Projects for an inclusive city. Social integration through urban growth strategies

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Zagreb - Public Space 'Somewhere in Between': Contribution to the Deliberation of Planning and Selection of Locations and Public Space Design

ABSTRACT:
European Youth Games in Zagreb 'Universiade 2016', were an incentive for creating activities that can be started in a short period of time and without large investments. The aim was to examine the importance of the event for the city, how to activate the city services and offer them an innovative model by which the city would shortly get a large number of projects of public space, and some of the locations would be realized over a short period of time. The project was part of Urban Workshop which was held in 2013 at the Faculty of Architecture, University of Zagreb. A method was set which would, in the shortest way, by involving all stakeholders, lead to a qualitative selection of potential locations. The whole process of choosing locations was simulated and these locations are grouped into five layers according to specific themes. : location of recreational facilities, student facilities, information points of entrance to the city, special "competitive" public transport stops, a public space for each quarter of the city. This initial project also experienced its implementation in the 'real world'. The City of Zagreb was offered an elaborated joint project of the Association of Architects of Zagreb and Faculty of Architecture called 'Zagreb for me'. The project was widely accepted by the city in 2015 as a commercial project.

KEYWORDS: *public space, Zagreb, Universiade, university sport games*

1. INTRODUCTION

The cities of Zagreb and Rijeka (Croatia) will be hosts of the university sport games European Universiade in July, 2016. 4,000 competitors from over 200 universities are expected to participate. The last such university sport games Universiade 1987, also held in Zagreb, had a big influence on the transformation of the city, a big number of sport objects were built, and a pedestrian zone was designed and made in the city. As it is usually the case with big sport and cultural manifestations which have an influence on the transformation of the city, this can be expected to happen once again in the city of Zagreb. Yet, since little time is left until the Games, a short period of time and the economic crisis have given rise to approach only minor actions for the town redecoration. The Student project within the course entitled "Transformation of the City" held at the Faculty of Architecture in Zagreb, thematically related to the design of public space in the city, sought to examine potential sites of neglected public "space in between" and offer a possible model for choosing them.

Figure 1. Results of Students sport games held in Zagreb 1987

2. RESEARCH TOPIC

The primary theme of the Urban Planning Workshop held in the second year of graduate studies at the Faculty of Architecture was to contribute to the planning and equipping the city with no major interventions in the

area. The program was prepared in 2012, and the Urban Planning Workshop on this subject was held in 2013[36].

The aim of the project was set on many levels: to examine the importance of the event for the city, to explore how to enable city services and offer them an innovative model through which the city would get a large number of projects of public space in a short period of time, and some of the locations would be realized after that in a short period of time. A method was set that would, in the shortest route, by involving all interested parties, lead to a high quality selection of potential sites. The whole process of choosing locations that are grouped into five layers according to specific topics was simulated:

1. Location of sport facilities,
2. Student facilities in the city area,
3. Info points at city entrances,
4. Stops for specific 'competitors' public transport,
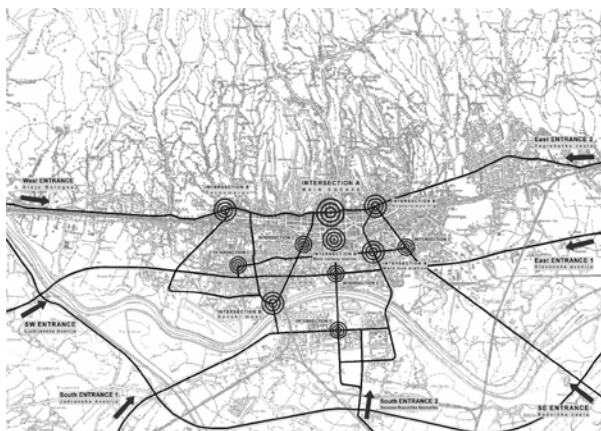5. Inclusion of all city parts – one public space for every quarter of the city

Figure 2. Zagreb_ Info points at city entrances as a potential study areas

Each of these five criteria determined desired locations for the decoration of public space in the city and, based on the results of the research, these locations were mapped on the city plan of Zagreb. By overlapping the layers of all five information maps, the priority zones were determined. All potential facilities that could be used by competitors of ' Universiade 2016' and their accompanists (sport facilities, sport halls, hotels, hostels, student homes, student cafeterias, restaurants, cultural events) were analysed

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[36] The Urban Planning Workshop was created and led by professor Tihomir Jukić, PhD, and eight students had were working on it, with the participation of guest lecturers.

beforehand, in order to anticipate the movement network of participants of the sport games.
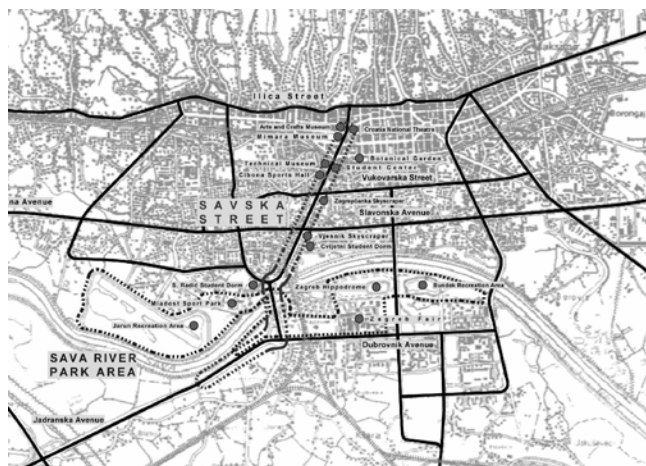

Figure 3. Zagreb, Location of student (red) and sport facilities (blue) in the city area as potential study areas

3. PAST COGNITIONS AND THE NEW ROLE OF PUBLIC SPACES IN THE CITY

The entire project was preceded by a theoretical examination of the new role of public space in the city, both on the social level and the level of appearance and design. Habits and aspirations of the inhabitants of the city, patterns of behaviour, growth of the standard and technical support to modern demands, are changing from day to day, and all this determines the conditions for the formation of a new architectural framework in which the public sphere of space is manifested. The city is experiencing changes, and thus its public areas, as well. The experience of public space is also changing. Public life as a traditional determinant of life is also experiencing significant transformations, because "the street" sees stereotypes of use, once very inclusive and tied to personal environment. The line between private and public is disappearing. Public spaces are now separated from the academic definition of marking the concept of the square or the street. New forms of public space and its use are developed, types of spaces which have to satisfy also the phenomena that manifest themselves sporadically, and these elude the planning control and the engineering project.[37] Socialization (unobtrusive and free) is an imperative in considering the meaning and role of public space in contemporary society in whose midst there is a meeting of all social strata and where there is full democratic freedom of assembly and behaviour.

Public spaces have their own content, their own utility determination that is often extremely heterogeneous with functional characteristics of

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[37] Carmona.M; Tiesdell,S; Heath,S (2010)

indeterminacy. Commercial and public spheres overlap. Constant changes and adaptation to new needs of the public space are present. Today, public spaces are experiencing what was once not possible or allowed to happen, and the rituals of everyday life are moving from the enclave intended for explicit use into public spaces of today.[38]

Figure 4. Proposal for Student Centre redesign of entrance in Zagreb,   Savska st.
(student: Vilijam Petrović)

The way of using may dominate, thus mark a public space, but should never be the only one or exclusive. Many forms of public land use exert at

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[38] Horvat, J (2002)

the same time or in daily, weekly or seasonal cycles. Seasonality of use of public space today is increasingly disappearing and cyclical differences in the lives of the urban area related to the change of summer and winter are abolished. Zagreb, in that sense, is in the overlap of climate characteristics, heritage of the Mediterranean and continental forms of public space use.
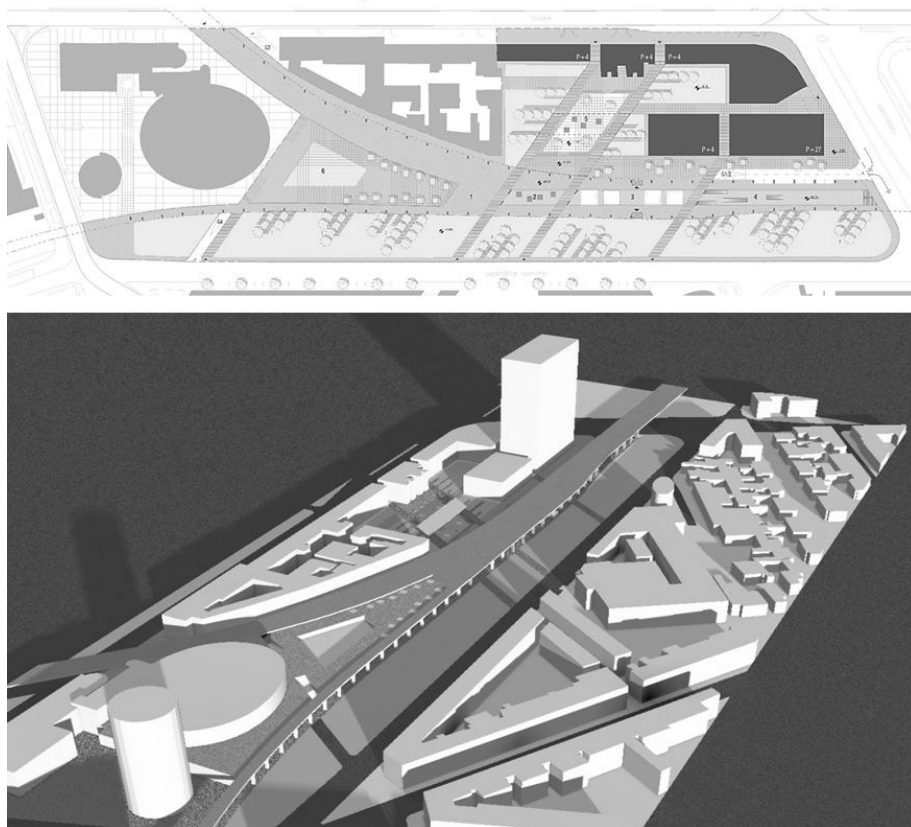

Figure 5. Proposal for project "Public space under railway". (student: Ivana Banić)

4. THE COURSE OF RESEARCH AND ITS INDIRECT IMPACTS:

Project 'Zagreb for me'

The Urban Planning Workshop *Universiade 2016* held at the Faculty of Architecture in Zagreb on the topic of "space in between" indirectly led to a lot of projects on a much larger scale and at a higher level - to the new interdisciplinary projects and synergy of the participants in the project. The project *'Zagreb for me'* is trying to detect potential space that can meet the shortage of public space at the local level, but at the same time (through the specificity of the program, uniqueness of appearance and content) to start moving towards these emerging hot spots in the city. The local gets the attributes of the urban. Programming of public space for

certain activities in open areas is of limited scope. In implementing the program, scope is determined by the overlap of different zones that are determined by individual urban parameters. These parameters are determined by:
- social determinants of public space,
- functional determinants (activities on the surface and in the environment, including transport and movement)
- perceptive and formal determinants of space.

Project *Zagreb for me*[39], through small interventions (that may be happening at the same time with great ideas planned), wants to develop the culture of public gatherings, and among experts encourage research and its application. It is a joint project of the Faculty of Architecture, Society of Architects of Zagreb and the City of Zagreb with the help of which 17 projects for the regulation of public space in Zagreb would be created[40]. They agreed on a division of activities in a way that each partner fulfils part of the job:
- The Department for Urban Planning would with a scientific expert approach deal with the topic of new public space in the city and propose locations essential for the development of the city. Once the locations are agreed upon with the field research entitled "Acupunctures of the City"[41] and their common selection at the Department of Urban Planning, individual sites would be explored and the material for the architectural - urban planning competition would be prepared.
- The Society of Architects would, via the working group 'The Acupunctures of the City'[42], communicate with citizens and research in which way the citizens treat public space and which locations they consider important. This communication would be achieved through conversations with citizens, NGOs, as well as representatives of local government. The Society of Architects is also in charge of electronic correspondence and monitoring the project, as well as the conduction of the Architectural-Urban Planning competition.[43]
- The City of Zagreb would, besides financing the whole project, via employees from certain city offices, be actively included in all project phases and its implementation.

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[39] -http://zagrebzamene.d-a-z.hr/
[40] Planned investment value of the project is 2 million kuna or approximately 2.600.000 EUR.
[41] The acupunctures of the city consists of a group of architects, urban sociologists and anthropologists and they are primarily in charge of communication and working with citizens.
[42] The acupuncture of the city consists of a group of architects, urban sociologists and anthropologists and they are primarily in charge of communication and working with citizens.
[43] On the webpage Zagreb for me it is possible to find descriptions and photographs which document all 33 potential locations that have resulted from large-scale researches

Figure 6. Project " Zagreb for me" – presented in City Hall.

5. ESTIMATED RESEARCH RESULTS

The choice of location of planning of public spaces was carried out in two ways: "bottom to top" (Acupunctures of the city research) with the research that is moving "from top to bottom" (urban planning research of the Department of Urban Planning). The overlap of the data obtained selected 33 locations for the development of public space with a variety of topics:

- Route and pedestrian paths (street, walking and cycling, walking, public stairs, ...),
- Squares, public area gatherings spaces in between, ...)
- Parks (recreation, children, relaxation, pets)
- Communication points (improved pedestrian and bicycle traffic, spaces with physical terminals and traffic junctions, ...).

All locations are shown on an interactive map in which there is a brief description of the identified locations. Citizens, associations and the professional community are actively involved in the project, and citizens are invited to make comments and give suggestions for the 33 proposed locations during the public consultation in person[44] or on the website: zagrebzamene.daz.hr/daz/lokacije/predlozi-lokaciju/ where it is possible to vote directly for individual locations.

It has been discovered that both methods "from the bottom up" and "from the top down" are legitimate and useful and that, somehow, one method encourages the other in order to obtain better results. The contribution of using both methods in research and planning the space may serve as a model of approach to an urban revitalization of, not only public spaces in

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[44] An insight and the possibility of stating one's opinion in the building of the City Government, regional offices of local community or the Society of Architects.

the city, but also the urban reconstruction and the affirmation of the very centre of Zagreb.

It turned out that one college-university initiative contributed to the formation of the public city project Zagreb for me and thus encouraged, not only the professional community and the city government, but also the citizens who actively participated in the whole process, and this was not possible to such an extent during the Urban Planning Workshop held within the course Transformation of the City.

6. CONCLUSION

For the promotion and development of public space in the city, it is extremely important to conduct research on what the public space was like in the past, what its role was in the constitution of the city, what the public space is today and what could it be in the future. Only in this way can one obtain data required for the consideration of well-organized and also well-designed public spaces in the future. Precisely in this way and in this form, there was a workshop on urban planning held at the Faculty of Architecture in Zagreb, which indirectly led to the new interdisciplinary project and synergy of the participants in this project. The synergy of three participants in the project: the City of Zagreb, Faculty of Architecture and Society of Croatian Architects from the very beginning proved to be very stimulating and useful, and has resulted in great interest of the citizens. The cooperation of local government (city) and the University exists, but not too often. There are several models of cooperation - the most common is that the city hires the university community on specific topics through commissioned research projects. International projects and cooperation are also often. However, a less common form of cooperation is such that only the University, working with students, initiates specific projects and points out the problems in the society and environment. This indicates the importance of certain topics and somehow warns or causes local community/city to activate itself as soon as possible and engage in problem solving. Such was the situation with organizing the student Urban Planning Workshop with the theme "Space in Between" organized on the occasion of upcoming youth sports games in 2016. This project was in a way a precursor, and also a check on the working methods and certain locations in Zagreb suitable for certain purposes related to rethinking the use, planning and design of public spaces.

7. ACKNOWLEDGMENTS

8. REFERENCES

Carmona.M; Tiesdell,S; Heath,S.: *Public Places – Urban Spaces, The Dimension of Urban Design*, Elsevier Architectural Press, 2010
Horvat, S.: *Znakovi postmodernog grada. Zagreb*: Naklada Jesenski i Turk, Zagreb, 2007
Horvat, J.: *Urbanistički parametri u projektiranju javnih gradskih prostora* / doktorska disertacija, Zagreb, Arhitektonski fakultet, 18.12. 2002., 178 str.
Jukić, T., Horvat, J.: *Planerski i (ili) projektantski pristup uređenju javnoga gradskog prostora, na primjeru nekoliko trgova u Hrvatskoj* - Urbani IZZIV, br. 1/1999., Ljubljana, Slovenija, vol.10, No. 1.,1999., ISSN 0353-6483
Pegan, S; Jukić, T.:*Renovation and Identity of Town*, Annual 2002 of the Croatian Academy of Engineering (1332-3482) 5 (2002), 1(5); 81-86
Pegan, S; Jukić, T.:*Polazišta i pristupi organizaciji provedbe obnove grada*. // Prostor - znanstveni časopis za arhitekturu i urbanizam. 9 (2001.) ‚2 (22); 141 – 148
Šimpraga, S.: Zagreb, *javni prostor*, Zagreb, 2011

-http://zagrebzamene.d-a-z.hr/
-http://eug2016.com/hr/

Joana Martins

Talking About MEDS:
How can students be part of the Urban Development

ABSTRACT:

I first discovered MEDS in 2013 in Lisbon. Focused in the Graça community neighborhood, the workshop projects offered a response to the issues presented in their public space. The purpose of the Lisbon workshop was to build and develop projects with the Graça community that would help them improve urban living conditions and begin to change old habits. The 15 projects were not only made for the community, but with the community. Having found the experience in Lisbon to be so positive and intense, I decided to continue on the MEDS journey and in 2014 travelled to Dublin. Many of the Dublin projects were of a smaller scale, including object and furniture design proposals. However, one of them was to rethink and rebuild a room of a Dublin monument, The Casino Marino. It was built in the Dubhlinn Garden, which is nestled at the back of the grounds of Dublin Castle. In addition to the successful workshops, the conferences that took place were incredible. The invited architects and designers talked about social sustainability and urban growth.

This year MEDS workshop will take place in Tara, Serbia. We will leave the city lights behind and can only work with natural materials. MEDS Tara presents a collective mission to create objects responding to Tara's National Park.

KEYWORDS: *Students, Design, Creativity, Urban Development, Different Cultures.*

1   INTRODUCTION

Urban development is the resultant force of many converging forces; it is the resultant opinion of many shifting opinions, it is the resultant vision of many evolving visions. It occurs with both macro and micro intervention. It is through micro intervention that MEDs can have input; it is through urban intervention that MEDs can affect the growth of communities.

On an annual basis, for two weeks, the MEDs network congregates in a chosen location. During these two weeks the MEDs community, which lives most of its life online, expresses itself physically. With collaboration, learning and teaching in mind, MEDS workshop aims to enhance communication and the exchange of knowledge and skills between enthusiasts. MEDS offers its participants an opportunity to develop and to realise ideas into physical and built form. During MEDS we are not only thinkers, but also leaders. As a democratic organization anybody can present an idea and lead future events.

The main objective of MEDS workshops is to experience collaboration whilst working on real world projects. Thereby we offer different and new approaches and solutions to urban problems.

2   TALKING ABOUT MEDS

2.1.   MEDS Purpose

The idea of MEDS is to share knowledge while also learning the design process; from small objects to large projects, the design process is tested and questioned. Students from distant locations share experience, improve creativity, strengthen communication. Every year, different people meet different design disciplines, different cultures and different languages. People join together in one place, creating new and fresh ideas, trying to develop a better world.

MEDS makes ideas tangible. MEDS takes abstract thoughts and inspirations and, through collaboration, produces something concrete.

Figure 1. Inside the Lisbon Convent, Lisbon, 2013.

2.2.   MEDS organization and history

MEDS, Meeting of Design Students, is a non-political, non-profit; multinational organization created by students for students and graduates of all design disciplines and likeminded individuals. We aim to promote the positive role of design and urban development in society while also promoting interdisciplinary and cross-border collaboration. MEDS was founded in 2010 in Turkey by different countries. It was created to offer professional, social, cultural and creative programs that connect all design disciplines. Once established, MEDS took place in Turkey, Istanbul, 2011; Slovenia, Ljubljana in 2012; Portugal, Lisbon in 2013; Dublin in Ireland 2014; and this year will travel to Serbia, Tara.

Figure 2. MEDS organizers, Dublin, 2014

2.3. MEDS organizers

The International Director and Coordinators are a team of administrators who assist the team organizing the coming workshops with official documents and announcements – and communicate with National Contacts (NCs). NCs represent and promote MEDS in their own country, decide on workshop locations, and the future development of the organization.

Over the years, MEDS has organically developed a network we like to call the MEDS family. We work together and support each other's projects. Outside the workshop, MEDS is an international network of dedicated designers that support one another in personal projects. MEDS participants have become tutors at other workshops, organize events in their own countries, and facilitate MEDS workshops. The network is currently expanding into an independent online platform, which is still in development.

2.4. MENC history

MENC is a meeting for the MEDS team and National Contacts. Each year it is held in a different country and unites the MEDS family. It is organized to discuss the progress of MEDS: events, workshops, future work etc. All NC's attend this meeting to represent their country. The aim of MENC is to improve the organization of MEDS through team discussion and to share ideas for forthcoming events.

MEDS workshops are held in a new location every year – with organizers applying to host the workshop at the Meeting of National Contacts (MENC) 20 months before. For example, the coming workshop MEDS Tara 2015 was chosen at MENC Prizren in October 2013. The location for MENC is chosen one year before – for example MENC Katowice (October 2015) was decided at MENC Madrid (October 2014). MENC 2015, will be in Poland between the 21st and 25th of October. Up for discussion are the topics of: MEDStara2015, MEDSbucharest2016, general MEDS ideas and development. We'll also choose the location of the forthcoming events of MENC 2016 and MEDS 2017. We expect to see you all.

Figure 3. NC's at MENC, Madrid, 2014.

3 TRIPPIN'AROUND THE WORLD

3.1 The Workshops

MEDS organizes a unique experience for young, international students, designers and thinkers to pursue their ideas; to come together and discuss foreign, urban and design conditions. The 'workshop' is an annual, two-weeks' event that takes place in August. It is currently the main, longest 'meeting' of MEDS. Each summer in a different country, people focus on various issues, themes, topics and settings that will help any designer to expand and develop their experience. MEDS aspires to produce meaningful and insightful interventions. Prior to the arrival of the MEDS family at a given workshop, urban conditions are identified and explored by a core local team. In the lead up to the workshop, the MEDS family are briefed on these urban conditions.

MEDS offers local communities the unique opportunity to work with 250 fresh and talented minds from all over Europe, and in recent years even further abroad. It is a chance to get in touch with different cultures and different environments, diverging into different approaches to design - different building techniques, traditions and skills. MEDS events are not only practical but also theoretical with several conferences taking part.

Upon arrival, the team of local designers introduce the MEDs family to their temporary home; the MEDs family inhabit the landscape, town or city around them. During their stay the MEDS family borrow and alter small pockets of space. Through the continued guidance of the local team, strategies and responses develop.

It is intended that urban strategies are tested and that the two week workshop culminates with the return of transformed and reimagined areas of social space to the local community.

The insight of the organizing team plays a fundamental role in the development of relevant and accurate projects. We develop ideas, we share ideas, we learn from each other. Each year we hope that the participating local community can adopt our ideas and through them further develop their own community visions.

During the workshop a number of projects are led by Tutors (design students or professionals), who have applied to realize their chosen concept. A tutor has to design a project based on the selected workshop theme. The tutor is the leader of the group, but he or she has to be open to other people's ideas and improvements. A core aim of the workshop is to promote group working - through collaboration, improving, redesigning and developing the project. At the end of the workshop each group has to make a short presentation about their project, from the principal idea to the final result. The projects are presented in public, with an open debate thereafter. When the workshop is finished the next event's location is openly announced.

3.1.1. MEDS Tara 2015

This year we will be leaving the city lights behind. Far away from contemporary civilization without shops, flash light and artificial noise. We will purify our collective creative spirits and become „naked minds" again. Our goal will be to get inspired by traditional work, craftsmen and nature and putting it in our own designs. Not to get distracted by the outside world but seeking creativity inside of us and in the ones around. It's about meeting people, nature, material, culture, language and opinion. There is a story that needs to be told. MEDS Tara 2015 is an event with a mission of creating objects whose purpose is defined by the needs of Tara National Park. This year, in Serbia, we leave the city behind and investigate the potential for design in a rural setting. MEDS 2015 aims to gather people with nature, the material and the culture. It has a collective mission to create objects from natural materials such as wood, each object offering a response to and engagement with the surrounding landscape. The main goal is: to find inspiration in traditional work, crafts and nature for the creation and development of 16 projects; to build structures that will help Tara's National Park. MEDS Tara will take place from 2nd to 16th of August 2015.

Figure 4. Tara's Natural Park, Serbia, 2015.

3.1.2. MEDS Dublin 2014

From 10th to 24th of August 2014, 250 designers congregated in the bustling centre of Ireland's capital city, Dublin. The workshops were based on collaborative and co-operative learning, affording participants great opportunities in terms of skill and idea sharing. For many, it was a great benefit to engage in such an informal learning process to complement their more prescribed traditional educational program. It was a fantastic opportunity to showcase Dublin's history and heritage to participants from all over the world. As the workshop came to a close, the design output was placed on exhibition and presented to the general public at various participating venues throughout the city centre.

Furthermore, much of the output of the workshops was directly donated to Dublin-based charities, as this one here in the photo, to maximize the positive social impact of MEDS.

Figure 5. Waste Bikes and Graffiti Workshops, Dublin, 2014

Organizers of the 5th year of MEDS workshop made contact with local organizations and engaged with them by creating useful products such as new bikes from wasted materials, or by donating money gained from final auction. The products for sale at auction included objects from other workshops such as concrete furniture made from concrete canvas, wooden furniture from laminated Irish beech wood, photographs made with custom built cameras and clocks produced by students from the clock making workshop. MEDS aspired to be an inclusive event, reaching out to the city and inviting active involvement from bodies and institutions relating to the field of design. It brought with it an added excitement, vibrancy and creative energy to the city of Dublin that summer.

Figure 6. Working to build Casino Marino Project, Dublin Castle, 2014.

Figure 7. Casino Marino Project, Dublin Castle, 2014.

The photos present an example of one of another project realised during MEDS workshop in Dublin. The pavilion as urban tool has developed with time, the origins of the word derived from 'paveillon' an Old French word meaning 'butterfly or large tent'; pavilion as tent, a visual association to the butterfly's wings. The pavilion, in current architectural

terms is described as a temporary or fleeting display or exhibition stand. The pavilion is a place for reflection, contemplation and discussion.

During the MEDs workshop pavilions are constructed as both short and long term urban fabric. The MEDS pavilions manifest the ideas of visiting designers; their response to new environs. They test urban conditions without imposing permanently on local development.

In Dublin, the Casino Marino Pavilion was an opportunity to recreate a temporary interpretation of the China Closet Room, one of 16 rooms in the 18th Century Casino at Marino. In constructing a modern interpretation of an element of the Casino, the room and its wall painted patterns took on new life and new meaning. The Pavilion was erected in the grounds of Dublin Castle, in the centre of its Dubhlinn Garden. With it's reinterpreted design and shape, the Pavilion was an urban room for the community where they could sense and revisit an old, significant space. While the proportions and patterns remained constant, its construction brought into question ideas on materials, the enclosure of space and the preservation of culture and history.

3.1.3.   MEDS Lisbon 2013

We react to everything around us and sometimes we cannot control our reactions. MEDS was hosted in Lisbon from 2nd to 18th of August in 2013, with the theme of "REACTION": a hands-on collaboration with the traditional community of Graça to improve public space in the area.

It is this immediate capacity (to respond when facing something) that allows us to take a stand and, together with our principles, to form an opinion and act accordingly. If we grow to the scale of the city, we recognize that the reinvention is also present in it.

Looking through history, we find many situations in which buildings, structures or places were refurbished, demolished, substituted, changed function and, many times, even identity. Even though Lisbon is the capital, it still preserves a distinct lifestyle. Its typical neighbourhoods (each one with its characteristics and particularities) emphasize its genuineness. This is particularly evident in the traditions, the popular festivities and the gastronomy of each local neighbourhood. From the contrast between the old and the new, different places (in time, style and function) arise.

The 2013 MEDS, REACTION, intended to reflect and act upon the city's small scale problems. For that purpose, an area of the city was chosen: the Graça hill. The process consisted of finding (in Graça) spaces that were in need of renewal; identifying the questions that arose; proposing tangible solutions/interventions; and finally, designing, constructing and performing within these sites during the event. Each action was an approach to a place's problem with the objective of creating a new function/meaning, giving each place a chance to live again, as the one seen in the photo.

Figure 8. Action 4 - Common Garden, Graça, Lisbon, 2013.

Inside the neighbourhood, there were locations that didn't create an opportunity to live in community. These identified locations weren't performing to their potential as important elements for the creation of local and urban identity. The community itself seemed to ignore spaces with a lot of potential, as the one seen in the photo above. These spaces were rarely explored. It was not only the places' fault for not having quality to attract synergies that would make them something with meaning. The fault also lay in a negligent population that didn't take care of these places, abandoning their city space.

Our urban fabrics depend on each individual to decide if we want to be citizens or tourists. Living in the city means having the right (and the duty) of acting on it, changing our own neighbourhood, while the tourists are merely spectators. Through the construction of structures, urban furniture, and other types of interventions and forms of art, REACTION looked for the activation of forgotten / dormant spaces: to stimulate the community and, as a catalyst, to start a movement which would eventually remain in Graça. This photo shows a new life to one of the tram's stations.

Figure 9. Action 1 - Platô da Graça, Lisbon, 2013.

There was also a place to discuss urban problems. Every day, each team project discussed, in an Urban Parliament, the day by day problems

of a community. The Urban Parliament was a new addition to MEDS, an initiative that sought to activate the participants' critical minds and to collect opinions, conducting qualitative research of the MEDS mindset, in order to write the MEDS "Declaration of Urban Rights"; a document to be presented at the Lisbon Triennial. In order to do this, the three instigators of the debate – Manuel, Anna and Aida – tried to provoke a certain debate of critical thinking amongst the participants, which was recorded in writing and on film. By asking the participants to form opinions on various subjects, the organization created a good balance between "doing" and "thinking". The main point of the debate were not to find solutions, but rather to discuss the different problems that our field may be facing, and to exploit the unique possibility of a varied debate between people of different nationalities and backgrounds.

Figure 10. Urban Parliament, Lisbon, 2013.

4   CONCLUSIONS

MEDS presents an example of how people can successfully share their knowledge and ideas; how people can learn about different cultures; how people can work from and with all situations presented. We learn how to work together and how to discuss what really matters. We offer new approaches and solutions to urban problems. As you can see from the photos presented, our approach always inclines towards the practical, the tangible. We work together, for a new approach to the city, in group - most importantly, learning through doing.

Work in a group. Share your knowledge. Share your creativity. Share your culture. Learn through doing.

5   ACKNOWLEDGMENTS

Margarida Louro
Francisco Oliveira

Ten Urban Proposals for a Small Planet

ABSTRACT:

The research project HOUSES FOR A SMALL PLANET, coordinated by the researchers, Margarida Louro and Francisco Oliveira at the Research Centre of Architecture, Urbanism and Design at the Faculty of Architecture of the University of Lisbon (CIAUD-FAULisboa) since 2009, is assumed as a contribution on research of contemporary contingency of growth and densification, proposing through the reflection of particular contexts, approaches that promote critical views of new solutions on emerging urbanities.

The major objective of this project is the study of integrated and sustainable housing units, which impose new logics and strategies, promoting from local potentialities, the implementation of solutions for qualified and integrated architectural and urban space. From the study of specific realities these models may assume a more general character of reflection on the various paradigms of living in informal contexts.

In this sense, we present ten case studies developed, between 2009 and 2015, for different parts of the planet and for different contexts of informality and densification. These urban proposals were developed within the research project, by teachers, researchers and students of the integrated master's degrees in architecture of the Faculty of Architecture of Lisbon.

1 INTRODUCTION

The main question of this research stems from the increasing number of inhabitants on the planet that in October 2011 exceeded the figure of seven billion. Thus, the relevant point of the research is how to provide welfare and housing for the world growing population ensuring the sustainability of natural resources.

If life conditions in developed countries are not actually the same as in underdeveloped countries, the problem is nevertheless important and requires global reflections and practices to deal with an issue that is growing daily.

So, the selection of studies of different places with a great variety of location, scale and natures, elects several critical views spread across all continents that present fields of reflection on different ways of thinking and acting to on the particularities of informality.

The ten urban proposals are:

1. Angola – Luanda, developed by teachers and researchers of the Faculty of Lisbon: Margarida Louro, Francisco Oliveira, AmilcarPires, Marta Feliciano and AntónioLeite in 2009; 2. Hong Kong – Aberdeen, developed by the master student: Diogo Madeira in 2011; 3. Bangladesh – Dhaka/Karail Slum, developed by the master student: Rodrigo Filipe in 2011; 4. Haiti – Port-au-Prince developed by the master student: André Figueiredo in 2011; 5. Brazil – Rio de Janeiro/Rocinha, developed by the master student: Sofia Carmo in 2012; 6. EUA – New York/Manhattan-Battery Park City, developed by the master student: Ana Luísa Silva in 2012; 7. México – Oaxaca, developed by the master student: Catarina Gabriel in 2013; 8. Thailand – Bangkok/KhlongToey, developed by the master student: Ana Vila Real in 2013; 9. Filipinas – Manila/Navotas cemetery, developed by the master student: Fréderic Ferreira in 2014 and finally 10. India – Mumbai/Dharavi, developed by the master student: Francisco Rasoilo in 2015.

2 TEN PROPOSALS FOR A SMALL PLANET

2.1 Angola – Luanda: M. Louro, F. Oliveira, A. Pires, M. Feliciano, A. Leite – 2009

Considering a particular context: the *musseques* of Luanda, this critical approach promotes potential solutions for new emerging urbanities. Actually, the *musseque,* considered as a paradigm of the informal city, represents an important case of research and intervention, where the population growth rate and its concentration in disqualified conditions of urban living and sustainability, points out the need for efficient solutions. The main objective of this proposal is the study of integrated and sustainable dwelling units, which impose new approaches and implementation strategies, and promotes, from local potentialities, solutions of qualified and integrated urban and architectural space.

Thus, the models that, starting from the study of a specific reality - the *musseques* of Luanda, could become more general and extend to other realities, in response to a global emergency, disaster scenarios and destruction caused by wars, natural aggressions, etc.

Figure 1. Angola – Luanda: view of the urban model(M. Louro, F. Oliveira, A. Pires, M. Feliciano, A. Leite, 2009)

2.2 Hong Kong – Aberdeen: Diogo Madeira – 2011

This work had as main objective the research on the urban informal context of the Aberdeen port in Hong Kong. Thus, inserted into the research project "Houses for a Small Planet", it included a visit to the site of intervention, where it was found out a different perception of existing fishing community, the "tanka" community, that once occupied the territory with their home boats, while today are almost extinct. Despite government measures, taken by the local authorities, it assumed as a major goal the relocation of these communities in formal dwellings. Therefore the port occupation setting has been transformed over the years and formerly existing communities have gradually abandoned the site.

This work focuses mainly on this community, proposing a solution for those who persist in working and living at the Aberdeen port. The main results of this study are the Aberdeen market and the dwelling over the port. The project is more than a solution; it is a study that provides inputs to other possible emergent solution where the minimal space is an important premise. In this context, the initial assumption of intervention and recovery of the area, face the fact of the extinction of the "tanka" community, converged on a rehabilitation of this local culture. So, keeping and dignifying the lifestyles of the few who still live and work in the harbour (rearranging the shopping area, the boat houses, and docks), were assumed as the main goals of this project.

Figure 2. Hong Kong – Aberdeen: view of the urban model (Diogo Madeira, 2011)

2.3 Bangladesh – Dhaka/Karail Slum: Rodrigo Filipe – 2011

The main core of this research is focused on huge informal cities.
Actually, Dhaka, the capital of Bangladesh, is evidenced by its accelerated population growth. The consequence of this growth is the number of informal settlements that proliferate in the metropolitan mesh. Karail Slum is the case study that stands out in this context by the fact that it is the largest slum of Bangladesh.

Understanding the global context that generates, defines and enhances this informal growth was part of the starting point of this research. Followed by the formal search for a dwelling unit, which follows new paradigms and assumptions of intervention that could reach a qualified answer for a basic housing solution. Finally, the urban implementation of this project makes a proposal for a cluster of guidelines that respect the existing urban mesh fabric the logical deployment and the road hierarchy.

In terms of the construction system, the approach also followed the local foundations and principles of construction, looking for sustainability strategies and economic viability. It also took into account the different climatic conditions related to the floods that characterize this area. All these assumptions converged on a proposal that assumes its viability and flexibility in terms of implementation and disposition.

Figure 3. Bangladesh – Dhaka/Karail Slum: view of the urban model (Rodrigo Filipe, 2011)

2.4 Haiti – Port-au-Prince: André Figueiredo – 2011

This study was based on a research about the historical centre of Port-au-Prince in Haiti, following the earthquake devastation that destroyed it in 2010. The study established a characterization and analysis of the informal reality of the capital of Haiti, exploring the scale of the city, the relations of the different vicinity communities and the main living spaces.

In terms of the city scale, the main research focused on measuring the phenomena of the informal city, and the effect that this type of urban structure, taken over the past years, has infringed the formal city. In terms of neighbourhood community's relations, the issue focused on the comparison of several case studies of informal settlements, defining the main characteristics of these areas. Finally, the social issues established on urban surrounding relations between the community and the social relations of public and private.

From these critical statements, the development of an urban proposal for the historic centre of Port-au-Prince was structured. The establishment of an orthogonal urban grid sets the basis of this proposal, where it held a disposition of occupied and empty blocks. This three-dimensional mesh organizes the urban spaces and customizes the dwellings. The strategy was therefore to take an urban regeneration that permits, by the scale and arrangement of the block module, definition of new models and approaches of architectural and spatial livings.

Figure 4. Haiti – Port-au-Prince: view of the urban model (André Figueiredo, 2011)
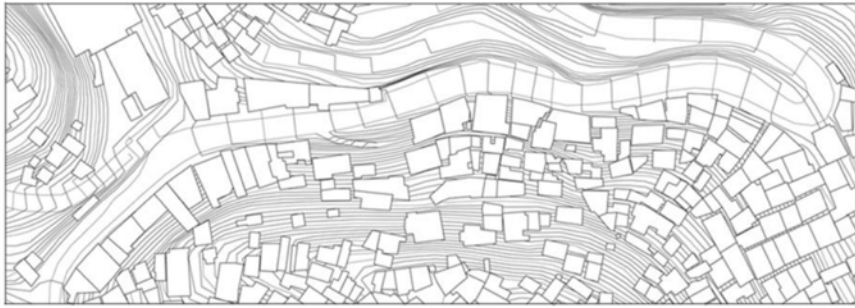
2.5 Brazil – Rio de Janeiro/Rocinha: Sofia Carmo – 2012

The intervention in the Rocinha community in Brazil, focused on an emblematic question on the theme of over-population, and how the unofficial territories are assumed to subjects that cannot be ignored or underestimated.

The direct analysis of the local areas, allowed a characterization work, which greatly enriched the guidelines of intervention and the relationship thought to establish between the different territorial natures.

The favela of Rocinha is assumed one of the most informal neighbourhoods in Latin America. In this sense it has become an enormous challenge to think of an urban renewal strategy for this place. A strategy that united several intervention scales. From the scale of the house - housing unit, through the scale of the street – street unit and the block - territorial unit.

Therefore, aware of the existing complexity, a draft methodology, similar to that which had already been applied in the case of slums in Luanda, was applied. Reinventing this strategy to this particular reality, of a complex and stressed topography and new mix of house typologies, was assumed as the main objective of this research and intervention.
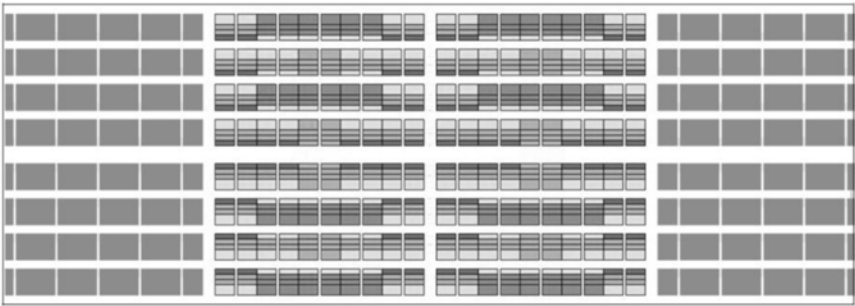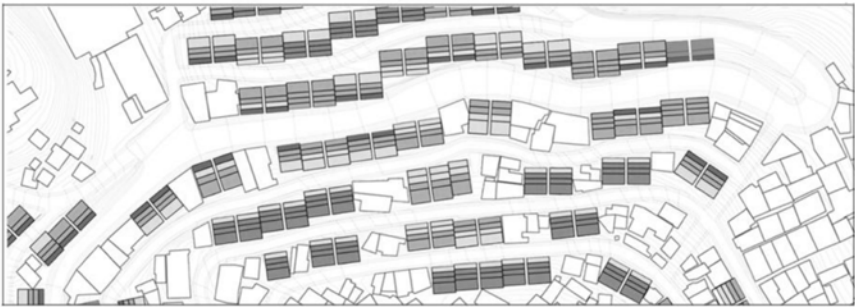
Figure 5. Brazil – Rio de Janeiro/Rocinha: urban model (Sofia Carmo, 2012)

2.6 EUA – New York/Manhattan-Battery Park City: Ana Luísa Silva – 2012

This case study stands out from the others because of the approach to the formal city. It has in common the theme of urban overcrowding and the shortage of territory in terms of occupation and construction, extrapolating the physical limits and proposing to build on the water.

The issue of high density in New York is an argument addressed in various utopian visions who designed audacious proposals, particularly during the period of modernism. To think again about this theme elects as privileged issue the construction of new territories, exceeding the margin limits and remaking the physical configuration of the island of Manhattan.

The area of Battery Park City is assumed as the elected area, because it is a sparsely populated area. In this sense it approaches a response to the theme of the population saturation in the context of contemporary large metropolis through a residential proposal with great height. In addition to meet the housing demands, this proposal promotes the design of the surrounding urban space, with new solutions and emerging urbanities.

Figure 6. EUA – New York/Manhattan-Battery Park City: view of the urban model (Ana Luísa Silva, 2012)

2.7 México – Oaxaca: Catarina Gabriel – 2013

Framed by the main subject of the research project "Houses for a Small Planet" on the issue of population growth and its asymmetric urban distribution, the core of this research elects, as main case study, the city of Oaxaca in Mexico.

Denying the tendency of homogenization that characterizes the condition of contemporary cities, it was assumed as a principal goal of this research, to set ties with the cultural features of the cities, and try with that heritage give answers to the needs of growth, revaluating the construction of traditions as a starting point to set new paths of intervention.

In this sense, the context of Oaxaca stands out as a privileged framework, due to various cultural references, historical monuments and architectural uniqueness that mark the city. These assumptions were used to establish the guidelines of the urban renewal project.

This project of urban regeneration aims to integrate the traditional values, typological references, materials and construction techniques as the key element to define the identity of the place, from the urban to the housing scale, regarding the qualification of the urban areas.
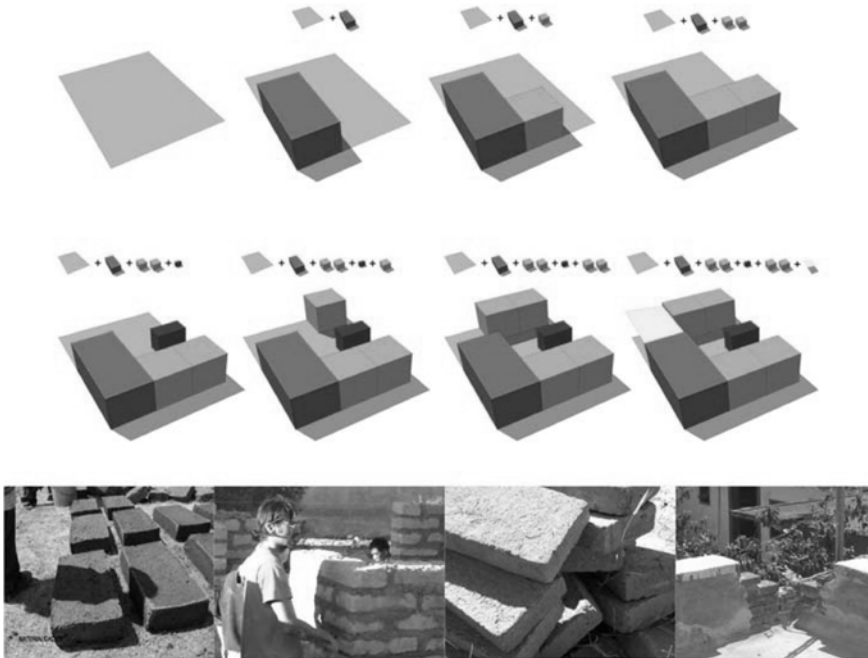

Figure 7. México – Oaxaca: urban model (Catarina Gabriel, 2013)

2.8 Thailand – Bangkok/KhlongToey: Ana Vila Real – 2013

From the election of the case study on the port of Bangkok and the push demand for territorial reconfiguration promoted by the owner of the land (the Port Authority of Thailand - PAT) it is intended to turn this infrastructure into a competitive and modern space in the global context, a view which is established on the social exclusion of the communities that integrates it.

The process that generates within areas in the harbour itself, especially in the district of KhlongToey, focuses on the investigation of transformation and integration of a housing strategy that harmonizes, on one hand, the situation of processing and on the other, integrating this population of over 70,000 inhabitants.

This work suggests an urban resolution with interrelation of specific urban and social points by adopting the principles of community participation and social risks inherent in relations between architect-resident and resident-landowner, besides implementing technical improvements in order to build social housing units.

Above all, the ultimate goal, along with its implementation, is to motivate the participation and promotion of the local community, so that the residents can build their homes, which will help encourage unity, status and well-being.

This sense makes evident the strategy of the "brand city" versus the "historic city" where from the same logics of intervention it powers up the hierarchy and the importance of a place in a global sense. It simultaneously responds to the wishes and to the needs of the city.

Figure 8. Thailand – Bangkok/KhlongToey: view of the urban model (Ana Vila Real, 2013)

2.9 Filipinas – Manila/Navotas cemetery: Fréderic Ferreira- 2014

This proposal aims to address the problem of overcrowding and informal settlements in Metro Manila, Philippines. The City of Manila is a megacity of 11 million people and has many problems related to high population density, lack of free space and difficulties in health and hygiene associated with overcrowding. Housing in the Cemetery of Navotas is the centre of this research and demonstrates the significance of the problem of urban concentration in urban areas of under-developed countries.

The uniqueness of this case study, and the peculiarity of providing an approach to circumstances of poverty and extreme rudimentary accommodation conditions, is assumed as one of the most attractive aspects of this research. The opportunity to make a visit to this place, greatly contributed to witness the fragility of this urban context, outlining the new premises and intervention guidelines.

The Intervention was focused on the reorganization of the territory allowing the coexistence of two uses with two layers of housing: the one at the ground floor was structured from the pre-existing cemetery and, another at a higher level - the housing floor. The aim is to demonstrate how urban solutions, based on low cost proposals, can improve the living conditions of certain populations preserving their cultural features.

Figure 9. Filipinas – Manila/Navotas cemetery: view of the urban model (Fréderic Ferreira, 2014)

2.10 India – Mumbai/Dharavi: Francisco Rasoilo – 2015

Millions of people found in megacities the opportunity for a better life, and Mumbai, the commercial capital of India, is one of those cases. One of the first objectives of this research was to understand the complexity and origins of megacities and informal settlements.

Dharavi remains one of the biggest slums in Asia. It is a huge area in the centre of Mumbai that has grown in recent years due to migrants looking for a better life. So it was vital to analyse Dharavi and also Kumbharwada, the "nagar" on which the proposal is located.

In the analysis stage, it was very important to understand the history of Dharavi and its habitability. It was equally important to show the experiences and knowledge acquired during the visit to Kumbharwada.

The urban and dwelling models attempt to find an answer to the needs of the resident people based on the knowledge acquired during the development of this work.

Figure 10. India – Mumbai/Dharavi: view of the urban model (Francisco Rasoilo, 2015)

3 CONCLUSIONS

The main conclusions of this research are related to the variety of contexts that had already been possible to assess and compare, with the different research proposals, carried out by teachers and master students of the Faculty of Architecture of the University of Lisbon, over the last five years.

One aspect that greatly enhanced this critical approach launched in 2009, was the publication of the book "Houses for a Small Planet". Thus, it was possible to open up a range of considerations to a much wider field and to apply different methodologies to promote the construction of various urban models that are perfectly viable and able to be implemented by the local communities.

These urban projects, some of them already published in different media, such as exhibitions, lectures, communications, articles in journals, take for the first time, with this communication, the set of context.

The presentation of the ten case studies allows a comparative view of the proposed approaches, giving space to a broader vision and enhancing the project's ability to gather reflections on varied and different contexts.

In this regard it falls under the on-going researches, which will certainly enrich the future global investigation.

4 ACKNOWLEDGMENTS

5 REFERENCES

AAVV (2011), Revista Africana Studia, Problemas da habitaçãoemÁfrica – Reflexõessobre a África de Língua Portuguesa, Porto, Centro de EstudosAfricanos, Universidade do Porto, n.º 16.

CARMO, Sofia (2012); Casas para um planetapequeno. Um Planeta de Favelas – Rocinha, Rio de Janeiro, Dissertação de MestradoIntegradoemArquitectura, Lisboa, Faculdade de Arquitectura da UniversidadeTécnica de Lisboa.

FIGUEIREDO, André (2011); Casas para um planetapequeno.Regeneraçãourbananacidade (in)formal. O centrohistórico de Porto-Principe/Haiti, Dissertação de MestradoIntegradoemArquitecturanaárea de especializaçãoemGestãoUrbanística e especializaçãoemPlaneamentoUrbano e Territorial, (especializaçãoemGestãoUrbanística), Lisboa, Faculdade de Arquitectura da UniversidadeTécnica de Lisboa.

FILIPE, Rodrigo (2011); Casas para um planetapequeno.Projectar no Informal, o caso de Dhaka, Karail Slum, Dissertação de MestradoIntegradoemArquitectura, Lisboa, Faculdade de Arquitectura da UniversidadeTécnica de Lisboa.

GABRIEL, Catarina (2013), Casas para um PlanetaPequeno, Tradição e identidadenaconstrução de um novo paradigmaurbano - o caso de Oaxaca no México, Dissertação de MestradoIntegradoemArquitecturanaárea de EspecializaçãoemUrbanismo, Lisboa, Faculdade de Arquitectura da UniversidadeTécnica de Lisboa.

GONÇALVES FERREIRA, Fréderic (2014); Casas para um planetapequeno, Habitar no Inhabitável – Navotas, Manila, Dissertação de MestradoIntegradoemArquitectura, especializaçãoemUrbanismo, Lisboa, Faculdade de Arquitectura da Universidade de Lisboa.

LOURO, Margarida; OLIVEIRA, Francisco; FELICIANO, Ana Marta; PIRES, Amilcar e LEITE, António (2009), CASAS PARA UM PLANETA PEQUENO – Projecto Angola Habitar XXI: ModelosHabitacionaisemTerritórios de Macro Povoamento Informal, Lisboa, PixelPrint/Pandora.

LOURO, Margarida, GABRIEL, Catarina (2012), ARTE, PANORAMA E ESPETÁCULO – a cidade de Oaxaca no México, in Representações da Cidade no mundolusófono e hispânico, Lisboa-Madrid-Rio de Janeiro.

LOURO, Margarida, VILA REAL, Ana (2014), CIDADE HISTÓRICA vs CIDADE MARCA – a reconfiguração territorial do porto de Banguecoque, in Artes&Território no mundolusófono e hispânico, Rio de Janeiro, Rio Books, pp. 324-343.

MADEIRA, Diogo (2011); Casas para um planetapequeno.Rehabitar um Porto, Aberdeen, Hong Kong, Dissertação de MestradoIntegradoemArquitectura, Lisboa, Faculdade de Arquitectura da UniversidadeTécnica de Lisboa.

RASOILO, Francisco (2015); Casas para um planetapequeno: O caso de Dharavi, Mumbai, Dissertação de MestradoIntegradoemArquitectura, especializaçãoemUrbanismo, Lisboa, Faculdade de Arquitectura da Universidade de Lisboa.

SILVA, Ana Luísa (2012), Casas para um planetapequeno, Noslimites da margem - Modeloshabitacionaispara a frenteribeirinha de Battery Park City em Nova Iorque, Dissertação de MestradoIntegradoemArquitectura, Lisboa, Faculdade de Arquitectura da UniversidadeTécnica de Lisboa.

VILA REAL FERREIRA (2014), Ana Isabel, Casas para um planetapequeno, A Urbanização da pobreza – Osbairrosinformais de KhlongToeyBanguecoque, Dissertação de MestradoIntegradoemArquitectura, Lisboa, Faculdade de Arquitectura da Universidadede Lisboa.

Chapter Four

New Tools for Inclusive Cities

Martina Jakovčić
Nenad Buzjak

Development of the registry of brownfield sites: as a potential for creation of new spaces for and with citizens

ABSTRACT:

Current economic crises and uncontrolled urban development raise a demand for responsible and sustainable management of the city. Abandonment of prior functions leads to appearance of vacant sites. Available areas become "arenas of opportunities" as scenes for new housing projects, business functions, commercial and cultural use. Furthermore, such areas may become new public areas or new green areas of the city and contribute to rising of the overall quality of life.

At the moment, the City of Zagreb does not have a comprehensive registry of abandoned brownfield sites which could be used as an instrument of rational planning and management of the city. Development of such registry is a complex multidisciplinary task whose result will produce a new form of spatial knowledge in the city. In order to make the registry more approachable and understandable for citizens, it will be visualized in GIS. The ability to access, utilise and visualize spatial data using GIS should be used as an important support to spatial decision-making processes. At the same time, the development of such registry and opening it to the public, should contribute to raising the quality of communication between the City and its citizens.

KEYWORDS: *brownfield sites, urban planning, sustainable city management, City of Zagreb, citizens expectation.*

1 INTRODUCTION

The City is a complex physical entity which comprises different social, functional, morphological and ecological components. Every city has an individual character, but at the same time urban places exhibit some common features and common problems. Contemporary urban transformations at micro level can be observed through changes of functions of certain parts of the city. One of the common processes is a process of closure or dislocation of large industrial sites and, consequently, the appearance of large empty and under-utilized sites. These places represent valuable resources and are attractive to a large number of different actors, ranging from public sector represented by municipalities and government agencies, who need to know how to identify potential of under-utilized spaces and to steer processes of redevelopment, to the private sectors including developers, landowners, residents and community representatives. Available areas become "arenas of opportunities" as scenes for new housing projects, business functions, commercial and cultural use. In order to utilize these arenas, a comprehensive list or registry of such sites is needed. Development of the registry of brownfield sites represent a valuable tool for management of the city, but also in the same time it gives local population an overview of the current processes in their neighbourhood.

Purpose of this paper is to explain the process of development of the brownfield sites and explain the potential benefits of development of comprehensive registry for the management of the city and its inhabitants. The first part of the paper shortly deals with the definition of the term brownfield. The second part of the paper explains the process of development of brownfield sites with the special reference to the process of its visualization. The third part of the paper presents the registry of brownfield sites in city quarter Črnomerec in Zagreb. Črnomerec quarter was used as a key study for testing the model of development of registry brownfield sites. The last part of the paper gives conclusion and recommendations for future work.

2 BROWNFIELD SITES – DEFINITION OF TERMS AND STATE OF THE ART

2.1 Definition of terms

Changes and macro and micro level have their spatial consequences, and one of those consequences is the development of large number of underused sites. The failure to reuse and redevelop underutilized sites has become a major concern for many municipalities (BenDor, Metcalf, 2006) and therefore brownfield redevelopment is an ongoing issue for governments, communities and scientists (Chen et al., 2009). At the same time, those sites and changes in the contemporary city have become a topic of interdisciplinary scientific discourse. In literature one can find different terms, such as brownfields, grayfields, vacant sites, derelict sites,

underutilized sites etc. Sometimes these terms are used as synonyms and sometimes they differ.

The most often used term is "brownfield". Although processes of redevelopment can be found in U.S. and European cities for more than 100 years, the term "brownfield" was firstly used at the beginning of 1990s. In the year 2000 Alker et al. emphasized a need for a more robust definition of the term "brownfield" from a multidisciplinary perspective. However, 15 years later, there is still no single definition of the brownfield sites (Cvahte, Snoj, 2011). The simplest definition would be that brownfields are opposite of greenfields, or that brownfields are lands which have previously been subject to development (Alker et al., 2000). According to the U.S. Environmental Protection Agency (2002), brownfield sites represent "unused spaces which are characterized by real or perceived environmental problems" (Hollander, J.B., Kirkwood, N.G., Gold, J.L. 2010). According to CABERNET (2005), "brownfield sites are abandoned or underused locations devastated by former usage of the area, mostly located in urban areas, inhering real or perceived ecological problems and in need of intervention" (Dixon, Raco, 2007). Maybe the simples definition is given by Bageen (2006) who states that brownfield sites are built-up areas which are no longer in use (Bageen, 2006).

Definitions of other terms, such as grayfields, voids, vacant spaces or vacancies are even more blurred and confusing. Some authors i.e. Nefs (2006) differs terms, depending on the origin and the way an unused urban space was created. In this paper we will use the term "brownfield" for all types of underused or underutilized spaces in the city that are no longer in use or are at the process of redevelopment.

2.2 State of the art

Over the past 25 years brownfield sites have become a topic of large number of interdisciplinary researches. In general we can differ several topics of interest. The majority of papers deal with the process of redevelopment of brownfield sites. They analyze the current state of the site and the plans for redevelopment. The most prominent among them are works of C.A. De Sousa (2003), Wedding and Crawford – Brown (2007), Schädler et al. (2011), Morio et al. (2013), Chen et al (2009) etc.

The second group of authors deals with the state of the abandoned sites and analyzes the need for remediation activities. Among others, one can state the paper from Otsuka et al. (2012), Verstraete and Meirvenne (2008), Nijkamp et al. (2002), Hartley et al. (2012) etc.

The third group of authors deal with the issue of brownfields as potential heritage sites. Numerous papers deal with the importance of heritage and its impact on identity shaping of certain part of the city (Hayden, 1997, Castello, 2006, Cizler, 2007). Existence of certain function over the long period of time will lead to development of certain connections between the location and the local population. This sites and their functions will become a part of identity of the local community and

will have cultural, aesthetic, historical or symbolical values (Jelinčić, 2010). Closure of those functions will lead to the changes of those values and perceptions.

The fourth and the smallest group of authors analyses the consequences of closure of primary functions on the local neighborhoods and the needs of those inhabitants. One of the pioneers in this third group is S.G. Bageen and his paper from 2006 on redevelopment of former military site and public participation in the process (Bagaeen, 2006). Another important contribution is a paper from Atkinson et al. (2013) dealing with the project objectives of brownfield redevelopment in concern with social and environmental gain. Tallon (2010) also emphasis the importance of participation of local population in the process of redevelopment. However, he also states potential problems caused by separate private interests that are not always in line with city policy.

Despite the fact that a lot of scientific and professional papers have been written about brownfield sites and its regeneration, we can state some shortcomings in the literature. Firstly, the differences between brownfield, grayfield and void are not well-defined and require correct differentiation in case study analysis. Secondly, the differences in function are methodologically underdeveloped in the sense that prior and current functions are not yet defined in a consistent manner. Thirdly, not many papers have been written about participation of local communities on redevelopment of sites, and particularly we lack papers on meanings and ways of participation.

3 DEVELOPMENT OF BROWNFIELD SITES AND ITS REDEVELOPMENT

Considering the mostly used definition of brownfield sites according to which brownfield sites are abandoned or underused locations devastated by former usage of the area, mostly located in urban areas, inhering real or perceived ecological problems and in need of intervention (Dixon, Raco, 2007). Contemporary economic development, process of globalization and teritiarization caused redistribution of industrial development and deindustrialization of large areas within cities. Those areas become brownfield sites. Although almost 70 per cent of all brownfield sites are industrial sites, we can differ different types of brownfield sites that can be classified according to certain criteria (Page, Berger, 2006). According to their previous functions, four main types of brownfield sites can be distinguished: industrial, military, transportation and residential buildings and projects. Each of the above stated types has different problems and potentials. According to their location in the city, one can differentiate site in the central area, on the city's periphery and in the historical area (Perović, Kurtović Folić, 2012).

After leaving the primary function, the majority of brownfield sites goes through the similar processes. In the first phase, the majority of sites are subdued to the process of devastation and plundering. This usually triggers the sudden process of devastation of the sites. Based on the future function of the sites, we can distinguish several types of functional redevelopment. The first one is commercial redevelopment which includes opening of retail sites, catering services, professional services etc. The second one is service redevelopment which implies opening of services intended for wider population. The third redevelopment is entrepreneurial which implies opening of new business zones, light industries, research and development etc. The fourth type is business redevelopment which implies opening of business offices and headquarters. The fifth type is administrative redevelopment which implies entering of public offices, i.e. courts, city authorities etc. The sixth type is cultural redevelopment which includes opening of museums, galleries and other exhibition areas, churches, castles etc. The seventh type is social redevelopment, which implies opening of different association and societies intended for wider population. The eighth type is educational redevelopment which implies opening of educational facilities i.e. universities, high schools, educational centres etc. The ninth type is residential redevelopment which implies building or rebuilding new residential areas. The tenth type is transportation redevelopment which includes renovation and redevelopment of air nodes and other surfaces intended for transportation. The last, eleventh type of redevelopment, is mixed-use which includes several above mentioned types. Future development of brownfield sites depend on different factors, such as site size, location, access and accessibility, quality of environment policy of urban planning, the role of professionals, the role of business actors.

4 REGISTRY OF BROWNFIELD SITES

As we have already mentioned, majority researches on brownfield sites focus on the process of redevelopment of particular sites. However, the question on the number and structure (prior function, level of contamination, state of the site etc.) of existing sites in the certain area in majority of cases, remains unanswered. One of the first attempts to develop a comprehensive registry of brownfield sites was done by U.S. Environmental Protection Agency (EPA) which started with the development of brownfield sites registry, which would list potentially dangerous land because of the past and present contamination uses.

Purpose of the registry

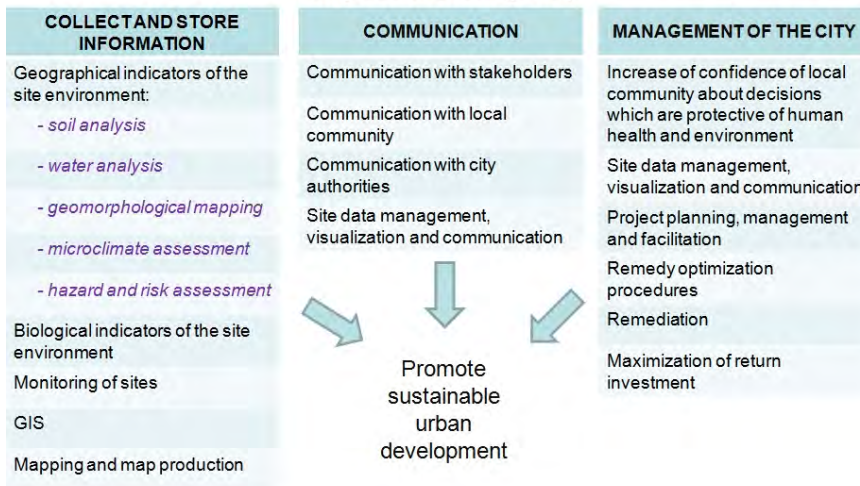| COLLECT AND STORE INFORMATION	COMMUNICATION	MANAGEMENT OF THE CITY
Geographical indicators of the site environment: - *soil analysis* - *water analysis* - *geomorphological mapping* - *microclimate assessment* - *hazard and risk assessment* Biological indicators of the site environment Monitoring of sites GIS Mapping and map production	Communication with stakeholders Communication with local community Communication with city authorities Site data management, visualization and communication	Increase of confidence of local community about decisions which are protective of human health and environment Site data management, visualization and communication Project planning, management and facilitation Remedy optimization procedures Remediation Maximization of return investment

Promote sustainable urban development

Figure 1: Purpose of the registry

The registry of brownfield sites can be defined as an online registry that gives public access to information about brownfield redevelopment. Purposes and benefits of the registry are numerous and can be summarized in three groups (presented in Figure 1). The first one is collection and storage of information on brownfield sites and properties. Registry enables us to collect and analyze various data i.e. geographical indicators of the environment, biological indicators etc. It also enables us to manage and monitor site data. The second group is communication. Registry enables us to manage and monitor sites and the state of redevelopment and to visualize the changes. At the same time, it gives us an opportunity to communicate with stakeholders, local community and city authorities. The third purpose of the registry is management of the city, Existence of the registry increase the confidence of local community about decisions which are protective of human health and environment. It enables us project planning management and facilitation and at the end, it potentially maximizes return investment. The final purpose of the registry is redevelopment of brownfield sites in line with sustainable urban development.

4.1 Who can benefit from the registry of brownfield sites – potential users?

Every city has a priority to ensure sustainable management of the city areas. This also includes preventing, assessing, safely cleaning up and sustainably reusing city areas including brownfield sites. Brownfield sites should be of a great importance to the city, since redevelopment of those sites can minimize urban blight, protect economic interest and harness market-let development processes City authorities have to make decisions which require a balance of environmental, societal and economic factors in complex combinations. In order to make a decision,

various sets of data are necessary. Existence of the registry of brownfield sites ensures availability of large number of data needed for sustainable management of the city.

When we talk about potential users of the registry of brownfield sites, we can differ three groups of potential users. The first group is administration which includes local authorities and government agencies. The second group are private actors which include: landowners, investors, residents, occupiers, lenders etc. The third group are professional and public actors which include: developers, construction companies, utility companies, supporting specialists, architects etc. Borders between those groups are blurred and certain "player" can participate in more than one group. At the same time, their relationships are interconnected, since they should communicate in all levels or stages of redevelopment of certain site.

Local community or local residents should be an important player in the process of redevelopment of every brownfield site in the city. In the theory of spatial planning, local citizens can be included in planning, both through collaborative planning and through the level of strategic planning. Community participation in both collaborative and strategic planning is shown in figure 2.
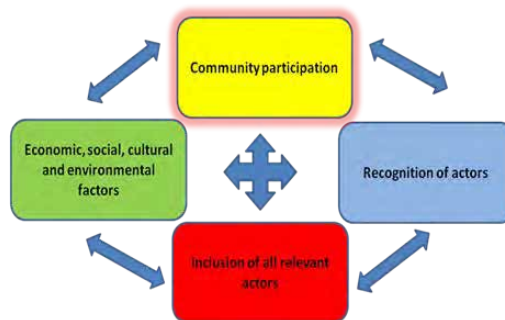
a) Collaborative planning
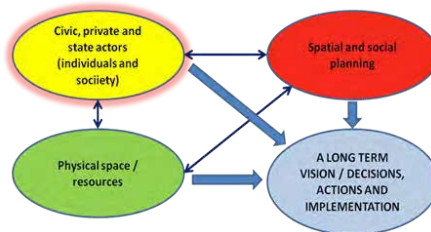
b) Strategic planning

Figure 2 : Role of local community in collaborative (a)) and strategic (b)) planning

Citizens should be an important "player" in all stages of redevelopment of brownfield sites. They know the reality and problems of the

neighborhood. However, the question raised is how to make them an active partner or a player in the process. New technologies give them an opportunity to strengthen social interactions and to make their opinion more visible. Development of the registry and its opening to the public could enhance communication with local authorities. Through the registry, citizens can gather relevant information about sites and at the same time state they needs and wishes and will be heard.

5 DEVELOPMENT AND VISIUALIZATION OF THE REGISTRY OF BROWNFIELD SITES

As it was stated before, the registry of brownfield sites represent an online collection of data on all priory used areas in the city in a certain period of time. If we look at any city as a complex system which is constituted of physical elements interrelated in spatial relations existence of a database of brownfield sites with support in visualization would enable us to model every city as a network of spatial relations and properties. Spatial database of that kind could be a good means to inform local inhabitants and other interested parties and at the same time, it could be used as a way to define strategies and actions. Another positive side of the spatial registry is the fact that it represents a good opportunity to share information among people with different skills in order to improve the understanding of spatial dynamics and the assessment of theoretical issues.

Registry is a collection of data relevant for the certain topic. In our registry of brownfield sites we included several categories of information which we consider to be of an importance for the subject. Information is divided in six groups: general data on the location, functions, timeframe, category of brownfield site, needed actions, use of the site. The detailed database is shown in table 1.

Every site is given its ID number, so that the base can be easily searched and that each and every site can be identified. In order to save information about older functions, we include data on prior functions. Mapping and field survey showed that sites located in the inner city areas of at the edge of inner city areas has changed their functions during time due to the functional and spatial development of the city. Therefore, we decided to include in the database all data on prior functions. When stating the category of brownfield site, we differ six categories: previously developed land now vacant, vacant buildings, derelict land and buildings, land or building currently in use and allocated in the local plan or having a planning permission, land or buildings currently in use with redevelopment potential and land or buildings partly redeveloped and in use with plans for further redevelopment. In differing sites according to the site status, we use division into six categories: vacant land, vacant building, derelict land, buildings or land in use, buildings or land partly in use, other. Difference between vacant and derelict is in a level of devastation and we consider derelict land or buildings those areas which are empty and heavily

damaged or plundered. Very often, large problem in the process of development of the site is the level of protection. In general, in our registry we differ three types of sites: those with no protection, protected historical landscapes and protected single cultural heritage sites. We are aware that these categories are changeable and that in every registry they will have to be adjusted to the local law system. Also, the level of protection does not in any way imply the need or the lack of need for preservation of the site, but merely states a legal status of the site and possible obstacles in the process of redevelopment.

The fifth set of data comprises data on the level of devastation of both sites and buildings, level and type of pollution and distance to sensitive population. When classifying buildings based on the level of devastation, we differ four categories: minor devastation, major devastation, plundering and none. When discussing level and type of site devastation, we differ physical hazard, contamination and chemical pollution. Very often, one can only suspect existence of chemical pollution. Therefore, we find very important the information on distance to sensitive population i.e. children, elderly people, people with the health issues.

The sixth and the last set of data comprises information on current and future situation. It contains information on current reuse, intended reuse and current status. In intended use we differ the following: no definite plan, open space, agriculture, residential, commercial, educational, sports/recreation, business, social care, transportation, cultural and mixed use.

Set of data	Category	Subcategory
General data	ID	
	Name	
	Address	
	City neighborhood	
	Ownership	Unknown
		City
		State
		Private
		Mixed
		Other
	Property size	
Functions	Last prior function Older functions	Industrial
		Energy production
		Transportation
		Military
		Commercial
		Residential
		Other
		Industrial

		Energy production
		Transportation
		Military
		Commercial
		Residential
		Other
Timeframe	Year of built	
	Year of closure	
	Year of redevelopment	
Site category	Category of brownfield sites	Land type A- previously developed land
		Land type B – vacant buildings
		Land type C – derelict land and buildings
		Land type D - land or buildings currently in use and allocated in the local plan and / or having planning permission
		Land type E – land or buildings currently in use with redevelopment potential
		Land type F – redevlopment partly finished and in use with plans for further redevelopment
	Site status	Vacant land
		Derelict building
		Vacant building
		In use
		Partly in use
		Other
	Level of protection	None
		Protected as historical landscape
		Protected as single cultural heritage site
Devastation ad remediation	Level of building devastation	Minor devastation
		Major devastation
		Plundering
		None
	Level of site devastation	Physical hazard

		Contamination
		Chemical pollution – suspected / proved
	Need for remediation	Yes
		No
	Distance to sensitive population	
Current and future situation	Current / contemporary reuse	
	Intended reuse	O definite plan
		Open space
		Agricultural
		Residential
		Commercial
		Industrial
		Education
		Mixed use
		Sports / recreation
		Business
		Social care
		Transportation
		Cultural
	Current status	Allocated in local plan or with planning permission
		Known redevelopment potentials but no planning allocation or permission
		Unknown redevelopment potential and environmental and health hazards
		Redevelopment in progress
Observations / Community concerns / Comments		

Table 1. Elements of the registry of brownfield sites

In order to gather information about brownfield sites, several sources have to be used and compared. In general, we can group these sources into the following categories: historical cartographic sources, historical text sources, topographic maps, master plans, air photos, city plans, inventories… Also, in addition a thorough mapping of the sites has to be conducted followed by surveys and interviews with local inhabitants.

In order to test our database we developed a brownfield registry for the city quarter Črnomerec. City quarter Črnomerec is one of the 17 city quarters in the City of Zagreb. It is located in the outer parts of the city

centre. According to the census in 2011, it covered the surface of 24,3 sqkm. Over the past 250 years, this city quarter has gone through vast changes and transformations form green areas at the outskirts of the city, through military and industrial functions towards combined business, residential and industrial zone of the outer city centre. In order to gather the relevant data for the registry and to map all the changes we digitized masterplans from the years 1971, 1986, 1989 and 2007. We also used other cartographic sources like topographic map 1:10 000 and 1:25 000 and digital ortophoto 1:5 000. Procedures and results of the analysis of functional changes are showed at figures 4, 5, and 6.

Figure 3: Master plan of the City of Zagreb 1986 (1989)

Figure 4: Master plan of the City of Zagreb 2007

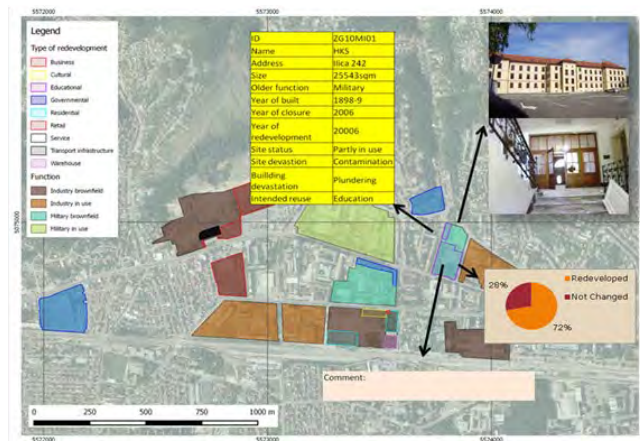Figure 5: Changes of functions in City quarter Črnomerc in Zagreb

Figure 6: Part of the registry of brownfield sites – example of the location of Croatian Catholic University

In order to present collected data, we use software ArcGIS 9.3.1. and QuantumGIS 2.4. To obtain flexibility, geodatabase is made as Excel csv spreadsheet and joined to spatial data in GIS environment. Spatial framework of brownfield map is related to the projection reference system HTRS96/TM based on the ellipsoid GRS80. The advantages of the system based on GIS technology are numerous. Using a modern GIS based brownfield map system the process of determination spatial relationships was accelerated. Clearly defined objects within brownfield database also enabled easier correlation and connectivity with other databases. Visualization of datasets in GIS also gives us possibility of conducting different analysis, such as statistical analysis of percent of redeveloped areas of percent of redeveloped areas by type etc.

6 CONCLUSIONS

The City is a complex physical entity which comprises different social, functional, morphological and ecological components. Every city has an individual character, but at the same time, urban places exhibit some common features and common problems. All cities also have empty and underutilized areas dispersed throughout the city. Contemporary urban transformations in advanced economies are outcomes of current processes at macro level, such as deindustrialization, postfordism, globalization and internationalization. The results of those processes can be observed at the micro level through changes of functions of certain parts of the city. One of the common processes is a process of closure or dislocation of large industrial sites and, consequently, the appearance of large empty and derelict areas, mainly in central urban locations. These spaces represent valuable resources and are attractive to a large number of different actors, ranging from the public sector represented by municipalities and government agencies to the private sectors including developers, landowners, residents and community representatives. In order to sustainably manage the city, city authorities should have an in-depth information on its space. The registry of brownfield sites provides such information. Registry is an online collection of data. In order to make it more understandable, one has to visualize it. The ability to assess, utilise and visualize spatial data using GIS should be used as an important support to spatial decision-making processes. At the same time, visualization brings information "closer" to people and makes it more understandable. Development of registry of brownfield sites and opening it to the public could contribute to raising the quality of communication between the City and its citizens. It would also enable citizens to take more active role in planning of the city. Registry of brownfield sites should enable sustainable management of the valuable locations and change them from wasteland toward site of opportunities.

7 ACKNOWLEDGMENTS

8 REFERENCES

Alker, S., Joy, V., Roberts, P. & Smith, N. (2000). The Definition of Brownfield. Journal of Environmental Planning and Management, 43 (1), pp. 49–69.

Atkinson, G., Doick, K.J., Burningham, K. (2014), Brownfield regeneration to greenspace: Delivery of project objectives for social and environmental gain, Urban forestry and Urban Greening, 13 (3), pp.586-594

Bagaeen, S.G. (2006). Redeveloping former military sites: competitiveness, urban sustainability and public participation. Cities: The international Journal of urban policy and planning, 23 (5), pp.339–352.

BenDor, T.K., Metcalf, S.S. () Conceptual Modelling and Dynamic Simulation of Brownfield Redevelopment, Proceedings of the 23rd International Conference of the System Dynamics Society, 1-22, www.researchgate.net

Castello, L. (2006). City & Time and place: Bridging the concept of solace to urban conservation planning. City & Time 2, 1, pp. 59-69

Chen, Y., Hipel, K.W., Kilgour, D.M. & Zhu, Y. (2009). A strategic classification support system for brownfield redevelopment. Environmental Modelling & Software, 24, pp. 647–654.

Cizler J., 2012: Urban regeneration effects on industrial heritage and local community. case study Leeds, UK. Sociologija i prostor, 50, (2), pp. 223-236.

Cvahte, A. & Snoj, L. (2011). Geografsko vrednotenje degradiranih območij v izabranih statističnih regijah. Dela, 36, pp. 111–122

De Sousa, C. A., 2003: Turning Brownfields into Green Space in the City of Toronto, Landscape and Urban Planning, 62, pp. 181-198.

Dixon, T., Raco, M., (2007), Introduction, in: Dixon, T., Raco, M., Catney, P., Lerner, D.N. (ed.): Sustainable Brownfield Regeneration. Livable places form problem spaces. Oxford, Blackwell Publishing, pp. 3-8.

Hartley, W., Dickinson, N.M., Riby, P., Shutes, B. (2012) Sustainable ecological restoration of brownfield sites through engineering or managed natural attenuation? A case study from Northwest England, Ecological engineering, 40, pp. 70-79

Hayden, D. (1997). The power of place. Urban landscapes as public history, ;IT Press, 318 pp.

Jelinčić, D.A. (2010). Kultura u izlogu, Meandarmedia, Zagreb, 127 pp.

Morio, M, Schädler, S., Finkel, M. (2013). Applying a multi-criteria genetic algorithm framework for brownfield reuse optimization: Improving redevelopment options based on stakeholder preferences, Journal of Environmental Management, 130, pp. 331-346.

Nefs, M. (2006). Unused urban space: conservation or transformation? Polemics about the future of urban wastelands and abandoned buildings. City & Time, 2 (1),pp. 47–58.

Nijkamp, P., Burch van der, M., Vindigni, G. (2002) A comparative institutional evaluation of public-private partnership in Dutch urban land-use and revitalization projects, Urban Studies, 39 (10), pp. 1865-1880.

Otsuka, N., Dixon, T., Abe, H. (2013) Stock measurement and regeneration policy approaches to hardcore brownfield sites: England and Japan compared, Land use policy, 22, pp. 36-41

Page, G. W., Berger, R. S., 2006: Characteristics and land use of contaminated brownfield properties in voluntary clean up agreement programs, Land Use Policy, 23, pp. 551 - 559

Perović, S. & Kurtović Folić, N. (2012). Brownfield regeneration – imperative for sustainable urban development. Građevinar, 64 (5), pp. 373–383.

Schädler, S., Morio, M., Bartke, S., Rohr-Zänker, R., Finkel, M. (2011). Designing sustainable and economically attractive brownfield revitalization options using an integrated assessment model. Journal of environmental Management, 92(3), pp.827-837.

Tallon, A., 2010: Urban regeneration in the UK. Milton Park, Routledge, 336 pp.

Verstraete, S., Meirvenne van, M. (2008) A multi-stage sampling strategy for the delineation of soil pollution in a contaminated brownfield, Environmental Pollution, 154, (2), pp. 184-191.

Wedding, C.G., Crawford – Brown, D.(2007). Measuring site-level success in brownfield redevelopments: A focus on sustainability and green building, Journal of environmental management, 85 (2), pp. 483-495

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Pervasive Public Open Spaces: Reflections of the COST Action - TU 1306 CyberParks

ABSTRACT:

This paper discusses the increasing penetration of digital communication technologies into public open spaces and how ICT can enhance the understanding of the relationship between spaces and their users, towards the production of inclusive and cohesive urban spaces.
The analysis is built on the Project CyberParks, which aims to increase the knowledge about this challenging relationship. Through this, we intend to analyse how these digital forms of communication can help planners to improve public open spaces.
The discussion will be centred on the application WAY CyberParks (app & web), developed to track users in public spaces. As an interaction interface, it allows, through augmented reality, displaying more information about the space and its elements and as social reporting, users can provide information about problems or warnings about incidents. The ICT must be used to improve the participatory methods, but also as a tool to bring people to be more outdoors and use public spaces.

KEYWORDS: *open public space, information and communication technologies, users of public space, urban planning and design, CyberParks*

1 INTRODUCTION

In this paper, the relationship between digital communication technologies and public open spaces is analysed, and how the new forms of communication can be a support of the development of inclusive urban areas. The analysis is based on the work developed by the COST Action TU 1306 CyberParks, which aims to advance knowledge about the relationship between Information and Communication Technologies (ICT) and Public Spaces. In CyberParks, an interdisciplinary research platform has been established; different specific groups are working together to understand the relationship between ICT and the production and use of public open spaces, and the relevance to sustainable urban development.

The leading questions in the Project are:

1. What is the contribution of ICT to transform our cities into more social and inclusive environments, rather than just more high-tech?

2. What opportunities ICT offer to better understand the way people use the public spaces?

3. How can ICT provide support for those involved in the production, design, and maintenance of public spaces?

This work adopts a broad understanding of ICT as all forms of interaction using computer technology and digital devices, as internet, wireless networks, tablets and smart phones, and other communication media. Public open space is to be understood as a collective term and, in its broadest sense, as an unbuilt space inserted into the urban fabric, planned, designed and managed with particular purpose and used by the community. Examples of urban open spaces are: streets, squares, plazas, squares, parks, green areas, community gardens, playgrounds, waterfronts, among others, each of them playing an important role in the city, for its social life, leisure or mobility and/or on account of the landscape, ecological environmental values and benefits.

Whatever the type of public open space is addressed, be it a street, a square or garden, it cannot be planed isolated, but rather as a vital part of the urban landscape, each one playing with its specific features different functions in the urban environment. Public spaces should be planned taking into consideration the relationship with the people who live and work near them, and be designed as an outdoor place to relax and enjoy the urban environment, for different activities according to the needs of users. Several authors highlight the intrinsic need of communities to have attractive and inclusive public spaces. Public open spaces are more than just a type of land use or a physical location. These are where the community comes alive, where bonds among neighbours are strengthened and where a sense of belonging is fostered. They are

spaces of representativeness, for civic and political acting (Thompson 2002) and places that spark economic development and drive environmental sustainability (Šuklje & Smaniotto, 2015, Thompson, 2002). The use of digital communication devices in public spaces is already a reality. It is common to see people outdoors using smartphones or tablets for phoning, reading, searching, sending emails, etc. This reflects a growing trend that is challenging various experts, from ICT developers, to social scientists to urban designers (Smaniotto et al., 2015).

The challenge is to make use of these new opportunities, so that they can provide support to decision-making in planning, production, and maintenance of public spaces, providing them with the features that best meets the needs of their users. By understanding the needs of users, making improvements, and encouraging their use, these experts may counteract another trend observed, many people prefer to stay indoors attracted to "wired way of life" experiencing virtual reality and/or engage themselves in virtual community rather than being outdoors engaging in a real community (Šuklje & Smaniotto, 2015). In addressing this issue, Thomas (2013) challenges us in her blog: "Can we capitalise on our new-found love of the wired life to encourage more people to go outside?"

2   THE CYBERPARKS PROJECT

The **CyberParks Project - Fostering knowledge about the relationship between Information and Communication Technologies and Public Spaces** is a network of 80 experts from different working fields and scientific domains, coming from 28 different European countries and Israel. It is financed for four years (June 2014 – May 2018) under the COST-Programme, which allowing networking, exchange, and capacity-building activities, offers an ideal framework for exploring such new challenge.

Cyberparks seeks to advance knowledge about the relationship between Information and Communication Technologies (ICT) and Public Spaces supported by strategies to improve their use and attractiveness. The impacts of this relationship are being explored from social, ecological, urban design and methodological perspectives. In order to identify knowledge gaps and develop novel approaches to bridge them and better understand the role of ICT for the production and use of public spaces, the scientific focus consists of analysing the examples of the intersection of ICT with public spaces. To answer this scientific view, case studies are being conducted on different open public spaces on European cities. The project also seeks to transform the gained knowledge into goals for European policies on technology, urban development, and creative industries. The end users/target groups are: the scientific community, decision-makers involved in policy making and planning practices, landscape architects and urban designers, ICT specialists, and ICT and public open space users. CyberParks is taking account of the variety and

intensity of potential uses and users' groups, which include children, young people, pupils and students, active citizens, elderly, etc.
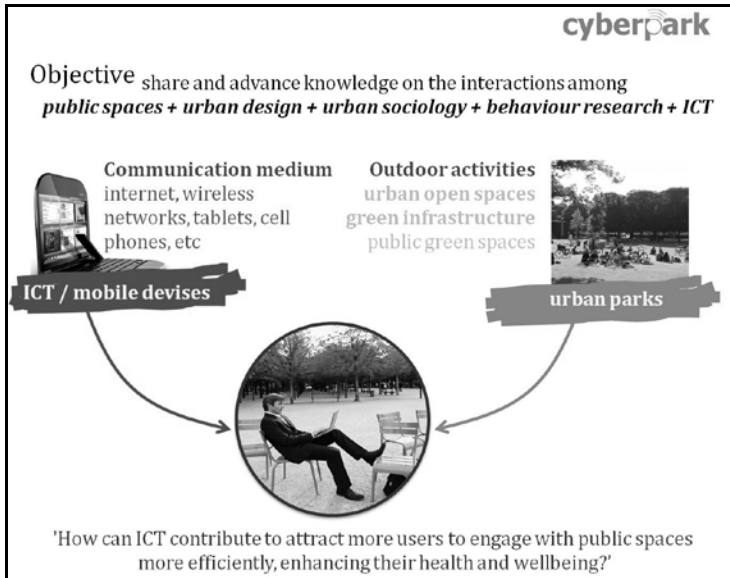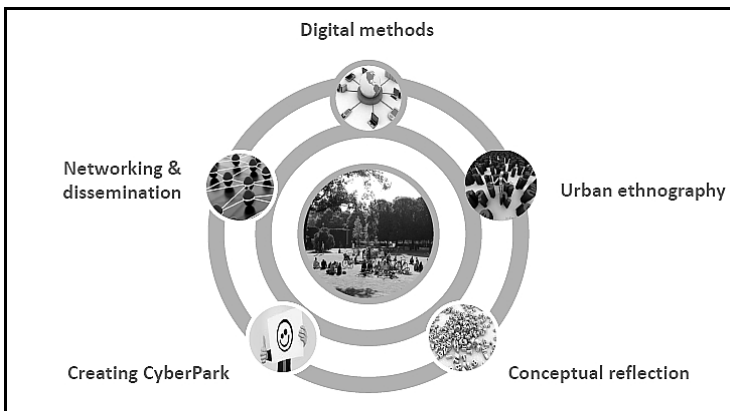

Figure 1: Contents of CyberParks' Action

Figure 2: Working Groups of CyberParks Project

CyberParks Project consists of five working groups: Digital methods (WG1), Urban ethnography (WG2), Conceptual reflection (WG3), Creating CyberParks (WG4) and Networking & dissemination (WG5). Although each group has different goals and tasks, they are set into a constant interaction among them, encouraging sharing of experiences, ideas and knowledge.

3 THE AMALGAMATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES INTO PUBLIC OPENS SPACES

One challenge of the CyberParks Project is to understand to what extend the use of digital technologies can provide support for the production of inclusive and attractive public spaces. This goes in line with the principles of the "New Charter of Athens", revised in 2003 (Council & Planners, 2003), which refers specifically to the use of new information and communication technologies. It is therefore important to understand the (new) needs of communities, which include changes in lifestyles.

The interrelations between ICT and public spaces are being mostly discussed within the technology-driven visions of "smart cities". The penetration of ICT can take different forms – many of them not fully investigated yet. Notwithstanding this penetration gives the rise to the concept of hybrid space - a real space mashed-up with mobile technology (Souza e Silva 2006). This hybrid space (appropriately called a *cyberpark* in the Project) is diverse, constantly changing, and takes place in different forms and at different levels in different situations. It is very common nowadays to find, for example, public places with free wireless internet, often as an attraction for tourists, but increasingly as service for the community. Several internet portals offer tools and services to detect free Wi-Fi networks. Visiting a public space that offers a free internet access point might be already a criterion for many of us. New technologies play an important role for the dissemination of public open spaces, either on-site, through different types of digital media, or through disclosure in social networks for example.

The world is increasingly dependent on digital technology, and the digital has become part of our outdoor lives and that trend is set to continue (Thomas 2014). These new technologies also open opportunities for research; they can be a tool for studying public open spaces. Also the possibility of interaction with users opens up new frontiers and offers novel possibilities of creating engaging interfaces for getting feedback, ideas and concerns from the from those who, at the end, give live to public spaces - the users.

4 THE APPLICATION WAY CYBERPARKS

In the CyberParks Project, an ICT tool for monitoring the use of public open spaces is being developed and tested. The WAY CyberParks is a tool, which consists of three main elements: a smartphone application (app), a set of web services and the cloud. The relation among these elements is as follows: The user's smartphone uses its sensors to collect the so-called "signals of opportunity" (SoOP) which are transmitted for localization or non-localization purposes but may be exploited to this end. The smartphone app is in charge of computing its own position by fusing those SoOP according to a localization engine. The smartphone app also

allows the participants to set their profile, get contextual information, answer contextual questions, and send augmented reality suggestions. All this information - participant profile, position, answers and suggestions – is sent and stored into the cloud. On the other hand, the web services get the information from the cloud, allowing visualizing participants' suggestions, answers, weather conditions, real time positions, or the paths filtered, inter alia, by the participant's profile. It operates in two modes: online and offline. In the first mode, the app continuously sends user data (profile and position) through the active communication service (GPRS, 3/4G or Wi-Fi) to the cloud. In offline mode, the app saves the data in the smartphone memory and sends them to the cloud whenever the user wants, for example when arriving to a place with internet connection.

This app is an attempt to use ICT to better understand how people use public open spaces and to investigate the crucial elements to be responded by design, research, and policymaking – always considering the aim to produce more responsive, stronger, safer, and inclusive cities. This app is available for free download at the projects website, as well as in the apple store and google play. This app is a result of a broader research programme developed by DeustoTech-Mobility, Bilbao, under the programme called WAY (Where Are You?), and proposes to develop mobile applications to support seamless location and orientation of people, regardless of the environment and aims to answer questions such as: Where are you? Where is what is sought? How can we connect to what we seek?

The app WAY CyberParks is still under development, and is being tested in different situations. The first tests took place in July 2014 in the Park *Quinta das Conchas* in Lisbon. The second test was in November 2014 in Barcelona in the *Fòrum de les Cultures* and *Carrer d'Enric Granados*, and in April 2015 in the city centre of Bristol. All these tests have been conducted by the participants of CyberParks Project.

The main feature of the mobile application is to track the user's position, but it also enables the user to send suggestions, and get contextual information through augmented reality (i.e. points of interests). The functionalities in the mobile application are:

- Augmented Reality: to send contextual information about the place;

- Suggestion Box: enables a user to send suggestions attaching texts, photos, videos or sounds;

- Survey: poses questions about the users in order to build his/her profile;

- Questionnaire: sets contextual questions to the users about specific location(s). The question is automatically placed to a user when she/he reaches this location.

Figure 3: Screenshot of the app WAY CyberParks in the Carrer d'Enric Granados, Barcelona showing contextual information provided by augmented reality

The main aim of the web services, which has a restricted access (at moment only for project partners), is to help urban planners, designers or decision-makers to visualise how users explore the space. It consists of three main elements: a custom map (using google maps), the main menu, and the filter options. Filters can be used to select the user's path and be the bases for several profile characteristics such as gender, occupation, education, and age. The main menu has the following five sections:

- Current case study: it shows the case study results, but also other case studies can be selected, for example to compare the results.

- Positions: it shows user's positions in real time or in the past, and the location of the points of interest.

- User's data: it shows the questions and user's answers, suggestions and warning messages; allowing to see on the map the locations where the questions are posed, their radius of influence and the answers (text, photos, videos, audio, email, voice mail) - and the weather conditions reported by the nearest weather forecast station. This feature also allows a user to send alarm messages showing where the messages are taken, their shape, who sent them and when, the time spent by a user inside this alarm zone, and when he/she left it.

- Edition: it enables editing the points of interest, questions, warning zones, allowing to add/edit/delete on the map the (1) points of interest characterised by a name, web address and short description; (2) questions characterised by a radius of influence, a short description of the question and several optional answers; (3)

the alarm zones characterised by a name, and several actions to perform in case a user enters this zone (through email or SMS, or by activating sensors); and (4) audio tracks characterised by a radius of influence and the text describing the track to be sent when the user reaches the zone of influence

- Get the app: to download the Android and iOS based smartphone app through Google Play and Apple Store, respectively.

Figure 4: Screenshot WAY CyberParks Web service

5   FIRST RESULTS OF THE APP WAY CYBERPARKS – RESULT OF TESTS IN THE *FÒRUM DE LES CULTURES*

The analysis of the results to be obtained by the app WAY CyberParks is part of a PhD research in Urban Planning by Tiago Duarte at Lusófona University (Lisbon). The opportunities offered by new digital technologies for the analysis of public spaces are being investigated, and how the digital tools can support the improvement of these spaces. For this, some case studies will be conducted, in areas with distinct urban characteristics, allowing to check the relevance of the app in different situations. In Lisbon, the survey started in the Park *Quinta das Conchas* but it is planned to be enlarged to other public spaces in the neighbourhoods of *Curraleira* and *Mouraria*, and in Barcelona the *Carrer d'Enric Granados* is chosen as case study. Smaniotto et al. (2014) describe more in details the *Parque da Quinta das Conchas* and the results of a short-term survey made in this park. At the moment, the tasks consists in compiling the necessary information, in particular about the points of interests and the questions to be posed to the users. A dissemination strategy, in order to engage users to download the app and use it in the case studies, is being gradually implemented.

In Barcelona, during the project meeting, the app was tested in two different public spaces, where the participants acted as tourists. A short-term scientific mission (STSM) granted by the CyberParks Project to T.

Duarte in Barcelona (Duarte, 2014), allowed further tests of the app and web services, in order to verify the abilities, functionalities and the quality of the gained data for verifying the user's patterns/paths.

Taken the example of the tests in *Fòrum de les Cultures*, as displayed in Figure 5, the map shows the points of interest selected for this space. Herewith users have the possibility to select these points and get information about them, as well as to see them in street-view mode. The web services allow the evaluation of the paths or routes taken by different users. Figure 6 shows the route used by a user, as well his/her profile (composed by gender, occupation, education and age). Such kind of information enables a better understanding how people use such public place.

Figure 5: Screenshot of the web services of the app WAY CyberParks showing the points of interest
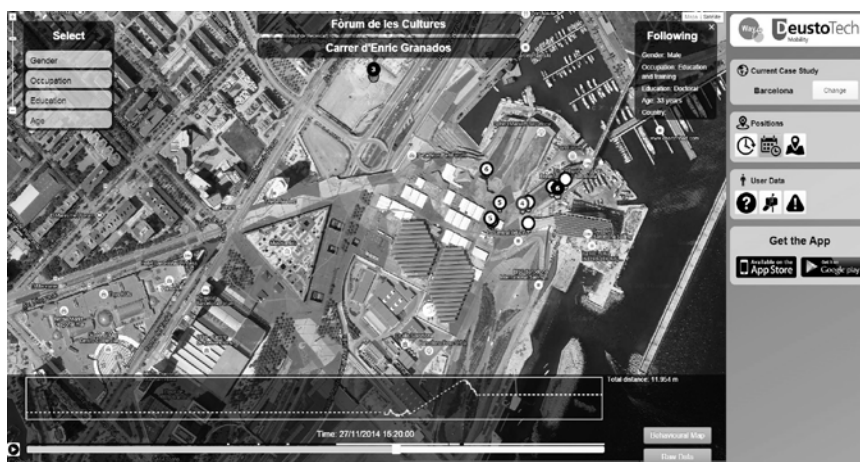

Figure 6: Screenshot of the web services of the app WAY CyberParks showing a route of a user

Another possibility of analysis is to observe the suggestions made by users. This is an important feature, because it allows understanding the opinions of the different users. For example, by verifying the suggestion box of this place, one can see that a user misses public bathrooms here. Through these answers, those responsible for public spaces may take the necessary measures in order to provide better conditions to meet the users' needs.
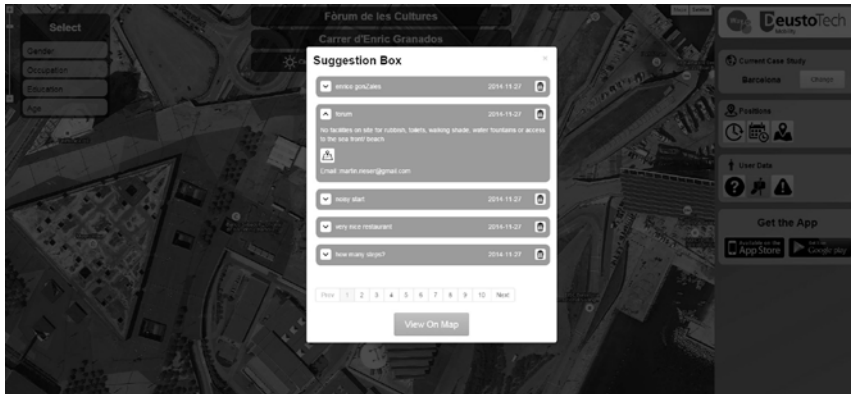

Figure 7: Screenshot of the web services of the app WAY CyberParks showing suggestion box

The following questions are posed at specific locations in each site:

- What is your purpose of visiting this place?

- How often do you use this space?

- What do you think about vegetation?

- What would you like to have here? (a specific waypoint)

- Would you like to live in this place?

- What is the element that surprised you the most from this open urban space?

- Is traffic and traffic noise bothering you?

These questions are kept simple and multiple choice answers allow a rapid response and facilitate the data analysis by the researchers. Figure 6 shows the locations where the different issues were launched.

Figure 8: Screenshot of the web services of the app WAY CyberParks showing location questions at Fòrum de Les Cultures

As mentioned above, the tests performed in Barcelona were performed by participants of the CyberParks Project meeting. Before it was stated, the app features were presented, including the questions that would be posed along the space. The test had two main objectives: (1) testing this new feature in order to verify its suitability; and (2) checking the reviews of users in relation to the questions placed. It must be noted that the results of this test does not have high representativeness, since the number of responses was limited to the group of participants, and not all of them had the opportunity to perform the test, because of internet connection issues or battery failure. The analysis of results took into account the responses of ten users. Table 1 shows the results of the questions raised in *Fòrum de les Cultures*.

Although with a low number of responses, the test achievement was important, as pre-testing to evaluate its suitability for future studies. Some patterns could also be identified, such as the call for more trees; the traffic and noise traffic was not quoted as a problem. Maybe this last aspect is not relevant in the *Fòrum de les Cultures*, as it is a very wide place located along the sea with no wide roads in the close vicinity.

One intention was to ask the same question in two different locations, in order to understand the user's opinion in different situations. In the first case, in a location far from buildings and from a playground, when asked if they would like to live in/around the place, the answers were very negative. In second case, the same question posed near to the referred equipment, 20% of the users changed their opinion, and stated that they would like to live in/around this place. This type of observation is very important to understand the different user's perceptions depending on the specific site conditions and qualities, and on the length of stay in the site.

Table 1: Questionnaire results for Fòrum de les Cultures

QUESTIONS	RESULTS
What is your purpose of visiting this place?	
I live / work close to the space here	0,0%
I'm going shopping or cultural activities	100,0%
I'm visiting friends or family	0,0%
Relax and contemplate	0,0%
Play with children	0,0%
Enjoy the city	0,0%
Walking, jogging, cycling	0,0%
Others	0,0%
How often do you use this space?	
Daily: In the morning	0,0%
Daily: In the afternoon	0,0%
Daily: At nights	0,0%
Many times a week	14,3%
Once a week	14,3%
Many times per month	14,3%
Many times per year	0,0%
Very seldom / or first visit	57,1%
What do you think about vegetation?	
It needs trees to shadow the space	71,4%
Vegetation is very fine	14,3%
This vegetation causes me allergies	0,0%
Others	14,3%
What would you like to have here? (a specific waypoint)	
A bench to rest	25,0%
A fountain to drink	12,5%
An internet connection point and a bench to work	62,5%
Others	0,0%
Would you like to live in this place? (First time)	
Yes	0,0%
No	100,0%
Would you like to live in this place? (Second time)	
Yes	20,0%
No	80,0%
What is the element that surprised you the most from this open urban space? (First time)	
The atmosphere of this place	37,5%
Vegetation	0,0%
The urban design of this place	50,0%
Other people	0,0%
Others	12,5%
What is the element that surprised you the most from this open urban space? (Second time)	
The atmosphere of this place	33,3%
Vegetation	0,0%
The urban design of this place	33,3%
Other people	0,0%
Others	33,3%
Is traffic and traffic noise bothering you?	
Yes. It is noisy and breaks the street pace	0,0%
Yes. But it is a necessity for the city mobility	25,0%
It does not bother me	75,0%
Others	0,0%

Although the analysis is based on a small number of samplings, it allows us to draw some conclusions:

- The data collected with the app allows a better understanding of how the selected public spaces are being used by visualising user's paths or the most used areas;

- The questions asked by the app enable a better understanding of what kind of people use this space, and what is their opinion about it;

- It is important to select specific questions to each place, so their analysis can be more effective and objective;

- Augmented reality is an attractive way to achieve a greater number of users of the application.

In summary, new technologies open innovative opportunities for the analysis of public spaces and their users. They can be a fast, cost-effective, and creative means to interact with users, and therefore to better understand how they use or want to use public spaces. On the other hand, the app WAY CyberParks, which is still in testing phases, has the necessary features to provide support for the analysis, management and planning of public space, and can take a significant role in supporting planners and designers.

6   CONCLUSIONS

The existence of healthy public open spaces in a city is a guarantee for sustained growth and for improving the quality of life of the population. Digital media can play an important role in better understanding the interactions between people and urban spaces. The use of the new digital means of analysis allows faster and more efficient results. Moreover, through the use of digital media, the planning process can become more democratic, as more users can be engaged.

The main objective of CyberParks Project is to understand the relationship between ICT and public spaces, and how the different ICT devices and features can support the improvement and the use of public spaces. Through a transdisciplinary network of social scientists, researchers, ICT experts, urban planners, designers, landscape architects, artists, and stakeholders the Project enables a look at long-term perspective and a bigger picture of the implications, opportunities and challenges that the amalgamation of the virtual and real worlds pose. The preliminary results show that the app WAY CyberParks can be an interesting tool to increase the understanding of people and public spaces, and how urban places could be improved - in a way, they better meet the users' needs for gathering, recreation and attracting more people to live a healthier and activer lifestyle. The app can provide valuable data for those responsible for planning, design, and maintenance of public spaces.

The next steps are to enlarge and increase the use of the app in several case studies, particularly those mentioned above. These case studies will provide the basis for the assessment of the relevance of digital means in the study of the relationship between public spaces and their

users. On the other hand, the choice of locations with different features, will allow analysing its applicability in a more comprehensive way.

7 ACKNOWLEDGMENTS

8 REFERENCES

COST Programme COST Action TU1306 Cyberparks. www.cost.eu/COST_Actions/tud/Actions/TU1306.

Council, T. E., & Planners, T. (2003). *Vision for Cities in the 21st century. Cities.* European Council of Town Planners Conseil Européen des Urbanistes, The European Council of Town Planners' (July), 1–21.

CyberParks Project. *Homepage*. www.cyberparks-project.eu.

Duarte, T. (2014). The Importance Of New Technologies In The Study Of Public Spaces – Scientific Report resulting of STSM made in Barcelona (Nov 19th – Nov 28th, 2014). Retrieved from http://cyberparks-project.eu/stsm.

Smaniotto Costa, C., Menezes, M., Mateus, D. (2014). How Would Tourists Use Green Spaces? Case Studies in Lisbon. Project CyberParks – COST TU 1306. *Entretextos 52, CeiED. ISNN 2183- 2102*. Retrieved from www.ceied.ulusofona.pt/pt/investigacao/publicacoes/entretextos/197-publicacoes/entretextos-2014.

Smaniotto Costa, C., Menezes, M., Mateus, D., Bahillo Martínez A. (2015). Podem as tecnologias da informação e comunicação contribuírem para capacitar o conhecimento das práticas e necessidades de uso de parques urbanos. *I. C. da Silva, M. Pignatelli, & S. de M. Viegas (Eds.), Anais do XII Congresso Luso-Afro-Brasileiro de Ciências Sociais - XII CONLAB, February 1-5th, Lisbon*. ISSN: 978-989-99357-0-9, pp. 7705–7713.

Souza e Silva, A. (2006). From cyber to hybrid: mobile technologies as interfaces of hybrid spaces. *Space & Culture, 9 (3)*, pp. 261-278.

Šuklje-Erjavec, I., Smaniotto Costa, C. (2015). CyberParks Challenges –Exploring the Relationships between Information and Communication Technologies and Urban Open Spaces. *Places & Technologies 2015, Nova Gorica, Slovenia. Book of Conference Proceedings*. ISBN 978-961-6823-68-5, pp. 163-170.

Thompson, C. W. (2002). Urban Open Space in the 21st Century. *Landscape and Urban Planning 60 (2)*, pp 59-72.

Thomas, S. (2014). Cyberparks will be intelligent spaces embedded with sensors and computers. Retrieved from http://theconversation.com/cyberparks-will-be-intelligent-spaces-embedded-with-sensors-and-computers-26837. Accessed 22/06/2015.

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A generative system supporting the decision-making process for regional strategic planning

ABSTRACT

The research departs from the fact that traditional planning tools employed in contemporary practice generally fail to reach their goals and, more specifically, are not able to trigger emerging and self-sustained processes of economic development. Through a generative system capable of supporting the decision-making process, we aim at setting a framework that allows strategic plans to be 1) more informed and comprehensive in the scope of the analysis and integrated in the treatment of different data types and variables; 2) less deterministic; 3) feedback-oriented; 4) more measurable and accountable in the implementation phase of the project. Such methodology allows cross-referencing different kinds of data to be used in planning (and policy-making processes) and to fine-tune hypotheses to match predefined goals according to various scenarios.

1 INTRODUCTION

1.1. Task and Object

The current system of information management and decision-making implied in the Italian planning context shows difficulties in modelling the dynamic processes of the real-world economy and of building needs.

By promoting the employment of multi-disciplinary analysis to the study of spatial and economic dynamics of the territory and the use of multi-dimensional datasets of geo-located information, we aim at identifying and making evident to all stakeholders the weaknesses and strengths of the existing or proposed spatial configurations. The main goal of our research is to test a methodology that could support, guide and inform the decision-making process in the context of regional planning processes in Italy.

The methodology will enable different stakeholders to interact on the construction of new models in the process of regional planning and in the evaluation of several development scenarios for the region. In order to do that, different methodologies will merge into the work: studies on regional strategic planning and regional governance, multivariable spatial analyses performed with GIS tools and parametric design of planning alternatives implemented into a CAD system by means of a visual programming interface.

1.2. Context

The research team set on implementing a decision-making support tool for developing and evaluating planning scenarios in Piedmont Region. This study has been seen as an occasion to propose a novel approach to the issue of regional and strategic planning for the Region. The reference for such approach has been the Planning and Compulsory Purchase Act developed in the UK in 2004. This act introduced some management techniques taken from the private sector, ultimately stating the supremacy of the performance over the bureaucratic procedure. This paradigm change is actually compatible with the latest additions in planning and territorial legislation in Italy, so it is not impossible to think about such methodology to be implemented and introduced in the current planning practice in Piedmont.

1.3. Need

In order to increase their accountability, political decisions become more and more of technical nature with two main emerging problems:

-    The need for dialogue and exchange with experts in different disciplines requires the knowledge of many languages, scientific and technical, and a basic knowledge in various fields. Complex strategic

analyses become increasingly necessary; with simplified visual means to take informed decisions without being an expert in many areas.

- The growing trend toward a more democratic and open participation of all the concerned parts in political decisions is in contrast with top-down decision making and finds difficulties in explaining the technical complexity of information and knowledge to be shared.

The purpose of the work is to develop a method for finding the suitability of a particular area within the Piedmont region to attract particular types of activities based on a comprehensive analysis of the existing land use behavior, in the case show here, the attraction of startup firms.

8.1 2. METHODOLOGY

The methodology employed in the study is partly borrowed from an urban design framework previously developed by some of the members of the current team (Gil, Almeida and Duarte, 2011 and Beirão et al., 2011) adding some original contribution in the field of strategic planning analyses and development planning.

The method stems from the idea that we can learn from the best existing theory and practice, but also from evidence on the "ground", and incorporate such knowledge into the design process. In order to do so, the method encapsulates two core complementary approaches: a **strategic analysis** of development potential, and a **reverse engineering procedure**.

The **strategic analysis** tries to understand the potential of all locations based on general spatial properties and indicators (first) at regional scale and (secondly) at local scale. The **reverse engineering procedure** then validates and weights those indicators based on the actual characteristics of the best examples of locations involving similar programs to those planned. Finally, by setting benchmarks based on those analyses, we define the transformations to apply in a specific intervention area that may transform the current properties and indicators into those set as benchmarks.

The application of the method implies the existence of a simple abstract goal or development vision; for instance: to define the strategy for improving the economic competitiveness of a particular intervention area. Once having defined the goal, the methodology can be illustrated as follows:

- Regional scale spatial analysis – identification of the regional spatial properties of all locations and of similar target areas.

- Local scale spatial analysis – identification of the local spatial properties of similar target areas.

- Design local solutions – setting parametric models that simulate the changes in properties in face of transformations to be applied through design.

In this paper we will illustrate the methods and the results concerning only the regional scale analysis related to the evaluation of one specific scenario: the suitability index of Piedmont for attracting start-up firms. Other scenarios (not shown in the paper) focus on finding the best locations for Foreign Direct Investment and areas of competitive advantage within Piedmont.

2.1 The spatial analysis

Both the regional scale and the local scale analyses are comprised of five steps:

1- Define through a literature review the indicators that may inform about the suitability of a place for locating start-ups;

2- Describe the individual places in the region according to those indicators;

3- Look for any correlation between the spatial indicators and the actual presence of start-ups to validate them;

4- Calculate the start-up location suitability index for the whole region, expressed through selected and weighted indicators;

5- Map the results of such analysis in a simple rating system.

2.1.1 Definition of the indicators for the regional scale analysis

The indicators chosen for the regional scale analysis have been selected from different fields of studies. Being the work focused on a very niche area of studies (the correlation between spatial planning and startup firms), it is easy to understand that no major theory can be found in the literature. Rather than a single theory, we aimed at gathering different theories that explain the correlations between spatial characteristics of a place and its economic and social performances.

Therefore, we selected and grouped the indicators to be used in our work into different themes that might be related with the emergence of startup firms: human capital, innovation, cultural attractiveness, spatial configuration and urban quality.

So, the full list of themes and their relative indicators at the regional level is:

Human capital (HC):

- Percentage of people in working age (18-40), within 30 minutes (30km car/2400m walk)

- Percentage of highly educated workforce, within 30 minutes

Innovation (INN):

- Number of research centers within 30 minutes

- Number of start-ups within 10 minutes (800m walk)

- Distance to nearest university

- Distance to nearest incubator

Cultural attractiveness (CA):

- Number of cultural facilities within 30 minutes

- Average distance to facilities within 30 minutes (accessibility)

- Distance to nearest natural area

- Area of nature within 30 minutes

Spatial configuration (SC):

- Mean global and local (30, 20, 10 minutes) (space syntax integration)

- Mean or max global and local (30, 20, 10 minutes) (space syntax choice)

Urban quality (UQ):

- Population density

- Presence of rail stations within 20 minutes

2.1.2 Describe the individual places

The regional analysis is performed measuring spatial characteristics within a municipal buffer, while the local analysis is performed taking in considerations the boundaries of the individual islands (later aggregated for municipality).

The municipal buffer used in the regional analysis is a circular buffer centered on the town hall building with a radius of 30km or 2.4km (distance measured as crow flies). The use of a circular buffer has been decided to increase the speeds of data processing and simplify the analysis. These two measurements (30km and 2.4km) have been chosen as a simplification of what can be labelled as the daily commute of 30min

using a car or by walking. To increase the precision/definition of the model in future research, we intend to use the network path (commuting time buffer) as buffer for the analysis.

As for the local analysis, we needed to perform calculations on the island level – especially for those indicators related to densities. In order to calculate results on the municipal level we then aggregated the results for each island in the municipal area into a single municipal result based on the average of all the islands inside the given municipality.

For those indicators that are expressed by the presence of a specific occurrence in the analyzed area (e.g. number of cultural facilities within 30 minutes) the result will be constituted by counting the number of occurrences.

For those indicators (such as: distance to nearest university) that are expressed by the metric distance of a specific element from the center of the municipality (considered to be the town hall) the results will be constituted by the inverse of the distance between the element and the town hall.

For those indicators that are measuring characteristics of the road network such as Mean global and local (30, 20, 10 minutes) space syntax integration, the result will be constituted by the mean of all the results inside the buffer zone.

For calculating the indicators we measure the count, the percentage, the area or average value of the features contained inside the municipal buffer, depending on the indicator's definition.

Figure 1. Table of regional analysis calculation – raw data

In order to assign a homogeneous score for each indicator, we introduced a benchmark system for 1 to 4, subdividing all the results returned by the calculations performed on each indicator by using quartiles.

The benchmark limits are defined by statistically dividing the results of each indicator into quartiles. For each indicator we calculate, we split the range in four parts with the same number of occurrences, obtaining the 25% of the sample in each quartile. We then use the 1st, 2nd and 3rd

quartile limits as benchmarks to assign a score of each indicator to every municipality.

Figure 2. Table of regional analysis calculation – rating after homogenization

2.1.3 Validate indicators

Once the characteristics are calculated, one should test to see if they are correlated with actual start-up locations (the number of start-ups per municipality, or the existence of start-ups in the municipality), if they are correlated with each other and finally select a set of relevant indicators. It is a simple linear correlation, to be done after normalizing all variables.

indicator	minimum	1st quartile	median	3rd quartile	maximum	mean	correlation
hc1_c	0.599	0.626	0.633	0.637	0.662	0.633	0.057
hc1_w	0.416	0.607	0.624	0.636	0.74	0.624	0.039
hc2_c	0.057	0.079	0.083	0.09	0.12	0.089	0.11
hc2_w	0.003	0.057	0.066	0.076	0.21	0.072	0.152
inn1_c	0	2	5	9	109	17.679	0.15
inn1_w	0	0	0	0	57	0.122	0.97
inn2	0	0	0	0	6	0.067	0.406
inn3	0	23243.548	33234.179	42426.006	116558.103	38944.92	-0.097
inn4	0	17091.491	27906.563	41441.413	104322.591	35899.42	-0.095
ca1_c	0	33	51	63	216	67.567	0.14
ca1_w	0	0	0	0	88	0.573	0.871
ca2_c	6568.347	17339.481	19241.675	20732.064	26944.671	19687.165	-0.173
ca2_w	0.004	2286.048	0	0	2390.911	968.573	0.013
ca3	0	1307.781	3197.933	5494.328	16154.493	4600.156	-0.021
ca4_c	0	151703887.7	250034627.5	331456467.7	1463875977	343554679.8	-0.027
ca4_w	0	0	0	0	27739646.38	1331894.172	-0.015
sc1_1	13.56216433	2200.346344	3856.841084	5827.096957	11053.13445	4631.005707	0.132
sc1_2	13.562	409.073	797.61	1128.186	4901.559	990.362	0.249
sc1_3	7.303	45.649	70.723	97.465	1661.093	96.146	0.621
sc1_4	6.742	13.15	16.389	20.011	129.88	20.04	0.395
sc2_1	41.263	9364399.619	17421473.54	29242137.35	232450117.8	31073550.23	0.076
sc2_2	41.263	963414.133	1450303.408	1995063.872	8423980.318	1851238.372	0.113
sc2_3	41.263	7616.291	12301.425	16037.877	184388.078	15241.123	0.506
sc2_4	12.256	97.726	131.052	182.583	1169.248	185.974	0.277
uq1_c	0	0	0	0	0.001	0	0.165
uq1_w	0	0	0	0	0.007	0	0.715
uq1_stat	0	0	0	0	0.007	0	0.696
uq2	0	0	0	0	3	0	0.181

Figure 3. Table of regional analysis calculation – result summary and correlation with startups location

2.1.4 Define suitability index

From the previous calculation, we are able to identify the relevance of each indicator in predicting which kinds of locations would be suitable for startups localization.

From the previous step we infer:

- The suitability direction depending on the direction of correlation, some indicators have a positive and others a negative influence (i.e. If the indicator value rises, does suitability increase or reduce?)

- The different weights based on the correlation score

Based on the indicator benchmarks defined in the previous table and the regional characteristics, we calculate the actual indicator scores for each municipality. These indicator scores are then shown in maps.

Using these indicator scores, we can finally calculate the suitability index for each municipality, applying the following equation:

$$SI = i_1 {}^* iw_1 + i_2 {}^* iw_2 + \ldots + i_n {}^* iw_n$$

Where "i" is an indicator score and "iw" is its corresponding weight, inferred from the correlation table

Looking at the specific case of the regional scale analysis, the weighted equation would be:

(hc2_c*0.11) + (hc2_w*0.152) + (inn1_c*0.15) + (inn1_w*0.97) + (inn2*0.41) + (inn3*0.097) + (inn4*0.095) + (ca1_c*0.14) + (ca1_w*0.87) + (ca2_c*0.173) + (sc1_3*0.62) + (sc2_3*0.50) + (uq1_w*0.71) + (uq2*0.18)

Such equation takes into account a selection of indicators based on the correlation (relevance) while weighting the impact for each indicator using the correlation score derived from the previous step.

Figure 4. Map of regional suitability index –global analysis weighted suitability scores

Figure 5. Map of suitability index for the Torino province – local analysis weighted scores

4   RESULTS AND CONCLUSION

This paper constitutes the primordial step of a bigger work that aims at bringing together spatial analyses on the regional scale and on the local scale in order to create a layer of geographic, configurational and morphological information to feed the parametric design algorithms employed in the decision-making support tool that will be proposed for large-scale strategic planning in Piedmont.

The methodology employed in this work has proven to be a valuable method to map suitability conditions for startup location within Piedmont region. While the accuracy of the results suffers from the quality of the raw data, the general outline of the methodology can be considered valid. In fact, the lack of data available on the region jeopardized in some cases the chances to perform a correct calculation for some of the selected

indicators, but the methodology employed with more detailed data will produce more detailed results.

However, by looking at the first results of the work, some valid patterns emerge encouraging a more thorough work based on more reliable datasets. Anyhow, such early results can constitute a valid base for the parametric design phase of the study which will be the object of some future work. In this respect some – even if incomplete – findings validate the hypothesis that there are correlations between the actual presence of startup and local spatial conditions. Such correlation would be the basis for defining a valid development strategy for designing suitable environments for startups.

5   ACKNOWLEDGMENTS

6   REFERENCES

Batty, M., Dodge, M., Jiang, B., Smith, A. (1998) GIS and urban design, CASA UCL, London

Dave, B., Schmitt, G. (1994) Information systems for urban analysis and design development, Environment and Planning B: Planning and Design, 21 (1), p.p.83 – 96

Gil, J., Almeida, J., Pinto Duarte, J., (2011) The backbone of a City Information Model (CIM): Implementing a spatial data model for urban design, Proceedings from 29th eCAADeConference, pp.143-151

Yeung, A., Hall, G.B. (2007) Spatial Database Systems: Design, Implementation and Project Management, Springer-Verlag, Berlin

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Zagreb's Borongaj Campus: An Urban Challenge or a New Approach for a Better City?

ABSTRACT:

In 2007, the first phase of the Borongaj Campus was opened on the former Borongaj military base in the eastern part of the City of Zagreb. The partial relocation of faculties and students' facilities has raised many questions ever since. How will the relocation affect the city centre? How will it affect the Borongaj neighbourhood? Will it contribute to the development and better quality of life in the eastern part of the city? How will it affect students' life? This paper tries to answer these questions based on a survey conducted at the campus and the surrounding area in 2014.

1 INTRODUCTION

The retreat of the Yugoslav People's Army (JNA) from its former military bases and the establishment of the Armed Forces of the Republic of Croatia in 1991 led to significant changes in the structure of military facilities. The restitution of military property began in 1992 and to date, over 300 military facilities across the Republic of Croatia have been the subject of restitution (State Property Management Office, Croatian Privatisation Fund, 2004). Among other facilities, in 2006, the Ministry of Defence transferred the Borongaj military base to the Ministry of Science, Education and Sports.

The first adaptation of the former base began in 2007. In 2013, the Zagreb City Assembly adopted an urban development plan for the Borongaj student campus with a detailed construction plan for the forthcoming period, while the University of Zagreb cites the construction of the Borongaj research/university campus as one of its core objective in the University of Zagreb Spatial and Functional Development Strategy 2013-2025.

There are now three faculties located at the Borongaj Campus, attended by approximately 5,500 students. The relocation of several more faculties is envisaged for the period to 2017/18. The construction of the campus and the relocation of faculties and students will have multiple consequences in the development of the city. The relocation of the faculties will necessarily lead to changes in the spatial/functional structure of some parts of the city. Concurrently, the construction of a campus in the area of the Pešćenica – Žitnjak city district constitutes both an urban challenge and an opportunity to improve the quality of life in this city district.

2   THE THEORETICAL BASIS OF THE STUDY

2.1 THE RESEARCH OBJECTIVE AND METHODOLOGY

This paper reviews the development of the Borongaj Campus, at the site of the former military base, posing in the process a number of questions that can be divided into two groups. The first group consists of questions related to the university campus complex itself and the problems that arise in relation to the process of repurposing military brownfield sites. The process of the repurposing of the military complex into a university campus presents a series of potential issues associated with the location's image, quality of services, residence satisfaction, traffic connectivity and the like. The second group consists of questions regarding the impact of the development of the campus in terms of changes to the spatial and functional structure of the eastern part of the city, in particular the Pešćenica–Žitnjak city district. The key question is whether the construction of the campus can contribute to the process of urban renewal

and urban regeneration, and whether it can contribute to a better quality of life and the emergence of a better city.

The first section of the paper reviews the literature and offers an overview of the existing and available data on the topic of the educational repurposing of military brownfield sites with a particular emphasis on individual examples in Croatia. This is followed by a brief theoretical overview of the issues of urban renewal and regeneration and the impact of repurposing in terms of changes to the spatial and functional structure of the city and the image of the city or any particular part thereof. The third section of the paper reviews the repurposing of the Borongaj Campus and presents an analysis of opinions among users of the campus. The fourth and final section of the paper offers an analysis of the spatial/functional structure of the immediate neighbourhood of the campus and an analysis of the potential impact of the Borongaj Campus on the quality of life of the city district.

A survey was conducted on a sample population of 520 students at three faculties, in order to obtain data on the level of students' satisfaction with the residence at the campus. The students were selected on the basis of a quota sampling method, where attention was given to the representation of students of individual faculties in the overall student population at the campus and to the representation of students from all study years within individual faculties. Data on the total number of students at individual faculties and by year of study was received from the administrative services of the University of Zagreb. Of a total of 520 students, 212 (40.8%) were from the Faculty of Political Sciences, 164 (31.5%) from the Centre for Croatian Studies and 144 (27.7%) from the Faculty of Education and Rehabilitation Sciences. In terms of gender, 67% of the respondents were female and 33% were male students. The survey was conducted in January and February of 2014. The survey questionnaire consisted of 28 close-ended and semi-close-ended questions. The first part of the questionnaire consisted of 11 questions related to the location of the campus within the city of Zagreb, the connectivity and accessibility of the campus and questions related to the methods of travel to the campus. The second part of the questionnaire consisted of 11 questions related to the topic of establishing the campus on the area of a former military brownfield site and satisfaction with residence and life on the campus. The last 5 questions pertained to an assessment of familiarity with the neighbourhood of the Borongaj Campus. A trial survey was conducted at the Centre for Croatian Studies in December of 2013 on a base group sample of 30 students to test the survey questionnaire. As the survey was shown to be measureable, these results were also included in the study.

A mapping of functions was conducted in the area of the Pešćenica–Borongaj city districts with the objective of obtaining data on the spatial/functional structure of the immediate neighbourhood of the campus. The mapping was conducted in November of 2014 by second-

year undergraduate geography students in the frame of their seminar paper for the Economic Geography course.

2.3 LITERATURE REVIEW

The topic of the repurposing of structures and sites and the impact of the new functions on the surrounding area is very much a current topic in international research and specialist literature, both in the field of geography and in related professions. The literature can be divided into several categories. The first consists of papers that endeavour to define the concept of a brownfield site. The second group consists of papers that analyse repurposing while emphasising the actual process of repurposing and the potential consequences. The third group of papers consists of those papers that review examples of the repurposing of particular locations, most frequently opting for an analysis of individual types of brownfield areas (military, residential, industrial, etc.). The last group consists of papers that treat problems associated with the contamination of brownfield areas and the problems associated with the rehabilitation and repurposing of these areas. Prominent among the many papers that deal with the definition of the brownfield concept are Alker et al. (2002), which offers a definition of the brownfield concept, and Cheng et al. (2009). Repurposing topics are the particular concern of Hollander et al. (2010), which presents the basic principles of the repurposing of brownfield sites and a book by Tallon (2010) which analyses urban regeneration in cities in the United Kingdom, observing how the repurposing of brownfield sites impacts urban renewal and regeneration processes. Also noteworthy is a book edited by Dixon et al. (2007) that deals with the repurposing of problematic brownfield areas and their repurposing and the formation of pleasant places to live. The comprehensive paper by Thornton et al. (2007) offers an overview of initiatives for the repurposing of brownfield sites in Europe, with a particular focus on the possibilities for co-financing on the part of the European Union.

A significant number of papers deals with the repurposing of brownfield sites into green areas – noteworthy are works by Pediaditi (2010) and Atkinson (2013) that analyse the social and environmental benefits of the repurposing of brownfield sites into green areas. An interesting paper by Siikamäkia & Wernstedt (2008) deals with the problems associated with the repurposing of brownfield sites into green areas.

Although a significant number of authors deals with the repurposing of industrial brownfield sites, some authors have discussed the repurposing of military brownfield sites, including a paper by Cidell (2003) that reviews the transport repurposing of a former military base into an airport and a paper by Bagaeen (2006) that analyses the possibility of the sustainable repurposing of military brownfield sites. Also noteworthy are a paper by

Davidson (1994), as one of the first to offer an overview of military brownfield repurposing policies in the USA, as well as works by Brzoska et al. (2000) and Thanner & Wechsler Segal (2008) that analysed the effects of the shutdown of military facilities on the local population.

The CONVERNET network is of particular interest to the present study. It offers an overview of the repurposing of military brownfield sites and the F.A.T.E. project that, *inter alia*, deals with the repurposing of military structures in Osijek-Baranja County, including the Drava and Gaj military bases in Osijek, which have been repurposed as a university campus.

The Croatian scientific literature on the topic of the repurposing of brownfield sites and in particular on the topic of the repurposing of military brownfield sites, is relatively modest. Prominent among the literature is the work of Đokić and Sumpr (2010) that deals with the repurposing of brownfield sites in Croatia and of Miletić and Mišetić (2010) that outlines the results of a study on the topic of the repurposing of the former Borongaj military base into a university campus. Certainly worth mentioning is a paper by Knežević (2009) that deals primarily with urban projects and the architecture of buildings. In papers by the same author from 1999 and 2003, she offers a look at the conversion and repurposing of the former Rudolf military base in Zagreb. Noteworthy among the papers that deal with military brownfield sites is a book by Kardov and Tabak (2014) that offers a selection of examples of the repurposing of military brownfield structures in Croatia. Also noteworthy are the papers providing an overview of the repurposing of brownfield sites in the city district of Črnomerec and the repurposing of military brownfield sites in the city of Pula (Jakovčić, 2014; Jakovčić et al. 2013).

Along with literature on the repurposing of brownfield sites, the available literature on the subject of the construction and development of campuses was also studied for the purpose of this study. Particularly noteworthy among these are the works of Auf-Franić et al. (2003) dealing with the campus of the University of Rijeka and of Violich (2003) on the impact of the campus on the formation of the identity of a city district.

2.3 DEFINITION OF TERMS: BROWNFIELD SITE, URBAN RENEWAL, URBAN REGENERATION

A city is a complex physical system in which various political, demographic, economic and ecological changes occur. The functions of the city consist of sundry social, functional, morphological and ecological components in a constant state of flux. Each city has an individual character, but at the same time, all cities have certain common characteristics that differ in terms of intensity and significance. All cities have areas intended for housing, work, traffic, recreation, commercial infrastructure, public functions and services, social infrastructure and the like. At the same time, all cities face the problems of empty and

underutilised areas. These are problem areas, but also constitute a valuable resource and an urban challenge. The issues of urban renewal and regeneration are thus particularly current.

The issue of brownfield and other underutilised sites is very current, both in scientific and specialist literature and among other actors of spatial planning and management. We can define brownfield sites as abandoned or underused locations devastated by former usage of the area, mostly located in urban areas, inheriting real or perceived ecological problems and in need of intervention (Dixon & Raco, 2007). Underutilized urban spaces can be defined as city spaces that are underused and whose value is greater than the value of its current use. The logic of this concept reminds of Neil Smith's "rent gap" concept that describes the difference between actual realized and potential future economic valorisation (Smith, 1979). In literature we find multiple classifications of brownfield sites depending on the criteria applied. With regard to location within a city, Perović, Kurtović&Folić (2012) differentiated between three locations: city centre, city periphery and the historical core of the city. In terms of former function, Page&Berger (2006) identified four basic types of sites: industrial, military, transport and residential. Of interest in studying the process of the repurposing of the Borongaj Campus and of its impact on the surrounding area are the models proposed by Alker et al. (2000). The first model places the emphasis on environmental and technical factors. The second, more relevant for the present study, includes the problems and development potential of surrounding areas, socio-economic factors, societal values and policy instruments.

Predominant today in terms of the number of locations are industrial brownfield sites. Given the topic of the paper we will, however, touch briefly on military brownfield sites. According to Bagaeen (2006), military brownfield sites are built-up or utilised parts of areas on which structures existed that were used for military purposes or intended for military personnel, such as bases, barracks, military encampments, air fields, training grounds, housing or the like, and other military structures or areas. Brzoska et al. (2000) offer a somewhat more detailed typology of military property, in the process also identifying potential repurposing problems. According to the data of the Ministry of Defence, over 300 military structures have been abandoned to date in the Republic of Croatia, rendering them military brownfield sites.

What the future purpose of these structures will be, is contingent on a broad series of factors, such as the size of the structure and land plots, the location, access and availability, the level of contamination, the quality of the environment, urban planning policies, the societal status of urban planning experts, the status of the economic actors, the status and role of civil society associations etc. (Svirčić Gotovac 2011, Svirčić Gotovac 2010, Kiss 2009, Čaldarović & Šarinić, 2008). In terms of future content and new function, we can isolate the following basic types of functional repurposing: commercial, service sector, private sector, entrepreneurial, administrative, culture, education, recreation, residential, transport and

mixed. Educational repurposing usually implies the repurposing of a structure into university campuses or secondary school centres. What the conditions of future repurposing of military brownfield sites will be, depends on the state of the land plot, the state of the superstructure and on their specificities. In general, buildings on military land are suitable for civilian repurposing, although there may be some technical and culturological issues (Brzoska et al. 2000).

The repurposing of military brownfield sites is fraught with numerous difficulties. Brzoska et al. (2000) identify several groups of potential obstacles in the process of repurposing military brownfield sites. The first set of obstacles is institutional in nature, primarily associated with the question of land ownership and the compensation of value. We can also include issues associated with supervision of, and responsibility for, abandoned land in this group. The second set of issues is associated with environmental contamination and remediation. Two problems emerge in this regard. The first is determining the existence and extent of contamination, and the second is the issue of financing remediation. The third group of potential obstacles is the variety of structures and the varying levels of their possible exploitation. The fourth group of obstacles is the devastation of structures and the removal of parts of the infrastructure. The fifth group of obstacles are political issues that are reflected in the decisions to shut down and repurpose and also in the decision on the future function of the, formerly military, land.

The repurposing of brownfield or underutilised sites constitutes an urban challenge, but can concurrently induce the processes of urban renewal and regeneration. As a rule, urban renewal financing is public-sector driven and is linked to large-scale redevelopments. The process of urban regeneration focuses on urban growth and uses public funds to level in largely undirected market investments (Tallon, 2010). According to Roberts (2000), urban regeneration is a comprehensive and integrated vision and action which leads to the resolution of urban problems, and which seeks to bring lasting improvement (Tallon, 2010). In this regard, Tallon differentiates between four approaches to urban regeneration. The first approach is economic with the objective of creating jobs, increasing revenue and employability. The second is a social or cultural approach targeted at raising the quality of life, health, education, residential conditions, the quality of public function and reducing the level of crime. The third is a physical or environmental approach, with the goal of raising the quality of the built-up and natural surroundings and of improving traffic and communication. The fourth and final approach is administrative with the goal of including all interested segments of the population and the development of the participatory planning and management of a city. According to Turok (2005), the last 15 years have seen three approaches or urban regeneration agendas (Tallon, 2010). The first approach is an urban renaissance that focuses on the physical and ecological component and that puts emphasis on the renewal of brownfield sites in individual parts of the city. The ultimate objective is urban design of a high standard,

the development of mixed-use environments and the development of sustainable cities. The second approach or agenda is the social inclusion agenda, which is targeted at the social conditions in particular city districts, and encourages the development of social capital and the participation of the local community, with the objective of regenerating neighbourhoods and city districts. The third agenda is targeted at economic development and competitiveness, with the objective of raising productivity and innovation. The construction and development of a student campus could be a step towards an urban renaissance, the improvement of social conditions and the integration of city districts.

The departure of old and the introduction of new functions will, undoubtedly, have a significant impact on the surrounding city districts. Over time, particular buildings become part of the identity of individual city districts. At the same time, the introduction of new content opens opportunities to re-image the area.

3 THE BORONGAJ CAMPUS

There are several examples of educational repurposing of military brownfield sites in Croatia. The already cited F.A.T.E. project was involved in the repurposing of the Gaj and Drava military bases into a university campus in Osijek. The construction of the campuses was conducted in several phases and was hampered by archaeological excavations (Nadilo, 2010). There is also the example of educational repurposing in Pula, where part of the Istarskih Brigada military base, with an area of 10,013 m^2, was given for concession to Monte Zaro Elementary School (Jakovčić et al., 2013). Educational repurposing also took place in the City of Rijeka where, of the former 37 hectares of the Trsat military base, 28 hectares were repurposed as a university campus. A complete repurposing has yet to be completed and works were announced in February of 2015 on the construction of student dormitory facilities (Ožanić & Hero, 2010). There are two major educational repurposing of military brownfield sites projects in the City of Zagreb. The first is the development of the premises of the Croatian Catholic University at No. 242 Ilica Street, and the second is the Borongaj Campus, which is the subject of this study.

The Borongaj university campus is situated in the eastern part of the city of Zagreb in the area of the Pešćenica–Žitnjak city district. A rail line passes to the north of the campus that also forms a physical barrier. The campus is situated in the area of a, once predominantly industrial city district, that has experienced a transformation over recent decades, but where the warehousing and industrial function continues to dominate the area. To the east of the campus is Vukomerec, a residential settlement dominated by family houses.

Figure 1. The location of the Borongaj Campus

3.1. THE DEVELOPMENT OF THE LOCATION UP TO ITS REPURPOSING

At the start of the 20th century, the area of the present day campus was agricultural land. The first, fully equipped airport in Zagreb was opened in the immediate vicinity of the current campus in 1926 (the first take-off and landing strip in the Črnomerec city district, opened in 1906, lacked all of the necessary infrastructure). The first regular line from Zagreb to Belgrade was established from the Borongaj airport in 1928, followed soon thereafter by other lines to major European cities. During World War II, the area had a military function. After the World War II, a Yugoslav People's Army (JNA) military base was built at the site of the current campus. In 1991, the military base came under the administration of the Croatian Army. The main building of the former Borongaj airport is now protected as immovable cultural property – a cultural and historical complex and is part of the Končar company.

In 2006, the Ministry of Defence transferred the site of the former military base to the Ministry of Science, Education and Sports and in 2007 the first phase of the development of the complex began, with fifteen former military buildings transferred to the University. A public tender was announced in 2010 for its urban/architectural development. In 2011 the tender was closed, with first prize awarded to Njirić + arhitekti d.o.o. for its Park B project proposal. A declaration was signed that same year on the development of the second phase of the campus and the preparation of documentation began for an application for European Union funding. A decision was adopted in 2012 to draft an urban development plan for Borongaj. In 2013, the City Assembly adopted the urban development plan. A contract was signed in 2014 between the Government of the

Republic of Croatia and the University of Zagreb on the donation of property to the university for the purpose of the construction of a research/academic campus.

3.2. THE DEVELOPMENT OF THE BORONGAJ CAMPUS SITE

The total area of the complex is 92.8 hectares. The first phase of the development of the Borongaj Campus was launched in 2007. In 2011, the architectural firm of Njirić + arhitekti d.o.o. won the urban/architectural development tender with its Park B project proposal. The project envisages the eastern campus area as a green research oasis.

To date, nine structures have been adapted to a greater or lesser extent in the area of the campus housing the Centre for Croatian Studies, the Faculty of Education and Rehabilitation Sciences, the Faculty of Transport and Traffic Sciences and the Faculty of Economics and Business. A student cafeteria has been set up and the yards of the buildings have been landscaped. There are now some 5,500 students studying at the campus. In accordance with the university development strategy, the coming period should see the gradual relocation to the campus of the Faculty of Food Technology and Biotechnology, the Faculty of Chemical Engineering and Technology, the Faculty of Political Science, the Faculty of Textile Technology and the Faculty of Graphic Arts.

3.3. THE CAMPUS AS AN URBAN CHALLENGE

The development of the Borongaj research/academic campus needs to be observed in the broader context from two aspects. The first aspect is the strategic plan of the University of Zagreb, which foresees the parallel development of four campuses in the city of Zagreb. Two of the campuses are situated in the central parts of the city and two in the zones outside the city centre. The central campus is the oldest and, for now, the largest one and stretches from the building of the Rectorate on Trg Maršala Tita square, along the western arm of the "Green Horseshoe" and the three faculties on Ivana Lučića Street, crossing the Sava River and continuing on to the Zagreb Grand Fairgrounds (Zagrebački Velesajam) and the Brodarski Institut. This is often referred to as the "University Axis". The northern campus stretches across the Gornji Grad – Medveščak city district and includes the School of Medicine, the School of Dental Medicine, the Faculty of Pharmacy and Biochemistry, the Catholic Faculty of Theology, the Faculty of Science and the Ruđer Bošković Institute, the Institute of Physics and the Institute for Medical Research and Occupational Health. The western campus gathers three complementary elements: the Faculty of Kinesiology, the Stjepan Radić student dormitory and the Mladost sports' park. A new sports facility and fields are to be

built in the coming period in the area of the western campus in the frame of a sports/education centre. A tender was conducted in 2014 for the architectural conceptual design required for the construction of the centre. The eastern campus consists of two parts: the northern part alongside Maksimir Park and the southern part, i.e. the Borongaj Campus. It should be noted that despite the fact that the University of Zagreb, in its strategy, views the cited faculties and institutions as parts of campuses, they are in fact not actual campuses, not constituting a physiognomic whole, but rather a concentration of separate institutions situated in relative proximity to each other. The Borongaj Campus is an exception in this regard.

Figure 2: Campus Borongaj in the "campus concept" of the University of Zagreb

The second aspect to the construction of the Borongaj Campus is the dimensioning of the campus itself and its location in the eastern part of the city of Zagreb and the possible positive and negative impacts both on the Pešćenica–Žitnjak city district and on neighbouring city districts, but also on the central parts of the city. The University of Zagreb's strategy envisages a total of nine faculties at the location and almost 10,000 students. This number of students requires constructing and setting up the accompanying infrastructure both for "st'dents' life" on campus and for the traffic infrastructure and links to the campus itself. The construction of the student campus will lead to changes in the spatial/functional structure of the settlement in which it is located. The construction of the campus may stimulate the construction of a large number of housing units for the needs of students, which did in fact occur in the area in the immediate vicinity of the Borongaj Campus. At the same time, the development of a campus of that capacity may lead to a change in the image of a particular part of a city and the reimagining of the area. The construction of a modern campus, sustainable in terms of energy consumption, may contribute to sustainable urban development and become a new point of urban focus in the development and application of new technologies. The construction of the campus and the departure of a significant number of students from

other university zones may, however, have a negative impact on the "life" of the central parts of the city. Also, in the case of a fenced campus, which is now the case given that the campus is enclosed by a fence and a green belt, it does not become an integral part of the city district in which it is situated and does not fulfil the previously cited functions.

3.3.1. Survey Results

The final section of this paper reviews the results of the survey conducted among students at the Borongaj Campus. The survey was conducted in January and February of 2014 on a sample population of 520 students, which constitutes approximately 10% of the population currently studying at the campus. In the total sample, a quota sampling method was used and the structure of the survey respondents and their number corresponds to the structure and number of students per faculty. Also, in the total sample population, 33% of respondents were male and 67% of the respondents were female students. The comprehensive survey questionnaire consisted of 28 questions that investigated students' satisfaction with the residence in the campus, their knowledge of the brownfield concept and satisfaction with their stay in the repurposed structures, the traffic connectivity of the campus with other parts of the city, and their knowledge of the surrounding area in the Pešćenica – Žitnjak city district. This paper reviews only some of the results.
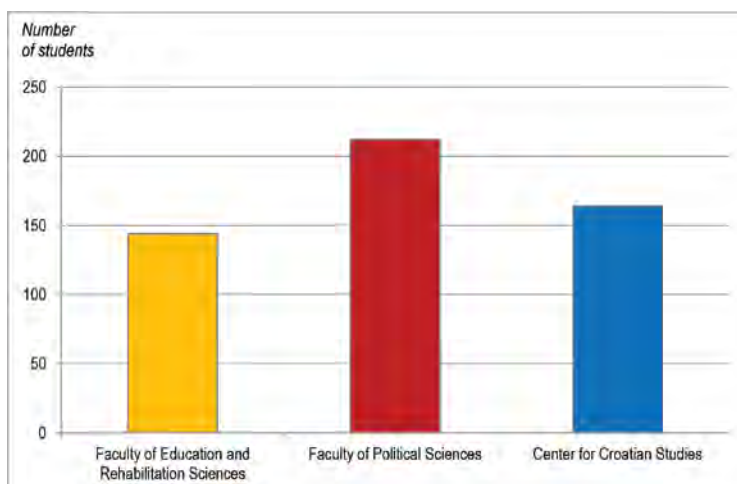
Figure 3. The structure of respondents by faculty

Of the surveyed students, 98.8% were not aware of the brownfield concept, but over 80% of the respondents knew what the former function of the campus was. This share was highest at the Faculty of Education and Rehabilitation Sciences and lowest at the Faculty of Political Science. In spite of not being aware of the brownfield concept, but aware of the former function, a significant number of respondents answered that they favoured the adaptation of the structures when asked if they were in favour of their demolition or adaptation.

Interviewee 1: *"…leave the buildings, because adapted hangars are very interesting and special…"*

Interviewee 2: *"All of the buildings should be used for any function. Demolition is not necessary, but renovation and functionality are completely necessary."*

Interviewee 3: *"The buildings are visually ugly, but they only need to be adapted."*

Interviewee 4: *"The old buildings can stay, but slightly adjusted and that's ok."*

Interviewee 5: *"I think the money for renovation is wasted. It is more useful to demolish and build new ones!"*

The second set of questions was related to satisfaction with campus facilities and services. On a scale from 1 (not satisfied at all) to 7 (completely satisfied), the students evaluated individual facilities and services. The results are shown in the figure. Continuing from this, the students were asked what content and functions they felt were lacking on campus. Their responses are shown in the figure. We see that most of the content is related to food, accommodation and leisure time. This content should be one of the basic functions of the campus and is essential to its functioning as a spatial/functional whole. Almost half of the respondents (42.9%) spend from 3 to 4 days a week on campus, and a further 21% over 4 days a week, 51.5% spend 4 to 6 hours a day on campus. Asked if they were interested in participating in public campaigns to clean up and effect minor adaptations in the campus area, an equal number of respondents answered that they were not interested (40.1%) or were interested if it was at a particular set time period (4.2%). Only 13.5% responded that they were not interested in participating regardless of the time period. This high lack of interest or conditional interest may indicate that students have not accepted the campus as "their home" and therefore feel no need to actively participate in its life.
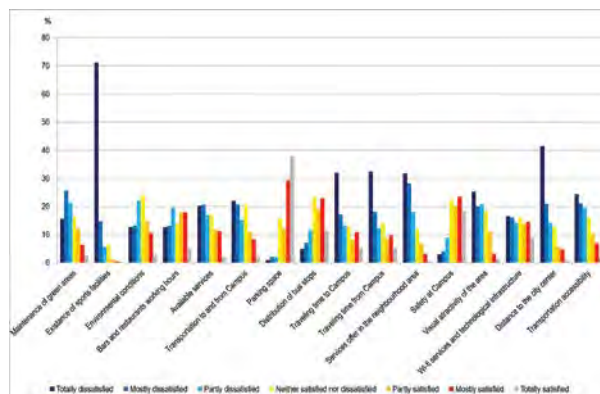

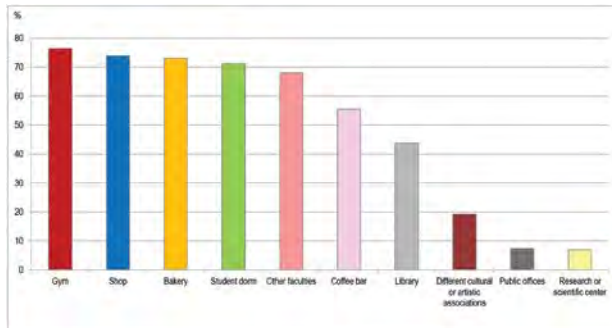Figure 5. Satisfaction with facilities / services at the Borongaj Campus

Figure 6. What facilities or services would you think campus should have?

The third set of questions was related to knowledge of the area around the campus. Only if the campus and the surrounding area are integrated, can the campus become the new pillar or urban focus of the eastern part of Zagreb and potentially act as a "trigger" for the transformation of the image of this former industrial zone of the city. Asked how much they know about the area around the campus, 42.2% of respondents said that their knowledge of the surrounding residential settlements was very poor or relatively poor. Also, just under 65% of respondents that do not hail from Zagreb said that they would not take up residence in the surrounding residential areas. Bearing in mind that students come to Zagreb both to study and on account of other attractive factors such as the size of the city, the offer of entertainment and other content, which are to a significant extent located in the central parts of the city, this answer is expected.
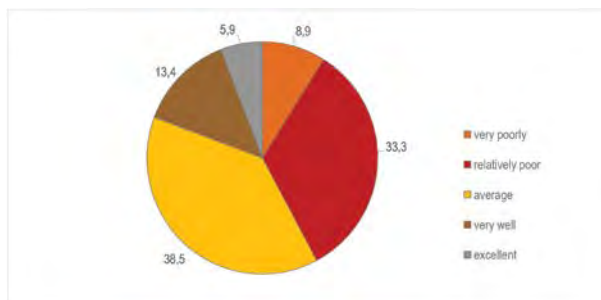
Figure 7. How would you grade your knowledge on the area around the campus?

The final group of questions was related to traffic accessibility to the campus. Considering the former function of the campus, the emphasis in connectivity was on motor vehicle transport, while public transport links were neglected. Occupancy of a part of the campus was accompanied by the introduction of a bus line. Asked how satisfied they were with transportation accessibility of the campus, 58,5% of respondents said that they are either totally or mostly dissatisfied. The biggest transportation problems, in their opinion, are the frequency and number of bus lines to and from Campus. And having in mind that 82,7% of students always or

frequently use public transportation as a mean of transport to and from campus, this represents a serious problem.
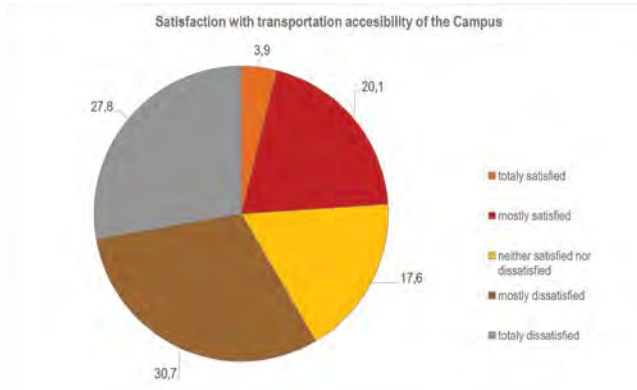

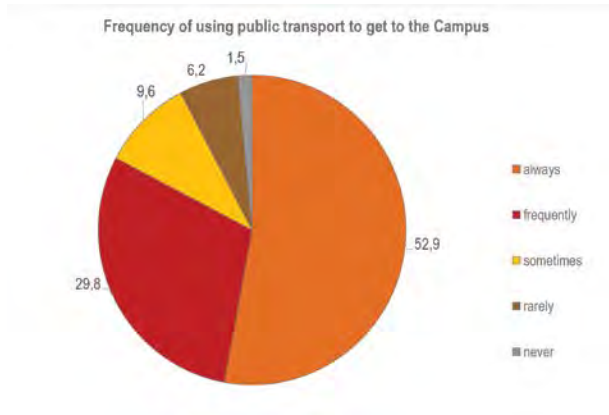Figure 8. Satisfaction with transport accessibility of the campus

Figure 9. Frequency of using public transport to get to the campus
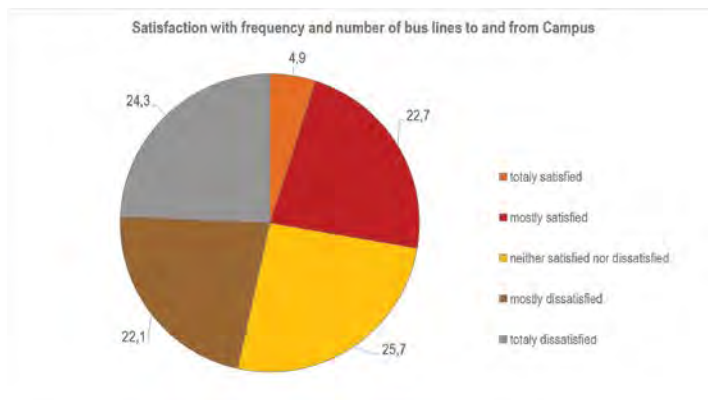

Figure 10. Satisfaction with frequency and number of bus lines to and from the Campus.

4. CONCLUSIONS

The construction of the Borongaj Campus constitutes an urban challenge, but also an opportunity to change the image of the eastern part of Zagreb and the city district of Pešćenica–Žitnjak and to create a new urban focal point or a new approach to a better city. The survey conducted among students at the three faculties of the Borongaj Campus shows that the majority of students are interested in preserving the heritage and traces of the site's former functions. The survey also showed that students are relatively satisfied with the campus itself, but that they suggest the introduction of contents that should contribute to the development of the campus as an integral functional whole. Meanwhile, the survey showed that students are poorly informed about the surrounding area and spend little time and have little communication with the surrounding area, which does not fulfil the basic premise whereby the campus should become the pillar of the urban development of the eastern part of the city or an approach to the development of a better and more sustainable city.

5. REFERENCES

Alker, S., Joy, V., Roberts, P., Smith, N., (2000), The Definition of Brownfield, Journal of Environmental Planning and Management, 43 (1), pp. 49-69.

Atkinson, G., Doick, K.J., Burningham, K. (2014), Brownfield regeneration to greenspace: Delivery of project objectives for social and environmental gain, Urban forestry and Urban Greening, 13 (3), pp.586-594

Auf-Franić, H., Rister, V., Roth-Čerina, M. (2003), Dimenzioniranje prostora sveučilišta na priomjeru campusa Sveučilišta u Rijeci, Prostor, 11 (2), pp185-193

Bagaeen, S. G., 2006: Redeveloping former military sites: competitiveness, urban sustainability and public participation. Cities: The international Journal of urban policy and planning, 23, 5. Los Angeles, 339-352.

Brzoska, M., Franko, P., Husbands, J. (2000), Typology of military assets, Bonn International Center for Conversion, pp.78.

Chen, Y., Hipel, K.W., Kilgour, D.M., Zhu, Y., (2009), A strategic classification support system for brownfield redevelopment, Environmental Modelling and Software, 24, pp. 647-654

Cidell, J. (2003), The conversion of military bases to commercial airports: existing conversions and future possibilities, Journal of transport geography, 11 (2), 93-102

Čaldarović, O., Šarinić, J., (2008), First signs of gentrification? Urban regeneration in the transitional society: the case of Croatia, Sociologija i prostor, 46(3-4), pp. 369-381

Dixon, T., Raco, M., (2007), Introduction, in: Dixon, T., Raco, M., Catney, P., Lerner, D.N. (ed.): Sustainable Brownfield Regeneration. Liveable places form problem spaces. Oxford, Blackwell Publishing, 3-8.

Đokić, I., Sumpor, M. (2010), Brownfield redevelopment in Croatia, Privredna kretanja i ekonomska politika, 123, 57-86

Hollander, J.B., Kirkwood, N.G., Gold, J.L., (2010), Principles of brownfield regeneration. Washington D.C, Island Press, 135 pp.

Jakovčić, M., Kajinić, J., Gašparović, S., 2013: Prenamjena vojnih brownfield lokaliteta: primjer prenamjene vojarne Karlo Rojc u Puli, Annales, Series historia et sociologia 23, 2; 487-500

Jakovčić, M., 2014: Od industrijsko – vojne četvrti do novih gradskih funkcija – urbanogeografska analiza funkcionalne prenamjene industrijske i vojne baštine na

području gradske četvrti Črnomerec u Zagrebu, In: Palinić, N., Rotim Malvić, J., Đekić, V. (eds.) Zbornik V. međunarodne konferencije o industrijskoj baštini posvećen temi Rijeka i industrijsko graditeljsko naslijeđe baština arhitekture i građevinarstva PRO TORPEDO Rijeka, 813-830

Kiss, E., (2009): Major trends in the development of industrial areas of Budapest in the early 21st century, Hungarian Geographical bulletin, 58(3), pp.163 – 180.

Knežević, S., 1999: Povijest područja bivše Rudolfove vojarne u Trga Francuske republike u Zagrebu, Godišnjak zaštite spomenika kulture Hrvatske, 22/23, 57-72.

Knežević, S. 2003: Rudolfova vojarna i Trg Francuske Republike – novi zapadni perivoj, u: Knežević, S. Zagreb u središtu, Barbat, Zagreb, 101-127.

Knežević, S. 2011: K. u. K. vojarne u Zagrebu, u: Knežević, S. Zagreb: grad, memorija, art, Meandarmedia, Zagreb, 61-99 str.

Miletić, G. M., Mišetić, A., 2010: Sveučilišni kampus Borongaj u Zagrebu. Prostor, 40, 18. Zagreb, 412-423.

Nadilo, B. (2010). Sveučilišni kampus u Osijeku, Građevinar, 62 (3), pp. 229-241.

Ožanić, N.; Hero, M. (2010). Sveučilišni kampus u Rijeci, Građevinar 62 (5), pp. 377-388

Page, G. W., Berger, R. S., 2006: Characteristics and land use of contaminated brownfield properties in voluntary clean up agreement programs, Land Use Policy, 23, 551 - 559

Pediaditi, K., Doick, K.J., Moffat, A.J., (2010), Monitoring and evaluation practice for brownfield, regeneration to greenspace initiatives A meta-evaluation of assessment and monitoring tools, Landscašpe and Urban Planning, 97 (1), pp. 22-36.

Perović, S. & Kurtović Folić, N. (2012). Brownfield regeneration – imperative for sustainable urban development. Građevinar, 64 (5), pp. 373–383.

Siikamäki, J., Wernstedt, K., (2008), Turning Brownfields into Greenspaces: Examining Incentives and Barriers to Revitalization, Journal of Health Politics, Policy and Law, 33 (3), pp. 562 – 591.

Smith, N. (1979). Towards a theory of gentrification. A back to the city movement by capital, not by people. Journal of the American Planning Association, 45 (4), pp.538–548.

Središnji državni ured za upravljanje državnom imovinom (2004). Izvješće o evidenciji nekretnina. Zagreb, Hrvatski fond za privatizaciju.

Svirčić Gotovac, A., (2011), Aspekt ugroženosti javnih prostora, in: Mjesto nemjesto (eds. Čapo, J., Gulin Zrnić, V.), Biblioteka Nova etnografija, Zagreb, pp. 303-316

Svirčić Gotovac, A., (2010), Aktualni rervitalizacijski i gentrifikacijski procesi na primjeru Zagreba. Sociologija i prostor, 48 (2). pp. 197-221.

Tallon, A., 2010: Urban regeneration in the UK. Milton Park, Routledge

Thanner, M.H., Wechsler Segal, M. (2008), When Military Leaves and places change: Effects of closing of army post on the local community, Armed Forces and Society, 34 (4), pp.662-681

Thornton, G., Franz, M., Edwards, D., Pahlen, G., Nathaniail, P. (2007), The challenge of sustainability: incentives for brownfield regeneration in Europe, Environmental Science and Polici, 10 (2), pp. 116-134.

Violich, F. (1995), Identity: key to meaningful place-making Prostor, 3 (2), pp. 201-216

The city as a whole: urban narratives and perspectives

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Learning Architecture: City/School, the Case of Skopje

ABSTRACT

This research focuses on the issue of learning architecture through the relationship between the school of architecture and the city, in a period when they both undergo changes. The dramatic change of the city calls for the re-consideration of the modes of conceiving, acting and studying the architecture of the city. However, if we cannot presently establish a general dominant model in respect to the city, we can still map a future paradigm concerning the relationship between the school of architecture and the city, through a number of particular projects. In various projects and exercises elaborated for the city of Skopje by the students of the Ss. Cyril and Methodius University, Faculty of Architecture, we can show the panorama of different approaches of understanding architecture. From interventions in school courtyards up to hypothetical transformations of the inner edges of the city, the city becomes an exciting world that colonizes the modes of learning architecture and makes the study a complex, unpredictable and challenging associative sequence.

KEYWORDS: *learning architecture, school, city, tactic, collective form*

1 INTRODUCTION

The relation between the city and the school in the contemporary world is becoming increasingly complex, complicated and undefined. In the way that the city becomes a dynamic, unstable formation, the school loses its stabile and referent assumption. How many times the city become a dynamic, unstable formation and the school loses its stabile, referent assumption. In what way we can learn architecture today?

During the last decades, the deep changes of the cities have undoubtedly given rise to changes in their exploration. The city, as a subject that can systematically be studied and planned, has become a dynamic and unpredictable context of our global urban reality. To that effect, the essential attitude of the school of architecture and its context have become the subject of re-consideration and re-conceiving. If today we still don't have a unique dominant model of seeing and acting in the city, it doesn't mean that we cannot map its behavior through a series of specific situations. To that effect, the essential attitude of the school of architecture and its context has become the subject of re-consideration and re-conceiving. The Skopje case, understood as a laboratory for exploration of the city through a number of exercises and exhibitions elaborated by the students of the Faculty of Architecture in Skopje, will enable us getting an insight into the modes of study of the city, as well as the relationship between the school of architecture and the city.

What is the relationship between the city and the school of architecture? Are the city and the school of architecture analogue systems? We can accept the concept of the city according to Deleuze and Guattari study "City /State". In this relation between the city and the state, the city is described as a horizontal rhizomatic structure (Deleuze&Guattari, 1986). We understand the city as a horizontal formation of simultaneous interactive connectivity. On the contrary, the school is hierarchical, paradigmatic structure, vertical leering of persons and events, knowledge, capabilities and skills. How can these two phenomena be connected, the horizontal and vertical, hierarchical plan, syntagmatic and paradigmatic model?

However, it is often said that a lot can be learned on the streets and that the street is the best teacher. Is this expression only a metaphor or a concrete practical experience? Can the city, nevertheless, be a model for the school?

2 SCHOOL / CITY

At the "Reclaiming the City" exhibition held within Architecture and the City in Southeast Europe, Thessaloniki in 2012, we wanted to overlap these two systems (Korobar, Bakalchev, Hadzi Pulja, 2012). We wanted that the school be seen as a rational constructive learner, a truss that produces and is colonized by specific unpredictable places. The school is

a kind of a *phantom* structure, as a rational invasion of its irrational unconsciousness resulting in a multitude of images and ambient conditions. In a typical educative format – B-format, we recognize atypical, specific, unique artefacts, exciting monuments – products of the school. It is exactly this merge of the rational and the imaginary, the hierarchy and the heterarchy, the predictable and the unpredictable, the planned and the spontaneous that represents the future school profile. The exhibition is composed of a field of 47 pedestals in B-2 formats (50x70x20cm). Exhibited on the pedestals are the projects of different studios, semesters and years (Figure 1). The area of each pedestal is a separate world by itself, bearing the specific forms and contexts of the exhibited projects. Put together, they form a complex field of interaction of an imaginary school as a city. As if all the walls of the school have disappeared and all the classrooms and workshops work simultaneously separately and together. In this way, the school configuration was seen as a city in B-format.
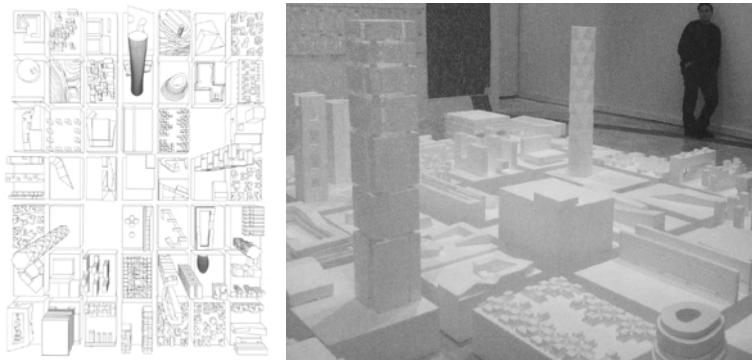

Figure 1: B-2 city, school as a city of exciting monuments, from the exhibition
"Reclaiming the City", 2012

3 THE CASE OF SKOPJE

However, if this exhibition was a metaphor of the analogy of the city and the school and produced a theoretical model of a school as a city, the attitude toward the real city caused a number of new unpredictable situations. The Skopje case provided new moments in the school – city dialogue. Skopje has been the subject of investigation by the Faculty of Architecture in Skopje for many years. It is exactly its, still unconsolidated, state under a dominant urban paradigm that has opened different possibilities for exploration and interpretation of the city.

Its present state is the result of a number of successive and controversial waves of modernization in the course of the twentieth

century that produced the incoherent, fragmentary basis of the city. What do we see in the city today? The view of the downtown Skopje area (2km x 2km) shows heterogeneity and diversity of its texture. On the satellite images of the surface of the city, we can feel the difference almost tactile. What is behind this inhomogeneous picture? That exactly was the reason for researching the city morphology through a series of analytical drawings and site specific projects. So, within the frames of one scene, we decomposed an array of thematic layers (Figure 2).
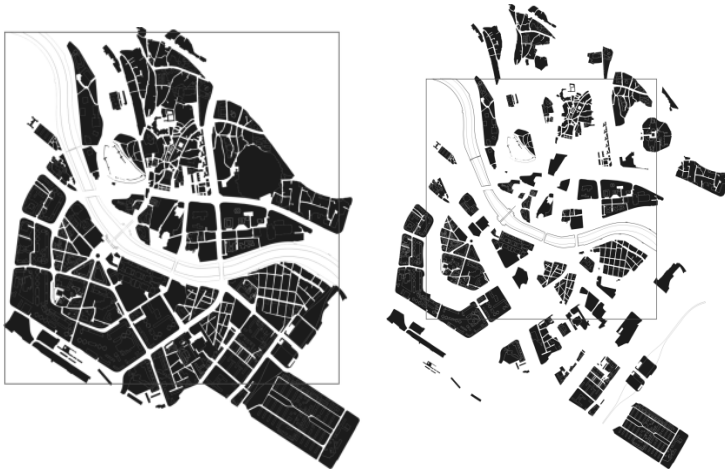
Figure 2: Skopje, a city of fragments: Central city area within the frames of 2km x 2km, integral view and exploded view showing different urban fragments (morphological units)

In the project entitled "City of Possible Worlds" realized in 2006, (10th International Exhibition La Biennale di Venezia), the incoherent base of the city was an opportunity for development of different scenarios for renovation of the city (Bakalchev and Hadzi Pulja,2006). The model of the fragmented city (Skopje 2 x 2km) was the subject of our investigation. In its background, on 13 blackboards divided into four horizontal zones, four possible city scenarios were developed, inspired by different pieces. By using a chalk, each project is recorded on the blackboards by words, schemes and diagrams whereat a simultaneous didactic mechanism for the different city stories is formed (Figure 3).
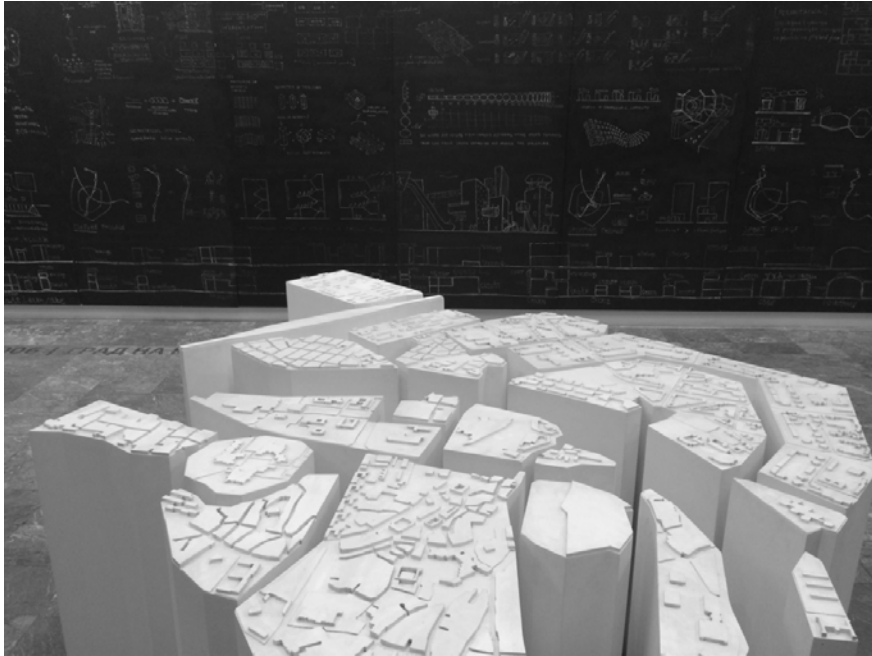
Figure 3: Skopje, City of Possible Worlds: Model of city of fragments in front of the blackboards, from the exhibition Republic Macedonia at Venice Biennale 2004-2012

4 SCHOOL YARD

The learning of the architecture through the city started with the study of the own courtyard of the Faculty of Architecture. In the same way as the cooking starts from one's own garden and own products from the garden, the courtyard of the Faculty of Architecture gave us a challenging basis for the exploration of the elementary relationships in architecture. Within the frames of Studio 1 and Studio 2, from the first year of study, was the exercise: the wall and the six trees in the faculty courtyard (Figure 4). In fact, this was only one phase of the subsequent learning process consisting of the cycle: mould, figure, wall.

Mould: sculpturing of the architectonic space;

Figure: the positive of the sculptured area seen as an independent structure;

Wall: unfolding from the figure/formwork volume and again folding into new spatial configuration.
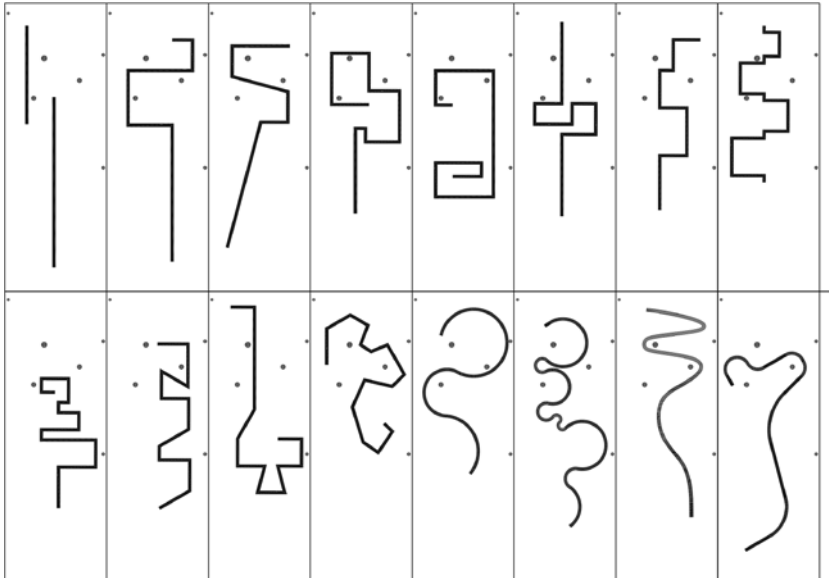
Figure 4: Studio 2 exercise: The Configuration of the wall with the six trees

In the last phase, the wall arises from the scope of the figure and is reconfigured in respect to the six trees in the courtyard. A series of drawings and models provide the possible dialogue between the artificial and natural properties of the place. This project resulted in a unique installation of the three phases that simultaneously showed the process of learning through the dialectics of hylomorphism – the architecture caught between the mould and the material at the exhibition Learning Architecture held in 2010, at the 12th International Architecture Exhibition La Biennale di Venezia (Bakalchev and Hadzi Pulja, 2006).

5 Body / Architecture

Learning architecture in the first year ends with the establishing of personal relation of body/architecture-/city. The exercise concerns the geometrical approximation of the human body to two-dimensional plane. In the sense this evokes the discourse of ideal proportion of the human body and contemporary concrete individual interpretations (Wittkower, 1988/1949). Each student had to construct three-dimensional shapes, shelter, which is at the same time container for his body and independent free-standing object on the selected place. In this sense they produced different spatial events according to the three basic phenomenological projections: sensorial, mental and symbolic (Piaget&Inhelder, 1990/1961). So, every space event has its distinctive personality. In the short film made by students these artificial constructions wonder through the city in different situations, meeting different people. In different spatial and social

situation, they provoke different attention. At the end, they all gathered in the schoolyard where we see the students who are behind these "masks" (Figure 5).
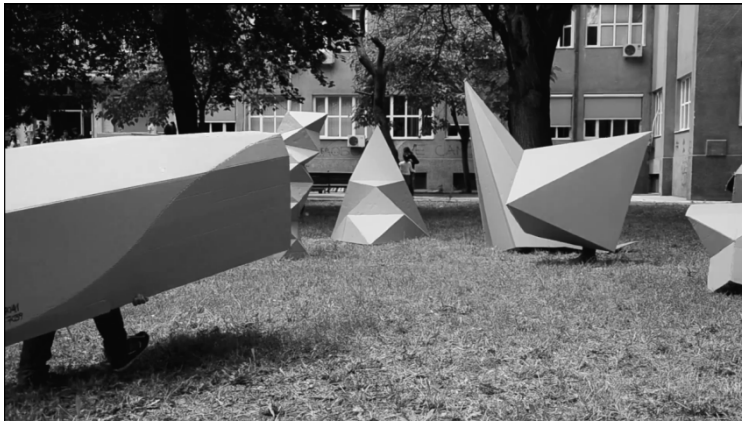

Figure 5: Meeting of the shelters in the school yard, stills from the Studio 2 student's move

6 THE DISAPPEARING CITY

For a number of years, within the frames of the theme of residential/urban transformations, tactics of transformation of residential texture, we have focused on those parts/fragments of the city that are anticipated or were anticipated to disappear in the different models of modernization of the city. A type of places that are between the planned and the actual city, between the exclusive city and the actual inclusive city, those that should disappear. A city between and in the meantime, i.e. between the construction territories and in the meantime, i.e. until the planned construction of the city is established and due.

Partly, these are fragments of the former traditional base of the city, but without conserved external traditional appearance, with multiply changed and assembled expression and also places representing post-traditional informal situations. In all of these, there have been preserved the spatial and living patterns of the city that has been developing in these areas for centuries.

The disappearing city is represented by a number of places such as: Madzir Maalo neighbourhood, Novo Maalo neighborhood, from the central city area and also Momin Potok on the outskirts of the city, or Keramidnitsa in the cracks of the industrial zone. Although these have names, they are unrecognized regarding their main physical properties. In that sense, the modernization of the city and the modern paradigm still provide the model of seeing the existing situation. What was important for us was the creation of not only the verbal, but also the realistic pluralistic image of the city:

1. These suppressed places are parts of the history, the biography of the city;

2. These places have a unique physical structure at urban and architectural level. They are proportioned to suit people and are characterized by individuality and unity of streets, houses and courtyards;

3. In these places, there dominates a single-family housing that has systematically been banned from our cities although it has been the basis of the city life. We believe that such housing is possible to be present nowadays, particularly in certain fragments of the city.

We referred to approaches and methods of transformation as **tactics** unlike **strategies** that included complete systematic and superior approaches to the city. Tactics represent approaches arising from a local situation. However, they are not always limited to particular user tactics of the inhabitants, but are extended over the considered area as a whole.

As to the model of transformation, we referred to the idea of collective form given by Fumihiko Maki (1964). According to him, a collective form is not a collection of unrelated, separate buildings, but buildings that have reasons to be together (the collective form consists of structures that are

put together for some reason) (Figure 6). Most of the post-earthquake resurgence of Skopje was led by the idea of the collective form, the megaform as the basis for the reconstruction of the city through the project of Kenzo Tange and the other proposals for the reconstruction of the central Skopje area given by Van den Broek and Bakema or Eduard Ravnikar (UNDP, 1970). However, our attitude toward this idea was such that we wanted to release it from the necessary historic reference and engagement and to use it as a mechanism that has a potential to give extraordinary results in the local contexts at different levels and intensities of transformation. Starting from the idea of collective form, through a series of hypothetical scenarios, we developed various tactics for the transformation of the residential textures of marginal housing pockets.

Figure 6: KenzoTange, City Gate mega structure: Model of the Skopje central city area, east-west axis (1965)

What if we select individual places that we will timely densify, while other areas remain with the successive logic of development? Can Madzir Maalo neighborhood be experienced as a kind of San Gimignano, a composition of co-existing low and high structures?

What if we upgrade the streets in Novo Maalo neighborhood and obtain from the permanent emptiness an urban artefact with permanent fullness that enters in further relationship with the existing houses and courtyards? In that way, one obtains a neighborhood megaform arising from the inversion of fullness and emptiness in the structure of the Novo Maalo neighborhood (Figure 7).
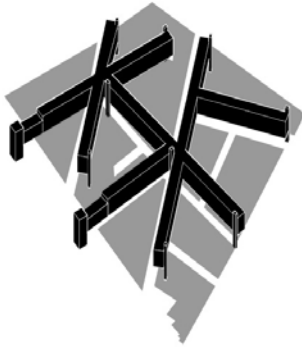
Figure7: Tactic of upgrading the streets, Kristian Mitevski, master project 2013

What if we select certain lots by consent of inhabitants, connect them according to certain criteria and extrude them to obtain a new additional residential area? In that case, a new rhizomatic megaform will appear in the neighbourhood as a product of sequential linking, arising from the existing texture of the neighbourhood in intensive relationship with the existing houses and courtyards (Figure 8).

Figure 8: Tactic of sequential linking, Aurora Saidi, master project 2013

What if we cut a heterogeneous area of an industrial zone with an installation, a communication infrastructure or perhaps a housing platform? In that way, the incision will cause transverse connection of the heterogeneous fragments of the formerly existing longitudinal city (Figure 9).

Figure 9: Incision, tactic of assembling the urban fragments, Aleksandar Prtanovski, master project 2013

What if we establish linear platforms, scaffolds for additional residential area on the edges of the existing residential pockets? In that way, the neighborhood will preserve its existing proportions and the new needs will be developed in the vertical neighborhood along the edges.

Through these and a series of other hypothetical questions, we not only wanted to give a concrete answer to the specific situations, but also derive prototypes for the analogue situations in our cities. In that way, although a series of diffuse examples was considered, we conceived these as analogous and paradigmatic situations through which the city can be explored and practiced.

5 CONCLUSION

The project of the studio discussed in this paper started with the field analyses of 1.5km2, the territory of the 'cut out', or the scale of the city, but then move into the architectural domain in order to emphasize the value of the architectural assemblage for the whole idea, the whole vision for the city, and again, at the end it goes back into the city scale... completing the loop of what architectural urbanism might stand for, for the project of the city. (D'Hooghe, 2006) The cross-territorial experience of the cut-out bridge the gap between disciplinary differences of architecture and urbanism by combining them in new coherent new spatial methodology. This condition offers strategic reading for the current complexities of the urban environment beyond the limits of each discipline.

The research was conducted to explore relationship between public and private space in transitional context of Skopje. As a consequence emerges the question - What is collective space? Dilemmas whether it is a public, or it is a private were enriched with the possibility to be seen as a deeply individualized shared space interlocked in the broad field of today's consumerist multitude trying to re-establish the qualities of modernist welfare-state common good back to the everyday.

Thus the aim of this paper was to discover new possibilities for understanding the ongoing spatial dynamics. The case of Skopje with its transitional socio-spatial milieu was an excellent case study because it offers space to develop new tools for understanding the vibrant and dynamic urban phenomenon.

Exactly in that sense could be seen the structural content of the research work that refers on the above mentioned evolution of thought offered in the syntagma 'From SUPER*NOW* to FUTURE*FRAGMENT*'. Namely, as arrangement that both represents the city as rational experience but also it see it as a meta concept that open dialectical relationship between the new object and the existing reality in a process of intensifying the (existing) place (Hertweck, Marot, 2013).

6 REFERENCES

D' Hooghe Alexander (2006). A Theory of the New Monumentality: From Crisis to Project, Volume, issue #9, p.p 151-157

Hertweck Florian, Marot Sebastien, The City in the City, Berlin: A Green Archipelago, Lars Muller Publishers 2013

Jamison Fredric, Archaeologies of the Future, The Desire Called Utopia and Other Science Fictions, Verso, New Left Books 2005

Le Corbusier, The Radiant City, Orion Press 1964

Sitte Camillo, Umetnicko Oblikovanje Gradova, Gradjevinska Knjiga 1967

Vittorio Aureli Pier, The Possibility of an Absolute Architecture, MIT Press 2011

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SKOPJE: NEW PATTERNS OF GROWTH

ABSTRACT:

In the last hundred years, Skopje has experienced massive urban changes, discontinuities and developments where different urban patterns and development trends have occurred coexisting, creating a specific structure of the city. Hence, the focus of our study understands the spatial and societal changes framed within the strategies of urban development of the city.

The research presented in the paper explores public, private and collective domain of the city by identifying the socio-spatial dynamics of the existing urban built structure, urban voids and distributive networks of the city. It also refers to the typo-morphological and programmatic investigations of specific parts of the city. The focus is set on the phenomenon of growth in terms of size, volume and density, seen through the dichotomy between the city fragment and the city as a whole.

The projective approach encouraged polemical design proposals that follow the narratives and scenarios for growth and 'spatial imagination' of contemporary city. The outcome is an architectural intervention that reflects the overarching and, yet autonomous, strategy at the scale of the urban building. Finally, the proposed intervention in each of the sites of interest articulates specific issues recognizing the newly suggested spatial interventions as strategic territorial artefacts and operational tools for creation of novel spatially and socially sustainable patterns of growths.

KEYWORDS: *growth, collective domain, scenarios, patterns, cut out*

1 INTRODUCTION

The PATTERNS OF GROWTH research study aims to acknowledge the transformative specifics of the urban conditions facing continuous quantitative changes on the case of the city of Skopje. The focus is set on the phenomenon of growth in terms of size, volume and density, seen through the dichotomy between the city fragment and the city as a whole.

The growth is an inherent and vital feature of every city. But in terms of Skopje, the right question referring to this phenomenon would be - How does the city grow? During the 20th century, the city of Skopje has undergone three major events that have had a direct impact on its socio-spatial character: firstly, the extensive migration of people from the rural areas; secondly, the strong urbanization of the city after the Second World War and especially after the highly destructive earthquake in 1963; and at last, the change of the political system and the shift of the property ownership towards privatization after the 1990s. Conditions as such made a quantitative change in terms of demography, as well as the territory of the city. The number of people multiplied several times from less than 100,000 inhabitants (around 1914) up to approx. 600,000 inhabitants at the turn of the century. In terms of the spatial growth and territorial sprawl, each new regulatory plan predicted and latter confirmed territorial extensions that go far beyond the territory in that particular moment.

The city is closely related to the existing society and its material and social performance, but the key question here is the influence those have in the spatial structure of the city. On the case of Skopje, such an influence is noted on the level of typology in which detached houses turn into residential buildings shifting the existing ratio of build space several times higher than the existing one. Morphological changes are most notably present on the level of unoccupied space where yards are turning into parking plots and open spaces are predominantly filled-in with new housing blocs. The third aspect of spatial transition in the city of Skopje reflects on the programmatic level. Namely, the current condition of speculative growth provoke continuous variations of spatial use that highly overcome the strategic predictions of planning documents on each existing level of urban planning, such as detailed plans and general plans.

Following this condition, one of the questions would refer on - what is the architectural effect in such reality of omnipresent speculation and socio-spatial instability and how it reflects on the scale of strategy for the city growth in terms of urbanism?

The focus of the research obtained into the framework of the design studio conducted with master level students from the Faculty of Architecture in Skopje, is on the autonomy of the architectural artefact that embrace the scale of the city and integrates architecture and urbanism through the 'dimension' of the urban cut out; or architecture that combines

the spatial aspect of object, but also conjures with the complexities of the cities facing ongoing societal phenomena. Strategic means of the city embrace the necessity to plan the city in its totality that includes various dynamics of social, spatial and political point of view with numerous stakeholders. In that sense, the issue of the whole is by no means important for the city, maybe even more important than the fragment, but at the same time, the whole can be recognized only if the architectural object and the fragment feeds back in the integrity and the totality of the whole, embracing everything - from the metaphysical, the individual and the identifying, to the everyday experiences… therefore the studio task was to reveal the concepts of architectural urbanism as contemporary urban operational territory.

The architecture of the city is being investigated in seven city CUT OUTS of Skopje, following the key attributes of the cityness: the house-dwelling as a dominant urban substance; the voids – as spatial resources being social incubators for the inhabitants; and the prosthesis - the infrastructure as an essential succor for the urban growth. These attributes are further related to the issues of public, private and collective domain of the city.

In posing those questions lays the question whether the architecture we are building is just an image of pure self-indulgence, or is there a substance beneath that reflects the concept of the contemporary city offering equal possibilities for safe, just, prosperous and productive living environment.

The research conducted during design studio work and presented in this paper makes reference to the real conditions we live in, their material and mental content; therefore it is unlike the vague and fashionable simulations of what a city is promoted by architectural magazines as reflection of the current consumption reality

2 SHORT URBAN HISTORY OF 20TH CENTURY SKOPJE

The year 2014 marks a significant anniversary in the urban history of Skopje; one hundred years passed since the first plan of Dimitrie Leko (1914), the planning document that has structured and influenced the current state of the city of Skopje. During this period there were seven official documents that stand behind the articulation of growth and the urban reality of Skopje - each of them based on their own social, political and spatial ideology often neglecting or confronting the previous one. All these different approaches have different 'optic' for tracing the city: from a scale that is too specific and based on the ground where architecture directly reflects the aspect of 'experiencing' the city, to a more generic approach of planning, where urbanism intervene many aspects of spatiality left for disciplines other than architecture. Three major plans (1929, 1949 and 1968) are representing abovementioned strategies that emphasize different aspects of designing spatiality.

The first plan was made in 1914, but because of the WWI it was put in realization as a planning document with the plan in 1929 made by architect Josif Mihajlovic, for about 120,000 inhabitants and urban territory of about 1055 km2.

Figure 1. Plan for Skopje 1929 and its structural elements

This plan is considered as first contemporary design that supposed to implement spatial aspects of European cities over existent medieval and oriental urban structure. As a plan, it follows a City Planning according to Artistic Principles of Camillo Sitte, which means designing the city by creation of an irregular urban structure, emphasizing the experience of wondering trough the city streets, many plazas, and squares of different size, and yet also in modern way including clear axis's and programmatic districts (Sitte, 1967). As a planning approach, it reflects the scale of architecture, a designed urban plan that includes architectural artefacts as tools for planning (Fig.1).

The second planning reference is the plan from 1949 conducted by the Czech architect Ludjek Kubes (Fig.2) immediately after the WWII. As a plan it follows the essence of the CIAM urbanism and the essential principles of the Athens Charter from the 1930s. This plan is made for a city of approximately 200,000 inhabitants and territory of 4,640 km2. Although highly contextual and in many ways an extension of the previous plan from 1929, this planning document is a product of modern urbanism where the dogma, the believe that house is a machine for living (Le Corbusier, 1964) was in many ways transferred to the city as also a living machine.
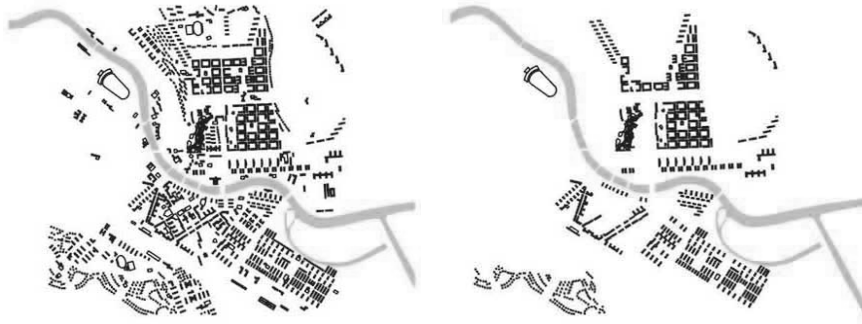
Figure 2. Plan for Skopje 1949 and its structural elements

In terms of planning, this vision for Skopje is superimposing the scales of architecture as spatial assemblages of distinct objects and the top-down scale of urbanism introducing for the first time in Skopje planning with distinctive zoning areas as tools for spatial determination of the broad urban territory (Fig.2).

The plan from 1968 was conducted as an effect of the earthquake that devastate the city of Skopje in 1963. This plan (Fig.3) represents international effort involving many architectural and planning teams from all over the world because it is done after the destructive earthquake in 1963 with the main support by the UN. It included teams from Poland, Greece, USA, Japan, and Macedonia. The plan was done for a city of 350,000 inhabitants and the territory of the city was extended for several times compared to the plan from 1929.

Figure 3. Plan for Skopje 1968 and its structural elements

This planning document from the 60s represents planning ground for every consequent urban plan such are the spatial documents from 1985, 2002 and 2012 refers to the planning methodology of programmatic zoning and infrastructure corridors as a tools for the development of the city. In terms of scale, this strategic planning clearly follows urban strategy that excludes the scale of architecture (Fig.3).

This different approaches have different 'optic' for tracing the city, from scale that is too specific, that is based on the ground where architecture could resemble the aspect of the 'everyday' experience of the city towards

the more generic approach of planning with many aspects of spatiality left for other disciplines than to architecture.

9 The Strategy of the CUT OUT

The aim of the Studio SKOPJE 2014: Patterns of Growth and this paper is not about the urban history (or the planning discontinuity) but about the need of juxtaposing different scales when it comes to creating a strategy for the city. With an intention to better understand the present and to clearly visualize the future, the studio work observes the city through spatial sequences, focusing on the distinguished fragments, or CUT OUTs of the city that resembles the overall vision, the idea, the strategy and even ideology of the city (Fig.4).
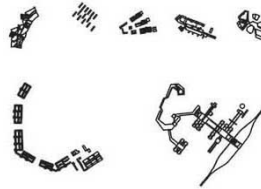

Figure 4. Catalogue of CUT OUT's Skopje plans: 1929, 1949, 1969

The notion of CUT OUT is a specific piece of land that might be considered an urban island by itself (a city within the city), but also refers to the whole (the city) understood as an archipelago of islands that polemically establish relationships among themselves (Hertweck, Marot, 2013). The potential of the CUT OUT is recognized in the ability to embrace the valence of the cross-disciplinary reading of spatial assemblages that connect architecture and urban scale and in that manner connect social aspects with aesthetic values and pragmatic concerns of space.

The superposition of scales and introducing the CUT OUT as an architectural item in the realm of urbanism are the guiding principles of the work conducted in the research of the studio Skopje 2014: Patterns of Growth. The aim was actually to bridge the gap of different scales, not in terms of numbers, but in terms of strategy for the city, a way of looking, of exploring, and of tracing the challenges of urban space (Fig.5).

Figure 5. Imaginative city: Possible re-configuration of the CUT OUT's

The studio follows distinctive patterns of growth as fundamental aspect of urban space in seven different parts – seven different CUT OUT of 1.5km2 of the city.

Following the so called strategy of the cut out, the studio research explored the public, private and collective domain of the city by identifying the socio-spatial dynamics of existing build space, urban voids and distributive networks of the city.

The project started with the territorial analyses of 1.5km2, the scale of the city where issues of built density, program, ownership and existing infrastructures were explored, and then it moved into the architectural domain, on a site of 500x500m, in order to emphasize the value of the architectural assemblage for the whole idea, the whole vision for the city, investigating the social aspects of specific site. At the end, the project went back in the scale of the city positioning the whole conceptual and spatial idea in a brother metropolitan context. Completing the loop of what architectural urbanism might stand for, we again can speak as architects for the project of the city as strategic determination.

The outcome of the studio represents an allegory of the retrospect city. Namely, it makes an attempt to foresee the 'archaeology of the future' (Jamison, 2005) by superposing the experiences of the SUPER*NOW* and the FUTURE*FRAGMENT* as distinguished features of contemporary metropolitan narrative.

But what SUPERNOW represents in the reality of mere speculation that produces excess and novelty? SUPER*NOW* is alter ego of the ongoing superficial simulacrum of the present; and foremost, SUPER*NOW* is

accelerated, extruded and delirious reality… The answer would be to go beyond, to exaggerate even more and to amplify the excess - to produce 'irrationally more' because that way the exaggeration becomes methodological tool in the effort to confront the present and to create the idea for the future. SUPER*NOW* makes reference to the real conditions we live in, their material and mental content. And mapping the experience of the SUPER*NOW* means to develop a side pathway for the vague simulations of what a city is today.

10 Architecture, Urbanism or Architecturalurbanism

The studio work explained in this paper follow distinctive patterns of growth as embedded and fundamental aspect of urban space in seven different parts – seven different CUT OUT of 1.5km2 of the city of Skopje. The relational issues of scale and fragment were recognized as relevant for research into the 'urban anatomy' of contemporary city. Using them, we have tried to establish a new strategy for city building that anchors on the issue of CUT OUT as specific piece of land that might be consider as part of the broader whole, but also as an urban island by itself, a city into the city (Vittorio Aureli, 2011). As such, we have thought of a city as archipelago of islands that polemically establish a relationship among themselves by the experience of the infrastructures (Fig.6).
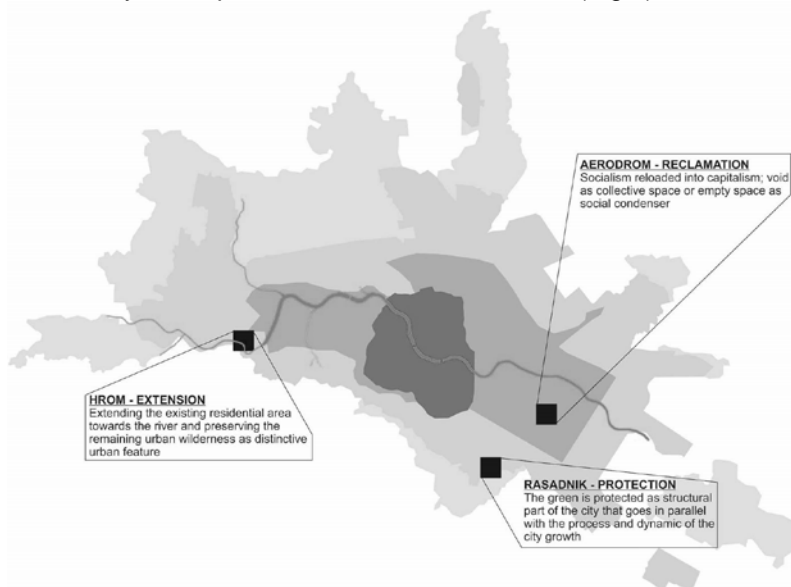

Figure 6. Imaginative city: Design Studio Interventions

The task was to articulate growth referring on the quantitative level of the city as well its social reflection which is site specific and follows the private, public, and collective realm of the city in contemporary consumerist environment. Thus, following *the strategy of the cut out* and the ongoing socio-spatial dynamic of Skopje previously exemplified in this

paper with the demographic and spatial impermanence caused by socio-political and natural hazards the research of the studio posed three questions of relevance:

How much is enough? This question raises the ethical dimension of the city by questioning the ever-accelerated condition of urban density, congestion and sprawl.

Do we need architectural urbanism as a design tool? - reflects the strategic aspect of the city building with intention to introduce the relevance of the cut out simultaneously as design and strategic tool.

And finally, what is collective space? - as question that opens a polemical dimension of what city stands for today in regards of recent culture in the global architectural scene of observing cities as iconic models, or consumption goods; condition of mere speculation and simulation which unfortunately transgress the very social dimension and role of the cities.

These questions were developed as entering hypothesis that were further develop in design proposals on seven different locations of the city. This paper includes three of them, each of which having specific respond how to intervene within the existing build context, but also how to recognize the quality of existent open, un-build urban space.

10.1 Project HROM: Urban wastelands: the territory of the collective

The project in Hrom (Fig.7) is recognized as contextual intervention in the framework of preserving the remaining urban wilderness as distinctive urban landscape. Although the river Vardar is a defining structural element of this site, it is not integrated in the nearby existing urban settlement, thus becoming an excluded entity from the mental map of local inhabitants. On the other hand, the constant pressure of urban growth and quantitative development of the residential area is threatening to change the urban morphology and the socio-spatial character of the existing settlement of predominately single family detached houses.
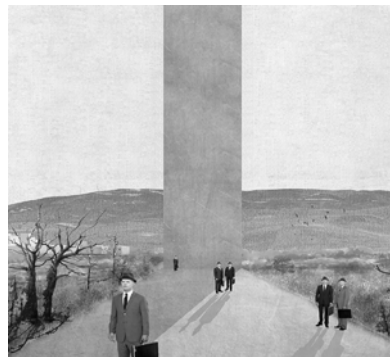

Figure 7. Hrom – SUPER*NOW*   Figure 8. Hrom - FUTURE *FRAGMENT*

The concept of the project reflects the technique of invading the vast empty 'wilderness' area along the river with the purpose to extend and re-connect the existing neighbourhood on one hand but also to preserve the

current spatial character of the settlement. By inserting a new housing towers in the 'wilderness' area the current pressure for growth is *absorbed,* but also the neighbourhood is extended towards the river simultaneously preserving the 'wild' character of the location.

The typology of high rise towers in a green landscape creates a new silhouette that unites the natural and the urban, while it programmatically aligns with the neighbourhood and strengthens its social activities (Fig.8).

Cut out: 1.5 km2
Project guiding principle: Extension
Architectural artefact: Towers
Urbanism: redistribution of density towards the river
Architecturalurbanism effect (strategy for the city): optimizing growth, connecting the river with the existing neighborhood

4.2 Project RASADNIK: The fragile beauty of the void: collective reloaded

The fundamental effort in the project in Rasadnik (Fig.9) was made to establish the greenery as structural part of the city that goes in parallel with the city growth and not being erased in the process. Different types of urban structures and typologies are confronted on the site ranging from single family houses, housing blocks, transportation infrastructures, industrial zones...- all of them agglomerated around the vast area of orchard with endemic sorts of trees (approx. 15ha). This area dominates the site in terms of size but, due to restricted access, has been detached from everyday life of the surrounding neighbourhoods for too long.
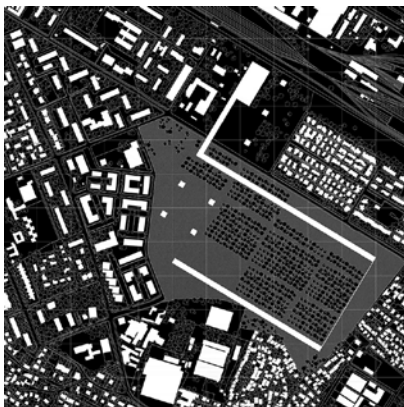

Figure 9. Rasadnik – SUPER*NOW*   Figure 10. Rasadnik - FUTURE *FRAGMENT*

Reconsidering the current urban tendencies to treat such open and unconstructed areas as empty spaces to be fulfilled with new buildings, this project sees the void as a rather constructive and structural element of the urban scape.

The project is based on the need to protect the void (orchards) from the urban expansion through a clear architectural gesture that defines the borders of the void. Simultaneously the new intervention is deliberately elongated towards the north establishing connection with the existing railway line that further would emerge in a transportation hub valuable for broader urban context. The project confronts the existing phenomenon of growth by insertion of residential towers organized along the north-south axis and linear stripes on the longitudinal edges of the void (east-west axis) inhabited with housing and research laboratories strengthening the public domain of this territory.

Thus the void remains in its genuine form of an orchard that is concurrently transformed into new urban collective space (Fig.10).

Cut out: 1.5 km2
Project guiding principle: Protection
Architectural artefact: Inhabitable walls
Urbanism: re-defining existing inner territorial limits
Architecturalurbanism effect (strategy for the city): establishing connection toward the north neglected railway station and resigning it as a new transport hub relevant for distribution of people and goods in the whole city.

4.3 Project Aerodrom: Collective monuments: Socialism re-invented into Capitalism

The last project is taking place in the part of the city called Aerodrom (Fig.11). This area represents very successful megastructure project from the late seventies. The project designates a treatment of the void, of empty space as collective space, a social condenser, a machine for enriching the existent social and programmatic activity of this in many ways already radical city.

The current condition of this city fragment recognizes three main structural elements: clear defining axes, compact clusters of built space as strong socio-spatial entities and a vast semi-organized void. In this fortress-like cluster formation we pose the spatial questions of the void and the dimension questions of - how far is too far? How do we articulate the void?

Figure 11. Aerodrom – SUPER*NOW*   Figure 12. Aerodrom - FUTURE *FRAGMENT*

Derived from the taxonomy of voids the focus is put on the 'negative negatives' – voids with unhuman scale where one can not relate to the context. Recognizing its quality, the new artefact is meant to define, but not limit, and to create new social clusters in connection to the existing structure. The growth is concentrated at the periphery - adding four floors of housing so that the neighbourhood can meet future needs while preserving the open green space and further emphasising its quality by introducing new socially attractive events organised in a form of linear cut through the oversized and disorienting void where the vegetation is left to grow freely and to invade the space, a clear statement of human presence and influence is presented through five distinguished objects - each one representing an archetypical space both as a landmark and as an atmosphere. Programmatically energized in a form of 'a fair of experiences' the stripe encourage activities that reflect collectiveness: ateliers, student accommodation, concert stage, sport centre, pool, market and others to be established by the users (Fig.12).

Cut out: 1.5 km2
Project guiding principle: Reclamation
Architectural artefact: singular spatial gestures
Urbanism: re-affirming the longitudinal axis of the existing urban void
Architecturalurbanism effect (strategy for the city): a series of buildings with distinctive programs of use invent the collective use of vast urban territory excluding permanent residency and privatization of space.

11 CONCLUSIONS

The project of the studio discussed in this paper started with the field analyses of 1.5km2, the territory of the 'cut out', or the scale of the city, but then move into the architectural domain in order to emphasize the value of the architectural assemblage for the whole idea, the whole vision

for the city, and again, at the end it goes back into the city scale... completing the loop of what architectural urbanism might stand for, for the project of the city. (D'Hooghe, 2006) The cross-territorial experience of the cut-out bridge the gap between disciplinary differences of architecture and urbanism by combining them in new coherent new spatial methodology. This condition offers strategic reading for the current complexities of the urban environment beyond the limits of each discipline.

The research was conducted to explore relationship between public and private space in transitional context of Skopje. As a consequence emerges the question - What is collective space? Dilemmas whether it is a public, or it is a private were enriched with the possibility to be seen as a deeply individualized shared space interlocked in the broad field of today's consumerist multitude trying to re-establish the qualities of modernist welfare-state common good back to the everyday.

Thus the aim of this paper was to discover new possibilities for understanding the ongoing spatial dynamics. The case of Skopje with its transitional socio-spatial milieu was an excellent case study because it offers space to develop new tools for understanding the vibrant and dynamic urban phenomenon.

Exactly in that sense could be seen the structural content of the research work that refers on the above mentioned evolution of thought offered in the syntagma 'From SUPER*NOW* to FUTURE*FRAGMENT*'. Namely, as arrangement that both represents the city as rational experience but also it see it as a meta concept that open dialectical relationship between the new object and the existing reality in a process of intensifying the (existing) place (Hertweck, Marot, 2013).

12 REFERENCES

D' Hooghe Alexander (2006). A Theory of the New Monumentality: From Crisis to Project, Volume, issue #9, p.p 151-157

Hertweck Florian, Marot Sebastien, The City in the City, Berlin: A Green Archipelago, Lars Muller Publishers 2013

Jamison Fredric, Archaeologies of the Future, The Desire Called Utopia and Other Science Fictions, Verso, New Left Books 2005

Le Corbusier, The Radiant City, Orion Press 1964

Sitte Camillo, Umetnicko Oblikovanje Gradova, Gradjevinska Knjiga 1967

Vittorio Aureli Pier, The Possibility of an Absolute Architecture, MIT Press 2011

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Constructing Places

ABSTRACT:

In the current society of changes, the place represents a critical issue. Place undergoes a crisis. The more the dynamics of the social processes and instability of programs becomes dominant the more we are losing the place in a physical and symbolic sense, namely, we are losing the "places of identity, of relations, and of history". But, is it possible to construct the place within the very processes of changes? Is it possible to establish, within the instable socio-cultural and spatial situations, certain tactics of constructing the places in a relational, historic sense?

An attempt has been made to map, through three different projects, three different approaches to constructing the contemporary place: first of all, an urban fragment that loses its physical structure will be taken as an example to show the possible continuity of the place in the new spatial-social context through the procedure of inversion (solid/void) of its physical structure; second, a rural courtyard is taken as an example to show how a private courtyard is transformed into a public courtyard for the entire community on certain occasions; third, a church and its reconstruction is taken as an example to show how the process of construction gathers the people around their abandoned place.

In all three cases, in the new circumstances, new relationships are established between the solid and the void, the private and the public, the present and the abandoned. In all three cases, the relational and the historical of the place are renewed in the new social contexts of transition.

KEYWORDS: *place, urban fragment, relational, historical, transformation tactic.*

1 INTRODUCTION

The notion of place is one of the most puzzling categories with which we understand our relation with the environment as an onthogeneric feeling of identity and permanence, of presence and belonging.

The concept of place (topos) and its ontological function were introduced by Aristotle in his explanation of the natural world, of the material being, with the goal to explain the possibility of existing as such (Aristotle, trans. 1987):

> The physicist must have a knowledge of Place, too, as well as of the infinite - namely, whether there is such a thing or not, and the manner of its existence and what it is - both because we all suppose that things which exist are somewhere (the non-existent is nowhere - where is the goat - stag or the sphinx?), and because 'motion' in its most general and primary sense is change of place, which we call "locomotion" (Phy IV 1, 208b30-32).

Aristotle defined the place as "the innermost motionless boundary of what contains" (Phy IV 4, 212a20-21). Such a point of view opened the dilemma about the place in relation to the property of motion. What is the place of the bodies which are in motion, their proper boundaries or the boundaries of the surrounding in which the action is going on? In order to identify the place of a thing, one has to identify some motionless container. In this way certain conceptual indefiniteness of the place was opened.

Through the principles that a body cannot be on two places at the same time and that two bodies cannot be at the same time in some place, Aristotle points out to the belonging of certain body to certain place. In his interpretation the places themselves have "a certain potency" (dynamics) since each of his elements is "carried to its own place, provided that nothing interferes" (Phy IV 1, 208b10-12). So, understanding the things as such is connected with their places. But what happens when this connection is questioned, when the relation with the place becomes an open question?

The contemporary crisis of the place is a result of a fundamental change in the positioning of the architectural object and its site. The correlation of architecture and context in the contemporary world is examined from different points of view, as life process and physical structure (Oliver,1987), as geometrical space and anthropological space (Auge 1995), as a utopia and heterotopia (Foucault, 1984), as unique place and its reproduction (Benjamin, 1986), as space of flows and space of places (Castells, 2001,2002, 572-582).

In 1990s Marc Augé wrote about the changed perception of the place in the time of super modernity, (Auge, 1995). Marc Augé made a distinction between anthropological spaces and modern places, between place and non- place. They set the opposing poles of the super-modernism of today. But this type of approach opens up a range of issues in architecture.

According to Mark Augé, place has at least three common characteristics, place of identity, relations and history (Auge 1995, 52). One place is a constituent of individual identity. One place of any kind is characterized by containing an order under which the elements are distributed in relation to coexistence. One place is historical in the sense that history is part of the collective and individual practice. Opposite the spatial constructs that were labelled as places are non-places: "If a place can be defined as relational, historical and connected with identity, then a space which cannot be defined as a relation, or historical, or connected with identity will be a non-place" (Auge 1995, 77-78).

Hypothesis that Mark Augé sets says that super-modernism produces non-places, meaning spaces which themselves are not anthropological places and failing to integrate former places. If paradigm places are closed pre-modern ethnic cultures, indigenous societies, local technologies, precisely located in space and time, then non-places are an expression of individual personality, applicability, temporality, global technology and production, ephemera of transit points in that proliferate "luxury and inhumane" conditions, world anonymous, airports, hotels, supermarkets, informal configurations.

Recognizing the contradiction between place and non-place, Mark Augé indicates their ambivalent relationship, namely, that neither of them exists in a pure form. Such ambivalence is the basis of this article, which is aimed at exploring the area between exclusive positions of contemporary places, which is certainly recognized, but not sufficiently explored and explained. The purpose of this research is to position an everyday place as a resistance level of contemporary practice, contrary to the imposed binary discourse about the place. The assumption is that, in the today's everyday situations, it is possible

According to Waltern Benjamin, "here and now" of some work of art constitutes the notion of authenticity. The circumstances that lead it to the process of reproduction depreciate its "here and now" and hence problematize its authenticity. What is lost is its aura (Benjamin, 1986). The reproduction techniques are functioning, first of all, through separation of the reproduction from the area of the tradition, second, its multiplication, enabling the reproduction reach the consumers and hence actualizing of the reproduced. However, in certain historic periods, there was also a change of the living style of human communities and their perception. So, in the modern times, the uniqueness and the permanency are mixed with transitoriness and iterativeness. In that way, by releasing

the objects from their shells, their predetermination regarding place is also re-explored.

During the 1960s, the question of place was actualized in the modernity, with the rethinking of relation between the space and the place, between the time and the occasion. Aldo van Eyck declare that "Whatever space and time mean, place and occasion mean more. For space in the image of man is place and time in the image of man is occasion". (Eyck, Place and Occasion). With that, he opened the question of the possibility for men to make a place in the contemporary transitory world.

However, it is exactly through the distinguishing between the authentic work of art and its reproduction, place and space, place and non-place that we can establish, in another way, the relationship between the object and the place, as a continuous everyday constructing of the place. In addition, through a series of examples, we shall try to map the everyday experience of the place.

2 DUAL PLACES

In the 30s of the twentieth century, Salvador Dali got a postcard that shows an African village. When he rotated this postcard in 90º, he saw a phantom head, a Portrait of Picasso. Such association, to see something otherwise or to pass from one state to another, to transform from one place to another representation, or a prepositional starting to cause a series of associative array, was basically the paranoid - critical method Salvador Dali formulated in the 30s of the twentieth century. Challenging pictures with surprising and authentic nature by transcending validity of reality (Dali, 1936).
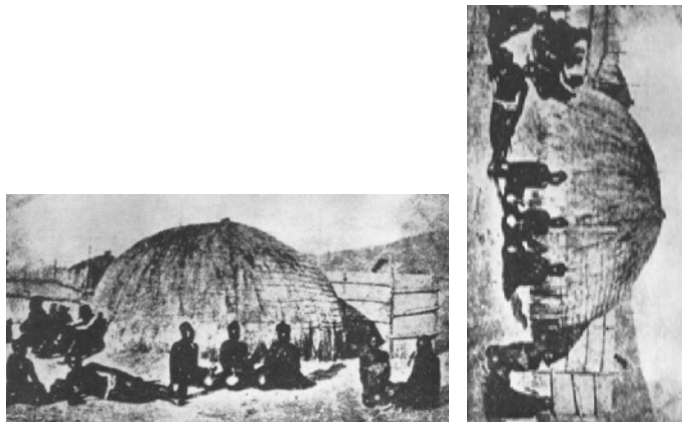

Fig 1: Dual Image, two positions of the postcard of African village, which in the early 1930s was received from Salvador Dali by Pablo Picasso. The opportunity to see two things in one picture, a village and a person, served to Salvador Dali in order to illustrate the concept of the paranoid-critical method (Rosenberg,T. "Sunday Dalí: Paranoiac Visage, 1931". One Surrealist a Day Blo

This method was a result of the technique of reproduction of one authentic place in multitude of copies and in a surprising way introduced us to the world of continuous flux of authentic associations of unique images, in which from one picture another emerges, from one state another is created.

3 BETWEEN WHOLE AND FRAGMENT

The dramatic modernization of Skopje has pointed out a changed attitude toward the place. The result from the different waves of modernization are the fragments of contradictory layers. The historical cycles of urban planning of Skopje resulted in a fragmentary structure of the contemporary city. Series of models for modernization of the city generated a complex morphological and chronological stratification of the physical structure. Taking the morphological approach, we may recognize the different urban fragments (morphological units) in the texture of the city.

The present conditions of the Skopje city are the result of a series of consecutive and contradictory waves of modernization in the course of the twentieth century that gave rise to the incoherent fragmentary base of the city. The central area of Skopje city, which was the subject of layering/juxtaposition of different scenarios of transformation of the city (2 km x 2 km) displays the entire heterogeneity and divergence of the city texture (Bakalchev, 2004).

This way the city in the given frame, exploded in a city of fragments, as a product of a series of reflections, a series of exclusive lines that once had to be established and form and reform the city, and as a result, produced incoherent picture of its texture. As a city made up of cities, a city of possible worlds.

4 BETWEEN THE SOLID AND THE VOID: TACTICS OF TRANSFORMATION OF AN URBAN FRAGMENT

However, if the view from above shows the complexity and contradiction of the contemporary city, what is the view from below, the view of an urban stroller, after his everyday places?

The dialectics of the solid and the void is essential for the urban texture. But, what has happened to the urban fragments, the residential pockets that have remained from the former continuous traditional base of the city? Does their devastated, fragmentary state of their original morphology provide another possibility for their social and spatial interpretation?

Fig 2: Novo Maalo neighborhood, on the poster Architecture of Everyday Life, 16 Biennale of Macedonian Architecture 2012; Badnik (Christmas Eve) fires in the Skopje neighborhood.

The poster of the Biennale of the Macedonian Architecture from 2012 entitled "Architecture of Everyday Life" shows a picture of one of the Skopje neighborhoods (Fig 3). It is the image of Novo Maalo neighborhood, one of the pieces of the city, which has almost consumed itself and is dissipating before our eyes. What is there in this image? On the left side, there is a house as part of the town's nostalgic past, but with traces of the recent devastating transition. On the right side, in the deep street perspective, there is nobody, but it seems like a frame of somebody's presence. In the picture, there is nobody, but in certain days, this place becomes a frame for gathering of the people from the settlement and those who originate from it. At Christmas Eve, in different neighborhoods, bonfires are lit and residents are gathering around them (Fig 3). In Novo Maalo, Christmas Eve is celebrated at a specific place, the intersection of five streets, whose central axial is touching upon the modest neighborhood tap, while leaving "contemplative" spatial pockets. This place genuinely holds an authentic value, on one hand, common everyday, while on the other, archetypal, timeless value. Passing through it, we feel it like a hidden "star", appearing under our feet with the power to organize and, at the same time, transcend our daily spatial experience (Fig 3).

Fig 3: "Star": section of streets in Novo Maalo

This Novo Maalo neighborhood was the subject of research of the architectural studio at the Ss. Cyril and Methodius University. Originally, the research was done through the project of the architectural studio entitled "Tactics of Transforming Residential Texture: a New Collective Form of Novo Maalo", which was followed by individual master works aimed at exploring ways to transform an urban fragment, a residential gap, derived both from everyday hypothetical situations and the visions of the utopian energy of the seventies through the concept of the collective form by Fumihiko Maki (Fig 4).
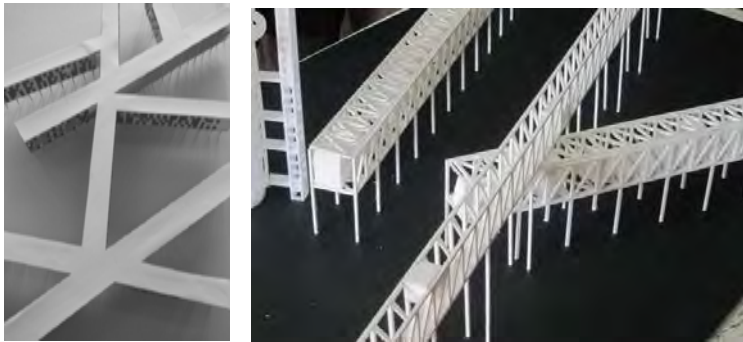
Fig 4: Models of integrative studio: Tactics of transformation of the housing texture, a new collective form in Novo Maalo neighborhood, Skopje, 2013

In the project, we started from an inversion of the spatial neighborhood system, a kind of an anti-neighborhood. What if the void of the streets becomes solid? What if the solid texture starts to become void? A series of projects have given different alternations to this inverse reading of the neighborhood. Elevating of the streets, layering of the streets, upgrading of the streets, sequential connecting of selected land plots and their extruding, cutting of the city as a method of interaction of the urban fragments (Fig 5).

Fig 5:From the void to the solid: upgrading the streets, Kristian Mitevski master project, 2013

All of them proved to be a dialog between the historical place and the new place, a kind of a double dynamic place, a new structure layered

upon an existing one, but not as excluding, but as including, upgrading and assimilating. Tactics that, using and recycling existing situations, brought back the dialogue with the place. These are the same tactics that bring us back to the primordial character of one place as a territory in which different configurations are only inclusive episodes from which exciting new spatial constructs can arise.

5 URBAN FOLD

How should a structure behave when located on a specific place – overexposed in the public area toward the main square of Skopje city? In the project on the commercial-catering structure on the boundary of the main square, instead of a closed package, we proposed a configuration that is folded, opening itself toward the square and filling itself with different contents. It starts with large external staircases, "an amphitheatre" and goes further with a continuing envelope which is folded in three successive levels. In the course of time and gradual use, this structure became witness of many events. The stairs became a grandstand for different events and point out the main intention of the project, i.e., the structure to be a sculpture/fold and continuation of the public space (Fig. 6).

Fig. 6: Building as an urban fold; Open staircases as "amphitheatre" overlooking the events on the public square.

6 BETWEEN PLACE AND DISPLACEMENT: CHURCH ST.ILIJA, GOVRLEVO

Place and displacement refers to both abandoning of the place - the village of Govrlevo by its inhabitants and use of the material from the abandoned structures in construction of the church of St. Elijah (St. Ilija). In the first case, a question arises as to the relationship with the place as an effective identifying relationship between oneself and the place and establishment and continuation of the identity of the place through annual meetings in the church. In the second case, a material continuity is established exactly through the transfer, the dislocation of the stones from the walls of the houses to the church walls (Fig. 7). In both cases, the construction of the church is the centre of gravity between the place and the displacement.

Fig. 7: Material displacement/replacement: stones from the old village houses in the church wall.

The inhabitants originating from the village wanted to extend and renovate the existing church located between the meadow and the forest. The new church represents an extension of the old plan, which it contains and encompasses within itself. In a certain period of time, both the old church and the new structure existed parallely until the moment of their uniting (Fig 8). The construction of the church was long-lasting and led by a small team of enthusiasts and volunteers. The process of construction became a place of presence, a place of social interaction between fellow villagers and people originating from the village. The main material were the stones from the old houses of the Goverlevo village. In the winter of 2009, the structure was constructed up to the dome and the stone walls were coated with bricks on the inside. We could recognize the entrance porch, the wall, the window, the records taken by the builders, the entire improvised support at the place of construction, which was hardly accessible, at 10 km from the local roads, along an earth road, whose conditions depended on the weather conditions. Summer 2010, Ilinden holiday (St. Elijah's day), the dome was completed. The meadow of St. Elijah church was the place of national gathering. Summer 2012, celebration of St. Elijah's day (Ilinden), people played national dances hand in hand on the meadow (Fig. 9). The interior of the church was plastered as a base for the fresco-paintings. We came to this place for Ilinden holiday some five years ago, very spontaneously, following a little road sign. The project started then and is still going on
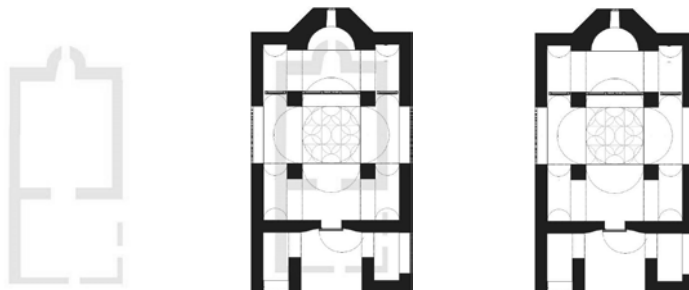
Fig. 8: Overlapping the churches plans; St. Elijah's Day, people in front of the Church of St. Elijah (St. Ilija), Govrlevo.

7 BETWEEN THE PRIVATE AND PUBLIC DOMAIN: VILLAGE COURT, VELMEJ

The overlapping of the private and the public domain points to the ambivalence of the modern places. However, programmatic layering does not only refer to the modern city, the re-exploration of the place is an everyday phenomenon. The village courtyard in Velmej, the opening of the courtyard for the local community in certain periods, became a possibility for its typological re-definition. The owner did not want a closed structure. He originates from the village, but lives in Skopje. His parents lived in the village, in a house close to this courtyard. He wanted to establish a physical frame for his temporary presence there. At the boundary of the village, there is a small church archetype dating back to the fourteenth century that was renovated by the same man. We inscribed a circular notch with water in the courtyard. The village abounds in water and it is often that notches with water run through the courtyards. Then, we placed a frame, a colonnade. We wanted a formal substance to arise from the village courtyard as a timeless architectonic theme and in that way, make the village courtyard a peristyle of the village as an inverse archaeology that does not add but disclose a hypothetical state inscribed in the place (Fig. 9). The courtyard is along the boundary of the village. It is reached through a village street which is integrated with the courtyard and leads to the valley. We used concrete elements from the formerly existing powerful factory for concrete and prefabricated elements "Karposh" from Skopje. These are vertical elements for electrical

installations. We used the technology of production of those columns according to the necessary dimensions from the project. Local material, travertine stone from the village of Velmej was used for coating the walls and the floors. The people doing the stone works were from Pustec (Albania). As to their work, there is a certain evolution. Despite our insisting on their following the old walling pattern, a certain local modernism in laying of the stones and the aesthetics of the walls is visible. The construction lasted the whole summer of 2010. In autumn 2011, we visited the place with the students from our studio (Fig. 9). The colonnade defines the space, but also frames the surrounding landscape. It creates an artificial, framing layer toward the totality of the surrounding. It is a private courtyard, but in a number of occasions, it becomes a common courtyard for the village.
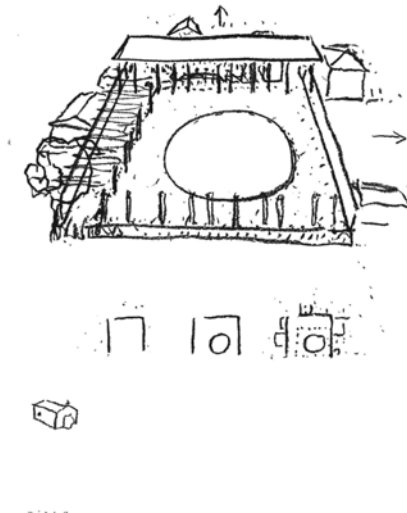

Fig. 9: Village courtyard, Velmej, genesis of the concept; visit of the students to Velmej

8 CONCLUSIONS

In the 30s of the twentieth century, Salvador Dali formulated the method of paranoid-critical activity. In part, it was based on challenging images of a surprising and authentic nature, with transcending validity of reality. This method leads to a world of continuous flux of associations so that, from one picture another emerges, from one state another is created. Similarly, looking at the place today inspires a new critical interpretation of reality. Salvador Dali trans-edited the technological base of reproduction of one copy in which the authenticity of the original is lost, perceiving it in another way, not as an end product, but as the beginning of new associative images. We can accept that relation of serial production as a view point toward modern and contemporary technologies, not as exclusive systems, but as inclusive frames of intense dialogue with the particular places.

Just by avoiding the binary ratio of place/non-place and searching for real relations, it is possible to recognize contemporary everyday places. Modern architecture has differentiated the place on the basis of certain criteria and has split its appearance, before and after; super-modernism swept across space and excluded the gaps of authentic places. Based on the today's examples of marginal everyday places, we can recognize the potential of the direct ratio to the site as an open territory and inclusive praxis. The visions in which the figures of the past can remain, but from which we are liberated, may free the authenticity of today.

So, between the place and the non-place, between the original and the reproduction, between the entirety and the fragments of the city, between the void and the solid of the urban texture, between the public and the private domain, between the place and the displacement, we have found ambivalent situations in a series of examples. If the contemporary world increasingly questioned history, relations and identity of the place in the sense of its authenticity and aura, the liberation from the established relationships enables its conceiving in another way, as a continuous creation and re-creation of everyday situations.

Construction of places is between the historic and contemporary reality. It refers to the process of active creation and re-creation. In all stated examples, it is exactly the act of creation, immediate experience, which gives a new authenticity of the place beyond the usual scheme of "here and now", uniqueness, historicity and permanence. It is exactly the modern crisis of the place that gives us a new way of its conceiving and creation. In different everyday situations, people create, individually or together, inclusive situations as new social and spatial topographies that are recognizable through the places and the events.

9 REFERENCES

Aristotel. (1987). Fizika. (T. Ladan, Trans.). Zagreb:SNL.

Aristotle. Book IV, Physics. (R. P. Hardie and R. K. Gaye, Trans.). Retrieved from http://classics.mit.edu/Aristotle/physics.4.iv.html

Auge, Marc. (1995). *Non-Places, Introduction to an Anthropology of Supermodernity.* London-New York: Verso.

Bakalchev, Minas. (2004). "Housing as an Urban Fragment on the Case of Skopje" PhD diss., University Ss. Cyril and Methodius, Faculty of Architecture, Skopje.

Benjamin, Walter. (1986). *Umetnicko djelo u razdobjlu tehnicke reprodukcije*. Translated by Snješka Knežević. Zagreb: Esteticki ogledi, Skolska knjiga.

Castells, Manuel. (2001,2002). Space of Flows, Space o f Places: Materials for the Theory of Urbanism in the Informal Age. In LeGates, R.T.&Stoun,F.(Eds.), *The City Reader*. London: Routledge.

Dali, Salvador. (1936). *The Conquest of the Irrational*. Retrieved from http://feastofhateandfear.com/archives/salvador_2.html.

Eyck, Aldo van. *Place and Occasion*. Retrieved from http://www.geocities.ws/mitchellmosesstudio/place_and_occasion.pdf

Foucault, Michel. (1984).Of Other Spaces, Heterotopias. *Architecture, Mouvement, Continuité* 5 (1984): 46-49. Retrieved from http://foucault.info/doc/documents/heterotopia/foucault-heterotopia-en-html

Maki, Fumihiko. (1964). Investigations in Collective Form. St. Luis: Washington University, School of Architecture . Retrieved from. http://library.wustl.edu/units/spec/archives/photos/maki/maki-part1.pdf.

Oliver, Paul.(1987). Dwellings, The House across the World. Oxford: Phaidon.

Rosenberg, Timothy.(March 28, 2010). One Surrealist a day Blog. "Sunday Dalí: Paranoiac Visage, 1931".. Retrieved from. http://onesurrealistaday.com/post/480421998/paranoiac-visage

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Miguel Baptista Bastos

Learning from Teotónio

ABSTRACT:

Nuno Teotónio Pereira is, today, an undisputed reference in Portuguese Architecture of the twentieth century, particularly when discussing innovation within the social engagement of architects. Teotónio Pereira was born in 1922, in Lisbon, and graduated from this city's *Escola Superior de Belas-Artes*. From an early age, he did not limit his actions to the practice of architecture, but revealed a profound concern for social inequality. His voice, as catholic leftwing political activist, led him to be in and out of jail during the 40-years' long Portuguese dictatorship. His architectural studio in Lisbon became an extension of Academia for many young architects, who later became relevant actors in Portuguese society. The focus of this paper is to understand and register his methodology, values and vision, regarding the role of architects in social engagement. While others have focused on his architectural practice, we have chosen to look at his theoretical body of work through three of the surveys he co-authored: *Prédios e Vilas de Lisboa* (1995), a survey of the evolution of multifamily housing forms in the city of Lisbon developed in 1978/79, *Arquitectura Popular Portuguesa (50s),* a survey of Popular Architecture developed by Portuguese architects in the 50s*,* and *Um Guia para o Processo* (1976), a guide to develop the country in the aftermath of the revolution.

1 INTRODUCTION

Many have written about, or interviewed, Nuno Teotónio Pereira, today a 94-years' old architect who can claim the title of being one of the fathers of present-day's Lisbon Faculty of Architecture, considering both his influence on a number of present day architects and his body of work. He has written extensively in the fields of architecture, urbanism politics and citizenship, and has authored several architectural typologies, including housing, office buildings and public buildings. Some of these projects have received the municipal *Valmor* award for excellence in architecture, namely the housing tower in Groves (1968), the office building *Franjinhas* (1971), and the Church *Sagrado Coração de Jesus* (1975).

The most complete overview of his work is the exhibition catalogue of his work presented in Centro Cultural de Belém. Most reviewed literature, including this catalogue and interviews he has provided, refers either to his architectural work, or to his political activities. In this paper, we have chosen to focus on what we considered to be an innovative methodology he created with the systematic use of visual surveys. For this paper, we focused on *Prédios e Vilas de Lisboa* (1995), a survey of the evolution of multifamily housing forms in the city of Lisbon developed in 1978/79, and interviewed Teotónio Pereira and Irene Buarque (Bastos, M. & Roseta, F. 2105) with two purposes: firstly, to question how these surveys influenced both his practice and his ideas; and secondly, to learn his view on how architects, today, should engage in society to improve the life of all citizens.

2 Becoming an architect

2.1 Thinking from the inside out

"I did not want to be an architect when I was in school", Teotónio states today with laughter. "There was very little work [for architects] and my inclination pushed me towards Geography, which I really liked; however, I had a friend […] who sat next to me in class and was the son of a great architect, Carlos Ramos, director of the Oporto School of Architecture".

Due to this early friendship, Teotónio started his architectural studies in Oporto, returning one year later to Lisbon where he graduated from the *Escola Superior de Belas-Artes*, Lisbon's school of Fine Arts, as there was no architectural faculty in Portugal in the 40s. Architecture was considered to be one of the three fine arts, with Painting and Sculpture and there were only about 10 architecture students per year, a sharp difference from today's 250 architecture students who enrol every year in Lisbon's Faculty of Architecture.

Teotónio's initial inclination for Geography was foundational for both, his practice and present day's Faculty of Architecture. He developed an architectural practice grounded on obsessive observation of the site, so

detailed and systematized, that we can, today, frame it as a scientific approach. This obsessive observation became a method he used, and taught, the younger generation of architects who worked in his studio, such as Gonçalo, Byrne or Nuno Portas. For Teotónio, before architectural design emerged, pre-existing space needed to be thoroughly understood.

In the effort to frame, today, Teotónio's vision of space, as he defended it in the 40s and 50s, within a broader European context, we can refer to Henri Lefebvre's (1991) definition provided in *Production of Space*. We need, however, to have in mind that Lefebvre's original edition of the *Production of Space* was written only in 1974; hence, Teotónio was *Lefebvrian* before Lefebvre. Even if, today, we can find it useful to frame Teotónio's presence and ideas within a *Lefebvrian* understanding of space, it is fundamental to stress that Teotónio's path was built more by his personal understanding of the world, than by an influence of the international references. We need to bear in mind that, in the 40s and 50s, Portugal was a country with borders closed to most cultural influences. Teotónio's first trip out of the country "into Europe", as he puts it (Teotónio Pereira, N. 2005), was in 1948, as one of the Portuguese representative at the 1st UIA in Lausanne.

As stated by Henri Lefebvre, "The heart as *lived* is strangely different from the heart as *thought* and *perceived*" (1991, p40). Space production, for Lefebvre, was "a result of tensions and empathies generated within the triad of perceived space, conceived space and lived space […] Perceived space relates to physical space, or to the space built and experienced by the senses. Conceived space relates to mental space, or to the model space as it is designed by the author's ideal. Lived space is the social space, or the cultural, political and economic spaces set in place stimulating (or stalling) further space production. "(Roseta, 2009, p.22)

We can best describe Teotónio's architectural vision through Lefebvre's triad of the tensions generated within the architect, the geographer and the human rights activist. Teotónio, the human rights activist, kept a firm presence in both the catholic community and left-wing political parties and fought for equality within *lived space*, defending, early on and with passion, modernist ideals of providing a better life for all citizens. Teotónio, the geographer, was mostly concerned with *perceived space*, thoroughly surveying the physical reality of the sites; hence, understanding the need to revise the universal abstraction defended by early modernism. Teotónio, the architect, created a conceptual space strongly rooted on ethics, rather than form. Architectural design was always a response to a problem.

As he states today (2005) "*Franjinhas* [the office building] was the project that moved me the most … It had a very specific purpose, which was that the people working all day inside needed to have the best possible conditions, and one of these conditions was constant natural lighting….Light needed to have a soft, permanent and uniform intensity,

but at the same time be sufficient to work comfortably...You know, it is not enough for an architect to design beautiful forms, an architect is someone who wishes to improve the way other people live"…. "I have always liked to think architecture from the inside out…I do not start with a preconceived shape or form and then work my way inside… [architecture] should be thought from the inside out and not from the outside in […] Just like humanity."

3 Visual Survey as Methodology

3.1 Three surveys, same methodology

This paper aims to focus on the visual surveys designed by Teotónio, specifically the one regarding "Evolution of Multifamily Housing Forms in the city of Lisbon; however, this cannot be done without referencing two other surveys where Teotónio participated prior to the housing survey.

The first survey was *Arquitectura Popular Portuguesa,* or Portuguese Popular Architecture*,* a survey promoted by the Portuguese Nacional Syndicate of Architects (SNA). This survey aimed to understand Portuguese identity in Architecture. The idea was to send teams of architects into all areas of continental Portugal to survey thoroughly, with photos, images and descriptions, characteristics of popular architecture and its people. The SNA had been pushing for this idea since Francisco Keil do Amaral's presidency in 1949, one year after the SNA delegation returned from UIA's first Congress in Lausanne. This architectural survey was developed between 1955 and 1960 and results were published in 1961.

Figure 1, 2 and 3 - Photos of Arquitectura Popular em Portugal

Teotónio was responsible for the *Estremadura* region, along with António Pinto de Freitas e Francisco Silva Dias. His visual survey included regional plans, urban plans, plans and sections of types, and photographs. The teams were building a visual survey including photography, regional maps, local maps, architectural plans and sections, which Teotónio would continue to use as methodology throughout his life.

The second survey was *Um Guia para o Processo,* a guide to develop the country in the aftermath of the democratic revolution that overthrew the longest dictatorship in Europe. This second survey was, above all, a political manifesto, naming how the process of the revolution was to change the country. The book was, and remains today, unauthored, as there was still fear, in 1976, that the revolution would fail and all those involved in the process would end up in jail; however, as confirmed by Irene Buarque and Teotónio today, he was one of the authors and she drew the maps. As stated today by Irene "the method of analysis form "Prédios e Vilas de Lisboa" was already present, but had a strong political component. We would catalog analytically on top of the map, not only of Lisbon, but also of the country. This book was almost an introduction for "Prédios e Vilas de Lisboa", where we also had zoning but of the different social classes in Lisbon ". (2015)

Figure 4, 5 and 6 . Photos of Um Guia para o Processo

Figure 7 and 8. Photos of *Prédios e Vilas*

3.2 Why survey the housing conditions in Lisbon?

The visual survey on courtyards and working-class housing, focusing on the "Evolution of Multifamily Housing Forms in the city of Lisbon", which Teotónio started after the Revolution of 1974 was a unique typological approach for Lisbon. The study was held in the year 1978/79 and co-authored with Irene Buarque, who was, and still is today, an artist and his wife.

Teotónio dedicated four years of his life to the survey on Lisbon's housing conditions for two reasons: firstly, his interest and experience in housing; and secondly, the construction industry had come to a full stop for the 4 years that followed the 1974 revolution. "Investors who were building and commissioning did not know what type of political regime would appear …there was great political turmoil…Architects no longer had commissions, nobody wanted to invest…My studio was no exception, we had no work, and some projects were interrupted…Since I had no work, I chose to research a theme which had been on my mind for a while, which was to define the most typical constructive types in each neighborhood. [The goal was] not only to define them but to list them, describe them and write a short monographic description of each. I did this work with my wife, Irene Buarque, who was responsible for photography. Curiously this absence of architectural commissions lasted four years, enough to finish the research, which we really enjoyed doing. This survey had a wider extension than we had originally predicted, hence some things were not even published"

Housing had always held a strong interest for the young Teotónio, moved early on by Le Corbusier's ideals. Teotónio translated in 1943 a chapter of *La maison des hommes*, by Le Corbusier, and in 1944, with Manuel Costa Martins, *La Charte Athenes (*Coelho, 2010, p.4)

Teotónio started practicing architecture with housing commissions during the dictatorship years, in a time when there were very few commissions for architects. When his uncle, Nuno Teotónio Pereira, who belonged to government, managed to find Teotónio work in tourism, Teotónio asked if he could be given projects within the "social housing" program started by Salazar. "I was moved by the housing conditions of the working class, who lived in *bairros de lata* [literally tin neighbourhoods, meaning slums], as we used to call them in Lisbon…there was an interesting difference between Lisbon's *Bairro de Lata* and Oporto's *Ilhas* [literally islands, meaning slums] The *ilhas* [are] like neighbourhoods within the city, were very humble people lived then (and today still do)[…] there are hundreds of these *islands* in Oporto which are very introspective, almost isolated typologies within the city's central core…hence the name islands. In Lisbon, the housing situation was different. There was a stronger middle class, thus, more collective housing typologies with several flats per building. …In Oporto there were mainly single family houses. These differences interested me".

3.3 Building a Methodology in Architectural Research

Teotónio, once again a pioneer, presented this work supported by the Gulbenkian Foundation as scientific research. As stated in the survey's introduction, (Teotónio, 1995, p9) there were limits to the object of research (chronological limits) and there was a methodology to select which areas should be studied and which buildings should stand out as representatives of those areas (Teotónio, 1995, pp9-17). With this methodology, Teotónio and Irene walked through Lisbon identifying types and creating a system of classification. The original photographs and scrapbooks are useful to clarify this methodology.
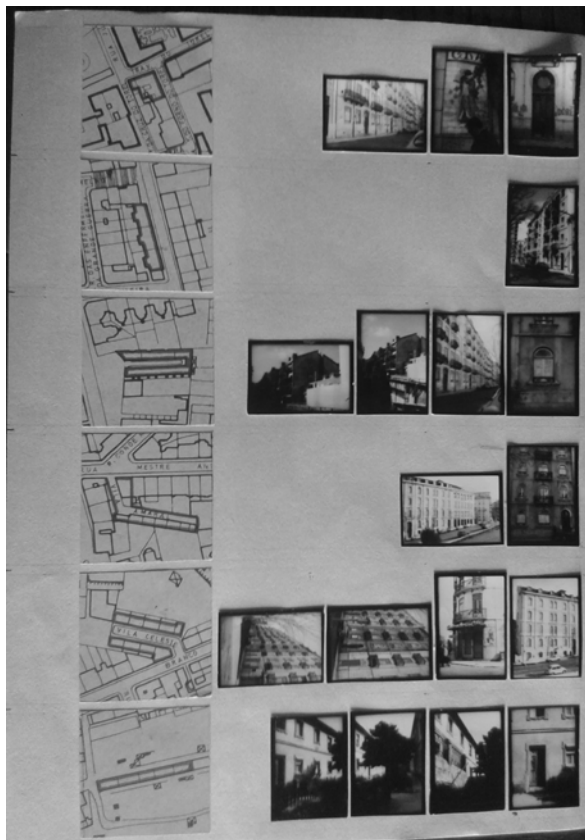
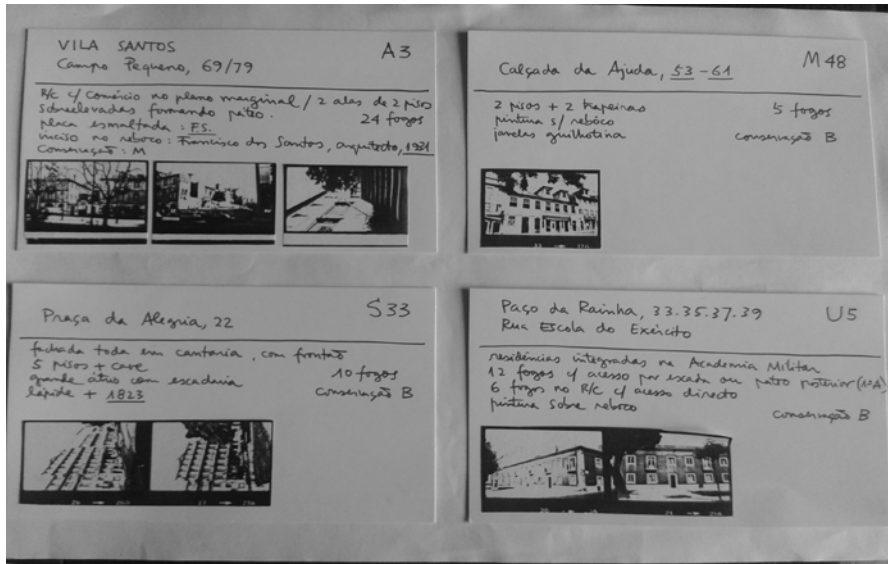Figure 9. Teotónio Pereira and Irene Buarque, Private Archives

Figure 10. Teotónio Pereira and Irene Buarque, Private Archives

As best remembered by Irene "We would leave at ten in the morning and stayed out until five, six, as long as we had sunlight…we would have a picnic in a square, or any other nice public space. Nuno would always have a small nap after lunch in a garden bench, or inside the car when we drove…We would return often to the same space, ..to improve the photos…we walked all the streets of Lisbon..We would both photograph, I looked from an aesthetic point of view, focusing on tiles, doors, windows, staircases and he would take an more analytical photo, writing down descriptions, ..we were very early on enthusiastic about some of the working class neighbourhoods (vilas operárias) : Vila Berta, for instance was extraordinarily beautiful …This love for the city has been present in Teotónio's life since his childhood, when he walked through the city with his father every Sunday in the electric trams …he knew all the names of the streets and squares but also all the names of the trees..this survey , I believe was, above all, his way to pay homage to the city he loved."

4 CONCLUSIONS

The most relevant contribution this survey provides today is how Teotónio's research is based on tools which belong specifically to Architecture as a field of knowledge. In the 70s, architects were still fighting to find their place in society as practitioners; hence, the debate on

what architectural research could be had not even begun. In Portugal, the first PhDs in Architecture were defended in the 90s.

There was focus on typology in Teotónio's visual surveys, which fell in line with the influence Aldo Rossi's *Architecture of the City* (2001) first edited in 1966, had on the Faculty of Lisbon, throughout the 70s. The difference between Teotónio's visual survey and the typological approach presented by Aldo Rossi is that while the first builds a typological classification based on systematic observation of the site, the later provides a theoretical platform opposing modernist functionalism to type.

Teotónio's is a grassroots methodology, built from the bottom-up, as any geographer or human rights activist would have done. His throughout analysis finds mostly diversity, as opposed to unity, and often identifies new typologies. As stated by Teotónio "Diversity is Lisbon's matrix."

5 REFERENCES

Bandeirinha, N. (2005). Um testemunho também pessoal. In Centro Cultural de Belém (Exhibition Catalogue), *Arquitectura e Cidadania, Atelier Nuno Teotónio Pereira.* (pp.51-59)

Baptista-Bastos, M. & Roseta, F. (2015) Interview with Teotónio Pereira and Irene Buarque "A Igualdade na Liberdade: pensar a arquitectura por dentro".

Coelho, F. (2010). *Exposição Bibliográfica Arquitecto Nuno Teotónio Pereira Selecção de Obras Existentes no Acervo Documental da Biblioteca Keil do Amaral.* Ordem dos Arquitectos Secção Regional Sul.

Lefebvre, H. (1991) *Production of Space,*transl.Donald Nicholson.Smith, Oxford:Basil Blackwell

Portas, N. (2005). Um testemunho também pessoal. In Centro Cultural de Belém (Exhibition Catalogue), *Arquitectura e Cidadania, Atelier Nuno Teotónio Pereira.* (pp.51-59)

Roseta, Filipa (2009) The Modern Avenue: Avenue des Champs-Élysées, Regent Street and Avenida da Liberdade. London: Royal College of Art, PhD Thesis.

Rossi, Aldo (2001) A Arquitectura da Cidade. Lisboa, Edições Cosmo.

Teotónio Pereira, N. (1976). *Um Guia para o Processo.* Lisboa: Ed. Slemes.

Teotónio Pereira, N. & Buarque, I. (1995). *Prédios e Vilas de Lisboa.* Lisboa: Livros Horizonte.

Teotónio Pereira, N. &Pinto de Freitas, António &Silva Dias Francisco (2004, 1st ed. 1961) Zona 4. In Ordem dos Arquitectos (Ed.), *Arquitectura Popular em Portugal-II.* (pp.5-120) Lisboa: Ordem dos Arquitectos.

Teotónio Pereira, N. (2005). Um testemunho pessoal. In Centro Cultural de Belém (Exhibition Catalogue), *Arquitectura e Cidadania, Atelier Nuno Teotónio Pereira* (pp.43-50)

Tostões, A. (2005). Obra Aberta: entre experimentalismo e contexto, um sentido de escola. In Centro Cultural de Belém (Exhibition Catalogue), *Arquitectura e Cidadania, Atelier Nuno Teotónio Pereira* (pp.21-41

Miguel Baptista-Bastos

REINVENTED ARCHITECTURES:
A WRITER'S VISION OF LISBON

ABSTRACT:

Armando Baptista-Bastos can presently be considered the only living writer in Portugal, whose work of fiction has almost always been circumscribed thematically to the city of Lisbon. Spanning several generations, his work undergoes a constant change, depending on how it ages and on the urban transformation that follows: writer and city converge in a unique and singular process, where both protagonists walk side by side through time and space: always together and never apart.

Something is shared between the reader and the author: the relationship between the subject (together with the characters) and the spatial setting (Lisbon) is permanently in an unstable equilibrium, that one could compare to a dance, where one partner's step depends on his partner's body, and the narrative arises from this dialogue.

Through the use of language, the reader grasps an idea of the city, throughout the ages and different historical periods; from the early twentieth century until the present day.

Is this an architecture that exists as a theme for the existence of a narrative, or is this a narrative that absorbs architecture in order to conduct its own fiction? The memory of a place and its spatial composition are joined and transformed into a written record.

In our investigation we attempt understanding his written work within the limits of an urban context. It will include an interview with the author himself. We will consequently try to dissect an architectural construction expressed as a written narrative, in an investigation into the representation of space in architecture.

KEYWORDS: *Lisbon, Literature, Architecture, Representation, Reinterpretation*

1 THE WRITER AND THE CITY

We propose to observe a city reinvented by a writer. In this way, we shall attempt to investigate an alternative way of thinking and clarifying architecture and urbanism. Narrative techniques have at their disposal a social archaeology, which allows for an analysis of the city in its various contexts, its habits and lifestyles in a specific time and place, through the memories transmitted by literature. The city in question is Lisbon and its narrator is Baptista-Bastos, the writer. We are in the year of 1963 – when he wrote his first novel "O Secreto Adeus / The Secret Goodbye"[45]. Today, we are far from those dark times, when Portugal lived in the shadow of a fascist regime referred to as "The New State" [1]. However, there are still traces in the city and in society that remain, and the reading of this book will help us understand this obscure period, in a city filled with light, but at the same time, filled with sadness. Fiction is a filter that helps us understand what went on and how it spread. These sombre times are described in this novel, where the plot and its physical setting are inextricably linked.

Describing a melancholic country, introverted by Salazar's regime, demanded an accurate and analytic study, resulting in a highly critical reflexion made by its literature. This analysis has the originality of being a representation of Lisbon that, in spite of exposing the existing political censorship, revealed a modernity that avoided the "typical and folkloric" image of Lisbon imposed by the regime. This book was innovative in the context of Portuguese literature because it introduces a new style, marked by a permanent confrontation with the establishment and the use of very short sentences of quick speech, which suggest images, with Lisbon permanently on the background.

With a journalistic career that began in the early 1950s, Baptista-Bastos' first book draws on his personal experience to narrate an episode of a journalist who tells us about various situations that occurred in Lisbon. In terms of a narrative style, "The Secret Goodbye" changes from Portuguese "Neo-Realistic" aesthetics, so much in vogue in the 1950s, to a social representation, due to its urban character, presenting a portrait of Lisbon which we can still recognise today. We can say that it is the first Portuguese book of fiction that is not attached to the neo-realistic Portuguese literary movement, because it is much more expressive, straight-forward and totally attached to the city, as opposed to what was done at the time. A journalist that uses a journalist's technique whilst writing a book that tells the story of a reporter. In an autobiographical tone, the book reveals a highly controlled society, a city saddened by the impossibility of self expression. Moreover, the old city and the new one are intermingled through fiction. The author uses the description of the city as a means to reveal an enormous counter-power, opposing himself to the political and cultural dominion held over the country. Strangely, this book went unnoticed to the eyes of the national commission of

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[1]For a better understanding, the author has translated directly into English, the original title of the book: "O Secreto Adeus" to "The Secret Goodbye".

censorship[2], but, after its publication, the author, an opponent of the regime, suffered its consequences, and was temporarily forced to leave the country, since he was in imminent risk of being imprisoned.

2 THE WRITER AND THE CITY: LITERARY AND URBAN CONTEXT

The writer, who is now 82 years old, has written more than a dozen books, including fiction, short stories and interviews, where you will always find the urban setting of Lisbon, making this an unusual body of work in the national scene: no other writer has his work built around a single place.

Lisbon is the filter through which he can see things and the world. Literature and architecture merge into an exposed urban contemporary reality, based upon a dynamic narrative, where the journalistic style is used like a sequence of representations where the action takes place.

"The Secret Goodbye" is a story set in the same epoch of its writing, where the main character observes and narrates a sequence of events in a contemporary Lisbon, even if his will to narrate these events is always conditioned by the censorship of the government, and where the architecture of the city is gradually revealed, always circumscribed to an urban perimeter defined by buildings, streets, squares and neighbourhoods. Places that emerge in a special way in a literary invocation, through the use of textual language placed at the service of human memory, which give structure to an event in a specific location. The mere fact that the plot is set in a specific city and a specific time, suggests unusual representations that cannot be understood with a simple photographic image. The characters in the book appear in situations that are linked to Lisbon during this unique period of Portuguese recent history: an archaeology of the city discovered in a text of fiction. In this fable, the characters are dependent not only on the plot, but also on the buildings which are converted into fiction, that is: the places described by the author are easily recognized by any inhabitant of Lisbon, but the book changes them by moving them to a different age – the outside world converted into an inner world. The places mentioned in Literature are presented in forms infinitely different from the real architectural object. Architectural and topographical reality is a pretext in the construction of a plot for the understanding of a specific time and place.

However, this book does not intend to be the literary guide of a touristic view. It aims to expose a metropolis in a simple manner, in a specific time: an urban memory reinvented by fiction. This passion for a certain place doesn't force the reader to embark on a pilgrimage; instead it forces him to rethink another urban reality of the metropolis; a kind of literary tour without the need of going to the places where the action takes place.

The literary tour of "The Secret Goodbye", is very visual, using narrative techniques borrowed directly from journalism[3], however it is also ambiguous, for the architectural setting which can appear to have a very strong image, can shortly afterwards acquire a faltering atmosphere. The characters are in permanent dialogue between themselves, always circumscribed to a time and place exclusive to Lisbon, and always immediately recognized by a local inhabitant; however, this city is not shown or put on display. The background isn't described; the narrative technique takes us to the architecture of the city, as opposed to other writers, as is the case of Eça de Queirós[4], where a detailed description of the architecture was an inseparable part of the story – as if his work of fiction totally depended on this description.

Throughout the book, the architectural narrative, accomplished by the description and the placing of the actors in the different places, becomes useful in understanding the work of literature – aspects like the climate, seasons, trees, aromas and the political context. These different moments are immediately seen and understood in our brain.

The social context commands the order of events, together with the different places, because it clarifies the nature of the different characters. This metaphorical fusion between the city and its persona, made in such a way that one can describe the other, is the core of this novel's fiction.

This book put Portuguese literature in a new contemporary standpoint, inspired by a literary journalistic style, with the use of short sentences that, despite being very descriptive, are treated like images: narrated images. This style was also largely inspired by cinema, since the author was a film critic and participated in the script and the organization of some films, which laid the foundations for the New Portuguese Cinema, as is the case with the film "Belarmino"[5], where he plays an active role as the interviewer.

Literature was perhaps its most important instigator, for this form of expression was permanently under the attention of the censors. (The censors weren't very concerned with the other arts, which had a secondary role, for these were heavily dependant on Salazar's political apparatus.) Literature was the Portuguese artistic expression with the greatest degree of freedom, because it wasn't dependent on a patron, as opposed to painting, architecture or sculpture, and it could easily be published and divulged at a minimum cost. This obviously puts the writers under a greater risk, since their artistic expression has a much more intervening and critical role in society.

The development of a different style in Portuguese society arose out of an urgent need. The 60s and a group of Portuguese intellectuals were the instigators of this new ethics and aesthetics.
The 60s in Lisbon was one of the most important, influent and culturally active periods in Portugal, for they marked the birth of a new

modernity in Portugal, clearly influenced by the Neo-Realism of the fifties. However, this generation didn't exactly owe obedience to this movement, in contrast to what happened in the rest of Europe.

3 LISBON 1960s: URBAN CONTEXT

Alongside the traditional historical city, another city was emerging, much more visible in the urban topography, but less recognizable, for it wasn't much promoted by Salazar's regime: the beginning of modern architecture in Lisbon. New neighbourhoods were planned, like the Olivais[6] that was the largest example in Portugal of urban planning in accordance with the principles of the "Charter of Athens", still known today as the "garden-neighbourhood".

A new bridge crossing the Tagus was built between 1962 and 1966, uniting the margins of the cities of Lisbon and Almada. It was named after Salazar (After the April Revolution it was renamed "25th of April Bridge" – which is its current name). This was a huge transformation in the social context, it originated a much closer relationship between both cities and accelerated urban growth.

The Metro of Lisbon was inaugurated in 1959. It was the first underground transportation network that opened in Portugal. It united the old and the new parts of the city. It was an extraordinary innovation, for the first time inhabitants of Lisbon travelled in a fast and silent manner.

The "Avenidas Novas" was the name given to a large area of urban development which expanded the city of Lisbon to the north, at the end of the XIX century and in the first half of the XX century. This growth stabilized in the 50s and 60s, when the latest modernist constructions exposed a new way of life. The city's intelligentsia who, since the XIX century, had regularly met in the old cafés of Lisbon, such as the "Brasileira", the "Nicola" or the "Café Gelo", also occupied these new areas. This is the case of the group of the "Vá-Vá" café, who gave birth to the "New Portuguese Cinema".

4 LISBON 1960s: INTELLECTUAL / ARTISTIC CONTEXT - BREAK

The beginning of the 1960s is marked by social unrest (university strikes), important left-wing clandestine movements and by a cultural and editorial agitation, persecuted by the state police PIDE[7]. This atmosphere thrived in the universities, where intellectuals passionate for literature, painting, architecture and films, established themselves in the cultural life of their country.

Immersed in this context "The Secret Goodbye" clearly mirrors how this suffering but rebellious generation, saw things. The book was first edited in the collection "NOVOS" published by Portugália. This collection had an enormous impact in the cultural circles of the time, for its authors

were all young with a single book published and disliked by the ruling power. Besides Baptista-Bastos, another author and his personal friend also initiated his career in this collection; considered to be one of the most important books published in Portugal in the second half of the XX century. We are talking about Herberto Helder and "Os Passos em Volta / The Surrounding Footsteps"[8].

It was also at this time that a new "Brutalist" architecture appeared in Portugal, through the work of Nuno Teotóneo Pereira and his building "Franjinhas", which moved away from modern and neo-realistic aesthetics.

As mentioned before, the "New Portuguese Cinema" was an avant-guard movement that in spite of the dictatorship in the 1960s, managed to break with the current ideology initiating a movement that would establish itself in the following years. It was inspired in the French Nouvelle Vague and in Italian Neo-Realism. This movement was joined by young educated university students, seduced by an alternative type of cinema, which was available in small film-clubs. The two most famous films from this period are "Os Verdes Anos"[9] and "Belarmino"[5]. Baptista-Bastos had an active participation as the interviewer/actor in the film "Belarmino".

5 TORMENTED MODERNITY

Interview conducted by Miguel Baptista-Bastos (MBB) and Diana Gomes (DG) to Baptista-Bastos (BB), October 2014.

MBB- What was Lisbon like in the sixties?

Baptista-Bastos (BB) – The atmosphere felt in Portugal, particularly in Lisbon, was very unhappy, people lived in tragic times... absolutely tragic! And this moved me deeply.

My first book of fiction, "O Secreto Adeus / The Secret Goodbye", is born of this discontentment… I understood that the world was changing, because, at the time, I was very aware of things, and when I started to see the uprising in the so called third world, particularly in Indonesia, with an international meeting, called the "Conference of Bandungue", in 1955, which I followed through the international newspapers. I read, amongst others, "Le Monde", whenever it was possible, and was very well informed. I quickly understood that the world was going to change, don't ask me why, because I don't know. But I understood that the world, the world where I lived, was changing... and it did! Dictatorships changed and even religion's vision of the world changed, by abdicating from its responsibilities. The church abdicated and that was truly disastrous. But it was also then that the church was challenged from within, and this was very important, for its own evolution… for everything!

Miguel Baptista-Bastos (MBB) – You mentioned that the world was changing and we can see the changes, but this thought was common to several people and forms of expression, for example, there is a breakthrough in Portuguese cinematography with two films that initiate the movement of the "New Portuguese Cinema", with "Os Verdes Anos" and "Belarmino", you also made this happen in literature, in poetry with

Herberto Helder, in architecture with Nuno Teotóneo Pereira… so at that time we can see the appearance of a series of…

BB - Things were in fermentation… I mean, because both "Belarmino" and "Os Verdes Anos" were important for Portuguese cinema (they still are today), but they are two opposite visions, one more rooted in the working class, "Belarmino", where in an interview I conduct and which occupies most of the film, he says that he could have been a champion, but he wasn't, because people wouldn't allow it, the surrounding atmosphere wouldn't allow it, the world was closed and draught-proof. The vision in the film "Os Verdes Anos / Early Years" was more bourgeois, more, how can I say this: more moderate. It was more cautious. After all, it's a love story, the courtship of a girl by a boy who came from the countryside, and apparently there is more to it than that, everything is set in Avenida de Roma, when it was very different from what it is today, filmed by a bunch of young men who have all given up now, they are all dead now… (pause)... by a group of young men, in this case, the group of Paulo Rocha the film director, a very good friend of mine, who lived in the same building of the café "Vá-Vá", which was a very important meeting point for intellectuals in Avenida de Roma, which was the new part of town… and the story was filmed there. He used to say I was a kind of fetish-actor for him and I took part in several films, in small parts, or as an extra… Paulo would call me and say: "I'm going to make another film and, once again, you have to take part! ... (laughs)". He had studied in Paris, in the IDHEC, the institute of advanced studies in cinematography, and culturally France was important then. Not so much today, but then, Paris had everything; it had philosophy, painting, poetry, the biggest film library in the world, directed by a man called Henri Lanoe, everybody and everything supported these cultural movements, and, as a result it gave birth to the French "Nouvelle Vague"… Obviously it can all be disputed (laughs).

MBB – It was called "New Wave", "Nouvelle Vague". And it is readapted to the Portuguese context. But there are common points; there is a new vision of modernity…

BB – I wouldn't just call it modernity, I would call it a great indisposition and despair felt by this generation, I mean… we can define it as a tormented reaction, because we all had more or less the same concerns, with different ways of solving them. Different aesthetics leading to a common ethics: a tormented modernity.

MBB – A generation you were also a part of, I mean, you were also part of this movement.

BB – You could say so... but what all these events have is a common origin, if we relate all the facts, you will see that, for example, the African nationalist revolts of liberation, or "Liberation Theology" in Latin America, that is a movement that challenges the traditional church…

MBB - There is a new idea that we can see in literature, in your case, there is a path initiated in your first book ("The Secret Goodbye"), which consists of a new idea of Lisbon, a modern Lisbon. Because, your book starts very violently, with an account of a suicide that took place in the

"Duarte Pacheco" Viaduct – which was considered an exemplary achievement of the "New State" dictatorship.

BB - It was said it was the most modern construction in Portugal at the time. Why should the book begin with a suicide in that place? It was also a statement challenging the ruling system, because people in Lisbon didn't have much appreciation for the viaduct, they thought it entertaining but it was only for those who had a car, for those who had money, for those who lived outside the city, and there was this resentment against it. The neighbourhoods around it were extremely poor. People went to see the viaduct on week-ends, and there were even organized excursions! ... Today you wouldn't believe it, but it happened at the time! ... and, of course there were many suicides in Lisbon, and, believe it or not, a lot of these were committed precisely there! These facts couldn't be written in the newspapers due to the censorship and so I wrote it as a book of fiction. Today we can talk about this. In fact, in this sense, the idea of modernity is a kind of pressure applied by time, for we have to consider that reality isn't immobile, this is the greatest mistake made by those who won't accept or even admit the transformation of society. In this case, we suffered the effects of a dictatorship for 48 years, and this is something young people can't even imagine; repression was so strong that people were arrested, they remained imprisoned, they were killed, silenced, and there was no debate, nobody dared to question anything. When there was some debate it was clandestine, in the tradition of the Neo-Realistic movement that occupied most of Europe and had an enormous impact on Portuguese intellectuals – the name, its designation was created by a Portuguese poet called Joaquim Namorado, because you couldn't write down "Socialist Realism", because "Neo-Realism" was really a "Socialist Realism" inspired in Marx and those great men of the time. The whole world was in motion!

This should be discussed, because it is during this decade, that everything is questioned, even the church... even the church!

MBB - You spoke about the definition of time and space; does it take form in an idea of Lisbon?

BB - Yes, my city is always reinvented, with fragments of reality that I experienced. The nightlife and the discussions we had in the cafés had a decisive influence over me, because of my work, for I worked mostly at night. The life we led in journalism was somewhat perverse, because we earned very little money; it was a time when we drank a lot and – this is all to do with the despair that arose from living in Portugal, and in this particular case, in the city of Lisbon – "The Secret Goodbye" is born in protest, in protest against newspapers, against journalists that have given up and in praise of a young journalist called Álvaro Moreira, that decides to abandon journalism because he can't stand it any longer. It's very romantic, but that was what I thought at the time.

MBB - But, for example, the spaces you portray, the buildings, the streets, the moments, they all have a specific idea and definition of time, in specific spaces...

BB - Everything is reinvented. Even events in time, although there are facts and places precisely located in time…

MBB - And how do you define the spaces? Is it important for you?

BB - Of course it is... it's fundamental for writing! I can't write without it. I rarely reread the books I wrote, but I keep them in my head and sometimes I remember things I wrote, it has a lot to do with passion, mostly a passion for Lisbon…

MBB - Going back to "The Secret Goodbye", is there an attempt to innovate?

BB - No.

MBB - In the definition of time and space, the different spaces? As a work of architecture...

BB- Everything is recreated, I mean, it's not precisely the same, even if it is precisely the same: it's called the creative process – it always starts with everything, but it always starts with nothing, which is what we carry in our heads.

MBB - So how did "The Secret Goodbye" come about? And what is the importance of Lisbon in the book? Are they inseparable?

BB – It's immensely important, because if you pay some attention, you will notice that the city of Lisbon in the book is a free city. It's a city that is unconstrained, in opposition to what it was at the time, so that, a few older intellectuals sent me some very touching letters, as was the case of the great Portuguese poet José Gomes Ferreira, who wrote to tell me that only now did he understand why the young generation – the one I belonged to – lived an immoderate sexuality… (laughs) for him who was already an old man, this immoderation consisted in openly courting the opposite sex, and casually having some drinks, I was moved. On the other hand, the book was not well received by the political class (obviously!) and surprisingly, by journalists, because I described journalists as they were then and many still are: easily corruptible… There are always only a handful of people who are able to resist, and when you resist, you are bound to pay a price, a very high price! ... In the 50s and 60s, I met great journalists that I admired from having read them, and I thought they must be dead, and I could see they were defeated and broken down, because they weren't able to write freely. At the time in Lisbon, journalists got along very well with architects, painters, actors and other artists. I remember, amongst many others, Nuno Teotóneo Pereira, Manuel Taínha, Tomás Taveira, Nikias Skapinakis, Sá Nogueira, Júlio Pomar, João Abel Manta... we had a common understanding of things, and this brings people together.

There was a need to exchange ideas (and this need to exchange didn't imply that some were more enlightened than the others), there were people back then who had access to other books, other magazines. Censors in Portugal eliminated entire pages of the "Le Monde" – that was, and still is, an important newspaper – only then was it put for sale, and now we think and say: "How was this possible?". But of course they were mistaken. There was a great man called Carlos de Oliveira, whom I greatly admire and who was my dear friend, who said: "There is no axe capable of cutting the root of thought", nothing could be done! Because, in the end, a city is an aggregation of free thoughts.

MBB - And what influence, if any, did architecture have in "The Secret Goodbye" and in the narration of the spaces; how did this influence the story?

BB - Of course it did! If you read the book, sometimes it is written as if it were measured with a ruler, because imagination always obeys a certain reality, and this reality, whichever it is, must be understandable. I couldn't avoid the reality of Lisbon, like it was then. In the book I have descriptions of Lisbon that are almost *ipsis verbis* of the city of today. In fact, it must have the architecture, like the master Ernest Hemingway said: "Prose is architecture, not interior decoration", philosopher Georg Lukács said this in another way, by defining the difference between narration and description. We only understand this after reading Lucács. Description is the decoration, and the narrative... the narrative is something else! It isn't naked, but it consists of just what is necessary and operative. The same thing happens in the city: you don't describe it, you narrate it. This city, like any other when narrated, is renewed by reinvention, it's not the exposed city like people see it: it's an interpretation, sometimes an interpretation of our own dreams. Of what we would like the city to be.

DG – "The Secret Goodbye" could have been written today, it would make complete sense, it's just the reaction that would be different from what it was. What I want to know, is how people reacted back then.

BB – There were groups, groups of people who regularly met in cafés for informal discussion. In these big "tertúlias"; the "tertúlias" were an awakening from our mental idleness, and, like I said before, there was a communion of affection and an enormous proximity between people coming from different artistic backgrounds, and this gave us all a very good preparation, from architects to painters, to film directors, writers, musicians and others.

MBB - Was there literary criticism at the time?

BB- Yes there was, and it was very strict. It had to be so, due to censorship, of course. And the reaction was quite good! The greatest literary critic of the time, a man called João Gaspar Simões, wrote a very positive criticism, which for me was quite a surprise for I was expecting a beating (laughs). In the beginning it went very well, afterwards I was invited to lecture and things got more complicated. At the time, going to Porto, to Coimbra, to speak about a book that was a fierce criticism of the regime was something for someone, and extremely risky… And I was… I'm saying I was because this is a conversation, it's not that it is very important… but I was very reckless and unconscious, because in 1963 I was in Porto, invited by a group of university professors, and I noticed there were some guys there taking notes; they were from the PIDE, the political police, and after a while I had had enough and I said: "If you want to, I can speak slower so you gentlemen can take notes…", and the room was dead silent… I was completely reckless because I could have ruined my life, but I was very young and the world had my age… (pause) You know, I was the product of those times: that's what's important! "The Secret Goodbye" is the product of those times, of a society that lived in fear and as a result had a total need for freedom. It was a cry! But it's interesting, because it's the book young people talk about more often,

also because it has fourteen editions, fourteen or fifteen, I don't know… and young people today still talk about that book, and I sometimes find that surprising.

MBB - And what is the importance of the choice of spaces and the different locations in "the Secret Goodbye"?

BB - They emerged naturally... It wasn't premeditated! I wrote the book in twelve days, or in ten days, I can't remember. Today I would be incapable of doing that. I would worry a lot about the details, with the repercussion it would have, but that book came out fluidly, like a flame jumping out of the fireplace.

MBB - Why does the book end as it does?

BB - Because it is a situation of despair, the book is tormented! It's about a young man who no longer knows what to do, who sees those old men reaching the end, with all their broken dreams; because it's something against repression, against fascism, against fatal ideologies. But that book made me learn a lot. It sold out very quickly and it was a book that was much read in prison by political prisoners before the revolution. But I learnt with the book itself, we learn with what we are doing.

MBB - But, there is an instigation... when you start to write your first book of fiction, there is an urge that is undoubtedly linked to the place.

BB - In my case, it had more to do with rage; I couldn't live in Portugal any longer, I was twenty something, I had travelled, gone to certain parts of the world…

MBB - But there is an urge, we can't really call it an artistic movement, but there is a common urge in cinematography, in Portuguese music...

BB - Yes, of course there is, and the word is well used. There is an urge, the urge to be free. Lisbon, in "The Secret Goodbye", is a free city, contrary to what it was at the time.

MBB – Cinema begins to have a big influence in literature, at the time.

BB - Yes, American cinema in particular, followed by Italian cinema, especially the Neo-Realistic phase, which has an incomparable cinematography.

MBB - The image begins to have a greater importance?

BB - The image has always had a decisive importance! When we read Eça de Queirós' "The Maias", we can see the city as it was then; that ending with two friends running after the tram, is a wonderful description. That race shows us a European city in its transformation from the XIX century to the XX century: the transformation brought about by speed.

MBB - But what I mean to say is that there is a common ground, for example, in the aesthetics of a painting by Sá Nogueira or Júlio Pomar, or there is a similar aesthetics in Nuno Teotónio Pereira and in your work, because your generation shares a common urge.

BB - It's the need to be free. Modernity is a great aspiration of freedom: that is the question we have always got to ask ourselves! Never stop seeing, listening, reading, never follow a single path. This attitude made it possible that some of us produced interesting work. But it didn't start with us, because my generation has a very close relationship with the great

Portuguese Neo-Realist intellectuals, such as Alves Redol, Soeiro Pereira Gomes or Manuel da Fonseca.

MBB - But, for example, you all knew each other. Not just in literature, but also in painting and in architecture.

BB - Because there was the need to establish a relationship, it wasn't enough to share aesthetics. It has to do with ethics. Today we know that we cannot have aesthetics without ethics, but what was necessary back then, more than aesthetics or ethics was a strong social sensibility.

MBB - Does ethics always have an artistic result (a book, music, a painting, a building…)?

BB - Not always… We can consider that all books have an aesthetics, and, as a result, they must also have an ethics – that can be evil. Take Heidegger for instance, who remained a Nazi until the end, but was a great philosopher. The writings of Oswald Spengler were extraordinary, we read them and find their ethics was inseparable from their time – time allows for these things.

MBB - And what drove you to write your first book and why haven't you stopped until now?

BB - I was angry and unemployed for political reasons; I was completely furious!... It could have led me on a totally different path, but it didn't (laughs)… After a while I said "I'm going to write a book" and Boom!... it appeared!... why haven't I stopped until today?... At 82 I should probably be more sensible (laughs).

Presently I am writing two books simultaneously: one is a book of memoirs and the other one is set in a city where total love can exist… can you guess which city it is?... (laughs)…

REFERENCES

Baptista-Bastos, (1963). *O Secreto Adeus*, Lisboa: Portugália Editora
Helder, Herberto (1963). *Os Passos em Volta*, Lisboa: Portugália Editora
 Anos 60: Ruptura: Arquitectura (1994). Lisboa:Livros Horizonte.
Anos 60 Ruptura: Pintura (1994). Lisboa: Livros Horizonte.
"Os Verdes Anos" , directed by Paulo Rocha (1963, Lisboa, Portugal: Midas Filmes, 2015)DVD.
 "Belarmino", directed by Fernando Lopes (1964, Lisboa, Portugal: NOS Filmes, 2008) DVD.
Baptista-Bastos, Miguel; Gomes, Diana (2014). Interview with Baptista-Bastos, recorded on
the 26th of October, 2014.
Translation: Mário Ferreira

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Architect and urban researcher. Graduated in 2003 from the Faculty of Architecture at the University of Lisbon (FAUL). She was a trainee at Willy Müller Architects (Barcelona) and at Promontório Arquitectos (Lisbon). Later on she moved to London to join dRMM Architects. After London she joined the Renzo Piano team in Genoa, collaborating in a residential project for Lisbon. Back to Lisbon she was awarded a Master degree in Architecture and became a PhD candidate from FAUL with a doctoral fellowship from FCT since 2012, while collaborating with GESTUAL, a research group on the areas of self-produced areas, urban intervention policies and projects focusing the Right to The City.

Inês Veiga
Currently a PhD student at the Faculty of Architecture, University of Lisbon (Portugal), since 2013, carries an exploratory study about social design. As a researcher and freelance designer, has been collaborating with designers, architects, artists and anthropologists, as well as institutional actors and organizations, in experimental and formal social and cultural projects, entailing communication, participatory and social

change processes. In 2010, participates in !mpact Design for Social Change course, School of Visual Arts, New York (USA). Works at Thisislove studio (Lisbon) until 2013, since 2008, when graduates in Communication Design, from the Faculty of Fine Arts, University of Lisbon.

Jesenko Horvat
He graduated at the Faculty of Architecture, University of Zagreb. He achieved his MSc on the work titled "Freestanding Formative Elements in the Composition of City space" and obtained his PhD with dissertation research "Organising Public City Space as an Urban Planning Matter". He is Associate Professor enrolled in education on Studies of architecture and urbanism. He is a research associate involved in urban planning and urban design topics. Beside pedagogic and scientific engagement, he deals with physical planning, urban design and architectural design. He is particularly devoted to public space and public domain in general.

Joana Martins
A qualified Architect since 2012, Joana has been part of MEDS since 2013 and an NC for Portugal since 2013. During MEDS workshops she was a co-tutor in Lisbon (2013) and in Dublin (2014). After completing an internship in the Public Space Department of the Lisbon City Council, Joana won a Leonardo Da Vinci grant. Between September - December 2014 she worked with Serrano and Baquero Studio in Granada, Spain. Since then, her work has focused on community projects, such as coordinating volunteers for projects with Trafaria Library and collaborating with FAS, in conjunction with the community of Castle S. Jorge.

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Degree in Architecture from the Faculty of Architecture of the Technical University of Lisbon (FA-UTL - 1993), Master in Contemporary Architectural Culture and Construction of Modern Society (FA-UTL - 1998) and a PhD from the Polytechnic University of Catalonia (UPC - 2005). Developed a post-doctoral research in partnership with the ETSAB-UPC and the FA-UTL. Since 1997 teaches at FA-ULisboa, mainly project disciplines, and has developed scientific research in the Research Centre for Architecture, Urbanism and Design (CIAUD).

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In 1993, graduated in architecture from the Faculty of Architecture of the Technical University of Lisbon (FA-UTL). Obtained the degree of Master of Housing Architecture, the FA-UTL in 2001. Between 2000 and 2008 attended the PhD program in Urban Planning at the Polytechnic University of Catalonia. In October 2008, obtained the degree of doctor in FA-UTL. Teaches at FA-ULisboa since 1999 in the area of technologies and has developed scientific research, together with other teachers of the FA-ULisboa in the Research Centre for Architecture, Urbanism and Design (CIAUD).

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Studied geography and history at the Faculty of Humanities, University of Zagreb. In 2008 defended her PhD thesis titled "Development, typology and classification of retail centres in Croatia" at the Department of geography, Faculty of Science, University of Zagreb. Since 2004 employed at the Faculty of science, currently at the position of assistant professor and Deputy of the Head of Department for science and international cooperation. Worked as a researcher of three international and 3 domestic scientific and professional projects dealing with the spatial planning and development of the city of Zagreb. Currently a chief researcher of bilateral Croatian – Austrian scientific project Differences of Post-industrial and Post-socialist Brownfield Redevelopment and its Socio-spatial Impact on Current Urban Development Processes. A Comparative Analysis of Vienna and Zagreb

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He got his Telecommunications Engineering and PhD degrees at the University of Valladolid, Spain. He got the PMP certification at the PMI. He is senior researcher at the University of Deusto, and R&D project manager at the DeustoTech Mobility Research Unit. He has worked in more than 20 R&D projects. He is co-author of more than 17 JCR journals and 3 national patents. His interests include local positioning techniques, ambient assisted living, internet of things, and wireless networking. Member of COST Action TU 1306 CyberParks

Francesco Orsi
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Marta Colombo
Lives and works in Torino. She graduated in architecture at the Politecnico di Torino in 1986. Freelance architect specializing in urban planning, land use planning, evaluation of technical and territorial sustainability, GIS and environmental assessment. Between 1999 e 2009 she were Council member (about planning, private construction, environment, real estate) of the City of Rivoli and administrator of the Agency for the Metropolitan Mobility. Since the endorsement of the new legislation on Strategic Environmental Assessment (SEA) she has been working in this field, cooperating with other specialists. She is registered in the Regional Energy Certifiers 'list.

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Degree in civil engineering, 1979 from Politecnico of Turin and Master degree in Business Administration, 1983 from SAA, School of management of the University of Turin. Project manager (also of GIS projects) in Fiat engineering (engineering company of FIAT Group), during years 1983-1990 and head and technical director of sector "Informatics, environment and territory", head of management control, analyst of industrial investments, advisor for due diligence of industrial companies, in FISIA (environmental company of FIAT Group) during years 1990-1997. Shareholder, member of board of directors, general manager of a company of financial analysis, during years 1997-2003 and shareholder and member of Board of Directors of a company of advisory and service

for real estate's investments, from 2004 to 2006. Engineer and advisor from 1997 till now.

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Master of geography, Graduated Spatial Planning and Regional Development in 2013 at the Department of Geography, Faculty of Science, Zagreb. Participated in projects regarding brownfield redevelopment, urban participatory planning and socio-spatial integration issues of Roma. Contributor to web sites, magazines and voluntary platforms Failed Architecture, Geographical Horizon and Ars Publicae (Zagreb). Previous work experience at University of Zagreb as expert associate on EU projects. In 2015 became assistant at the Urbanex consultant office on projects regarding culture management and urban development. Currently working as associate for EU projects at the Center for Research, Development and Technology Transfer, University of Zagreb and Roma Atlas Developer at UNDP Croatia.

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She obtained her MSc in the field of Architecture and Design at the University "American College Skopje", School of Architecture & Design, Skopje, Macedonia. She is currently holding the position of Assistant Professor at University "American College Skopje" where she teaches subjects related to architectural design. She has worked on a number of projects and research in Macedonia and in the neighbouring countries. Her research interest is concentrated on the different aspects of the modern residential projects and their role as a reference level for the research of the permanence and variability of the spatial program basis of the modernity.

Miguel Baptista-Bastos
He studied at the Liceu Gil Vicente, Escola Artística Antonio Arroio and Architecture at Faculdade de Arquitectura da Universidade Técnica de Lisboa, where he graduated in Architecture. MPhil and PhD at FAUD at FAUL. Worked in several architectural practices and founded his office, designing and executing several projects. He is an auxiliary professor at the FAUL, since 1998, of "Architectural Design", and tutors other disciplines, such as "Set Design", "Set design and Exhibition", "Ephemeral Architectures", "Rehabilitation of coastal areas" and "urban requalification". He has national and international published articles and is the scientific coordinator of the "Cycle of Lectures of Architecture Faculty" and "FA - Cinema Cycle" and the scientific coordinator in the field of architecture of CIAUD (Research Centre for Architecture, Urbanism and Design FA).

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