Butle¹⁴ points out, it turns out not to be natural but is

arbitrary and based on performativity. Ray and Lina took part of this kind of performativities.¹⁵

Those drawings play with a materialistic philosophy overlapping with a humanistic way of looking the world. The drawings by Ray and Lina were how they felt; they were as they represented themselves in those drawings.

This search to be different was individual but both sought the otherness of the collectiveness and they got it through the act of sitting.

The daily routine, gestures, and habitual postures, together with a functional analysis of the body, become part of the interest of Ray and Lina.

Taking a seat, adopting a posture, or using certain furniture has connotations that go beyond the individual, that encompass the cultural character, and that distinguish us substantially from the other. Modernity promoted furniture the way you feel is defining your own and consubstantial of oneself, and by opposition, the strange, delimiting the margins of ourselves and therefore also of 'others'. Lina used to affirm: 'I'm foreigner everywhere'.

Ray and Lina's intention was to offer an element of reflection on their present situation, on what we consider or assume what is "natural," what we think must be invariably so and cannot be done otherwise, to realize that the options are always multiple and varied and all equally valid. Unlike the contemporary Western world in which the individual prevails and there is an overvaluation of the ego, in the past and in the indigenous world, the corporeal conception undoubtedly had a social meaning.

Ray and Lina visited and lived in places where all these practices were not 'taboo' yet and took on. For them, the social and individual 'living space' should prevail and for this objective, they designed chairs and other furniture. They had an anthropologist look (as Haku Shah, Claude Levi-Strauss or Pierre Verger, with whom they lived during their trips to the most remote areas of India and Brazil) that tried to apprehend these social traditions and transform them in social nomadic objects.¹⁶

Their desire to know and discover through the trip, led them to design, separately, two nomad chairs that were the result of a reflection on ancestral sitting. They called them: *Walnut Stools* (1960) and *Chair on the Edge of the Road* (1967).

Ray and Lina radically dissolve the differences between the public and the private, using their own image-object in their home-showcases to the world thanks to publications, advertising, and movies. Ray Eames and Lina Bo Bardi shared the female marketing role of their designs, not only being

¹⁴ Judith Butler, *Actos performativos y constitución del género: Un ensayo sobre fenomenología y teoría feminista* (Baltimore: Johns Hopkins University Press, 1990).

¹⁵ Andrés Gutierrez, *Así me siento: Posturas, objetos y significados del descanso en América* (Madrid: Museo de América de Madrid, 2016).

¹⁶ Mara Sanchez and Fermina Garrido, *Ray Eames y Lina Bo Bardi: El viaje como laboratorio* (Madrid: Ediciones Asimétricas, 2018).

models of themselves and their respective furniture, but of the spaces in which they lived that became showcases, showing all of what they had collected and accumulated.

The Feminist Drawing Attitude but an Antifeminists Discourse Position

Nowadays we consider Lina and Ray as twenty century creators that change the role of women in society. But how did they consider themselves? There is a contradiction point of view in how they are seen today and how they had seen themselves.

Both have similar goals, for instance, they studied higher education when women shouldn't do it. They followed their professional interest. Both married a divorced man with child. Both didn't have child. All of these items weren't considered standard in their time. They broke the social principles about women behaviour.

They belonged to a women generation that changed the rules in the thirties but after the second world war, in the fifties, they were called to come back home and to lead a family daily life in order to make progress their countries.

When the new feminism rose, in the late sixties, they didn't join the new theories; whereas they preferred to follow their own path. Lina had a clearer position expressed in text and interviews, but Ray didn't.

One unpublished interview with Lina in the Salvador de Bahia Newspaper in 1960: 'Lina Bardi (architect) speaks with (basis) of divorce' reflects a position of those who deny the need for feminism because she believes in the defeated of the male chauvinism.

Ray Eames always kept her in a cohabited position. She understood herself in a partnership, not alone. But she didn't feel subordinated either. Since the interview by Arlene Francis to Ray Eames (and Charles) during the *Home* show, host of NBC, in 1956 "America Meets Charles and Ray Eames" she appeared in the screen, not reclaiming her position but she didn't refuse it either. She played her role and she was comfortable with it.

Lina and Ray played continuously with modern philosophy concept 'I, an object'.

Voluntary they altered themselves into an exhibition object. They created an image of themselves.

Starlight Vattano

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Graphic Aalysis of the Project Kina by Teresa Żarnowerówna, 1926

Introduction

Talking about the cultural and artistic renewal in the postwar Poland one links the issue on the creation of the new generation of architects, artists, sculptors, filmmakers and poets who, coming from easturope areas enriched by new culture of Cubism, Constructivism, Suprematism became pioneers of an eclectic culture. Among main objectives there was that of broadcasting a multiplicity of groundbreaking ideas giving shape to an artistic attitude toward the image rebuilt accornding to the new vision, which was totally expressed at the First Exhibition of New Art in Vilnius in 1923.

It was a turning point for that avantguard combined with architecture, which played a relevant role, in some cases matching with the figurative and plastic art.

The new artistic international researches were collected into the catalog of the exhibition, together with the studies and early theories of the new Polish avantguard.¹

Education and Thought

Teresa Żarnowerówna (1895) graduated from the School of Applied Arts, she exhibited for the first time some of her works in Vilnius, precisely during the chance she had in 1923 at the First

¹ Michał Wenderski, "Mutual exchange between Polish and Belgian magazines: a case study in cultural mobility within the interwar network of the avant-garde," *TS: Tijdschrift voor tijdschriftstudies*, no. 37 (June 2015), 40, <http://doi.org/10.18352/ts.329> (accessed June 4, 2018).

Exhibition of the New Art. She also participated in several occasions in which artistic and cultural values of the new generation flew, such as the works exhibited at Sturm Gallery in Berlin (1923), in Bucarest (1924) and at Polish Artistic Club in Warsaw (1924–1925).²

The spirit connected to the avantguard of Polish figurative arts started to take shape with the intervention of Mieczysław Szczuka, Rudolf Świerczyński and Szczesny Rukowski through a sort of manifesto *7 Arts*, then converging into the work carried out within the journal *Zwrotnica*, that first showed particular interest in the structuration of the artistic image aimed at the international thought which offered the artistic culture of time.³ Parallel to the creation of these new ideas we are witnessing to the formation of artists groups in line with the Polish avantguard spirit in 1924, such as in the case of 'Blok' group, which emphasized its principles in the namesake journal edited by Mieczysław Szczuka and Teresa Żarnowerówna, turning into means of cultural, social and political Polish propaganda expression.⁴

Monika Król, arguing on the role of female Polish artists who played a relevant role in the definition of the East European avantguard highlights how the contribution of Żarnowerówna was important within the group not only according to the methodological and organizational point of view, aiming at identifying ways of divulgation of the new artistic values by exploiting technical possibilities offered by mass production systems and the communicative power of the photomontage, but also according to the economical point of view, financially supporting it.⁵

Furthermore, Żarnowerówna was particularly active also in the cultural development of another Polish avantguard artistic group, the 'Grupa Kubistów, Konstruktywistów i Suprematystów Blok' (Group Blok of Cubists, Constructivists and Suprematists), to which she gave the name, supporting the publication and broadcasting of ideas of the rising group, as stated in the digital Jewish Women's Archive.⁶

So exactly the cultural heterogeneity characterizing the Blok group was the element that determined the rising of two ways of thought, starting from 1925, identifiable in the positions taken by Władysław

Strzemiński and Mieczysław Szczuka. The first one, together with Katarzyna Kobro carried out the idea according to which the art had to be conducted to the social and production order, while the second one, together with Żarnowerówna identified in art a means of expressions able to be declined into the daily life within which the artist could revenge his own role during the process of production, in the social and work issues.⁷

The Polish artist recognized in art a primal instinct that, through the human work, as a sort of imprinting, could be distilled from every form of unnecessary decoration, functional aiming to the beauty. Such as means of daily use, Żarnowerówna affirmed that 'the only rational declaration: no decoration, only function-determined shape of the object'.⁸

Next step was to get close to the issue more linked to architecture and urban planning, pursuing the utopian idea of garden houses into the garden cities, as became a true synthesis process into the social and urban revolution answering to the social needs.⁹

'A building shouldn't be perceived only as a heavy structure, but rather it should be seen as composition of different colors and surfaces',¹⁰ with these words in the numbers 6 and 7 of *Blok* journal, Teresa Żarnowerówna started to deal with matters that identified in art and architecture an exchange and integration relationship, according to compositional dynamics for which architecture became the maximum plastic expression of the artistic object.

Starting from the number 10 of the journal *Blok* theatre, architecture and possible technological experimentations issues were dealt, which offering production processes, showing more and more the change in direction of the avantguard group.

Avantguard art and architecture melted in a synchronic partnership with the creation of the 'Praesens' group, founded by Helena Niemirowska and Szymon Syrkus, giving life, starting from that moment, to the collaboration among artists and architects with the common objective of overpassing the cultural tradition in favor of an international architecture.

In 1926 Teresa Żarnowerówna collaborated with Szymon Syrkus at the elaboration of several projects presented in Warsaw during the First International Exhibition of Modern Architecture.¹¹ Together with the first reasonings on research and experimentation of *nowy byt* (new forms of daily life) in the Soviet Union, starting from the 1927, the same when the Exhibition of Contemporary

2 Monika Król, "Collaboration and Compromise: Women Artists in Polish-German Avant-Garde Circles, 1910–1930," *Central European Avant-Gardes: Exchange and Transformation, 1910-1930*, edited by Timothy O. Benson (Los Angeles: MIT Press/Los Angeles, 2002), 349.

3 For further insights on the historic-cultural condition of Warsaw in the period between 1926 and 1965 see A. Boscolo, "Varsavia 1916–1956: Modernizzazione e ricostruzione di una capitale dell'Europa centro-orientale" (PhD dissertation, Alma Mater Studiorum University of Bologna, 2007).

4 Starting from 1924 eleven numbers of the avantguard journal *Blok* were published. The last number was printed in 1926.

5 Król, *Collaboration and Compromise*, 349.

6 For further insights see: "Teresa Żarnomer (Żarnomerówna)," *Encyclopedia*, Jewish Women's Archive, <http://jwa.org/encyclopedia/article/zarnomer-teresa> (accessed December 10, 2017).

7 Wenderski, *Mutual exchange*, 12.

8 Teresa Żarnomer and Mieczysław Szczuka, "Czy sztuka dekoracyjna?" *Blok*, no. 10, (1925), 2.

9 Silvia Parlagreco (ed.), *Costruttivismo in Polonia* (Bollati Boringhieri, Turin 2005), 55.

10 Król, *Collaboration and Compromise*, 351.

11 Agata Malczyk, "Tracing Praesens: Roots and Context of Modern Movement in Poland" (Master thesis, Warsaw University of Technology, 1994), 61.

Architecture in Moscow was held, Teresa Żarnowerówna participated entering in contact with others easteuropean avanguard exponents and with new typologies of transitional dwelling.¹²

Adhering to the new architectonic spirit, the research line adopted by the avantguard group linked with the idea in which plastic parts depend on architecture directly. It is strongly connected to the human life conditions and, so it constitutes an immediate answer to the social needs. These matters were expressed in the journal *Dzwignia*.¹³

Add to this cultural renew process also the relevant role taken by the graphic language linked to the topography, cinematography and photomontage technique, visual landing through which numerous artists developed new ideas on the image composition at service of the communication and the information exchange of the cultural reality of the time.¹⁴

The approaching of Teresa Żarnowerówna to the architectural issue configured with several graphic reasonings through which the architect, investigated on balanced geometrical elements of the representation on surfaces by dynamically appearance by compositional expedients recalling suprematis and constructivist theories on the construction of the image, thinking on the possibility of the development of a flexible architecture to trace a repeatable in time and space.

The thought carried out by Żarnowerówna moved from the architectonic polish tradition which was obstructing the evolution process of the city and contemporary house which had to be in line with three principles: 'order, light and function'.¹⁵ answering to the basic needs of man of eating, working and sleeping with functional and elegant spaces. After taking part at the International Exhibition in Paris in 1925, according to Żarnowerówna, Poland hadn't taken into account current issues linked to the technological development, industry, broadcast and cinema. It became necessary to get close to the idea of a new utilitarian art with respect to the daily requirements of the society of that time.¹⁶

Redrawing of the *Project Kina*, 1926

Even if a lot of Żarnowerówna's projects remained on paper, her design logic was always very strong, aimed at the functional and spatial answer compared to the human body.

Graphic analysis carried out in this paper deals with the project of the cinema published on the number 11 of the journal *Blok*, on March of 1926, which Teresa Żarnowerówna elaborated together with Piotr Koziński and Antoni Karczewski.

Drawings on which graphic analysis is based include a longitudinal section, two plans on ground floor and first floor and two elevations.

According the study of plan geometry it is possible recognize a formal composition of simple figures, four circumferences concentric in twos and an oval figure that constitutes the fulcrum with respect to those circular ones. As in the façade, the shape of the plan recalls the idea of two eyes in the act of seeing; the concentricity of figures activates a dynamic perception of the obtained composition. The geometric sequence develops along the major axis of the oval figure, that defines also the symmetry axis of the whole composition. The same symmetric rollover principle is maintained in elevation, in fact, both in facades and in the longitudinal section the issue of the compositional rule is marked by the correspondence among volumes compared to the symmetry axis which rotates of 90° determining the rule of the main façade. The low volume, where the entrance hall is placed, opens on a cylindrical space compressed by the curved surface generated by the intersection and extrusion of the oval figure corresponding to the audience and the true screening room. The two side volumes, generated by the trace of two circle arches determine two wide spaces totally glazed and sheltered by a protruding shelter that follows the curved development of the two volumes at a lower height compared to that of the entrance hall. An almost antropomorph figure recalling the construction of a face with eyes corresponding to the two wide glazed walls of the low volumes interrupted, in the centre by a slot for the whole height of the central space. In fact, the symmetric rhythm of the façade is marked by the big parallelepiped placed in correspondence of the central entrance, rising to the maximum height riched by the body of the screening room. The geometric rhythm constituting the issue of the formal composition adopted by the three architects is further highlighted by the texturing of glazed walls which maintaining uniform modules among each other dimensionally and proportionally varying the passage from a volum to another, obtaining optical effects figure-background through which to generate a combination of full and empty formalizing the compositional identity fo the cine-theatre.

Such as in the section, the first 'eye' represented in plan corresponds to the projection room reachable through a spiral staircase and developing into the crossing parallelepiped on the symmetry axis of the oval figure. The reference to the functioning of the retina of the eye is readable into the projection machine showed in the drawing of the section of the project, in this way the cornea, iris and pupils

12 With the institution of the worker cooperatives (*NEP* and *WSM*, Dwellings Cooperatives of Warsaw) we are witnessing to a period during which artists and architects work in close collaboration aiming at the solving of social issues through a common language. In this direction the group *Praesens* was founded, which determined the theoretical structure of the modern architecture in Poland.

13 See Mieczysław Szczuka, "Art and reality," *Art and Social Change: A Critical Reader* edited by Will Bradley and Charles Esche (London: Tate Publishing; Afterall, 2007), 78–85.

14 See Esther Levinger, "Return to figuration: Władisław Stremiński and the move from Idealism," *Art history* 24, no. 1 (February 2001), 103–131

15 Levinger, *Return to figuration*, 8.

16 Żarnower and Szczuka, *Czy sztuka*, 2.

become parts of the compositional system in plan and elevation. Here, the audience constitutes the big social body receiving visual informations, reworking them. So the central part corresponds to the brain able to mediate the flow between perceived information and those deduced formal and conceptual ones. Adrian Anagnost recalls the words of a Soviet filmmaker Dziga Vertov dealing with the machin-eye, cine-eye 'I, cinemaeye, I, the mechanical eye. I, the machine, show you the world as only I can see it';¹⁷ adhering to such theory Żarnowerówna recognizes in the modern technology a new visual experience able to emphasize images coming from external world (Fig. 1).

Observing the two facades, in correspondence to the screening room it is possible reading the development of a higher volume compared to that oval-planned one, but this is not identifiable neither in the section representation, that according to the cutting plane it should intercepted, nor in correspondence to the othe façade. For this reason, in the graphic reconstruction and in the digital model, the formal choice coherent with others elaborations has been chosen.

Being an unbuilt project, the presence of incongruences falls within that process of formation and construction of the idea through images that in the developing of the drawing traces a complex path undertaken by the thoughts in the formulation of the spatial composition.

With respect to the volumetric composition, according to Teresa Żarnowerówna, three conditions exist: one linked to the optimization of space that needs for a lot of light and has to be characterized by easy connections; another one deals with the unmasking of the building, in favor of the exaltation of the function that makes beauty the form; at last, the use of materials that have to allow a continuity of the treatment of surfaces between the inside and the outside (Fig. 2). In this regard, particular attention is shown by the architect for the color that 'fuses in the construction of an indissoluble whole with the ground and atmosphere'.¹⁸

Her architectural systems are thought to allow the enlargement of buildings and the infinite repetition of elements according to a disposition of vertical and orizontal planes delimitating the volumes.

The geometric matrix from which the volumes derive is rectangular, figure that according to Żarnowerówna and Szczuka 'has the potential energy to be multiplied indefinitely',¹⁹ while a description on furniture shows the utilitarian attitude of the architect who, for the inside reduced to the necessary and functional, uses sliding panels, retractable tables, bed and cupboard set in the wall, demanding to the color the substancial role of completing the architectural work.

The relation between architecture and man, between the house and the perception of spaces,

gives shape to elements that express their own sign and sound, plasticly manifesting 'the balance between logic and emotion'²⁰.

The project of Teresa Żarnowerówna analyzed represents a brief parenthesis and at the same time a moment concluded in itself of reflection on architecture and on its relation with the cinema, art and in particular that visual dimension linked to typographic, broadcasting and filmographic processes of composition of the image that the polish architect translated through bidimensional contrsuctions of straight lines, sliding surfaces and curved shapes controlled by the repetitive rhythm of the rollover, the radial evolution and the chromatic black and white contrast.

Her architecture was always influenced by the artistic reflection, the implications of the easteuropean avantguards and the combination machine-drawing into an interpretation of the human body that took shape of a kinematics mechanism becoming an exploration device of space from which generating the graphic-compositional thought.

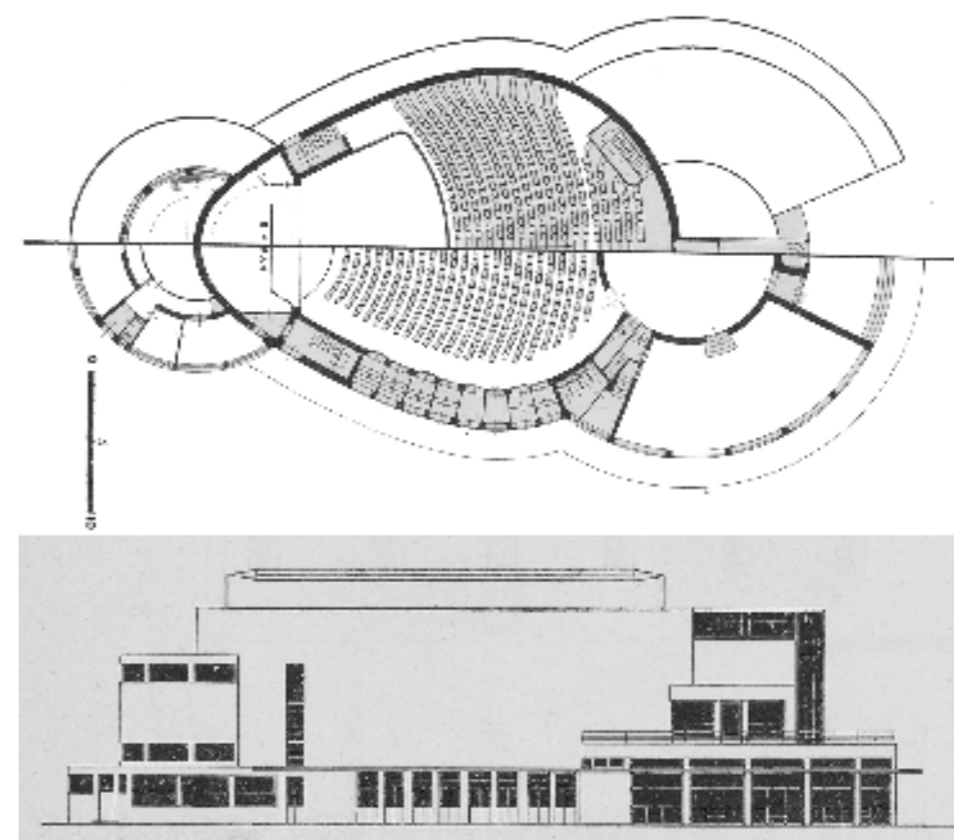


Fig. 1. Original plans of the ground floor and first floor and elevation of the Kina Project, 1926. Source: Teresa Żarnower and Mieczysław Szczuka (eds.), *Blok*, no. 11 (1926).

17 Adrian Anagnost, "Teresa Żarnowerówna: Bodies and Buildings," *Woman's Art Journal* (Fall/Winter 2016), 42.

18 Ibid.

19 Teresa Żarnower and Mieczysław Szczuka, "Architektura Wnetrz," *Blok*, no. 8-9 (1924), 14-15.

20 Żarnower and Szczuka, *Czy sztuka*, 8.

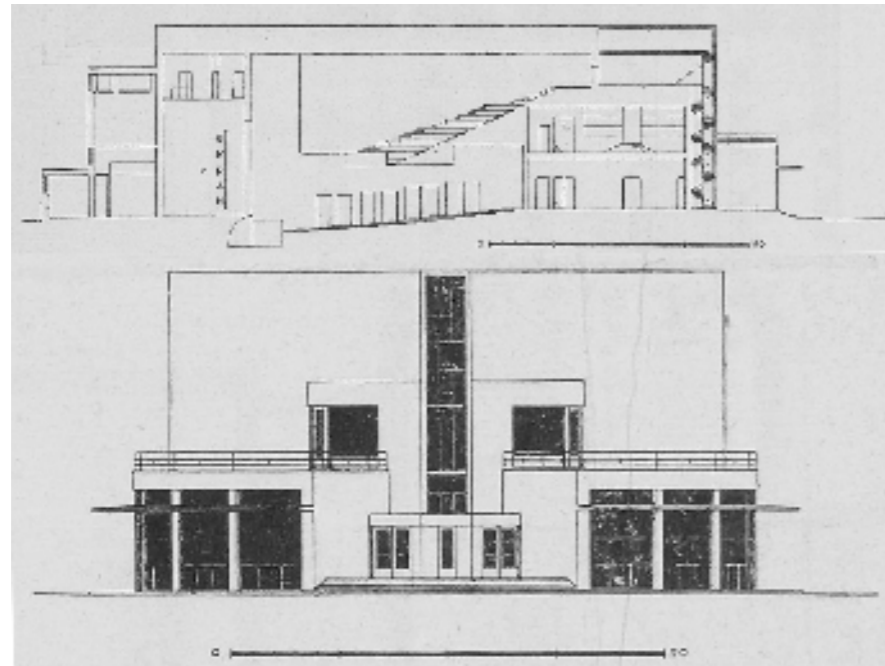


Fig. 2. Original longitudinal section and façade of the Kina Project, 1926. Source: Teresa Żarnower and Mieczysław Szczuka (eds.), Blok, no. 11 (1926).

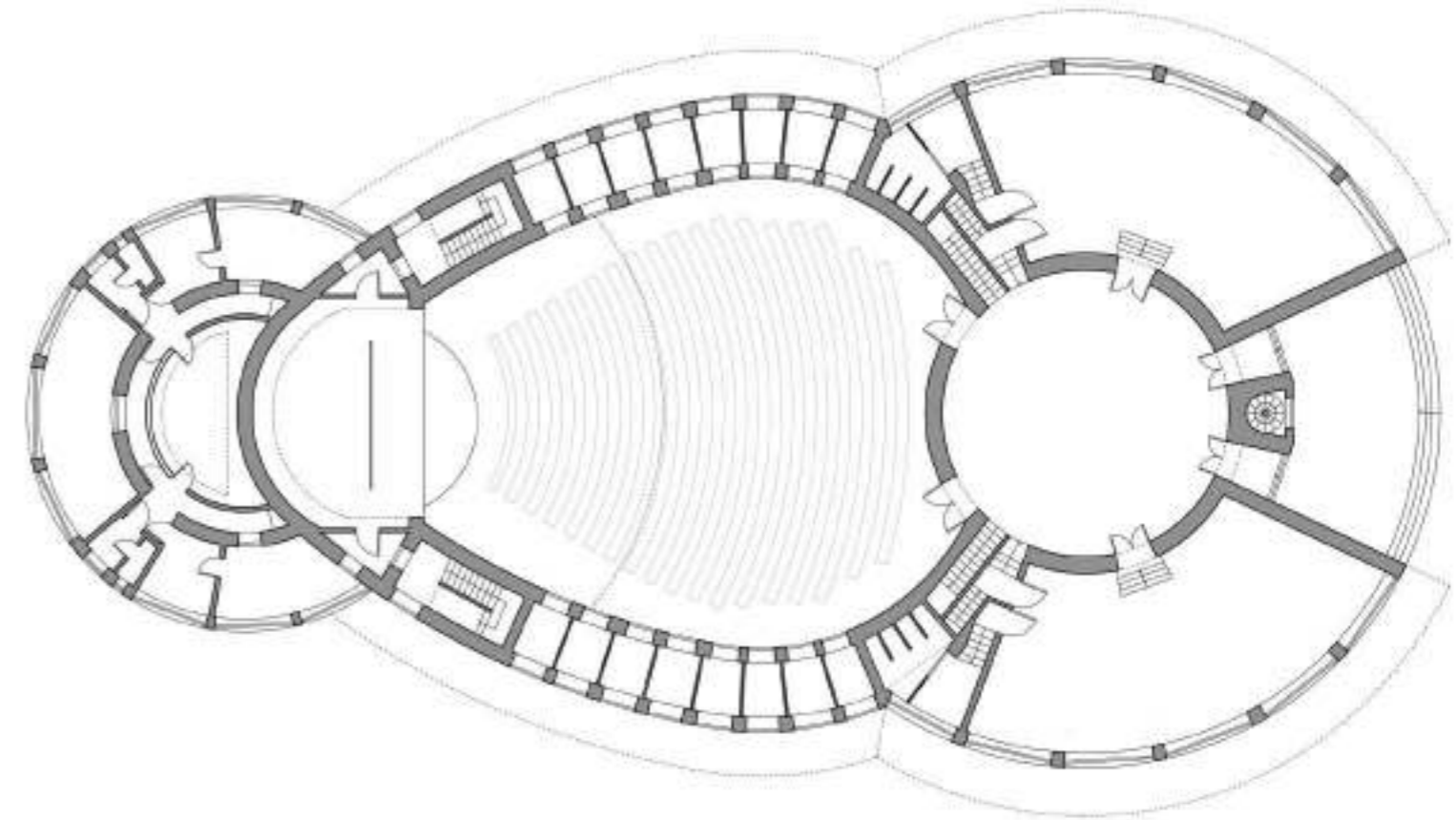


Fig. 4. Plan of the ground floor and perspective section of the Kina Project (by S. Vattano).

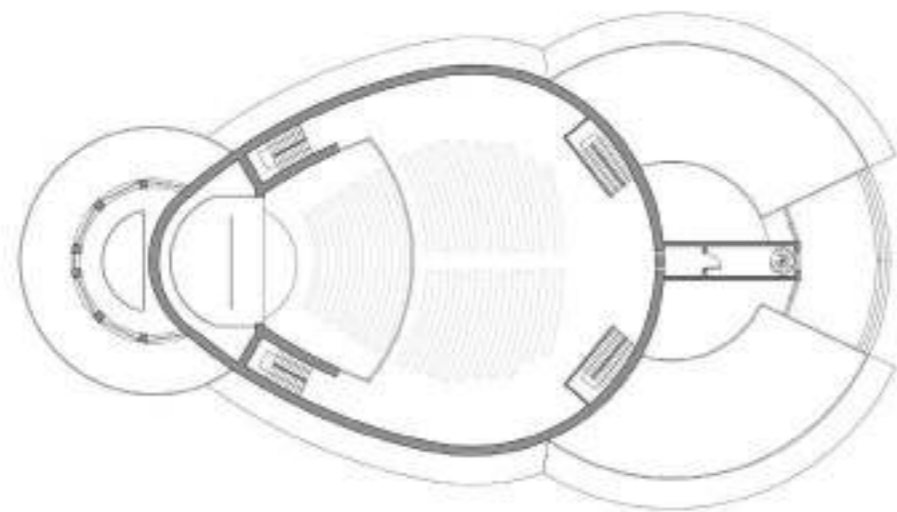
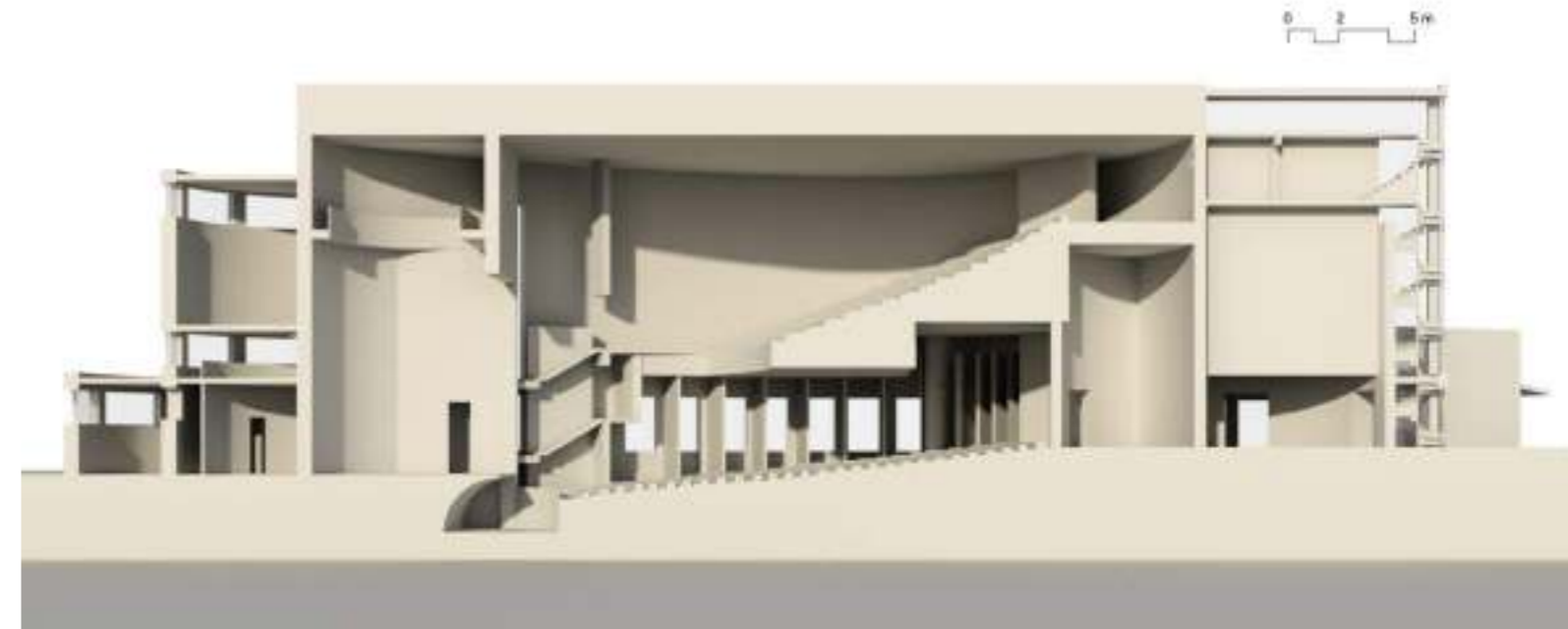


Fig. 3. Plan of the first floor and façade from 3D model of the Kina Project (drawing, 3D model and render by S. Vattano).



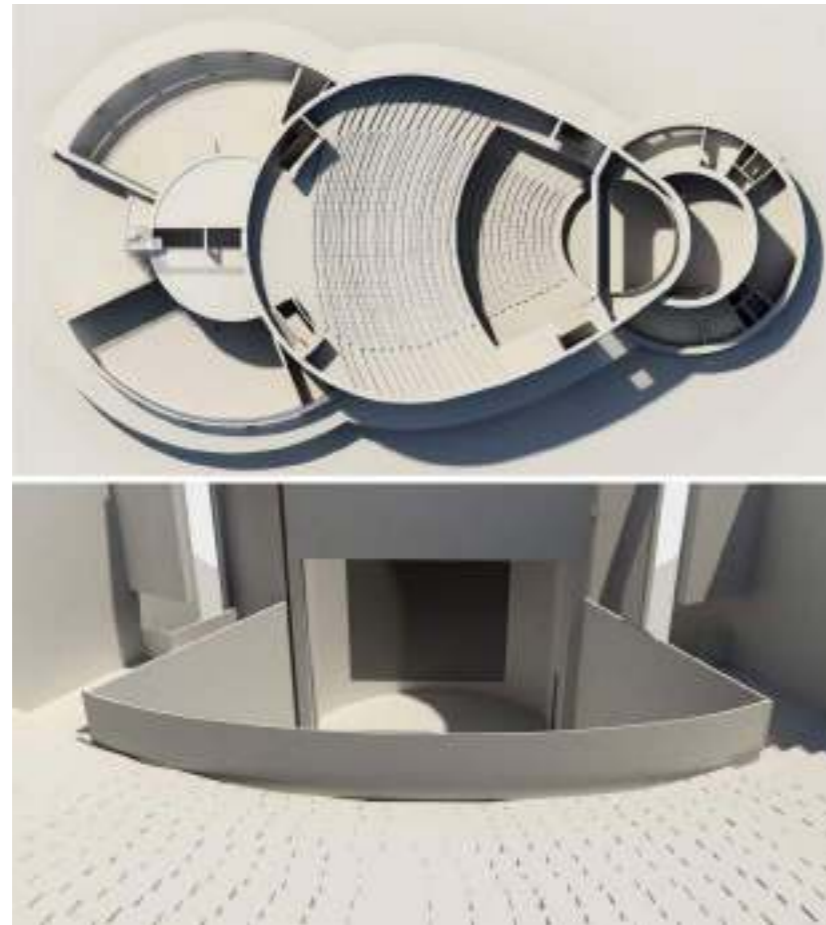


Fig. 5. Perspective views from the 3D model (by S. Vattano).

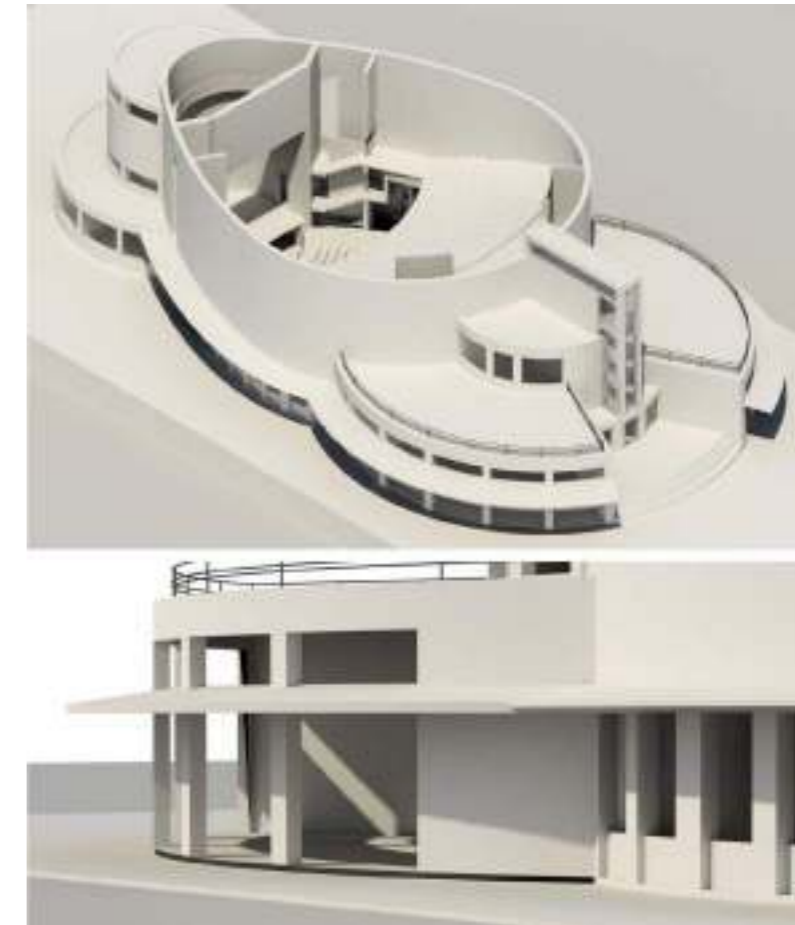


Fig. 7. Axonometric exploded and perspective view (by S. Vattano).

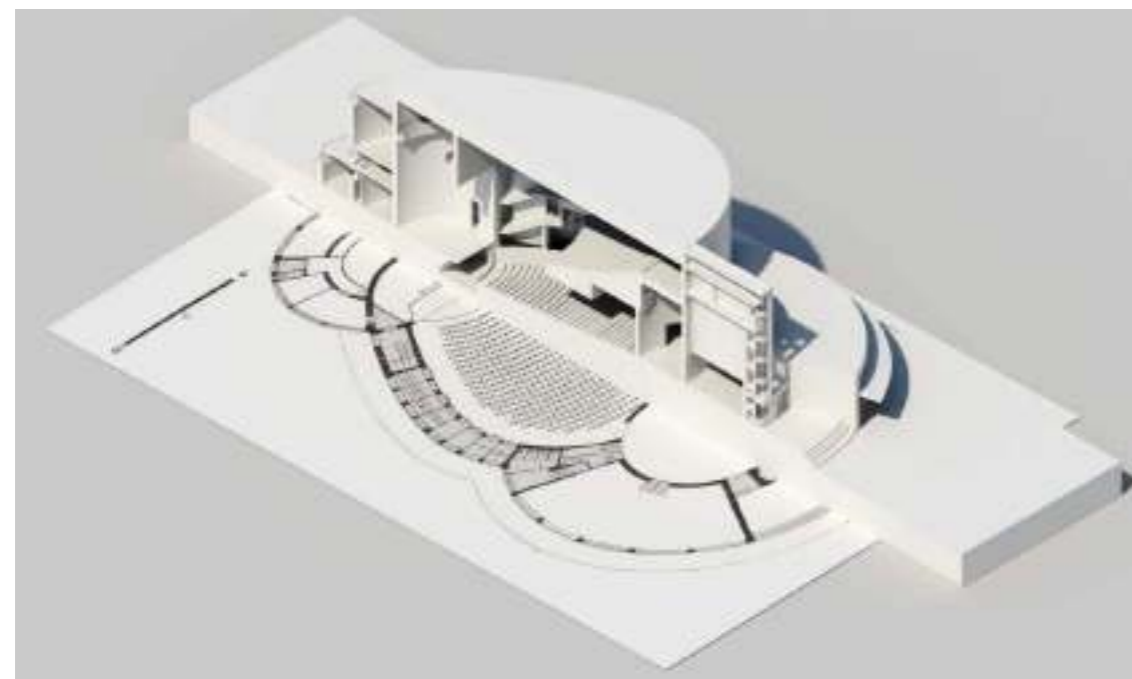


Fig. 6. Axonometric exploded and original plan (by S. Vattano).

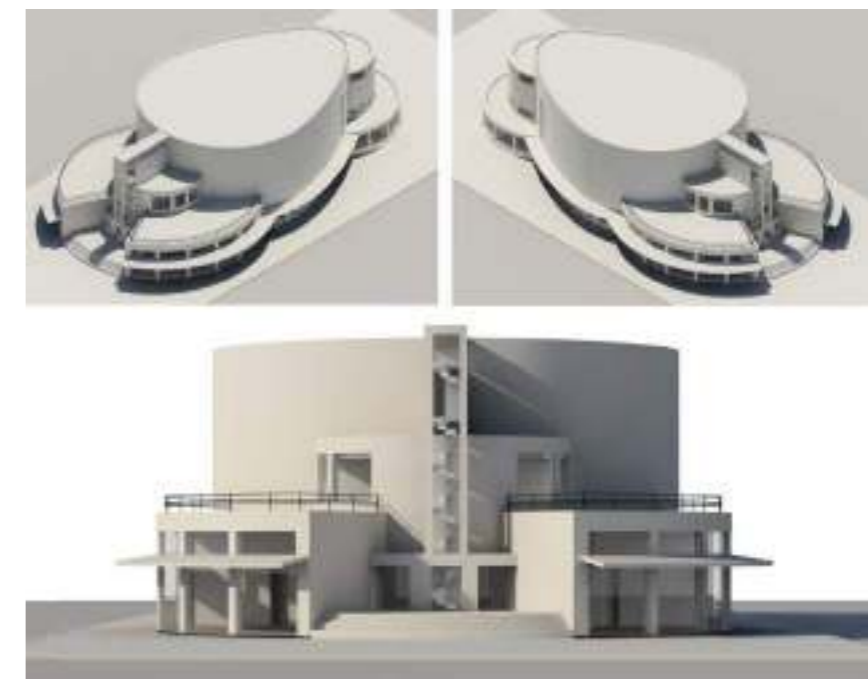


Fig. 8. Isometric views of the model and façade (by S. Vattano).

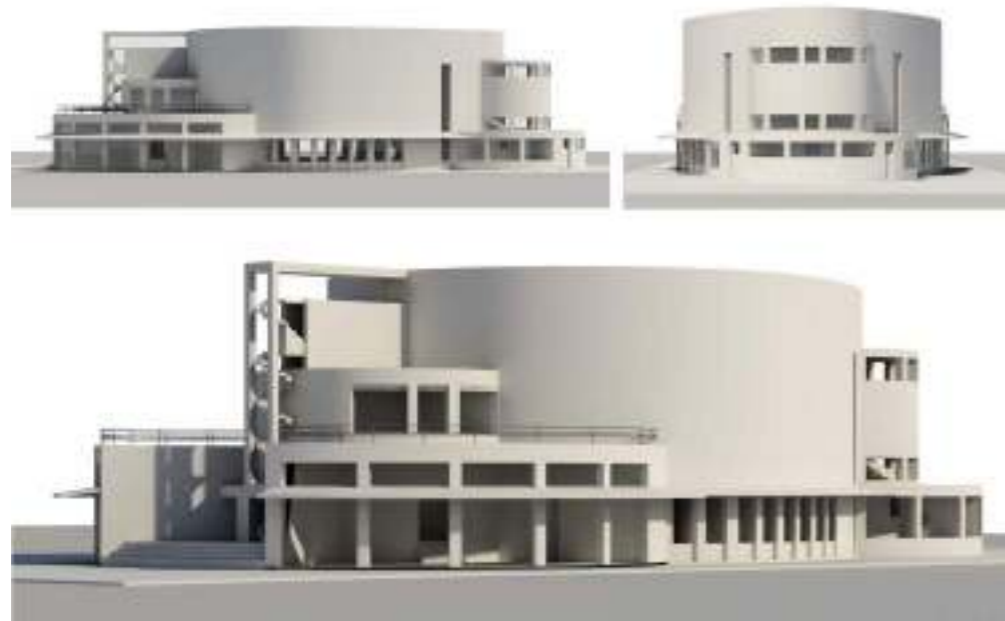


Fig. 9. Facades and perspective view (by S. Vattano).

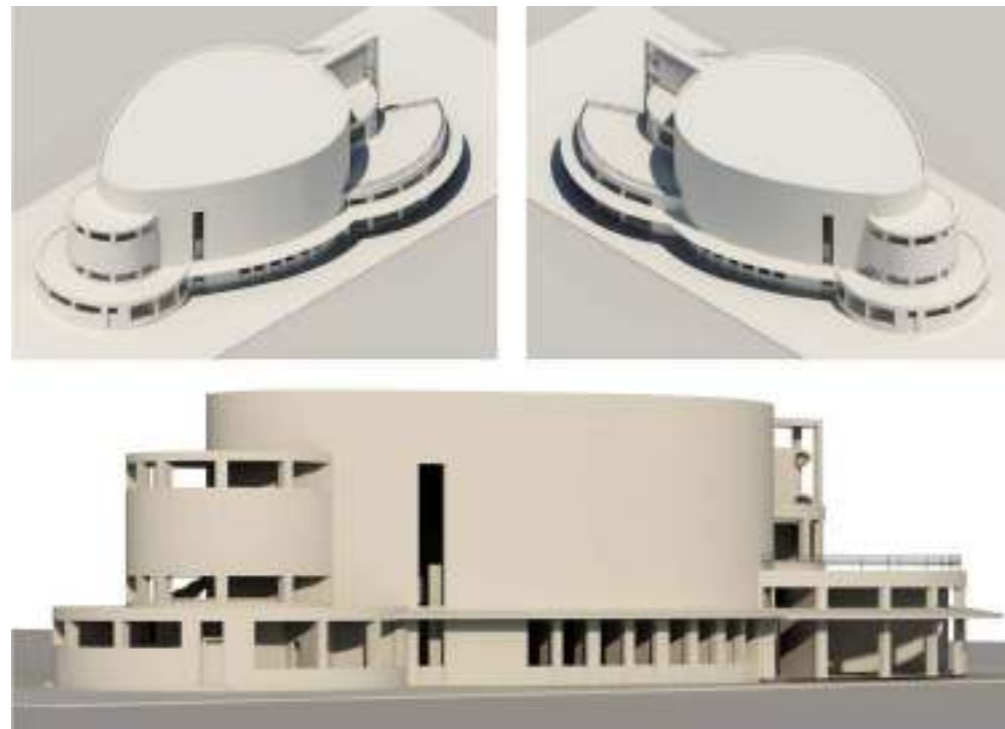


Fig. 10. Isometric views and perspective view (by S. Vattano).

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Women in Architecture: From Sources of Inspiration to Protagonists on the Architectural Scene

From the ancient to the modern world, that of women is the theme most addressed, most considered, most presented and discussed among all the artistic (and not only) manifestations of man. The female figure has always been a source of privileged inspiration in the architectural and artistic field. Since prehistoric times we find it represented with many facets and invested with multiple roles, from that of mother to that of divinity, etc. The woman evokes life and pushes the artist to look at yourself inside and try to understand his connection with nature, with the earth and with his being a man. The idealized female form aims to represent absolute perfection, above all other living forms, because it is a symbol of beauty, elegance and harmony. Even the terms that we use in everyday language are influenced by the charm that evokes the feminine being for example the words 'art', 'architecture', 'painting', 'sculpture' in Italian language are all feminine, almost to indicate that the genre of a word may suggest something beautiful, for the eyes and for the heart. We think for example the words 'pillar' and 'column': they are two synonyms, because both refer to vertical elements with support function, but only the term column contains in itself a decorative meaning and makes us imagine something beautiful, elegant and with an architectural value. As Vittorio Sgarbi wrote:

It is not only carnality or sensuality, or attraction of beauty; the female figure is the symbol of dreams and desires, it is an evanescent image, which you can never reach to the end: it is the dream, it is the hope, it is the desire.¹

The Nike of Samothrace, Hellenistic masterpiece that challenges the centuries, is perhaps the most

¹ Vittorio Sgarbi, *Piene di grazia: I volti della donna nell'arte* (Milano: Bompiani, 2011).

fitting example in reference to the concept of 'dream': the personification of victory in an indomitable woman transmits much more than the simple admiration of a beautiful and perfect body; it is the dream of victory, the proud desire that every human being has in his heart and which the artist has been able to transfer in the matter. Tackling the 'feminine' theme means to measure oneself with an inner world that is not simply the result of experience, but also derives from the human condition, from its origins and from the link with nature. 'The journey to the inexhaustible and fascinating search for a message of beauty and life leads the woman to become a symbol and representation of each time, of all times, timeless'.²

In every age, precise relationships can be found between the shape of the human body, especially that female, and the architectural styles. Vitruvius, for example, in the fourth Book of the *De Architectura* treatise, dedicated to the myth on the origin of orders, provides a particular interpretation of the aspect of the Greek column, comparing that relating to the Ionic order to the female figure:

Similmente avendo poi voluto inalzare un tempio a Diana, presero sulle stesse tracce le delicate proporzioni della donna, per formarne un aspetto diverso di un ordine nuovo: e fecero in primo luogo la grossezza della colonna un ottavo dell'altezza, per darle un'aria più svelta: e vi aggiunsero sotto anche la base ad imitazione della scarpa, nel capitello le volute quasi ricci increspati di capelli pendenti a destra ed a sinistra, e con cimase e serti distribuiti in luogo di capelli ne ornarono gli aspetti; per tutto il fuso v'incavarono i canali a similitudine delle pieghe delle vesti delle matrone. Così trovarono due diverse specie di colonne, una imitando l'aspetto virile senza ornato, l'altra colla delicatezza d'ornato e proporzione femminile.³

Even Leon Battista Alberti, in the sixth book of the *De Re Aedificatoria* treatise, argues that the beauty of an architectural work, which can be defined by the right proportion between the parts and the achievement of the balance obtained when no element that determines it can be removed, changed or added, is a factor to be sought in comparison with human body beauty, especially the female one. In other cases, the evocation of the female figure has become part of the architecture, not in a strictly symbolic sense, but with the actual presence of its aspect. Among the many examples one of the best known is that of the Caryatids Loggia, which belongs to the Greek temple of the *Erechtheum*, where, instead of the load-bearing columns, there are imposing female statues.

The binomial 'woman – beauty', which has always accompanied the idea of femininity, is clear and indisputable. The concept of beauty appears forcefully in the history of thought already with Plato, becoming one of the focal elements of his reflection. For the Greek philosopher, beauty is a timeless

quality, of perfection, a constitutive part of ideas, at the origin of all things.⁴ Perfection, harmony and symmetry of the parts are transposed into the human figure which becomes an important source of inspiration, the starting point for each representation.

From this moment on, the concept of canonical beauty is associated with the female figure and the goddess Venus (Aphrodite for the Greek world) will embody the ideals of elegance, grace, sensuality and beauty par excellence, becoming the most represented female mythological figure in western art. The concept of beauty will undergo changes over the centuries, coming to a more subjective connotation: it is the individual subject to decide what is beautiful and what is not. But, beyond any debate on this topic, women will continue to remain in time an undisputed subject in the representation of beauty and in the personification of beauty itself.

If on one side this can be understood as a stereotype that has always limited the female figure, underestimating her inner abilities and qualities, on the other hand, for some women, beauty has represented an important quality to exploit. A fascinating association is established between talent and aspect, between the beauty of the artwork and that of the artist herself. Vasari praises, for example, the sculptor skills of Properzia de' Rossi (Italian artist, the only sculptor woman during the Renaissance period who also made drawings and engravings) and adds 'her body was beautiful'.⁵

Also for the painter Elisabetta Sirani,⁶ celebrated by Italian and European sovereign and diplomats, who were anxiously trying to own one of her works, her legendary 'masculine' beauty and charm have certainly contributed to making her famous.

But before aesthetics becomes territory of sexual claims, art history goes through centuries and centuries in which women are simply objects of representation. The beauty of the female figure, in the different iconographies of the art history, becomes the symbol of all time. Today it is possible to observe myriads of artistic representations of every age, which depict images of female figures. These representations, from the most conservative to the most innovative of the twentieth century,⁷ which apparently show the woman seen as an object and emerge from a masculine observation

4 Plato, *Symposium*, 210e–211a

5 'Costei era di corpo bellissima' in Giorgio Vasari, *Le vite de' più eccellenti architetti, pittori, et scultori italiani, da Cimabue, insino a' tempi nostri* (Torino: Einaudi 1986).

6 Elisabetta Sirani (1638–1665) was the most celebrated and quoted woman artist in Bologna and her works were exhibited in major European collections during her short life. She became famous for her 'ultramodern' high baroque style and admired for her technical and artistic virtuosity. From: Adelina Modesti, "Elisabetta Sirani," *enciclopedia delle donne*, <http://www.enciclopediadelledonne.it/biografie/elisabetta-sirani/> (accessed January, 2018).

7 In the last century a new type of female illustrations spread, considered by some immoral and unseemly, mainly used in advertising. The illustrated girls, beautiful and sensual, represent a typical and functional female model at the same time, a real stereotype: shapely body, skimpy dresses, bare legs, reassuring attitude, built to show their beauty, generally in domestic settings. From: Massimo Ruffilli, *Girls Design: Visualità della figura femminile* (Firenze: Alinea, 2003), 72.

2 "Tiziana Todi, "Donna, fonte di ispirazione inesauribile nell'arte," Female World (posted February 5, 2014), <http://www.femaleworld.it/donna-fonte-di-ispirazione-inesauribile-nellarte/> (accessed on January 2018).

3 Vitruvio, *De Architectura*, Book 4, Chapter 1.



Fig. 1. Some of the most famous artistic creations of all time, which enhance the beauty of the woman making it eternal

limited to the surface and the pure aesthetic appearance, instead outline, at the same time, a subject that comes out with a great revolutionary force, a subject who has made a great journey in the affirmation of himself over the centuries. Among the most famous examples of artistic creations that wanted to enhance the beauty of the female figure, making it somehow eternal, we can remember: *Lady with an ermine* (1488–90) (Fig. 1a) and *La Gioconda* (1503–6) (Fig. 1b) by Leonardo Da Vinci, *La Fornarina* (1518–19) (Fig. 1c) by Raffaello Sanzio, *Girl with a pearl earring* (1665–6) (Fig. 1d) by Jan Vermeer, *La Chevelure* (1876) (Fig. 1e) by Pierre-Auguste Renoir, *Judith and the Head of Holofernes* (1901) (Fig. 1f) by Gustav Klimt, *Portrait of Jeanne Hébuterne* (1919) (Fig. 1g) by Amedeo Modigliani, *Portrait of Dora Maar* (1937) (Fig. 1h) by Pablo Picasso, *Marilyn* (1962) (Fig. 1i) by Andy Warhol, *Girl with hair ribbon* (1965) (Fig. 1j) by Roy Lichtenstein.

Even today, woman is a source of inspiration in various fields, not merely as a materialization of her overall image, but also through her characteristic forms, which continue to be cited in the most varied architectural compositions. The examples in support of these statements are numerous:

many stylistic solutions of Liberty are a pretext to mention the female figure in its grace, elegance and sensuality. In this language conceived between the nineteenth and twentieth century, the female figure appears completely transformed with respect to the past; her forms emerge from bronzes and ceramics, decorated glass and architectural elements, as if to declare a new role for woman, as protagonist and dominatrix.⁸ The approach to this transformation of the woman does not go in one direction: while the bourgeois male sees precisely in the epiphany of fatal and sensual women the apotheosis of the woman object, the woman, in reality, carries on a battle for the emancipation, for the establishment of social relations that assure her a certain freedom, and she does it through a return and a direct contact with the original nature.⁹

The New Role of Woman in the Professional Field

In the artistic and technical-scientific field, the active role of woman has been for many centuries put in the background, and in many cases also hampered, both for production and for tasks related to the client, to the collecting, study and protection of the historical and artistic heritage. This is an area in which the woman has never been able to express herself completely because of the numerous discriminations that forced her to put aside creativity, to devote herself to works 'more congenial to her' or that prevented her from dedicating herself to subjects considered 'little decent'. A marginalization that can be found until the nineteenth century but which, however, does not disappear definitively in the following centuries.

In the last twenty years, the increase in female participation to the university system and the tendential decrease in the phenomenon of educational segregation have contributed to make the professional skills of women very similar to the male ones; but there are fields in which men and women are still not distributed homogeneously among the different disciplinary areas. The female presence is relevant above all among the humanistic disciplines, while it appears limited in the scientific and technological sectors.¹⁰

If we think, for example, the profession of architect, for a long time it has been considered typically masculine, both for tradition and for alleged difficulties related to the control of the design phase and then of the construction site. Even today, citing more than ten names of Italian and/or foreign

⁸ Fernando Mazzocca (ed.), *Liberty: Uno stile per l'Italia moderna* (Milano: Silvana Editoriale, 2014).

⁹ Marco Cima, *Liberty: La donna al centro dell'universo* (Torino: Nautilus, 2010).

¹⁰ Francesca Zajczyk, *Donne e tecnologie, tra modernità e stereotipi* (Milano: Department of Sociology and Social Research, 2005).

architect women who have achieved a certain professional importance is not a very easy task.

Benito Mussolini, convinced supporter of the distance of the woman from architecture, in 1927 asserted that 'The woman must obey She's analytical, not synthetic. ... She's foreign to architecture, which is a synthesis of all arts, and this is a symbol of her destiny'.¹¹

Actually, it is precisely starting since the thirties that the themes related to architecture, under a technical-artistic profile, and aspects relating to the profession of architect, begin to collect particular interest from women.¹²

The difficulties in undertaking this profession are still many, linked not certainly to a question of intellectual inferiority, but rather to factors of scepticism of eventual clients, or to the complexity of the project process. But from this moment on, the female presence in the sector becomes more and more consistent, until arriving, in the 1990s, to the so-called 'pink overtaking': it occurs an overrun of women enrolled in the faculties of Architecture (and more in general at the Italian university) than men.¹³ However, this increase does not seem to correspond to a greater presence of the women in the profession.

Architecture continues to remain a "foreign land" for women. They're yet above all the men - of the past and of the present - who define the quality criteria, select the projects, write the history, theory and criticism of architecture. Women must fight against an image of marginality and dilettantism, they must face difficulties in managing private/professional life. They still have difficulty in finding an own identity and to work out alternatives without that this relegating them to an irrelevant ghetto and for a few passionate people.¹⁴

In particular, women lose position with regard to prestigious positions; only exceptionally, in fact, they hold managerial positions, while the vast majority work independently, obtaining a space in 'niche' sectors with respect to architectural design, such as furniture, fittings and garden design. In the age of equal opportunities, the most common form of access to the profession for a woman remains the partnership with a man and this is demonstrated by the reviews of projects published in recent years. So it is natural to ask oneself how to consider those women who have made it, that have succeeded in establish themselves independently, reaching an important and successful position: 'These names are flashes in the sky, comets stars, extraordinary presences, or just a fragment of a

world full of figures, stories and experiences, left deliberately, and long, in the shadows?'¹⁵.

From this reflection comes the need to trace the profiles of those women who have been able to give an identity to their thinking, their studies and their research, with a view to transmit to future generations a cultural heritage that the traditional system of education scholastic and university –despite the ever-increasing presence of women– has forgotten or perhaps never considered.

Architectural Drawing Made by Women

When women begin to establish themselves in the field of architecture, freehand drawing is an indispensable means of communication to put planning ideas on paper, to make people understand their intentions and to express their personality.

Through the analysis of some of these graphic representations, made by important personalities of the recent past such as Margarete Schütte-Lihotzky and Lina Bo Bardi, who have made the drawing a faithful tool for architectural design, and by more current figures such as Gae Aulenti and Zaha Hadid, who have come to the elaboration of images far from any traditional architectural representation, it is possible to draw a line of thought within a broader and general concept of the history of female architecture.¹⁶

Margarete Schütte-Lihotzky was born in Vienna in 1897 and is the first Austrian woman to graduate in architecture. Designer and political militant, she is the creator of the *Frankfurt kitchen* in 1926, prototype of the modular kitchen that we still use today; she dedicated herself to the construction of houses for single women with children and to the construction of school and educational buildings. Among the main objectives of her work there is in fact that of creating better living conditions for women, trying to rationalize and optimize spaces, reducing their stay time in favor of those to devote to themselves.¹⁷ These studies motivate the presence of multiple interior designs, which investigate in a meticulous way the living and working spaces of women, to better understand the problems related to them and thus arrive at the identification of alternative solutions. The kitchen thus becomes the fulcrum of the whole house. The architect makes a design study that proceeds

11 Caterina Franchini, "Women Pioneers in Civil Engineering and Architecture in Italy: Emma Strada and Ada Bursi," *MOMOWO: Women Designers, Craftswomen, Architects and Engineers Between 1918 and 1945*, edited by Marjan H. Groot et al. (Ljubljana: ZRC Publishing House, 2015), 82–101.

12 The article "Modern architecture and women architects" appears in the issue of the Italian women's Almanac of 1935, bearing the signature of the journalist Anna Maria Speckel, which brings to light an unsuspected microcosm of women dedicated to architecture.

13 Florence Marchal, "L'architettura sessuata, equivalenza e simmetria," *Casabella* 732 (2005), 65.

14 Tommasina Gengaro and Rosaia Ruberto, "Architettura al femminile' - tra mimetismo e specificità," *Tempi e spazi: Architettura al femminile* (October 2005), <http://www.tempiespazi.it/spazi/archite/> (accessed January, 2018).

15 Gisella Bassanini, "Le madri dell'architettura moderna: Alcuni ritratti nel panorama italiano e straniero," *Parametro* 257 (2005), 20.

16 Alice Vercellino, "Il disegno dell'architettura al femminile" (Graduation thesis, Politecnico di Torino, 2007).

17 Benedetta Dubini, "Donne e professioni: Le pioniere dell'architettura," *mondo rosa shocking* (posted April 16, 2010), <http://www.mondorosashocking.com/archivio/DonneprofessioniLepionieredellarchitettura/tabid/689/Default.aspx.html> (accessed January, 2018).



Fig. 2. Four examples of female architecture drawings: **2a**) Margarete Shutte-Lihotzky, *Standardized kitchen right with seating*, Frankfurt 1926. From: *Dalla cucina alla città: Margarete Schütte-Lihotzky*, edited by Lorenza Minoli (Milano: Angeli, 1999), 65; **2b**) Lina Bo Bardi, *Itamambuca residential complex*, Ubatuba, São Paulo 1965. From: Istituto Lina Bo e P.M. Bardi, *Lina Bo Bardi* (exhibition, São Paulo, 1993, Charta, Milano, 1994), 85; **2c**) Gae Aulenti, *Project for the new exit of the Uffizi on piazza Castellani*, Firenze 1998. From: Margherita Petranzan, *Gae Aulenti* (Milano: Rizzoli-Skira, 1996), 124; **2d**) Zaha Hadid, *Prado Museum Extension*, Madrid 1996. From: Luigi Prestinenza Puglisi, *Zaha Hadid: Progetti e opere* (Roma: EdilStampa, 2000), 114.

inductively from the inside out, from the particular to the general.¹⁸ The rationalization of the interior space becomes the generating element of the dwelling itself. The stroke of the drawing remains well defined and precise, so much so that it looks like a drawing made to CAD. Nothing is traced with randomness and without precision, but everything is built according to a rigid geometric pattern (Fig. 2a).

Lina Bo Bardi was born in Rome in 1914 and graduated in the same city in 1939; later he moved to Milan where he began to carry out an intense professional activity that saw her as one of the founders of the Movement of Studies for Architecture. She is a designer with a combative and restless spirit,

18 Lorenza Minoli (ed.), *Dalla cucina alla città: Margarete Schütte-Lihotzky* (Milano: Franco Angeli, 1999).

constantly animated by experimentation in which political commitment and professional activity are inseparable.¹⁹ Observing her design sketches you are immediately struck by the spontaneity of the lines and the sensation of freshness that they communicate. Differently Lihotzky, her drawings clearly express the intention to quickly fix the ideas that emerge in the mind on paper, to avoid losing the inspiration of the moment. To achieve this goal, the architect uses rapid and fast lines, without worrying about making a perfect design. Her graphic representations refer to an almost childlike world, made up of simple but strongly communicative gestures. Moreover, in her drawings the architectural object is never isolated, but constantly related to its context, animated and enriched by figures and objects. Even the use of colour in some drawings represents an added value, letting the volumes emerge, outlining the shapes and giving depth to the image (Fig. 2b).

Gae Aulenti was born in Palazzolo della Stella (Udine) in 1927. She studied at the Polytechnic of Milan where she graduated in 1953. The ten-year collaboration with the historical Casabella-Continuità magazine is fundamental for its formation.²⁰ Her most mature production is linked to the international 'Neoliberty' movement.²¹ Her drawings are the clear manifestation of her way of understanding architecture, linked to a typically scientific approach. In his drawings the intent is to reproduce architectural views, foreshortenings or general views close to reality, a sort of 'immersive visual storytelling'²². The main aspiration of Gae Aulenti is to create an effect of continuity of the culture of every place in which her architecture must fit and at the same time give life to forms and figures with a personal and contemporary content (Fig. 2-c).

Zaha Hadid was born in Baghdad (Iraq) in 1950 and graduated in 1977 from the Architectural Association in London. Her drawings fulfil the main function of representing everything that the architect's imagination is able to create. In her representations a 'new' world appears, characterized by unusual organizations, where hierarchies are abolished and acquired, and traditional mental orders are broken. 'This is a challenge job, an exciting adventure through the expressive possibilities of the space'.²³ The spaces created in her drawings born from incentive and indications coming from all those characters and movements that are congenial to her inventiveness, from Constructivism, to Neoplasticism. The forms of her architecture become ever lighter, transparent and stratified. If the projects of the early years are collages with fragmented pieces, over time the forms evolve into indi-

19 Gizela Bassanini, "Lina Bo Bardi," *enciclopedia delle donne*, <http://www.enciclopediadelledonne.it/biografie/lina-bo-bardi/> (accessed January, 2018).

20 "Gae Aulenti," *Floornature*, <http://www.floornature.it/gae-aulenti-37/> (accessed January, 2018).

21 Movement based on the critical reevaluation of Art Nouveau, favoring the transition from Eclecticism to Rationalism. Anna Marotta, "Gae Aulenti progetta il nuovo in Palatium Vetus: Obiettivi, significati, scelte formali," *Palatium Vetus: Il broletto ritrovato nel cuore di Alessandria*, edited by Anna Marotta (Roma: Gangemi, 2016), 146.

22 Marotta "Gae Aulenti," 146.

23 Luigi Prestinenza Puglisi, *Zaha Hadid: Progetti e opere* (Roma: EdilStampa, 2000).

vidual gestures. The drawing represents for Zaha Hadid the medium through which the idea, when the imagination is at the peak of its expression, breaks into reality to meet the material.²⁴ (Fig. 2d)

These four 'worlds', briefly described and analyzed from the point of view of graphic and stylistic production, can provide an important starting point for reflection on the wide and complex theme of female architecture. The different approach that women have, compared to men, to the project and to the profession, has emerged with greater strength; their sensitivity to issues related to the environment, quality of life and safety, allows the development of architectural and urban solutions with a precise look at the times and ways of experiencing space.

The production of these four women architects marked a before and after compared to their passage on the international architectural scene; it would be desirable for many other women like them could succeed in this undertaking.

As Zaha Hadid herself stated in one of her last interviews:

Even though recently women are affirming more and more in the field of architecture, this doesn't mean it's easy, there are still immense challenges to be faced. The change has been enormous in recent years, but it need to continue in this direction.²⁵

It is beautiful, however, to think, but above all to note, that women have finally passed 'on the other side of the sheet' and can, with their trait, leave an indelible mark of their 'poetics', of their work and of their choices in aesthetic, technological, functional setting and not only.

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A Visible, Digital and Useful Future for Drawings and Designs

The passion and special strength that allowed many of the open-minded women that dare to swim in the fields of Design in the Modern Movement period, was once materialized over a paper, leaving sketches, design procedures, technical plans, etc. Sometimes, due to the new kind of objects to draw (tapestry for instance) or the self-taught way of doing technical plans, we can find very interesting and personal graphic codes.

Architects, Engineers, and other persons that have the creativity and technical knowledge that is necessary to bring a new object from the ideal to the real world will be referred to as 'Designers' (with capital 'D') in this article.

The voice of creativity for a Designer finds its main expression through drawings. In the same way as Poetry needs to articulate words through syntax and grammar, Mathematics uses numbers and formulas, or Music has its own symbols and harmony rules, Design needs to use drawings (as sketches) during the process of solving a problem, and also once the solution is found, drawings are needed for communicating an idea that has to be accepted and manufactured.

Depending on what kind of object we are dealing with, its complexity and other factors as: who is going to manufacture it and where, if there are or not some regulations to be observed..., the type of documentation generated could be very different. As an example we can think of these two case: on the one hand we have a Designer that draws a single sketch with which the object can perfectly be constructed by himself or a well-known manufacturer, and on the other hand, a sophisticated high-technology object, with different parts that are designed and manufactured all

24 Cesare De Sessa, *Zaha Hadid: Eleganze dissonanti* (Torino: Testo&immagine, 2006).

25 Simona Ferrioli, "Zaha Hadid: Nel 2016 sarà la prima donna a ricevere la RIBA Royal Gold Medal," *Architetti.com* (posted September 29, 2018), <https://www.architetti.com/zaha-hadid-nel-2016-sara-la-prima-donna-a-ricevere-la-riba-royal-gold-medal.html> (accessed January, 2018).

over the world, packaged, transported and assembled afterwards. Both cases have in common that the information given by the Designer/s has to be enough to express this solution to the client, collaborators, manufacturers, etc.

Nowadays, the necessities (that generate or lead to the problem that has to be solved) are continuously changing and growing, and also grows the complexity of the procedures for designing. Most of the professionals are almost 'obliged' to adapt themselves to the new times, and technology is supposed to bring some help.

Introducing the BIM Concept and Other Related Technologies

During the last decades, many interesting and sometimes quite complex tools have entered in the professional studios of Designers... nowadays it's almost impossible for an Architect or an Engineer to present a Project completely done 'by hand'.

The computer tools can vary a lot, depending on the discipline of Design and other different factors as: skills of professionals, size and economic possibilities of the Studio, country, type of clients and their requirements, methods for manufacturing, commercial aspects, etc.

In general, even a single Designer needs different software for habitual or eventual tasks as: drawing, use of databases, libraries of symbols and constructive details, structural and facility management calculations, fulfilment of different (and continuously changing) regulations, budget, etc.

High-level software doesn't use to be cheap or freeware and, once it has been chosen, it has to be and remain compatible between the other ones used by the same Designer or others (as habitual or eventual collaborators). This desired compatibility between the big amount of different technologies used in the different areas of design and manufacturing has sometimes been a serious problem.

Nowadays it could be possible for a Designer (specially Architect or Engineer) to use a single software to develop all the tasks; an alive tool, compatible with the actual and future technologies that could be continuously improved and fed with information, able to automatically do all the works that don't need a person to take a decision. We are approaching to the Building Information Modeling (BIM) concept.

For using a software with the characteristics above mentioned, the geometry of a three dimensional (3D) digital model and a database with its properties has to be completely defined, to be processed by the software in order to do different calculations, verifications of norms, etc., and give a feedback to adjust the design. Technical 2D and 3D plans, and the rest of the documents needed are almost automatically generated and actualized if any modification is done.

BIM is a kind of software that unifies or can have connectivity with different ones, using and multiplying their possibilities; Geographic Information Systems (GIS), Virtual Reality (VR), Augmented Reality (AR)... are also examples of other available technologies that can leverage the existing tools of a common Designer and give amazing results; in the next section some aspects of them and a few related technologies will be exposed for a better understanding of the topics of this article.

The order in which these technologies are introduced does not necessarily refer to antiquity or importance, and this text doesn't pretend an academic definition for them. Disseminated through the text some suggestions or comments in relationship with MoMoWo project will appear. More detailed information and examples about BIM possibilities will be given in the last sub-section and the final conclusions.

CAD, CAE, CAM

Computer Aided Design (CAD) is like a calculator that is able to draw, for example the simplest element: a point, is defined by three cords (x, y, z) in the three-dimensional (3D) Euclidean space (z=0 if we work in 2D); the following element in complexity is the line, whose geometry is defined as the shorter union between 2 points. When we draw a basic element, it's width is the minimum that can be comfortable distinguished in the screen, so if we amplify the image, it remains having the same width (not as a raster drawing software).

As an important characteristic to be mentioned: CAD software allows to classify and separate in different 'layers' (that can be shown simultaneously or not, like a bunch of transparent papers) the graphic information

Around 30 years ago, CAD and CAE (Computer Aided Engineering) software started to be used by some Designers but, thus it seemed revolutionary, in fact the concept didn't change too much, it really should have been named 'Computed Aided Drawing' instead of 'Design', because it was used instead pen and the traditional drawing tools. Some tasks (as the especially repetitive ones) could be done easier, but sometimes, the time needed to learn and properly use these new tools, and their costs (computer, plotter, software, courses....) didn't compensate the efforts in a short term.

The accuracy that CAD allowed was needed for Computer Aided Manufacturing (CAM), but not for the traditional way to construct the objects, that in most of the cases still remains. Besides that, in some cases the CAM machines needed a specific (slave) CAD software, unique for that machine.

Luckily, interface, import-export options and services provided by generic CAD software were gradually improved. For instance: a stair or a roof could be solved and drawn in an easy way (almost as 2D), and it was also easy to modify its parameters as height, constructive details etc. Some

rules for design (as relationship between wide and height of a step) could be introduced ... a really 'design' tool was growing.

Most of the graphic documents that have been highlighted through MoMoWo project have already been scanned, so we have image files in a raster format (*.jpg, *.bmp, *.tiff...). To obtain vectorial files (*.dwg, *.dxf, *.dgn ...), CAD software can import this files, situate and resize the image in a layer and trace or digitize over it.

GIS

The Geographic Information Systems (GIS) technology is adequate when dealing with a big amount of both graphic and alpha-numeric information about material (visible or not) and immaterial things. The only condition for a data for being admitted is that the parameter 'location' exists, so it can be marked over a map. Any GIS contains and can put into relationship a huge diversity of databases in different formats, without the necessity of following the same template (data can be extracted), so existing databases can be included.

Information about objects, persons, projects, temperature, laws, religions... of the past, present or future can be preserved, analysed and used, and performances of the GIS software as the interactive 'thematic maps' facilitate enormously to draw conclusions or take rapid decisions (in case of a natural disaster for instance), knowing that the maximum of parameters have been taken into account.

A pair of decades ago, it was surprising to see in the screen of the related software how a map changed its level of detail (size of texts, kind or style of graphics...) depending on the scale of visualization... now almost every smartphone – or our own cars – have a navigator with the capability for using the information (maps etc) that is loaded, and some other data provided in real-time by a Global Position System (GPS) and internet.

This technology is not new, but the real use in different sectors is increasing enormously. At first, only big Institutions (owners of information and with especially powerful computers) as Governments and Universities could use this kind of software, but from the 1990's until now, reduced and/or affordable versions can be found, and furthermore, most of CAD firms have introduced some GIS performances and vice versa.

This technology can be used online through the web without the necessity of buying the software. At this moment we can access to MoMoWo's "Database on Women Architects and Designers with Geographic Information System (GIS)," this tool could enlarge its possibilities in order to become the meeting point for a very interesting interchange of information at different levels.



As a suggestion, MoMoWo's web could have a site in which every member could enter with their password and -depending on their permits and knowledge of the tool- drop the files in a general storage place (to be revised and classified by others) or in its definitive place in the GIS.

Scanned documents in raster format (photos, plans, sketches), text or drawing files, videos, sound archives, links to the www ... will remain in a way that could easily be founded and used for many purposes as drawing a 3D model of a disappeared school for testing its acoustic behaviour with a new software. It's desirable that the new CAD or BIM files, more usable for Designers and Researchers, could be dropped into the GIS too.

3D Visualization: Render, Video, Virtual and Augmented Reality (VR & AR)

Though it's not necessary for designing and manufacturing an object, sometimes a good photorealistic render or video showing the future appearance of the item or its relationship with its environment (Fig. 1) can help a lot to bring it from the ideal to the real world. For instance, the object can be easily understood by persons that are not used to read technical plans and have to approve or to buy it.

Once the geometry of a digital 3D model is introduced, many existing software (independent or forming part of CAD-CAE tools) allows Designers and Draftsmen/women to generate very attractive images with a little additional effort. A 3D physical model can also be printed with a very low cost in comparison with the 3D printers of a few years ago.

We can see through videogames that most of the actual computers are capable of moving very detailed 3D objects into 3D spaces, in real time, so a technology as Virtual Reality (VR) for graphics has no problem to be implemented and in fact, it's quite habitual to find it in a design Studio since more than ten years ago. VR performances are very useful to control the process of design because the 3D model can be easily seen from different points of view with a simple movement of the mouse.

Augmented Reality (AR) is one of the newest and amazing technologies for Visualization. A video camera focused in an exterior or interior space combined with a software and 3D models loaded in a tablet, mobile phone or computer, shows a digital object in a real place. The results can either look photo-realistic (a familiar house in the real scenery of its plot) or correspond to a precise intention that could be to explain –in different and brilliant colours for instance– the way how a machine is working (hot and cold pipes etc)






There is another technology that is very interesting for constructing digital 3D models with only photos (if possible two or more, but in some cases one could be enough) and a few known measures, it is called 'Photogrammetry', and could be adequate when technical plans doesn't exist but we have some objects (we can take new photographs) or antique photographs or video showing a disappeared thing. The specialized software is capable of undo the perspective, obtain real measures of the object, and a quite approximate 3d model of its surface.

As we have seen, there are many different technologies for obtaining a three dimensional geometry of most of the objects that appear at MoMoWo's database, and there are many different ways to show these digital objects as: in alambic mode, self-shadow surfaces in greyscale or colourful, texturized, illuminated with natural or artificial light...

Nowadays, there are another kind of software or extensions for the existing ones that deal with obtaining an artistic and expressive appearance for a computer-made image, that in our case means to invert the terms, that is to say: to transform a selected view of a realistic 3D model into a drawing with an artistic hand-made appearance that could look like if the author has done it by herself.

Bridging MoMoWo to the BIM concept

As we have seen, in BIM technologies a 3D model is more than geometry, it contains a database and can be composed of surfaces or solids in which physical simulations can be done: structural calculations, temperature, fluid dynamics (as wind resistance and piping); thermic and acoustic behaviour, fire, wear...

LOD 100 Conceptual	LOD 200 Approximate geometry	LOD 300 Precise geometry	LOD 400 Fabrication	LOD 500 As-built
				
The Model Element may be graphically represented in the Model with a symbol or other generic representation, but does not satisfy the requirements for LOD 200. Information related to the Model Element (i.e. cost per square metre, etc.) can be derived from other Model Elements.	The Model Element is graphically represented in the Model as a generic system, object, or assembly with approximate quantities, size, shape, location, and orientation.	The Model Element is graphically represented in the Model as a specific system, object, or assembly accurate in terms of quantity, size, shape, location, and orientation.	The Model Element is graphically represented in the Model as a specific system, object, or assembly that is accurate in terms of quantity, size, shape, location, and orientation with detailing, fabrication, assembly, and installation information.	The Model Element is a field verified representation accurate in terms of size, shape, location, quantity, and orientation.
	Non-graphic information may also be attached to the Model Element.	Non-graphic information may also be attached to the Model Element.	Non-graphic information may also be attached to the Model Element.	Non-graphic information may also be attached to the Model Element.

Once digital 3D models of objects and spaces are done, we have a material that can be used and continuously improved, but is interesting to know that some standards are being or have been established for a correct use of this tool. The matter that perhaps is the most important for us at this moment is that the same object has different 'scales of representation' as it is shown in (Fig. 2): but, to simplify, there are 5 representative scales: LOD 100, 200, 300, 400 and 500, being the first one a symbol whose size is barely approximate and the last one has a level of definition as an as-built project.

BIM concept means 'the global software': a total relationship between all the procedures, aids and documents needed and generated during the design process. Plans have not to be drawn, we only have to decide how to compose them scale and position of the 2d or 3D views and sections) and they are almost automatically re-drawn when a change in the 3D model is done, and the level of detail is different depending on the scale in which it's going to be printed. Reports can be done and included in plans and other documents of a Project... parameters can be changed both in graphics and in text/numeric information.

Many links are established, and as the tool is connected to internet, the information (libraries of symbols and objects, regulations, prices, etc. remains updated.

Conclusions and suggestions

It would be good if most of the information (without copyright of other author or owner's rights) could be used without any payment at first, but with the condition (between others) of increasing MoMoWo's database with new items (for instance a digital 3D model made by solids or surfaces) this could generate an interesting free and rapid collaboration of people all over the world that generates files to be used in BIM or Visualizing tools

MoMoWo project could have not only the function of preserving and make the information visible, but also to be an alive tool that could stimulate creativity of new and future Designers that continue the works started by of our Modern Movement Women developing, for instance, a re-interpretation of a furniture collection that responds to actual materials, sizes, rules and necessities. Advanced software can be used and computer calculations can be done to adjust and verify the Design.

At this moment there are a significant number of professionals that have high level software for design, but still don't make the most of their possibilities because (between other reasons) there are not enough libraries of constructive elements and furniture at their disposition and it takes time do draw them properly.

Some suggestions could be done as: 'if in the libraries of symbols, databases and other BIM tools, almost everything is to be named...Why not using the name of a women that drew that thing in that way, or invented that object or that procedure?'...or 'if a construction system or an industrial process is already named and included in that files, and we find out that a woman collaborated in its design... couldn't it be interesting to make a link in that internet-connected software to give information to the users about this matter?'

Perhaps a thematic Virtual Museum of the Modern Movement Women can be done in the future or start it right now. Imagine a VR navigation through digital, colourful and realistic 3D spaces (instead of a black and white photo); natural or artificial light emulating the type of illumination of that period slides along the texture of a tapestry design. If we stop for a while, a brief text appears with information about the author and object, and gives us the possibility to link to multimedia information or to a website. We can move around objects and also move some of them to change their position or see them from different points of view, and perhaps study how it can be disassembled in pieces, or select them for doing a 3D printing... objects and persons in movement (perhaps wearing antique dresses) could appear. It's exaggerated to say this, but the newest technologies allow that digital characters introduced in a 3D virtual space could have the face and voice of the woman that designed the object...