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31 March 2026

DASP YEARBOOK 2025

ENVIRONMENTS

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Politecnico di Torino
Dipartimento di Architettura e Design

DASP YEARBOOK 2025

ENVIRONMENTS

PhD in Architecture.
History and Project

DAD | Department of Architecture and Design
Politecnico di Torino

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FOREWORD

Preface

Filippo De Pieri

The first volume of the Yearbook of the Doctoral program "Architecture. History and Project" (or DASP, as the Italian acronym goes) was published in 2023. It bore the title "Space" and offered a near-geographical representation of the distribution of research within the program, understood as a sort of archipelago with its separate islands and occasional interconnections. By placing the word "Environments" in the title page of this new edition of the Yearbook, we would like to emphasize a different aspect of the program: its ongoing evolution, its responsiveness to changing contexts, and the emergence of a growing set of reciprocal interrelations between the research works documented in the following pages.

DASP originated in the early 2010s from the fusion between two previously existing doctoral programs – one in architectural design, the other in architectural history. The dialogue between *storia* and *progetto* – the Italian words convey a number of nuances that cannot be easily reflected by the English translation – had been, well before that, one of the central factors behind the creation of what has today become the Department of Architecture and Design. DASP was therefore deeply rooted in a research tradition well exemplified by the intellectual trajectory of key figures such as Roberto Gabetti and Carlo Olmo. Over time, the original idea behind the program – investigating the mutual relationships between the stratified temporalities and the manifold rationalities that contribute to shaping the built environment – has acquired additional nuances and implications against the backdrop of the changes affecting global architectural culture. The dual polarity of history and project appears today less as an opposition between two clearly defined disciplinary sectors than as a starting point to explore the growing complexity of architectural knowledge and its hybridization with methodological, epistemological and ethical suggestions coming from a plurality of fields of inquiry.

In this respect, the title "Environments" is more than just a metaphor. The presence of environmental humanities within doctoral studies in architecture has been one of the most striking aspects of change in recent international research. It can be detected in some of the topics of the theses of the latest (40th) cycle of the DASP program, in the evolution of its teaching activities, and in a subtler, and possibly deeper way in the reconfiguration of the tools of inquiry shared by many investigations. Although this is not the only direction towards which the doctoral program is evolving, it offers a good example of how the key questions behind it are being reshaped on a daily basis by the emergence of broader research trends and by the questions posed by society at large.

2024/25 marked the first academic year in which the three doctoral programs existing within the Department of Architecture and Design at Politecnico di Torino collaborated in a few common initiatives and understood their role within the Department as jointly aimed at promoting top-tier research within the context of an architectural institution. The single most important undertaking was the organization of the DAD PhD Day, a yearly event marking the opening moment of the academic year and involving the three doctoral programs, as well as the whole Department, in a discussion about the state, perspective and role of PhD research. DASP consolidated this trend by reshaping its traditional mid-term review moment as a public exhibition, open to the Politecnico community and centered upon the display and informal discussion of ongoing works. Ana Tostões, who closed the DASP Day with a keynote lecture, shares some of the impressions collected during the event in her postface to the present edition of the Yearbook.

The following pages capture DASP at the peak of a phase of expansion. Italy's national post-Covid recovery plan for the years 2021–26, generally known as PNRR (*Piano nazionale di ripresa e resilienza*) and part of European Council's Next Generation EU program, has among other things dedicated a substantial amount of resources to funding doctoral scholarships for the three doctoral cycles (38, 39 and 40) documented here. This has contributed to pushing DASP towards the unprecedented overall size of about fifty candidates being simultaneously enrolled, while also stimulating a differentiation of research topics and experiences.

On a different level, the theses collected here also show the increasingly international dimension of the DASP community. Over the years, DASP has developed a privileged relationship with Chinese universities, well-illustrated by the joint PhD curriculum with Tsinghua University, called "Transnational Architectural Models in a Globalized World", and by the increasing presence of PhD candidates fully funded by China Scholarship Council (CSC) scholarships. 2025 has also seen the consolidation of research collaborations with countries in the Balkan areas, with two theses activated within a tri-lateral agreement with universities in Skopje and Belgrade. Besides these institutionalized exchanges, the individual trajectories of the future PhDs – be they international candidates who pursue a degree in Torino or Italian ones who develop international topics and collaborations – are crucial in the development of a plural and multicultural research setting.

The sharing of research questions and results and the development of a collective conversation has been part

of DASP's approach since the early days of the program. Doctoral education is not intended as an individual experience, to be carried out in an exclusive relationship with one or more supervisors, but rather as a collective exploration aimed at fostering the development of critical awareness and intellectual mobility. This is an increasingly difficult goal to achieve in a global research environment marked by hyper-fragmentation and extreme competition. To this end, the program offers a varied catalogue of courses and seminars – some of them aimed at providing essential methodological tools, others at involving candidates in ongoing research projects – and contributes to the organization of specific workshops in partnership with various international institutions.

Starting in 2025, DASP has added to the Academic Board a group of 'tutors', intended as early career researchers that operate as a scientific and organizational support to both the professors and the candidates within the program. The four tutors have been instrumental, among other things, in organizing the DASP Day, in collecting the material for the Yearbook and in giving shape to the new version of the DASP website. Their introduction to the present publication outlines some of the challenges that the PhD program will likely have to face in the near future: how to remain explorative, and responsive to changing trends in architectural and historical inquiry, while building a cohesive scholarly community and firmly placing an emphasis upon a few shared and clearly recognizable research priorities.

Introduction
DASP PhD Program: A Critical Overview

Valentina Burgassi, Valerio Della Scala, Elena Guidetti, Sofia Nannini

Across the research questions raised by the 46 ongoing theses of the DASP PhD program, diametrically opposed attitudes seem to emerge. On the one hand, certain theses build upon a critical approach, more oriented towards theoretical exploration and characterized by an intrinsic pessimism regarding the state of the built environment. On the other hand, some theses instead show a quasi-positivist attitude, often relying on urban and architectural research as tools for problem-solving. This clearly simplistic division is instrumental in introducing a key question for those involved in research programs in our field of study: should doctoral research in architecture offer solutions or provide critical inquiries? Or both?

There is no definitive answer, but keeping this question in mind could be particularly relevant for our school, which has historically oscillated between a technical, product-driven approach, influenced in part by the strong presence of engineering departments, and a more theoretical orientation rooted in the humanities. A review of the work produced by the students of the DASP program underscores the importance of approaching research as a continuous source of uncertainty: one that encourages the exploration of uncharted territories. Adopting this stance requires a healthy skepticism towards ready-made answers about what the meaning or value of research in architecture is or should be, and a willingness to challenge those assumptions continuously. It may seem extremely rhetorical, but in a period characterized by a strong verticality of research agendas, it is important to emphasize the need for a horizontal, elastic, and unbiased notion of research.

With that in mind, we would like to offer an overview of doctoral research currently in development in the DASP course, beginning with a few overarching reflections on methods and topics. The sources upon which the DASP research projects are built — which vary in type, form, and origin — make this "overview" particularly compelling. From those who mainly use archives (often scattered, ignored by previous historiography and usually non-monographic) to those who rely on ethnographic surveys — via the collection of quantitative data — a very heterogeneous picture emerges. There is also a number of dissertations moving towards a geographical dimension which, heavily relying on mapping and cartography, suggests territory and space morphology itself as a form of archive, somehow extending the boundaries of architectural knowledge and its historical stratifications.

Regardless of such differences, most ongoing PhD projects try to go beyond the idea of a single and well-defined authorship in architecture production, focusing on collective processes of design activities and thus attempting to analyze its many effects — as well as trying to write histories of the architecture profession — beyond the agency of architects themselves. This is not a casual trend: over the decades, the Department of Architecture and Design of the Politecnico di Torino has built up a long tradition of studies that investigate the complexity of architecture with a strongly critical attitude towards predominant authorial storytelling. Furthermore, whether they are historical or design-oriented, they share a political slant, as they focus on the interplay between political regimes or institutions and the design and production of the built environment.

Another key and recurring element concerns the broadening of disciplinary boundaries. There is a certain degree of porosity among the disciplines already represented in this PhD program (history, design, technology, urban studies), which also highlights a certain influence from other PhD programs active at the Castello del Valentino, particularly evident in those theses which lean towards geography (closer to the research promoted by the doctoral program in the Urban and Regional Development program) and in those which deal with the notion of heritage (doctoral program in Architectural Heritage).

While building a community that seeks to overcome rigid disciplinary boundaries is undoubtedly valuable — especially considering the limitations each field faces in addressing increasingly complex problems — it nonetheless raises an important question: what are the specific research and educational identities of the DASP PhD program? Once again, we know that this is a complex question. Rather than providing answers, it serves to fuel the discussion on the role of a PhD called: "Architecture. History and Project". After all, the specificity of any discipline is constantly being renegotiated, and its solidity is challenged by paradigm shifts affecting ideas and plans that extend far beyond a particular field.

Critical lenses of inquiry: Keywords and geographies

A close reading of the doctoral investigations currently underway within the DASP program reveals thematic and methodological diversity, alongside a set of recurring conceptual terms that serve as critical lenses, shaping how each project defines its object of study, constructs its epistemological stance, and negotiates its disciplinary position. Some cross-cutting and dynamic concepts are particularly relevant to evaluate the ongoing PhD research

at DASP: the interplay between local and global (a matter of scale); urban and rural (a matter of place); conservation and transformation (a matter of legacy); ecologies and morphologies (a mattery of analysis). These binomial lenses should be understood as semantic nodes, historically and theoretically charged, whose meanings are anything but self-evident. Their use across different theses reflects an ongoing attempt to reframe foundational concepts within architectural research, turning them into open-ended instruments of inquiry.

This shared vocabulary gains further significance when considered in relation to the wide territorial span of the current doctoral investigations. The geographic scope of the DASP theses is broad: notably, a growing number focuses on Asia and the Global South. At the same time, some research projects deal with theoretical issues abstracted from any single geographic setting. Such heterogeneity reflects a deliberate shift away from narrowly defined spatial frameworks, towards a plural and decentered geography of research. It also resonates with ongoing debates in architectural historiography that advocate for expanding beyond Eurocentric frameworks, emphasizing the need to recognize alternative genealogies, and spatial imaginaries.

On scale

Among these conceptual lenses, the notion of scale emerges with particular complexity from the current PhD theses, as it acts as a structuring principle of architectural and urban thought, facilitating between form and territory, between the immediacy of construction and the abstraction of spatial systems. Within the work carried out by DASP students, scale functions as a methodological choice, as a level at which analysis is conducted, and as a critical tool for interviewing the spatial, the political, and the epistemic dimensions of architectural construction.

Several doctoral theses engage with scale explicitly, tracing how architectural knowledge shifts across scalar registers: from construction details to the morphology of entire regions, from the socio-political micropolitics of neighborhoods to large-scale planning logics and territorial imaginaries. This multiscale orientation often mirrors the complexity of the case studies themselves, particularly in projects that explore the intersections between urban and rural dynamics, or those that examine heritage practices operating simultaneously at the local, national, and global level. In research set in contexts as diverse as Chinese megacities, Balkan borderlands, Mediterranean coastlines, or Italian alpine valleys, scale becomes a lens for understanding how architecture participates in spatial regimes of control, identity, and transformation. In transnational projects, it facilitates the analysis of global circulations of capital, expertise, and technologies, while grounding them in local material conditions. In this sense, scale resonates with the work of scholars as Henri Lefebvre, for whom spatial practice is always produced within relational and hierarchical scalar frameworks, and shaped by history, infrastructure, governance, and ideology. Scale also intersects with temporality: many PhD theses explore the scalar implications of historical processes, revealing how architectural forms operate over time, how they sediment or dissolve, how they are reactivated or erased, echoing Fernand Braudel's insight into the layered temporalities of space (l'histoire événementielle, la conjoncture, and la longue durée) allowing architecture to be read both as means of historical transformation and as outcome of enduring spatial reasons.

The purpose of this yearbook is to hold together all the ongoing PhD research projects of our program and thus offer a photography of the state of the DASP research in 2025. By doing so, we invite the readers to map the invisible networks among candidates, their similarities and differences, methodologies, and topics. We hope that this document may be useful to all currently enrolled PhD candidates, as well as to the DASP candidates of the future.

38th

CYCLE

Shaping and Designing the Multidimensional Agricultural Spaces

Paolo Bianco



Cycle 38th

Supervisors Francesca Frassoldati, Marco Trisciuoglio

Captions

Figure 1 - Drawing by the author.

Figure 2 - Drawing by the author.

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How is the architecture of farming spaces in the countryside, together with local design practices, redefined by new agricultural methods, the return to rural areas and climate change?

This research aims to explore how the recent "back-to-the-countryside" trend—driven by global factors such as climate change, the post-pandemic urban crisis, emerging agricultural practices, heightened environmental awareness along the agri-food chain, and renewed tourism appeal—is prompting a re-thinking of both agricultural production spaces and their relationship to the productive landscape. In particular, it aims to highlight the role of design, understood not only as a professional practice for shaping these spaces but as a cultural process from which new building types emerge: types that blend production-side innovation with ecological sensitivity, advancing a heterogeneous, decidedly non-vernacular vision of agricultural architecture.

Entirely new populations are redefining the countryside: alongside long-term residents (or continuers), there are newcomers—young farmers, retirees, families, and returning former expats with diverse skills—who view proximity to the city as strategic, facilitating product marketing and collaborative networks.

Small farmers and family-run enterprises that once operated primarily for self-sufficiency now sell directly to global markets, thanks to rapid restructuring, reorganization, and repurposing of production systems. In short, many have shifted from a purely agricultural economy to a post-productive, post-rural one.

The classical urbs and rus dichotomy is increasingly challenged, not only by the growing sway of urban economies in outlying zones but also by the city's day-to-day presence in country life. The notion of an isolated, self-sufficient, "backward" countryside is not merely outdated but urban-centric. Rural areas are no longer viewed as marginal; they are places where the city-countryside relationship is continually renegotiated, allowing the two realms to be understood less in terms of dominance or opposition and more as complementary and interdependent.

Global pressures and the progressive urbanization of rural areas are steering the agricultural landscape toward ever more complex, quasi-urban (or intermediate) configurations, spatially and in lifestyle reference points. Innovative initiatives within production chains have created a post-productivist context in which agriculture takes on multidimensional roles. Thus, agricultural production now prioritizes ecological and social sustainability over mere yield maximization, questioning the organization of productive spaces and the notion of "countryside."

Farmsteads, cascine and agricultural estates no longer house only a single family and a handful of staple crops. As the intensity of traditional farming use declines, dwellings and agricultural buildings now incorporate agritourism accommodations, temporary housing, educational programs, experiential services, and social spaces. Concepts such as filiera corta or slow food extend beyond fruit-and-vegetable production, functioning as territorial services: they strengthen direct links between producers and consumers while fostering cohabitation and mutual support within local communities. In this evolving scenario, buildings and small villages adopt hybrid, flexible forms that blend productive, residential, and communal functions within one spatial framework.

Viewed through the lens of architecture—where the fading city-country divide disrupts long-standing reference frames—many designers respond not with nostalgia but by interpreting production sites (from individual farms to entire productive landscapes) as flexible elements capable of meeting shifting economic, social, and environmental needs. Ordinary spaces thus emerge as repositories of global, intricate transformations. Focusing on three very different yet similarly evolving European countrysides—Alta Langa, the Varese area and Galicia—this paper underscores the adaptive capacity of these "minor architectures." Though rooted in local traditions, they can, through design, open to innovative solutions that prefigure new models of cohabitation and land use.

In this sense, the countryside is no longer a blank slate to be arranged around urban consumers' needs; instead, it appears as a layered palimpsest in which the spatial configurations of production sites reflect a dynamic and highly competitive context.

#countryside, #agriculture, #farming spaces


wasting depot
highway
industrial fabric dyeing
private house
ecomuseum
didactic/workshop spaces
animal farming
industrial garden nursery


high precision mechanical company
luxury holiday house
industrial wine factory
family winery
private house
art residency / art event space
guest house
organic farm and riding stables

Innovative Urban Design Strategies and Urban Heritage Conservation: Enhancing Street Vitality of Historic Districts in China Through Transdisciplinary Perspective

CHEN Dingran



Cycle	38th
Supervisors	Michele Bonino, ZHANG Wenting
Research Group	China Room

How can innovative urban design strategies balance heritage conservation and contemporary needs while enhancing street vitality and sustainability in historic districts in China?

Historic districts in China represent invaluable cultural assets yet face intensifying pressures from urban sprawl, evolving legislation, and rising socio-economic demands. This study addresses central challenges of aligning heritage conservation with contemporary urban needs, focusing on how targeted urban design strategies can conserve historical integrity while cultivating vibrant urban life. Grounded in extensive theoretical exploration of legal frameworks, classification systems, and street vitality theories, this research develops a spatial econometric framework to evaluate how design interventions and policies shape social, economic, and environmental outcomes in heritage contexts.

Adopting a mixed-methods approach, this study combines legislative reviews, historical documentation and comparative assessments with a suite of quantitative approaches such as kernel density estimation, Moran's I spatial autocorrelation, and spatial regression modelling. Through multi-source data, including big-data metrics of street vitality, it examines the complex interactions among architectural conservation, land-use diversity, pedestrian accessibility, and other key design dimensions.

To implement this framework, several historic districts in Guangzhou are selected empirical cases. In this context, street vitality serves as the dependent variable, quantified through kernel density estimation of location-based social activity. The model proposes a set of hypotheses regarding the influence of urban design strategies, such as land-use diversity, pedestrian accessibility, and conservation strength, on levels of street vitality across spatial segments. In parallel, control variables such as population density, economic activity, and tourism presence are incorporated to isolate contextual effects and ensure model robustness. This approach enables a nuanced understanding of how targeted design interventions contribute to the spatial dynamics of vitality in historic environments.

The research highlights the value of transdisciplinary collaboration, spanning architecture, urban design, urban planning, data science, and sociology, in shaping context-sensitive and evidence-based policy interventions. Ultimately, the research contributes to both theoretical advancement and practical implementation by offering: (1) a robust conceptual lens for interpreting the dynamics of urban heritage conservation, (2) a spatially explicit and statistically validated model for diagnosing and forecasting street vitality, and (3) actionable insights for integrating design-based conservation into national and municipal planning systems. By bridging traditional conservation practices with data-driven spatial design, this research offers a practical framework for revitalizing historic districts as culturally embedded, socially vibrant, and dynamically adaptive components of contemporary Chinese cities.

Captions

Figure 1 - Arcade street in Enning Road, by the author, 2023.

Figure 2 - Arcade street in Beijing Road, by the author, 2023.

Figure 3 - Outdoor community cinema in Pantang, by the author, 2023.

Sources

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#urban design, #historic districts, #street vitality







The Role of Design to Enhance Patient Care and Mitigate the Spread of Viral Hemorrhagic Fevers Within Healthcare Facilities

Michele Di Marco



Cycle	38th
Supervisors	Francesca De Filippi, Michele Bonino
Research Group	FULL

Captions

Figure 1 - Lassa fever, CCHF, Ebola and Marburg: reported cases (2000–2024) and analyzed case studies, drawing by the author.

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Jeffs, B., et al. (2007). *The Médecins Sans Frontières intervention in the Marburg hemorrhagic fever epidemic*, Uige, Angola, 2005. I. Lessons learned in the hospital. Journal of Infectious Diseases, 196(Suppl_2), S154–S161.

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How design strategies and solutions can improve patient care and infection prevention and control for Viral Hemorrhagic Fevers within healthcare facilities?

The design of healthcare facilities is a critical factor in ensuring infection prevention and control (IPC), operational efficiency, and high-quality patient care, especially in the management of Viral Hemorrhagic Fevers (VHFs) such as Ebola Virus Disease (EVD), Marburg Virus Disease (MVD), Crimean-Congo Hemorrhagic Fever (CCHF), and Lassa Fever (LF). These highly infectious diseases present significant challenges due to their high transmission rates and risks to both patients and healthcare workers, particularly in low-resource and outbreak-prone settings. Effective healthcare design must balance infection containment, efficient workflows, patient safety, and adaptability under crisis conditions. However, there is a substantial gap in practical tools and methodologies that integrate architectural and operational considerations for the evaluation and design of healthcare facilities treating VHFs.

This research seeks to address this gap by developing a structured approach to the design and evaluation of VHF treatment facilities. Utilizing a comprehensive multi-method approach, the study involves a scoping review of existing literature, typo-morphological analysis of selected case studies, and semi-structured interviews with healthcare design experts, public health professionals, and outbreak managers. This mixed-methods methodology enables a holistic understanding of how spatial layouts, patient flow, staff movement, and environmental design influence IPC measures and treatment effectiveness during VHF outbreaks.

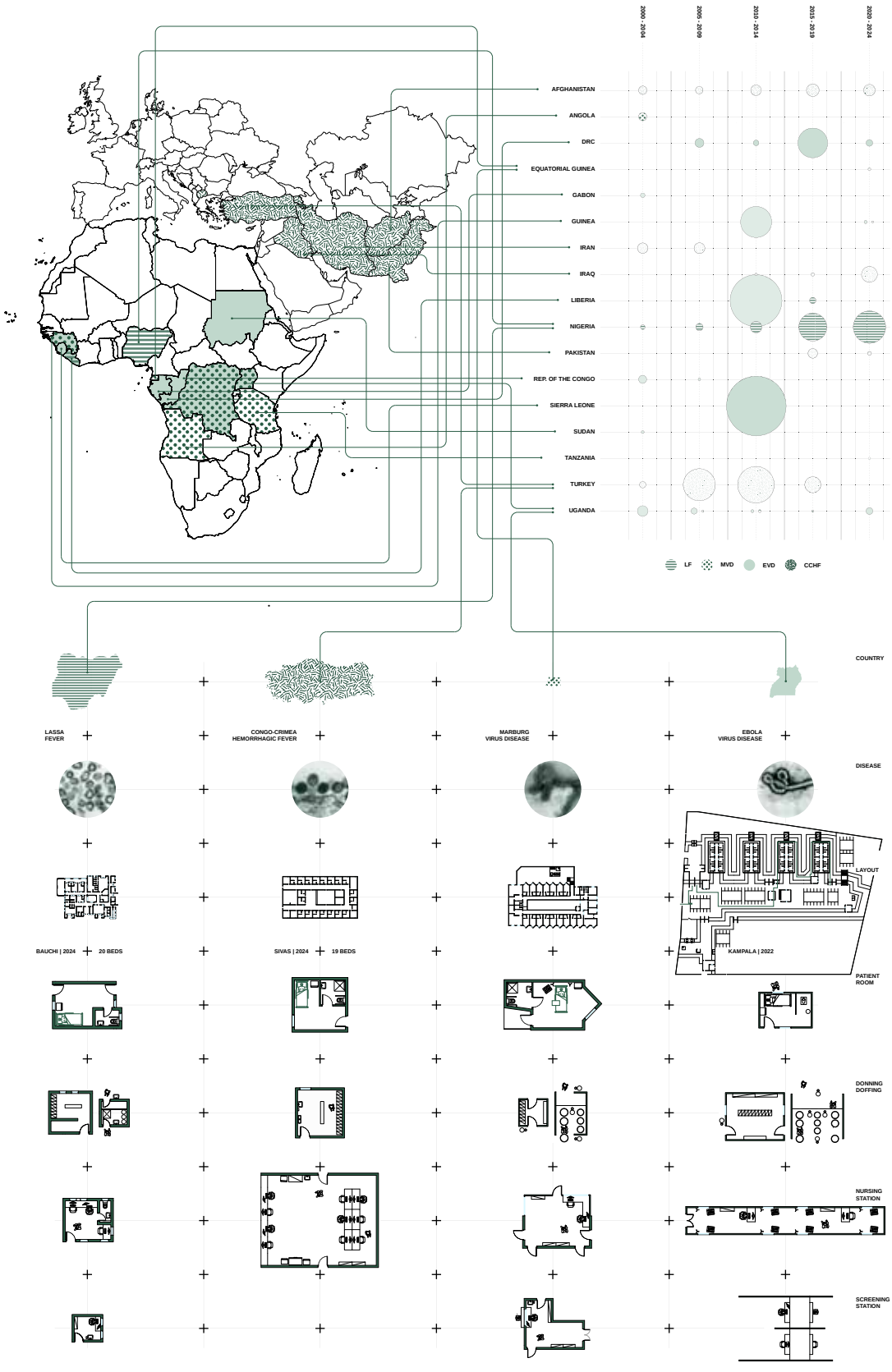
The findings of this research highlight critical architectural and operational factors influencing the effectiveness of VHF healthcare facilities. The case studies, selected for their relevance to EVD, MVD, CCHF, and LF, provide valuable insights into various facility designs, including temporary treatment centers and permanent healthcare units adapted for VHF management. The typo-morphological analysis reveals common design elements that contribute to or hinder IPC, while interviews with experts underscore the practical challenges faced during outbreaks. These findings are synthesized into an operational tool designed to guide the evaluation, retrofitting, and design of healthcare facilities dedicated to treating VHFs.

The operational tool developed through this research includes a design checklists, spatial planning methodologies, and adaptable models aimed at enhancing patient and staff safety, optimizing workflows, and improving care quality. By integrating architectural design principles with operational strategies, the research contributes to a more robust and adaptable healthcare infrastructure capable of responding swiftly to VHF crises while maintaining high standards of care.

Furthermore, the study advances the field of healthcare facility design by bridging the gap between architectural theory and practical application. It builds upon existing frameworks such as evidence-based design (EBD), environmental theory and positive explanatory theory to offer a structured methodology that prioritizes safety, efficiency, and care quality. The development of operational tools tailored to VHF treatment environments underscores the importance of context-specific design strategies that are informed by both empirical research and real-world experiences.

Ultimately, the findings of this research are expected to have far-reaching implications for the design of healthcare infrastructure, informing policy development and guiding future projects aimed at improving the safety and effectiveness of healthcare environments in epidemic-prone settings.

#healthcare design, #outbreaks, # vhf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AFGHANISTAN
ANGOLA
DRC
EQUATORIAL GUINEA
GABON
GUINEA
IRAN
IRAQ
LIBERIA
NIGERIA
PAKISTAN
REP. OF THE CONGO
SIERRA LEONE
SUDAN
TANZANIA
TURKEY
UGANDA
LF
MVD
EVD
CCHF
COUNTRY
LASSA FEVER
CONGO-CRIMEA HEMORRHAGIC FEVER
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EBOLA VIRUS DISEASE
DISEASE
LAYOUT
BAUCHI | 2024
20 BEDS
SIVAS | 2024
19 BEDS
KAMPALA | 2022
PATIENT ROOM
DONNING DOFFING
NURSING STATION
SCREENING STATION

Architectural Cartography: Methods for Counter-Mapping the Transcalar Landscapes of Copper Mining in Krivelj, Serbia

Mitesh Dixit



Cycle 38th

Supervisors Alessandro Armando, Fabio Giulio Tonolo, Nataša Danilović Hristić

Captions

Figure 1 - Veliki Krivelj open-pit mine, Krivelj, Serbia (December 6, 2024). From a high, fog-shrouded vantage, terraced benches and serpentine haul roads descend at successive levels toward a pale turquoise pool on the pit floor. The scattered presence of haul trucks and excavators along the switchbacks conveys the immense scale of the excavation, while the exposed rock faces and stepped geometry exemplify the spatial logic of large-scale surface mining and its environmental imprint. Photograph by the author; captured with a Nikon Z7 and a Tamron 70-300mm lens.

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How can a trans-scalar, pluralistic mapping methodology reconcile scientific, top-down cartographic approaches with grounded, place-based knowledge to more accurately represent the complex spatial realities of marginalized communities, such as the mining village of Krivelj, Serbia?

Krivelj, a copper mining village in Serbia, stands at the crossroads of global urbanization. However, its trajectory since the 1970s, when it was part of former Yugoslavia, has been far from smooth. Beyond the extraction of copper from an open-pit mine, Krivelj hosts intensive industrial activity: the ore is crushed, processed, and packaged amid a landscape dominated by plants and waste tailings ponds. This copper fuels global supply chains, reaching manufacturing centers in China and eventually becoming part of renewable energy grids in Texas or solar panels on "green" skyscrapers in London.

Yet, within Krivelj itself, the consequences of extraction, ecological degradation, displacement, and livelihood erosion challenge the dominant narratives that portray urbanization as a universal and abstract process. Residents witness the expansion of the pit, which swallows homes and reshapes daily life in service of global capitalism. Despite its centrality in supply networks, Krivelj remains marginalized, highlighting that urbanization is not uniform but rather fragmented and contested.

This dissertation adopts a site-specific methodology to examine Krivelj's entanglement in extractive networks. Combining fieldwork, GIS mapping, satellite imagery, data science, and oral histories, it foregrounds the human, political, and material dimensions of extraction often absent in large-scale urban theory. Inspired by William Bunge's Fitzgerald: Geography of a Revolution (1971), the project challenges the conceptual flattening of extractive zones in contemporary urban theories.

The dissertation draws on Cindi Katz's concept of Countertopography (2004) and Jane Htton's work in Reciprocal Landscapes (2019) to frame Krivelj's local realities within global systems. This approach connects geographically distant places through shared struggles, allowing for a nuanced understanding of Krivelj's disruptions concerning planetary urbanization without losing site-specific details. Rather than isolating Krivelj, Countertopography situates it within broader patterns of capitalist transformation while retaining its social and material specificity.

Krivelj's complexity also highlights the limitations of Planetary Urbanization (PU) theory, as articulated by Neil Brenner and Christian Schmid (2015). PU conceptualizes urbanization as a global force that blurs the distinctions between urban/rural and center/periphery, portraying extraction zones like Krivelj as "operational landscapes" fully integrated into a homogenized capitalist system (Brenner & Katsikis, 2020). While PU effectively critiques city-centric urban studies, its abstraction often overlooks localized social and spatial dynamics.

In architectural and urban discourse, extraction communities are often categorized under "mining urbanism" (Correa 2016). However, this research proposes that warfare may be a more fitting analogy. Drawing from the forensic methods of Forensic Architecture, Krivelj is envisioned as a conflict zone where extraction acts as a form of systemic violence. Citing Weizman (2019), the project argues that this violence, like warfare, is diffuse and asymmetrical, enacted by states, corporations, and global markets. Therefore, mining should be analyzed through architectural lenses as a spatial manifestation of ongoing conflict.

Krivelj serves as both a product and a critique of planetary urbanization. Its contested relocations, ecological degradation, and acts of resistance reveal a fragmented operational landscape. The research advocates for a multi-scalar, transmedia methodology that incorporates both human and non-human actors. Standard planning frameworks do not adequately address extraction's non-linear, layered impacts on communities and ecosystems. The dissertation's primary contribution is the creation of hybrid cartographic frameworks to illustrate the overlapping scales of global extraction networks. It bridges the divide between top-down, data-driven geomatics and bottom-up, place-based practices. Instead of favoring one approach over the other, it proposes a trans-scalar methodology that merges technical precision with lived experiences.

#critical raw materials, #cartography, #geospatial



The Terrestrial Architecture of Cycle Routes: New Tools and Methodologies in the Design of Long-Distance Cycleways

Andrea Gian Maria Gillone



Cycle	38th
Supervisors	Riccardo Palma, Chiara Occelli, Lorenzo Vignono

Captions

Figure 1 - "Abitare" chart. Original work by the author.

Figure 2 - "Osservare" chart. Original work by the author.

Figure 3 - "Percorrere" chart. Original work by the author.

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Can the cycle route design adopt the architectural-territorial model of historical infrastructures by identifying serial architectures within the landscape and revealing multiple identities?

With Law 2/2018 and the Ministerial Decree of 29/11/2018, the social, logistic, and cultural value of Long-Distance Cycle Routes (LDC) is formally acknowledged. However, Directive 375 presents technical shortcomings and lacks consideration for aspects related to attractiveness and architectural and landscape quality. Therefore, a methodological framework is needed to guide the design of LDCs, which are essential for shaping landscapes and fostering meaningful relationships with human settlements. In Directive 375, the requirement of attractiveness, which appears across multiple categories, leads to ambiguity and inconsistency. This research proposes an experimental model applied to the Piedmont shore of Lake Maggiore, aimed at developing design criteria for defining both the routes and the architectural features of cycle paths while enhancing the landscape and settlement characteristics of the territory.

The research is structured into four main sections.

The first – The Architectural Quality of Cycle Routes: Problems and Perspectives – analyzes the state-of-the-art regulatory framework concerning the design of LDCs, comparing Italian planning tools with international case studies. The aim is to highlight regulatory and theoretical gaps in the Italian context and to identify best practices relevant to the research.

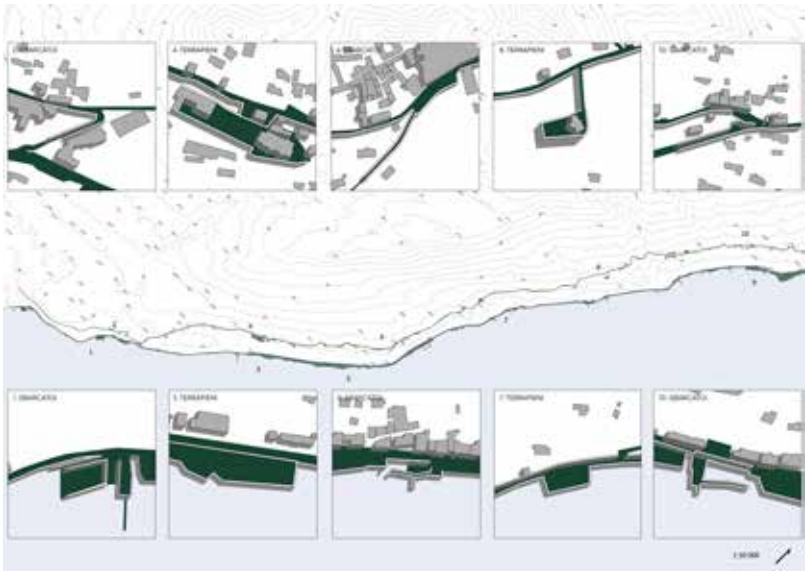
The second section – The Lake Maggiore Cycle Route: A Design Hypothesis – develops two design scenarios for the LDC of Lake Maggiore: the first considers LDCs as axes capable of enhancing fragile areas that have been marginalized by established tourist hubs; the second explores the possibility of repurposing historic infrastructure for cycling use. In the case of Lake Maggiore, where such infrastructure is absent, the research investigates whether historical architectural models can be reinterpreted and integrated into the local context. The study area focuses on the midslope path between Verbania and the Swiss border, analyzed through the superimposition of historical cadastral maps onto the current topography.

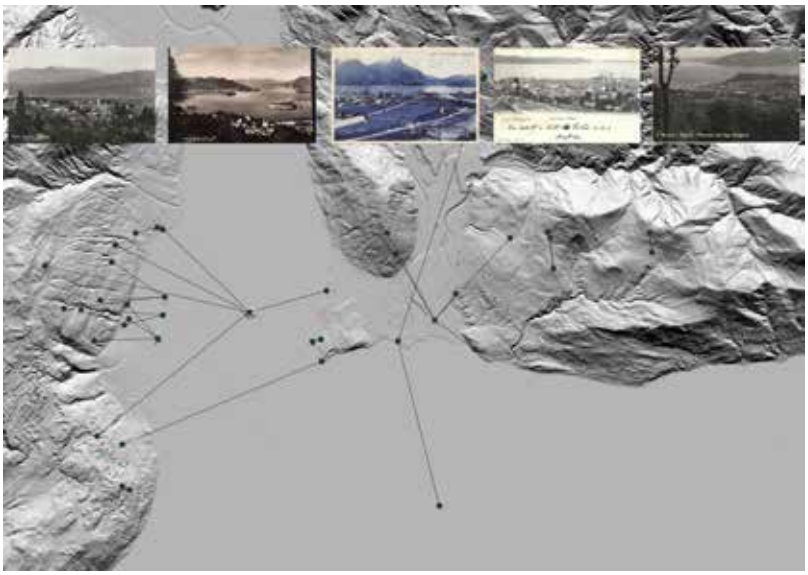
The third section – Three Perspectives on the Architectural Design of Cycle Routes: A Methodological Experiment on Lake Maggiore – proposes a methodology for identifying the architectural and settlement features underlying the design of the cycle route. The three "perspectives" analyze the territory using different cartographic and interpretative tools. The first, Experiencing the Lake, reconstructs Lake Maggiore's intermodal vocation through Grand Tour travel accounts, revealing a historically integrated mobility system that can inspire contemporary LDCs. The second, Admiring the Lake, examines the landscape and coastal settlements through historical views and vintage postcards to identify visual landmarks and compositional rules to be reintegrated into the project of the LDC. The third, Inhabiting the Lake, investigates the recurring elements of the built shoreline—such as retaining walls, terraces, small harbors, and piers—comparing them with the architectonic elements along the mid-slope route that hosts the LDC. This study aims to identify architectural typologies relevant to the design of the public spaces of the settlements the LDC crosses.

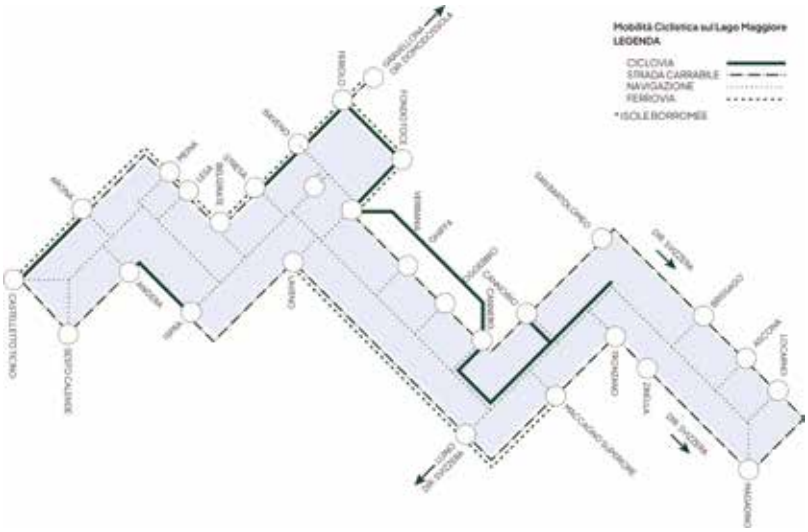
The fourth section – Notes Toward a Reform of Design Guidelines for the Architectural Quality of Cycle Routes – reflects on the research outcomes, proposing possible revisions of current design guidelines with a particular focus on architectural and landscape quality. Two fundamental aspects are addressed, based on the idea that LDCs are architectures linked to the earth in constant dialogue with the landscape: the criteria for correctly tracing LDCs and the methods for identifying architectural figures that can express the relationships between LDCs, settlement forms, and landforms.

The research employs cartographic representation as a design tool, producing maps based on the three "perspectives" applied to the Lake Maggiore LDC. The aim is to formulate LDCs design guidelines, addressing the current architectural and landscape quality regulatory gap. The study tries to identify easily repeatable cartographic techniques and accessible sources that may facilitate the design of LDCs by professional design studios.

#cycleways, #landscape, #sustainablemobility






Mobilità Ciclistica sul Lago Maggiore
LEGENDA
CICLOVIA
STRADA CARRABILE
NAVIGAZIONE
FERROVIA
* ISOLE BORROMEE

Plantation Ecologies. Environmental Violence, Palms, and Colonial Botany in North/East Sumatra, Indonesia

Giulio Gonella



Cycle 38th

Supervisors Camillo Boano, Robin Hartanto Hongarre

How can we read plantation ecologies as an archive of environmental / colonial violence, and what is the role of the non-human as (a) witness and counter-strategy?

This research critically investigates the makings and unmakings of Indonesia's plantation ecologies, understanding them as spatial, material, and epistemological sites of struggle. In particular, it seeks to show how environmental violence inscribes within the colonial continuum of plantations' ever-expanding frontier, and how this violence can be read out of the material features, ruinous traces, and spatial inscriptions found in so-called (agro)extractive zones. In plantation areas, land can thus perform as a (counter) archive to histories of land grabbing, control, and corporate occupation; such an archive, once activated, contains and expands on those stories, and eventually offers the possibility of addressing the non-human as (a) witness and strategy of resistance against land occupation.

Historically terraformed into an (agro)extractive zone for the cultivation of tobacco crops and rubber and coconut trees, North/East Sumatra bears the traces of waves of colonial and neocolonial domination, that since the mid-19th century deforested large portions of land to turn them into extensive plantation areas. After the brief interlude of land rights granted under the government of president Sukarno in the wake of Indonesia's independence from the Netherlands in 1945, the neoliberal dictatorship of Suharto's New Order (1968–1998)welcomed back colonial-era corporate powers, leading to an intensification in dynamics of land grabbing, dispossession, and environmental violence that has been unfolding cyclically (and routinely) until present days.

Building on the theoretical framework of (agro)extractivism, political ecology, and Black radical theory, the research addresses the Plantation as a transhistorical colonial architecture - one that entails a spatial/organisational logic of simplification, abstraction, and invisibilisation of violence. As a pivotal spatial-political apparatus in the histories of colonialism, from cotton monocrops in the US South to the endless and ever-going expansion of palm oil in South-East Asia, plantations have been mastering land, bodies and nature(s), morphing territories and vegetal species in order to ensure profitability, control, and the costant provision of commodified crops to Western markets. Crucially, plantations have also foregrounded a distinct modality of 'colonial inhabitation' (Ferdinand, 2022) premised on ecological disruption, forced dispossession, and occupation.

Focusing on two cases of such 'inhabitation' in the region of North/East Sumatra, Indonesia, the research explores the machinic assemblages of palm oil plantation ecologies by analysing spatial, material, and social legacies of colonial/environmental violence and erasure, as well as politics of vegetal knowledge built around and for the expansion of plantation agro-extractive zones. Drawing on extensive fieldwork, archival sourcing, legal documents, audiovisual recordings, and 'found media', the research employs architecture as a method, attending to ruins, non-human beings, and grave architectures as'material witness' (Schuppli, 2020) that bear testimony of/to broader geopolitical events. Through a mixed textual / visual / speculative storytelling, the research engages with the ways in which nature is 'weaponised', under the profit-property nexus, against more ecologically-sound ways of inhabiting and cultivating the lanscape. As such, the research intends to make a case for considering (architectural)'sensing' as a potential pedagogical way of engaging with ecologically disrupted landscapes, in order to account for environmental justice.

#plantation, #postcolonial ecologies, #land-as-archive

Captions

Figure 1 - Oil palm trees along the border of a sand extraction site on the Batang Serangan River, near the village of Sei Litur, Langkat Regency, North Sumatra. From video by the author, May 2024.

Figure 2 - PT Lonsum plantation site and the contested borders of the village of Pergulaan, Serdang Bedagai Regency, North Sumatra. (Source: Google Earth). Elaboration by the author, September 2025.

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6/2024
PT LONSUM CULTIVATION AREA (HGU)
LIMITS OF PERGULAAN according to Indonesian Ministry of Land and Forestry
LIMITS OF PERGULAAN according to the boundaries of last replanting
Image © 2025 Maxar Technologies
2853 m
Google Earth
Data di acquisizione delle immagini: 6/4/2024

Research on the Hanyeping Industrial Heritage Through an International Perspective

GUO Beini



Cycle 38th

Supervisors Filippo De Pieri, Sergio Pace

How is the multifaceted value of the Hanyeping Industrial Heritage perceived in economic, cultural, social, and technological dimensions within an international context?

The Hanyeping industrial system, comprised of the Hanyang Ironworks, Daye Iron Mine, and Pingxiang Coal Mine, represents a crucial milestone in modern Chinese industrial history, having exerted a profound influence on China's metallurgical technology, industrial practices, social changes, and economic development. This paper adopts architectural history as its primary framework, integrating the histories of metallurgy, technology, society, and economy to systematically examine and analyze the formation, evolution, and regional interconnections of the Hanyeping industrial heritage. The aim is to construct a narrative of Hanyeping's development from an international perspective, revealing its unique trajectory and regional role in the industrialization process.

The study first reviews the historical links among the various industrial sites within the Hanyeping system, with a particular focus on the regional economic linkages, technological exchanges, and labor market interactions that emerged during the steel production process. Drawing on Hanyeping documents collected from Europe, this paper provides a detailed account of the enterprise's evolution in terms of metallurgical technological innovation, industrial architectural practices, and the transformation of production organization. Simultaneously, it analyzes the far-reaching impacts of these production mode changes on the working class, urban planning, and regional economic structures. From the perspective of social change and economic restructuring, the paper further reveals the key role played by this industrial conglomerate in promoting regional urbanization, industrial upgrading, and modernization.

Meanwhile, the Hanyeping industrial heritage has been established as an important reference paradigm for post-industrial transformation in developing economies. It demonstrates how, against the backdrop of gradually depleting resources and globalization, traditional heavy industries can build enduring cultural symbols and historical memory through historical accumulation, technological inheritance, and architectural innovation. Hanyeping has not only set a benchmark in domestic industrial heritage preservation, but its unique development model, corporate governance, and technological innovation experience have also injected a crucial Asian perspective into the global discourse on industrial heritage, broadening international understanding and discussions of non-Western industrialization experiences.

By exploring the Hanyeping industrial heritage across economic, social, cultural, and technological dimensions through an interdisciplinary approach, this paper aims to elucidate its historical status and contemporary significance in the international process of industrial heritage protection and reappraisal. Moreover, the study discusses the insights provided by the Hanyeping industrial system for the industrial transformation of developing economies in the post-industrial era, offering important academic references and historical lessons for global industrial heritage preservation and its role in urban renewal.

Captions

Figure 1 - The Spatial Connections of Hanyeping. By the author.

Figure 2 - The Development and Evolution of Hanyeping Company (Source: Zhang Zhidong and Wuhan Museum).

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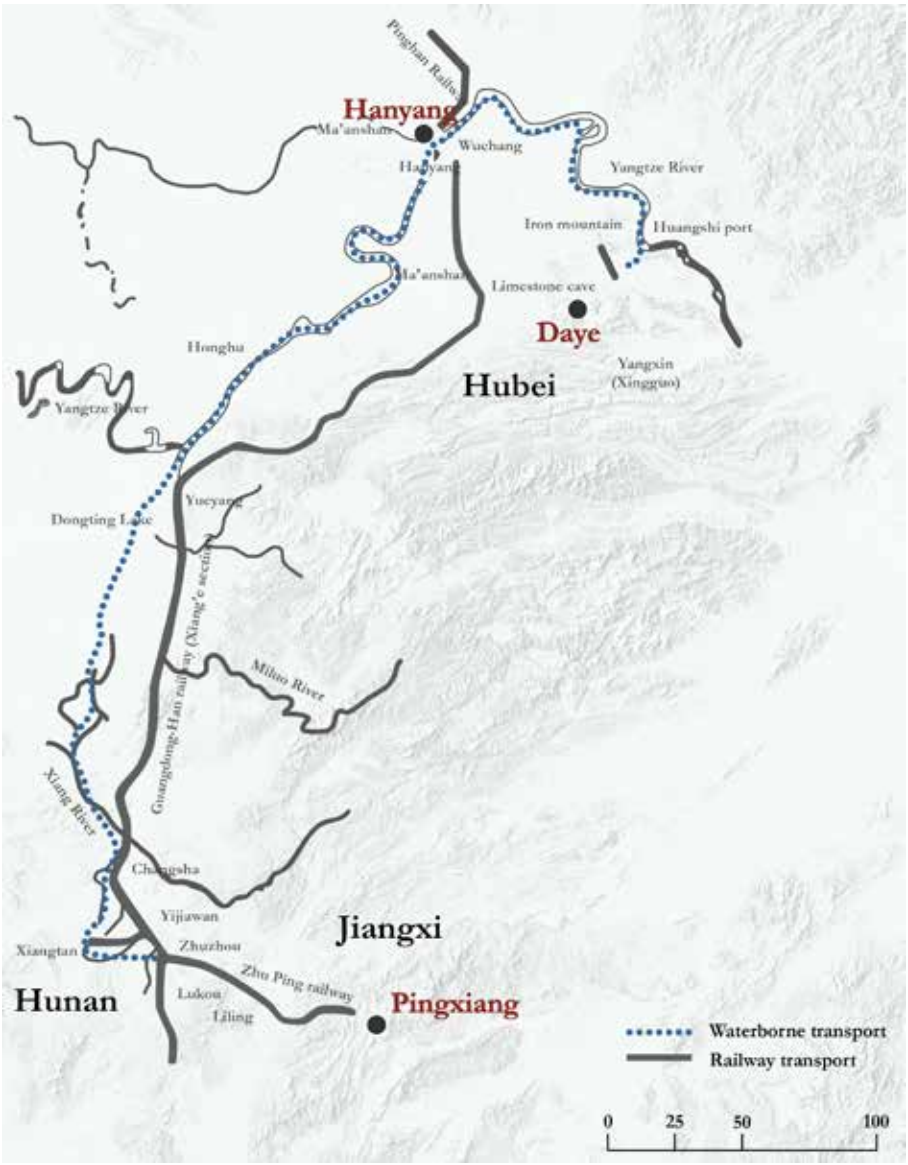
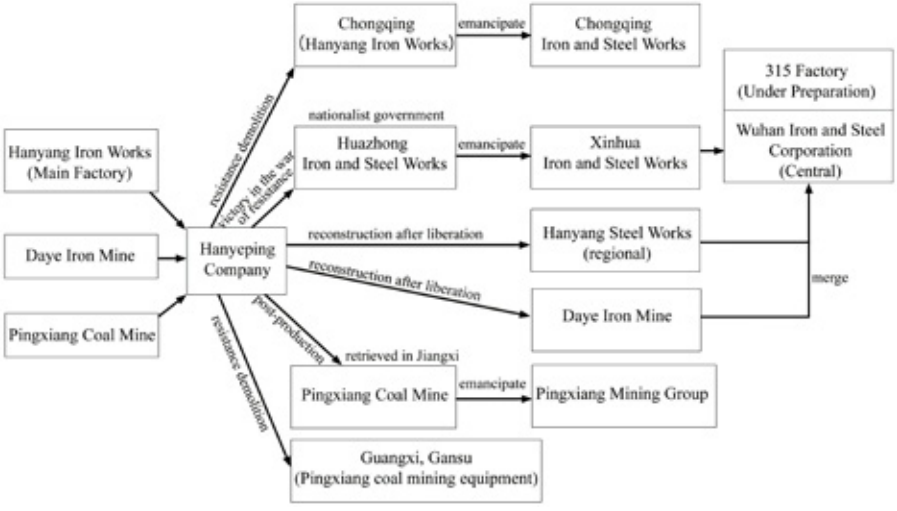
#steel production, architectural practices, # heritage discourse


Hanyang
Ma'anshan
Wuchang
Hanyang
Yangtze River
Iron mountain
Huangshi port
Ma'anshan
Limestone cave
Daye
Honghu
Yangxin
(Xinggiao)
Hubei
Yangtze River
Yueyang
Dongting Lake
Guangdong-Han railway (Xiang'e section)
Miluo River
Xiang River
Changsha
Yijiawan
Jiangxi
Xiangtan
Zhuzhou
Zhu Ping railway
Hunan
Lukou
Liling
Pingxiang
Waterborne transport
Railway transport
0
25
50
100


Chongqing
(Hanyang Iron Works)
emancipate
Chongqing
Iron and Steel Works
315 Factory
(Under Preparation)
Wuhan Iron and Steel
Corporation
(Central)
nationalist government
Hanyang Iron Works
(Main Factory)
resistance demolition
Huazhong
Iron and Steel Works
emancipate
Xinhua
Iron and Steel Works
factory in the war
of resistance
Daye Iron Mine
Hanyeping
Company
reconstruction after liberation
Hanyang Steel Works
(regional)
reconstruction after liberation
merge
Daye Iron Mine
Pingxiang Coal Mine
post-production
resistance demolition
retrieved in Jiangxi
Pingxiang Coal Mine
emancipate
Pingxiang Mining Group
Guangxi, Gansu
(Pingxiang coal mining equipment)

Design Between Fiction and Reality: Urban Imaginaries and Climate Emergency

Valentina Labriola



Cycle	38th
Supervisors	Francesca Frassoldati, ZHANG Li, Michele Bonino
Research Group	China Room

Captions

Figure 1 - 'Submerged Imaginaries: Architectural Futures Underwater' Series of AI-image created by the author using Midjourney based on her short story. The series aim to explore diferent visualization of speculative futures.

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Till, J. (2020). *Architecture after Architecture*. Architecture Foundation's 100-Day Studio Talk, 2nd April 2020

How are architecture and media collaboratively shaping speculative imaginaries of climate futures, fostering new ways of understanding and responding to the urgency of the climate emergency?

Climate emergency unveils complexities that cannot be addressed as straight problems—they are unfolding, entangled phenomena that challenge how we think, imagine, and act. This research approaches the climate crisis not by seeking direct answers to it but by investigating the conceptual and representational terrain from which new forms of design understanding and engagement might emerge. It explores how architecture, through its speculative tools and media entanglements, can contribute to rethinking the crisis, not simply by designing for it, but by visualizing and imagining differently.

At the core of this investigation lies the idea of the imaginary—a generative space where new realities are envisioned. Here, imagination is not a retreat from reality but a method of engaging with it, especially in times of profound uncertainty. The thesis reframes imagination as a critical tool that allows interdisciplinary and speculative practices to reshape our understanding of the present and construct possibilities for alternative futures.

Rather than relying solely on traditional disciplinary knowledge, this research embraces fiction, popular media, and digital culture alongside architectural discourse. It turns to literature, cinema, and video games—not just as reflections of climate anxieties but as spaces where futures are tested, contested, and made visible. These media are approached as archives of the present and as platforms for designing speculative futures.

Architecture, like media, helps shape how we perceive and respond to crises. Its representational tools—especially drawing, montage, and exhibit—are explored not just for what they show but for how they shape thinking. Drawing becomes a method of inquiry, exhibitions a space of speculation, and digital and narrative media a means of accessing the distributed, mediated nature of the climate emergency. These representational practices are central to the production of knowledge in this project.

A key challenge of this research is communicating the transition from climate events seen as 'exceptional' to those that are increasingly frequent and systemic, without resorting to sensationalism. An experimental component examines how speculative fiction can inform architectural representation. By drawing from literature and cinema, climate scenarios are turned into visual prompts and reinterpreted through AI-generated imagery and architectural speculation. These simulations bridge data and imagination, providing narratives that reflect the crisis's complexity and design potential.

'Submerged Imaginaries: Architectural Futures Underwater'

The first test draws from underwater futures in texts like Chi Ta-wei's Membrane, J.G. Ballard's The Drowned World, and Kim Bo-young's On the Origin of Species. The imagined scenario: the year is 2050. The Earth's surface is largely uninhabitable due to rising seas and toxic air. Humanity has retreated underwater, building self-sustaining ecological cities. Two main infrastructures sustain life below: mobility systems enabling frictionless travel and atmospheric containment domes that support human respiration. This narrative became the foundation for generating visual experiments, some of which are presented in this poster. These images test how fictional futures might provoke new architectural imaginaries and representational forms.

Water serves as a guiding thread in the thesis—both material and metaphor, infrastructure and myth. It connects chapters and media, reflecting the fluid, unstable, and interconnected aspects of the climate crisis. Water enables thinking across scales and times: from rising seas to submerged worlds and from scarcity to excess, tracing the crisis through architecture, media, and imagination.

#imaginaries, #media-architecture, #climate emergency



WHAT IF



WE LIVED



UNDERWATER?

The Words of the Chinese City, the Chinese Words of the City

Federico Madaro



Cycle 38th

Supervisors Filippo De Pieri, LIU Jian, Marco Trisciuoglio

Captions

Figure 1 - Lexicographic materials about the City (book covers).

Figure 2 - Beijing City Map, detail (real estate promotional material).

Figure 3 - From Cheng to City (personal note).

Figure 4 - Textual sources about the Chinese city.

Sources

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In international specialized disciplinary research and teaching and, in particular, in the field of Chinese architecture and urban studies, is it possible to conceive a new linguistic paradigm that goes beyond an acrytical use of English as lingua franca, with all its entrenched institutional advantages? Is it possible to imagine a feasible alternative that overcomes the trade-offs between accessibility, precision, and epistemic diversity?

My research aims at investigating the three basic scalar urban elements of houses, streets and neighborhoods in the Chinese context. Instead of starting from the urban objects themselves, I chose to analyze the words used to define them in the Chinese language. In the organization of my lexicographic material, taken from multiple technical, regulatory, and literary sources, I draw inspiration from the huge lexicographic literature on architecture and urban studies, spanning more than three centuries and widespread across all continents. It is made of dictionaries and encyclopedias that try to mediate between the two purposes of being useful for professionals and being accessible for the general readers.

The attention on the lemmata of the original language, rather than on the English definitions, arises several terminological problems, not only in translation, but also in the classification of the reference objects, since they are deeply shaped by the original linguistic context. In fact, a rigid English-only framework would obscure the culturally specific epistemology.

Furthermore, on the basis of Topalov, 2012, the research will try to understand how Chinese people crystallize in words the concepts inherent to the investigated areas, and how these words help them portray the urban phenomena and reinforce their understanding in a virtuous circle. Paradoxically, the language I use to report the results of my project is English, not my mother-tongue, so I need to ponder carefully all the repercussions of this choice, to minimize the friction and to value the cultural differences.

My work will not simply produce a language tool for architects or urbanists working with China. The work is intended, instead, as an exploration of a meaningful portion of the Chinese culture and an investigation of the words Chinese people use to describe it. What I claim is a de-Westernization of any specialistic field of research. The tendency to validate any concept of the culture object of study through the comparison with presumably similar concepts of the Euro-American culture is an unacceptable shortcut, or, in the worst case, an attempt at re-establishing an imperialistic vision of the world.

The method of terminological classification encompasses the selection of the most significant characters/morphemes referring to the semantic areas of the research, the analysis of their ethimology and usage in history, and, finally, their usage in modern Chinese. I proceed then to analyze the relative polysyillabic terms that, thanks to the combination of meanings of each character, form a semantically detailed vocabulary of the city.

An important part of the work is the analysis of the differences, but also of the semantic overlapping of the terms with the correspondent English equivalents, with the aim of defining a translation strategy and negotiating feasible solutions that reclaim the epistemic authority of the culture object of study (centrality of the Chinese concepts). For example, the terms and represent a perfect example of the extreme complexity of the analysis of the semantic traits of the "house" area, which we take for granted in a mono-linguistic context, but represent a real challenge in a multi-lingual comparison of the meanings, uses and applications. In this case, to better understand the differences, I consulted different kind of sources, that, firstly, revealed different areas of application in the contemporary language, often under the influence of the insurgence of specific linguistic needs connected to the development of new scientific disciplines or sub-disciplines. The new-born terms, or the new meanings, not necessarily passed to the spoken language.

#chinese city, #chinese housing, #transdisciplinarity


DES PRINCIPES DE L'ARCHITECTURE, DE LA SCULPTURE, DE LA PEINTURE,
EXPLICATION DES TERMES D'ARCHITECTURE.
ENCYCLOPEDIE METHODIQUE. ARCHITECTURE.
城市科学小百科
CHENGSHI KEXUE XIAOBAIKE
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Encyclopedia of Urban Planning
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The Penguin Dictionary of Architecture
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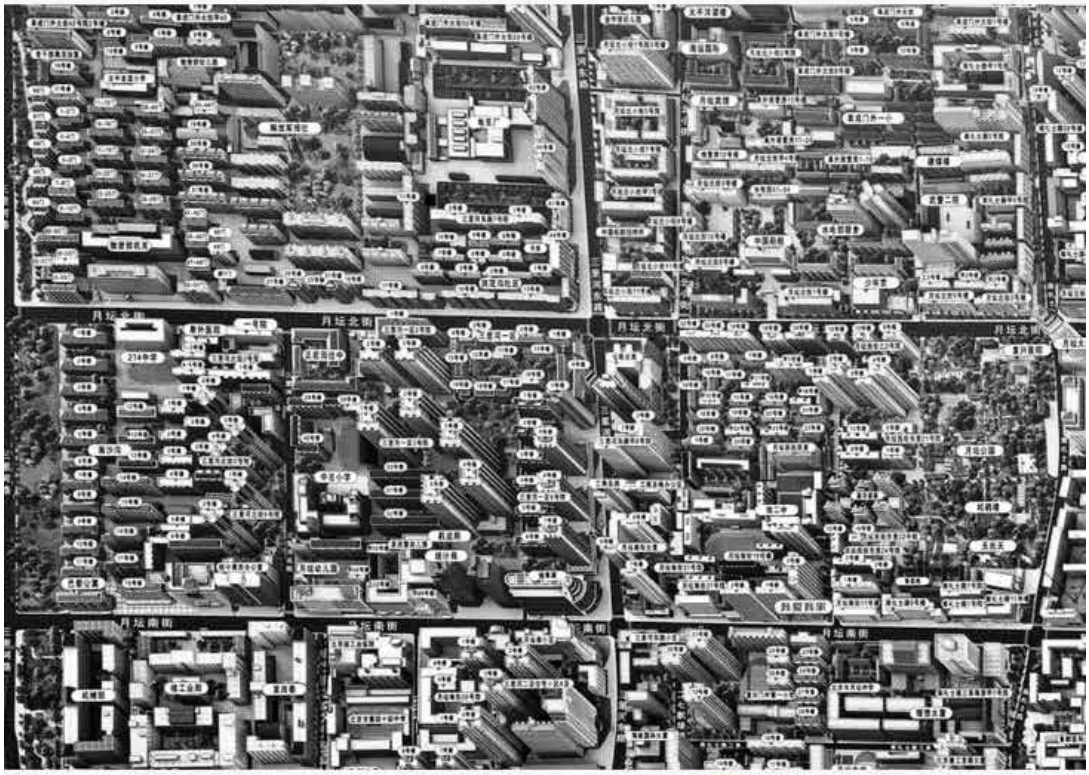
Kröner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GB 50096-2011
住宅设计规范
Design code for residential buildings
2011-07-26 发布
2012-08-01 实施
中华人民共和国住房和城乡建设部
中华人民共和国国家质量监督检验检疫总局
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四川省工业建筑设计院
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Housing the Singles. Models, Policies, and Experimentations in the Italian Domestic Culture and Space, 1930s–50s

Michele Rinaldi



Cycle	38th
Supervisors	Gaia Caramellino, Fredie Floré

Captions

Figure 1 - Giulio Minoletti, Perspective drawings, Appartamentino da scapolo del dottor Paolo Hasenmayer, Milan, 1936. Source: Loi, Maria Cristina, Giulio Minoletti, and Elena Triunveri. Oltre un rettangolo di cielo : interni milanesi di Giulio Minoletti. Mendrisio: Mendrisio Academy Press, 2011.

Figure 2 - Knoll International Italy, Soggiorno di uno scapolo, Colori e forme nella casa d'oggi, Villa Olmo, 1957. Source: Colori e Forme Nella Casa d'oggi: Villa Comunale Dell'Olmo. Exhibition catalogue, 1957.

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How did Italian architectural discourse and production from the 1930s to the 1950s both respond to and shape the diverse conditions of singlehood through housing models and domestic interiors?

This study examines the history of an overlooked housing typology in the history of Italian residential architecture that became widespread in the early 20th century: the single-person dwelling. It focuses on how this housing type was received in the Italian context, exploring models and representations emerging through housing projects and interior designs from the 1930s to the 1950s.

In the early 20th century, singlehood, emblematic of new emancipated lifestyles, became central to international architectural debates. Housing for singles was widely featured in the main architectural media of the time, epitomising progress and modernity.

During this period, Italy followed a different trajectory. In Fascist Italy, the architectural narrative largely served ideological efforts to promote the family; however, analysis of both architectural and non-specialist media reveals several housing proposals for singles. Exhibitions like the 5th and 6th Milan Triennials featured designs such as Franco Albini's Stanza per un uomo (1936), while Rosa Menni Giolli's 1933 article La casa di una donna sola, published in the women's magazine Eva, demonstrates that the theme also resonated with women, a group largely marginalised in Italian housing discourse.

After the war, models conceived in the interwar years permeated the culture of reconstruction and the Italian 'economic miracle.' Examples include Luigi Moretti's Case albergo (1947–50) and Knoll's Soggiorno di uno scapolo for the 1957 Como exhibition. These are not isolated examples in the Italian context, but are rooted in late-19th-century precedents such as the UK's Rowton Houses and Milan's Albergo popolare (1901), highlighting a longer genealogy of housing for single people.

This study concentrates on the first and second postwar periods, when singlehood gained recognition as a modern social condition due to the exceptional number of single men and women in Italian demographic history. Wartime transformations, including women's labour emancipation, demographic shifts, and economic crises, fostered the need for new housing solutions. While single-person dwellings remained largely absent in architectural historiography, this research explores how Italian architects responded to evolving lifestyles, gender roles, and household structures.

Challenging the dominance of the nuclear family in Italian housing narratives, the study addresses representations and typologies of domestic interiors for singles across exhibitions, publications, and mass media. It investigates those projects and experimentations through the lens of tropes such as the single worker, the office worker, the settler, the dandy, the professional, and single women, among others, and places them in tension with constructions of masculinity, gender prescriptions, privacy, and surveillance. The study, which addresses the home from both the housing programme and the domestic interior perspectives, draws on three levels of analysis: normative, specialist, and mass culture. Thus, an intersection of sources is necessary to provide a comprehensive understanding of the topic.

The approach taken in this research is firmly grounded in the methods, strategies, and sources of historical research, encompassing a range of studies and fields that have approached the topic from the perspectives of domestic interior and design history, social history, and more. These analyses require a dual operational mode based, on the one hand, on a novel perspective on archival materials and, on the other, on secondary and existing sources, situating the research within recent scholarship that has shown renewed interest in the topic over the past decade.

Ultimately, the study contributes to architectural and housing histories by tracing how the design of single-person dwellings reflected and shaped new ways of living in 20th-century Italy, foregrounding a topic that remains highly relevant to today's shifting domestic conditions.

#housing, #interiors, #singlehood





Entre-Deux. The Construction of Welfare Exchange Hubs as Devices For Urban-Mountain Rebalancing.

Federica Serra



Cycle	38th
Supervisors	Antonio De Rossi
Research Group	IAM

Captions

Figure 1 - The illustration is a collage that describes the research structure, highlighting its four main parts. Except where explicitly stated, the images included in the illustration were created by the author.

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What relationships define metromountain welfare dynamics, and how can the architectural design of exchange hubs contribute to territorial rebalancing between urban and mountain areas?

A prevalent historical-political narrative has positioned cities and mountains as opposing forces, with mountains seen as subordinate and exploited for resources and tourism. Recent changes, especially highlighted during the pandemic, have challenged this view, exposing the weaknesses of planning based on separation and specialisation. This fact has negatively impacted both mountain and urban areas, leading to poverty in the mountains and declining urban attractiveness due to pollution and unemployment.

The relationship between city and mountain is significant in Italy, with many metropolitan cities incorporating mountainous regions, and it has sparked renewed interest in the urban-mountain connection exemplified by the word "metromountain". This concept has recently acquired operational significance, as demonstrated by the establishment of dedicated governmental departments (e.g. in Turin and Cuneo) and strategic planning frameworks (e.g. the Strategic Plan for the Terre del Monviso and the Strategic Plan of the Metropolitan City of Turin 2024–2026).

Nevertheless, current literature lacks a reflection on the physical and architectural dimension of metromountain dynamics, which have thus far been addressed in abstract, non-spatialised terms. This dissertation aims to fill that gap by investigating the material configurations of city-mountain relations and proposing the concept of exchange places as devices capable of activating, sustaining, or transforming such relationships, particularly regarding welfare dynamics.

The research follows two main trajectories: firstly, it defines the concept of the exchange device through case study analysis assessing the role of architectural design in enhancing its flexibility and effectiveness; secondly, it maps the dynamics of urban-mountain welfare exchange in the Piedmont region to explore how such devices might influence future trajectories of metromountain welfare.

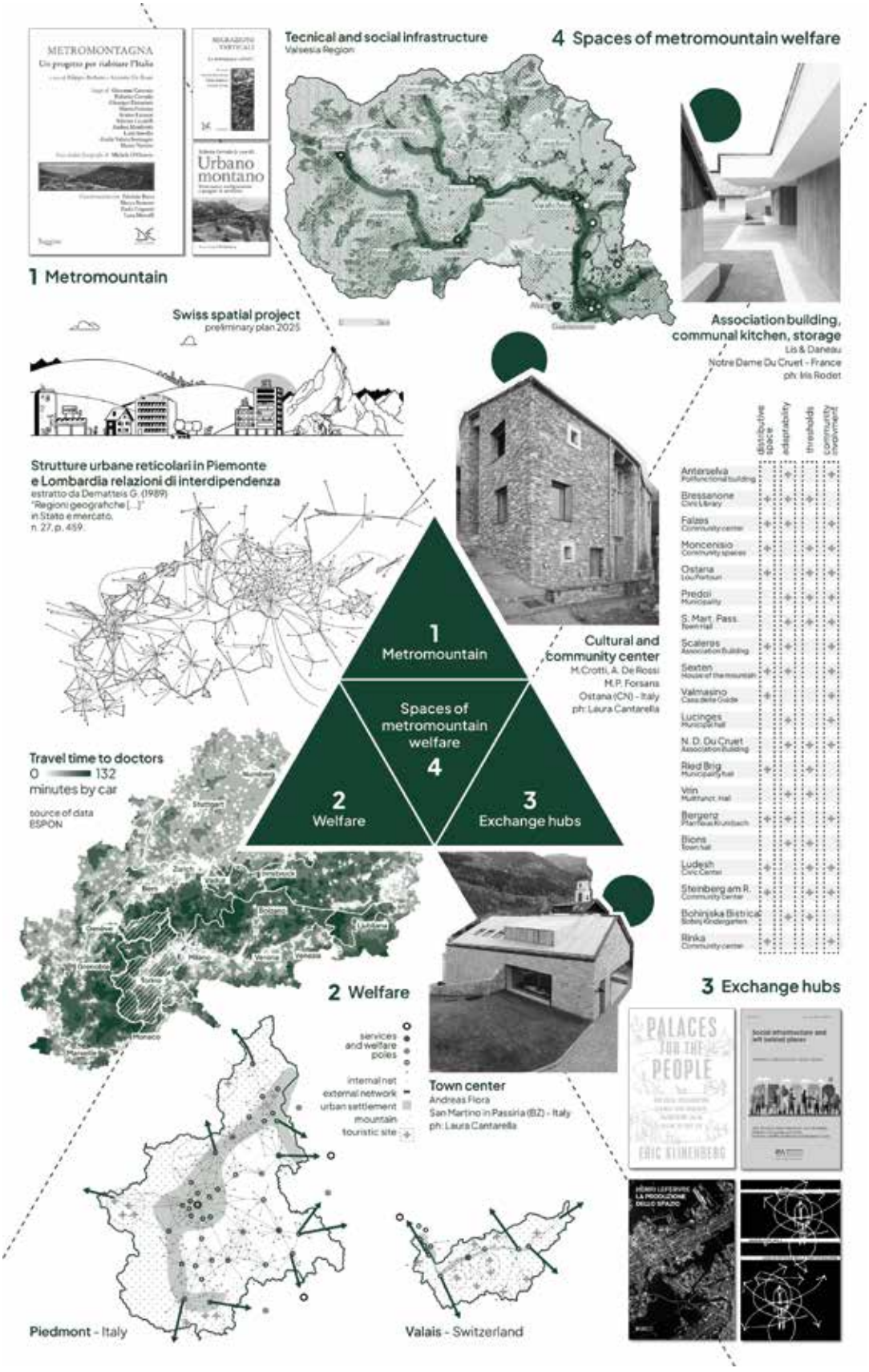
These exchange devices are understood as physical spaces for service provision and shared use, capable of supplementing traditional welfare infrastructure, which is often typologically rigid, with design solutions adaptable to local needs and social change.

A key element of the study is the comparison between the Piedmontese case and the Canton of Valais in Switzerland, another metromountain region that has followed a different trajectory, supported by long-standing federal policies and infrastructure investments that have reinforced urban and mountain integration. Valais serves as a different model illustrating how a cooperative institutional framework and targeted public investment can result in more accessible and widespread welfare systems that genuinely support mountain territories and foster balanced inter-territorial relations.

Preliminary findings show that exchange places vary in form and function depending on their context but share a hybrid nature focused more on shared use than consumption and more on proximity than centralisation. Architectural design emerges as a key factor in ensuring the efficacy, the inclusiveness, and the long-term sustainability of such devices. Through theoretical elaboration and project-based analysis, this study seeks to contribute to the growing body of research on metromountain dynamics, offering a conceptual and practical framework for designing and implementing exchange devices between urban and mountain territories.

The research conclusions, enriched by a transnational comparison, aim to inform future policies and practices promoting a renewed vision of integrated territorial development and distributed welfare.

#metromountain, #exchange devices, #welfare


METROMONTAGNA
Un progetto per riabitare l'Italia
Urbano montano
1 Metromountain
Tecnical and social infrastructure
Valsesia Region
4 Spaces of metromountain welfare
Swiss spatial project
preliminary plan 2025
Association building, communal kitchen, storage
Lis & Daneau
Notre Dame Du Cruet - France
ph: Iris Rodet
Strutture urbane reticolari in Piemonte e Lombardia relazioni di interdipendenza
estratto da Dematteis G. (1989)
"Regioni geografiche [...]"
in Stato e mercato,
n. 27, p. 459
1
Metromountain
Spaces of metromountain welfare
4
2
Welfare
3
Exchange hubs
Cultural and community center
M.Crotti, A. De Rossi
M.P. Forsans
Ostana (CN) - Italy
ph: Laura Cantarella
distributive space
adaptability
thresholds
community involvment
Anterselva
Bressanone
Falzes
Moncenisio
Ostana
Predoi
S. Mart. Pass
Scalenes
Sexten
Valmasino
Lucinges
N. D. Du Cruet
Ried Brig
Vrin
Bergeng
Biona
Ludesh
Steinberg am R.
Bohinjska Bistrica
Rinka
Travel time to doctors
0 132
minutes by car
source of data
ESPON
3 Exchange hubs
2 Welfare
services and welfare poles
internal net
external network
urban settlement
mountain touristic site
Town center
Andreas Flora
San Martino in Passiria (BZ) - Italy
ph: Laura Cantarella
PALACES FOR THE PEOPLE
ERIC KLINENBERG
Piedmont - Italy
Valais - Switzerland

Broken Shapes. Fortified Borders and the Disappearance of the Commons

Laura Villa Baroncelli



Cycle	38th
Supervisors	Marco Trisciuoglio, Luigi Buzzacchi
Research Group	Transitional Morphologies

Captions

Figure 1 - Redistribution of care. Piedras Negras, Mexico, photo by the author, 2024.

Figure 2 - Construction of the border wall on the Barry M. Goldwater Range aboard MCAS Yum. U.S. Marine Corps photo by LCpl. Gabrielle Sanders, 2020.

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How do fortified borders produce spatial distortions, fragment urban form, and contribute to the erosion of the commons through deterrence-based territorial governance?

The resurgence of fortified borders—now visible in over 45% of countries—signals a shift in how territorial control is materially enacted and politically justified. Increasingly framed through the language of national security, these structures function as instruments of contemporary spatial governance: fragmented, unequal, and performative, often responding not to direct threats but to structural asymmetries in wealth, governance, and mobility (Taubenböck et al., 2023). While their short-term political visibility is evident, their long-term effectiveness and broader spatial impacts remain significantly understudied.

A key barrier to this analysis is the inconsistency of available data. As noted by the European Parliament (2022), information on fortifications remains fragmented, contradictory, and incomplete. This limitation—often tied to security concerns—is compounded by broader issues in transborder studies: divergent data collection methods and definitions across regions make large-scale, comparative research difficult. To address this, the project develops a global geodatabase of the current wallscape, integrating government records, historical archives, and satellite imagery. The study uses Harmonized Nighttime Light (HNTL) data to support consistent measurement of urban morphogenesis across cases, which offers standardized temporal coverage despite known visibility biases—especially in under-lit or informally urbanized areas. Following analytical convention—assuming border effects concentrate within a 70 km-wide corridor (Pinkovskiy, 2017)—the research estimates that fortification can potentially influence a territorial footprint of 4.14 million km², an area comparable to the European Union.

The dissertation uses an event study framework to investigate whether fortified borders reshape urban form based on three spatial metrics—urban area, perimeter, and a disconnection index—extracted from HNTL data. Focusing on uncontested administrative borders, the analysis wants to isolate the potential effects of fortification as a secondary, partially exogenous intervention. By quantifying change over time, the research explores how form becomes a site of governance—shaped not only by direct interventions, such as physical barriers but also through diffuse deterrent strategies that fragment the visual and social landscape. Urban form is approached as a spatial common good: a structural condition that sustains access, continuity, and equitable land use, while remaining vulnerable to degradation. Fortification can distort this form—altering morphology and reducing spatial cohesion. Building on existing literature, this framework positions urban morphology as reflective of economic conditions and capable of influencing them (Harari, 2020), warranting closer scrutiny in spatial governance debates.

Beyond systemic analysis, the study incorporates field observations to document how securitization extends beyond unauthorized crossings—operating through designed ambiguity and subtle exclusion (Graham, 2011). Drawing on Weizman's concept of militarized landscapes as instruments of spatial fragmentation (Weizman, 2007), these micro-scale accounts expose spaces that appear public yet are rendered inaccessible through spatial cues, surveillance, or controlled neglect—raising questions about how fortification erodes spatial commons.

Building on this foundation, the study develops a critical atlas of fortified borders—mapping the infrastructures and the territorial disruptions they produce.

#fortified borders, #ntl, #erosion of the commons




CAT

Porosity and Open Forms. Interpreting the Form of Openness in Urban Morphological Transition and Complexity

WU Hongye



Cycle	38th
Supervisors	Michela Barosio, Michela Rosso
Research Group	Transitional Morphologies

Captions

Figure 1 - Analogy betwwen the concept of porosity in material science and in urban morphology, by the author, 2024.

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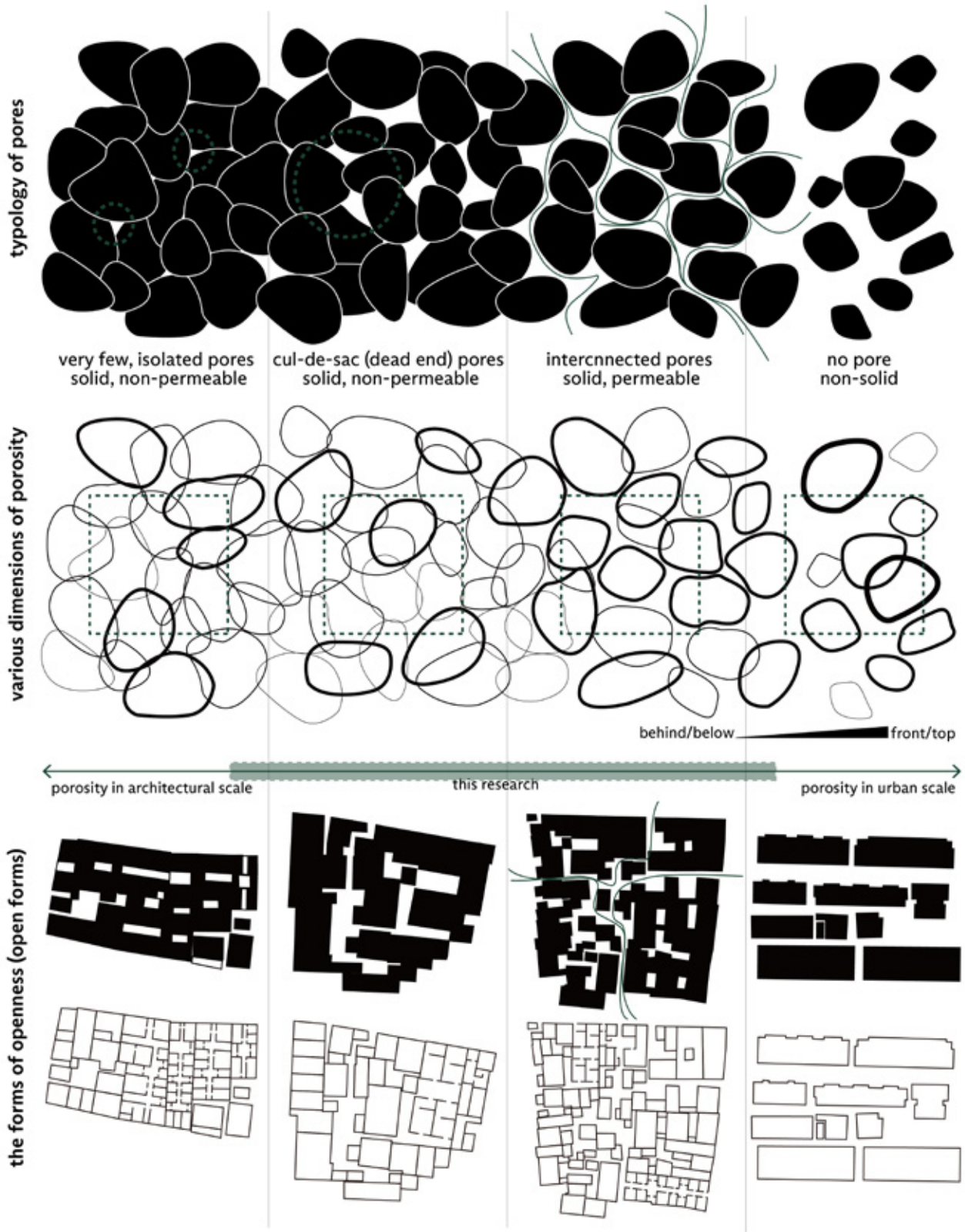
Wolfrum, S. (ed.). (2018), *Porous City from Metaphor to Urban Agenda*. Birkhäuser.

What are the significant variables in the porosity formula that contribute to a deeper understanding of urban porosity–beyond just the open space ratio (OSR)–and shape a more inclusive and adaptable city?

Urban scholars have been exploring for a long time the relationship between urban form and human experience (everyday life), from the advocacy for organic and spontaneous city growth by Jane Jacobs to the concept of legibility of the city and mental mapping by Kevin Lynch, to the argument of the "right to the city" by Henri Lefebvre, and to the "life between buildings" and the human scale by Jan Gehl, whose ideas continue to shape our understanding about how we make cities and how we live in the cities. However, for decades, zoning and high-density development, central to rapid (re)development of many urban areas, are often seen as necessary tools for accommodating increasing populations and economic activities. Traditional urban planning approaches that prioritize control and fixed functionality stand in contrast to design that embrace unpredictability and change (Sennett, 2018), challenging the very visions these scholars advocated. Although the proximity facilitated by high-density living offers significant accessibility to workplaces, services, and diverse activities, it also leads to unintended social interactions and psychological stress. Within the context of extensive urban displacement and rapid redevelopment in Chinese cities, it is argued that dismantling established neighborhoods can negatively affect urban sustainability; consequently, positive social objectives must be carefully considered in the process of urban redevelopment. In today's context, these "solutions" are increasingly questioned through the lens of the sustainable development goals (SDGs). The challenge lies not only in designing sustainable cities but in fostering spaces that are inclusive, adaptable, and capable of responding to the complex dynamics of urban life.

The duality of the city (Sennett, 2018)—as both a physical construct (ville) and social experience (cité)—emphasizes this importance of creating urban environments that embrace complexity and adaptability (Stavrides, 2006). The tension between these two aspects is central to the discourse of open form, where flexibility and openness facilitate the dynamics in the urban environment that can evolve in response to societal needs. Open forms align with this emerging trend in architecture and urbanism, including the concepts of soft city, open city, porous city, and sponge city, all of which emphasize flexibility and ecological resilience through openness. This research stands for an "open" (or "porous") approach to urban design, where ambiguity and experimentation are valued. The concept of urban porosity, often employed as a metaphor (Wolfrum, 2018) in urban studies and design discourse, broadly refers to the degree of openness and permeability in the urban fabric, reflecting how interconnected and accessible spaces within a city. However, works that focus on urban porosity are still scarce and the distinction between porosity and permeability in an urban context hasn't been clarified – both terms tend to be used indiscriminately and often inaccurately. In the meantime, studies that establish the criteria that assure porosity and try to understand how urban porosity evolved are yet unknown. Thus, this work aims to address these gaps. First, it examines the taxonomy of open forms and the concept of porosity—not merely in terms of open space ratio (OSR)—and their role in contributing to the long-term vitality and inclusivity of urban space, as porosity is an important indicator in addition to density, which is the more familiar one to urban planners and designers. Second, it reviews and investigates various perspectives and dimensions of urban porosity and their representations, exploring their relevance to urban form character and the process of urban design. In this study, urban porosity is approached through various interconnected dimensions - spatial, visual, social-functional, environmental and temporal porosity - all of which are linked to urban morphology and integrated into the formulation of urban porosity formula (index). Finally, through case studies, it collates these measures and the forms of openness into a matrix, a toolkit to assist, formalize and assess design claims, design processes and results. The outcome of this research, therefore, is a matrix at multiple dimensions to designing and regenerating urban spaces, with a particular focus on open forms that also fill the gaps in urban design and urban morphology studies. The research method is critical and descriptive-analytic and data collection is conducted with empirical and the literature research methods.

#urban porosity, #urban form, #openness


typology of pores
very few, isolated pores
solid, non-permeable
cul-de-sac (dead end) pores
solid, non-permeable
intercnnected pores
solid, permeable
no pore
non-solid
various dimensions of porosity
behind/below
front/top
porosity in architectural scale
this research
porosity in urban scale
the forms of openness (open forms)

39th

CYCLE

Celebrating Absence. Contemporary Architecture for Farewell Rituals

Sarah Becchio



Cycle 39th

Supervisors Giovanni Corbellini

When architecture is called upon to give meaning to the experience of farewell, which conceptual categories can it draw upon to reconcile human mortality with the complexities of the contemporary condition?

Even though the origins of Western European architecture are linked to human dying (Colvin, 1991), and it is the mound of earth in the wood that Loos points to as an unequivocal example of architecture (Loos, 1910), today's architecture for death often belongs to the long list of buildings affected by the Weilean phenomenon of uprooting, whose only purpose is to respond to a function (Biraghi, 2021). This situation results from a slow transformation of the mentalité collective towards human mortality. An evolution that can be seen in funerary art and architecture went from undisputed symbolic forms capable of expressing the essence of the time (Panofsky, 1964) to, from the Baroque onwards, the expression of an event that was less and less comprehensible through shared values. In the twentieth century, death became a taboo (Gorer, 1955), closely linked to its visibility level in the city (Ariès, 1975). In this process, the widespread diffusion of the practice of cremation in recent decades has seemed to some to be a further step towards the loss of the physicality of death in the urban context and, therefore, towards the disappearance of funerary architecture and, consequent, unintended transformation of all space into the space of death (Ragon, 1981).

The cremation's social and environmental impact is fuelling the debate about an articulated infrastructure that provides ceremonial spaces for farewells, services for the living, and spaces for the dead. Crematoria are among those buildings necessary for an increasingly multicultural and secularised society, characterised by evolving funerary practices, ritual behaviour and memorial conventions. From a political point of view, these ceremonial spaces are crucial in witnessing a shift in centuries-old customs linked to the Christianisation of European society. From an architectural point of view, they are equally important when understood as a field of disciplinary experimentation. This perspective is evident in Belgium, a country where, in 2003, a law was enacted to exclude private companies from the construction of crematoria (Dubois, 2019); since 2008, several crematoria have been built in Flanders through the Open Call award procedure guided by the team of the Flemish Government Architect. The initiative of anticipating the increase in demand transcends mere utilitarian logic and is centred around social inclusiveness. Moreover, the decision to entrust crematoria design to international competitions anchors the practice of cremation with significant architectural expression (Liefooghe, 2021).

Starting from exploring the spatial implications of certain recent phenomena regarding mourning, death, disposal and burial methods in the European context, the research focuses on how spaces for the celebration of a universal rite of passage (Van Gennep, 1909) are shaped to reflect the existential conditions and needs of contemporary society while promoting social, cultural and ecological innovation. Recent crematoria built in Flanders serve as a testing ground, the subject of comparative evaluation conducted through analysis of competition documentation, re-drawing, field observation, and interviews to identify themes and questions relevant to the current architectural debate. The Flemish experience allows to extract design tools capable of addressing an urgent phenomenon. The architectural ethnography perspective and oral history helps to understand the relationships between spaces, artefacts, and people established in projects. Additionally, a phenomenological lens is used to investigate how the authors' narratives and architectural choices address the experiential qualities of architecture, aiming to influence people's experiences. Specifically, it is a question of reflecting on how aesthetic repertoires, which since archaic times have been called upon to activate a symbolic world to accompany people emotionally and psychically, resonate today with emerging needs and technological innovation when asked to translate absence into form.

#farewell, #inclusion, #absence

Captions

Figure 1 - View of Claus en Kaan, Crematorium Heimolen, Sint-Niklaas (BE), 2008.

Figure 2 - Eduardo Souto de Moura & SUMProject, Crematorium Uitzicht, Kortrijk (BE), 2011; RCR.

Figure 3 - Arquitectes & Coussée & Goris Architecten, Crematorium Hofheide, Holsbeek (BE), 2013.

Figure 4 - Christian Kieckens & DAE, Crematorium Daelhof, Zemst, 2015; KAAN Architecten.

Figure 5 - Crematorium Siesegem, Aalst (BE), 2018; Office KGDVS & Richard Venlet, Crematorium.

Figure 6 - Polderbos, Ostend, 2021 - photo by the author.

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From exterior to interior






Entrance






Auditorium






20th century Heritage in Transition. Perspectives from India and China

Saurajeeta Bose Paul



Cycle	39th
Supervisors	Filippo De Pieri, QING Feng
Research Group	China Room

Captions

Figure 1 - Pictorial representation of Global Heritage laws and conventions parallel to India and China, by the author.

Figure 2 - Pictorial representation of Transnational Flow of Knowledge and Concepts from the West to East, by the author.

Sources

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Hall, S. (1999). Whose heritage? Un-settling "the heritage", re-imagining the post-nation. In *Third Text* (Vol. 13, Issue 49, pp. 3–13)

How does the ephemeral and rapidly evolving nature of Asian cities impact existing global heritage frameworks, and how can a parallel study of Beijing and Delhi contribute to a new theoritical understanding?

The emergence of new nation-states in the mid-20th century signified a profound shift in the global conceptualization of civilization and geography. Architecture, during this transformative era, became emblematic of enduring human societies, creativity, and political ideologies, significantly shaping how modernity, culture, and national identities were imagined within emergent contexts.

This research critically examines the evolution of architectural vocabularies in post-independence India and China, focusing on how nationalist ideologies, debates between international modernism and regional traditions, and the pursuit of national identity informed architectural expression. In the aftermath of economic liberalization, both countries experienced rapid urbanization driven by global capitalism, resulting in what has been termed a 'heritage epidemic'—a trend that prioritizes preservation, often at the expense of present and future urban needs (Shah et al., 2024).

The thesis looks at post-independence architecture in India and China and the implications of the frameworks of conservation introduced since 1980 till 2024. This research seeks to address this critical gap by interrogating global and national conservation frameworks and institutional discourses, ultimately proposing the need for a context-specific, non-Western approach to heritage. For this purpose, the study has been organised into three phases.

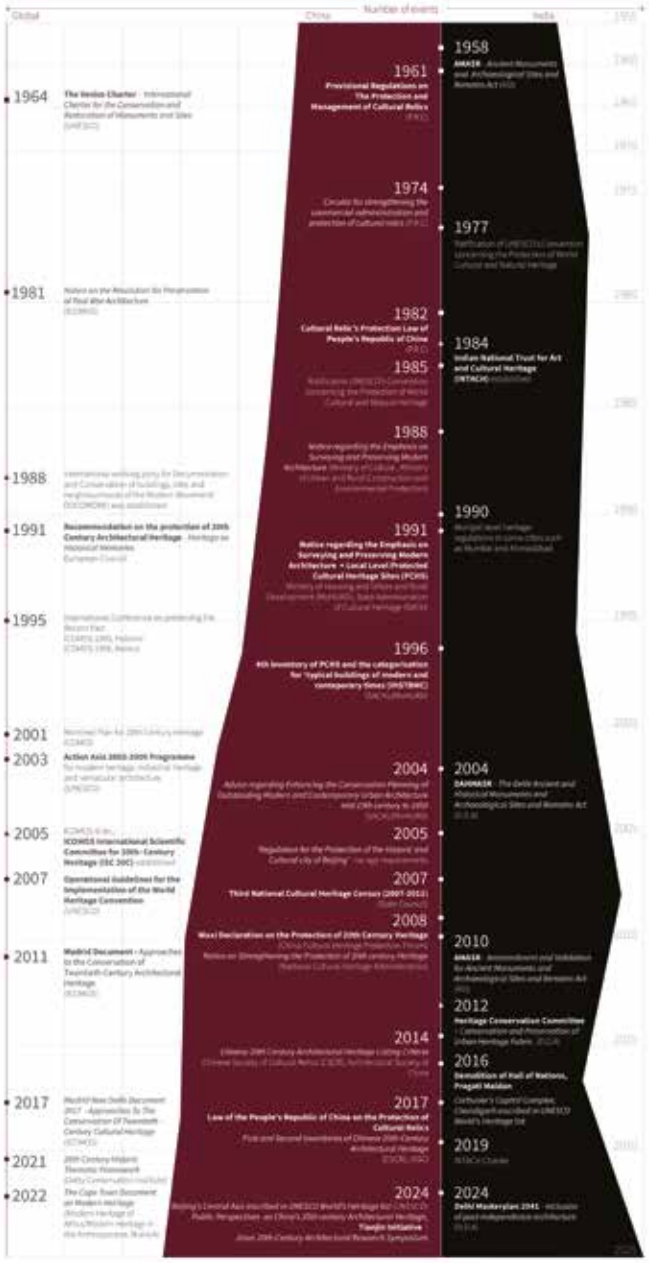
First, to deconstruct the existing language concerning modernism and heritage beyond Eurocentric biases, drawing inspiration from postcolonial critiques articulated in "Rethinking Global Modernism" (Prakash et al., 2022). This has been done through the second chapter which is relies on post-colonial studies and minor literature to highlight the marginal voices. The study also refers to Beatriz Colomina's positioning of architecture not in the world of built objects but also in the realm of discourse.

The second phase would be the study of post-independence India and China from the architectural perspective to understand the nuances behind the process of identity creation and relating it to the justification for heritage conservation. It has been carried out through the third and fourth chapters. The idea of Multiple Modernities advocates for repositioning modern architecture within broader frameworks that challenge colonial legacies and privilege local socio-cultural narratives and not just as an extension of the International style/ Critical Regionalism trope. Chapter 4 interrogates prevailing global frameworks by UNESCO, ICOMOS and the Getty Conservation Institute, critiquing their limited adaptability to the contexts of the Global South and the complexities of decolonization. It then moves to study the national level frameworks prevailing in China and India, especially for the architecture of the 20th century. The study then steps to the capital cities of Beijing and Delhi NCT, to see how these policies are in practice at conserving or highlighting the post-independence identity.

The third phase would be to create a new framework or criteria for heritage, not as monuments but as living spaces. By aligning with Mrinalini Rajagopalan's argument for preserving modern architecture as sites of collective public history rather than merely celebrated monuments, the study promotes a decolonial reassessment of conservation practices. Furthermore, insights from recent initiatives such as the "Modern Heritage of Africa (MoHoA)" conference (2022) provide additional context, underscoring modern heritage's entangled relationship with planetary crises and the uneven socio-political impacts.

Ultimately, the thesis aspires to contribute to a more inclusive, context-sensitive understanding of heritage, positioning architecture as a lived, evolving, and culturally embedded practice.

#20thcenturyheritage, #china&india, #decolonial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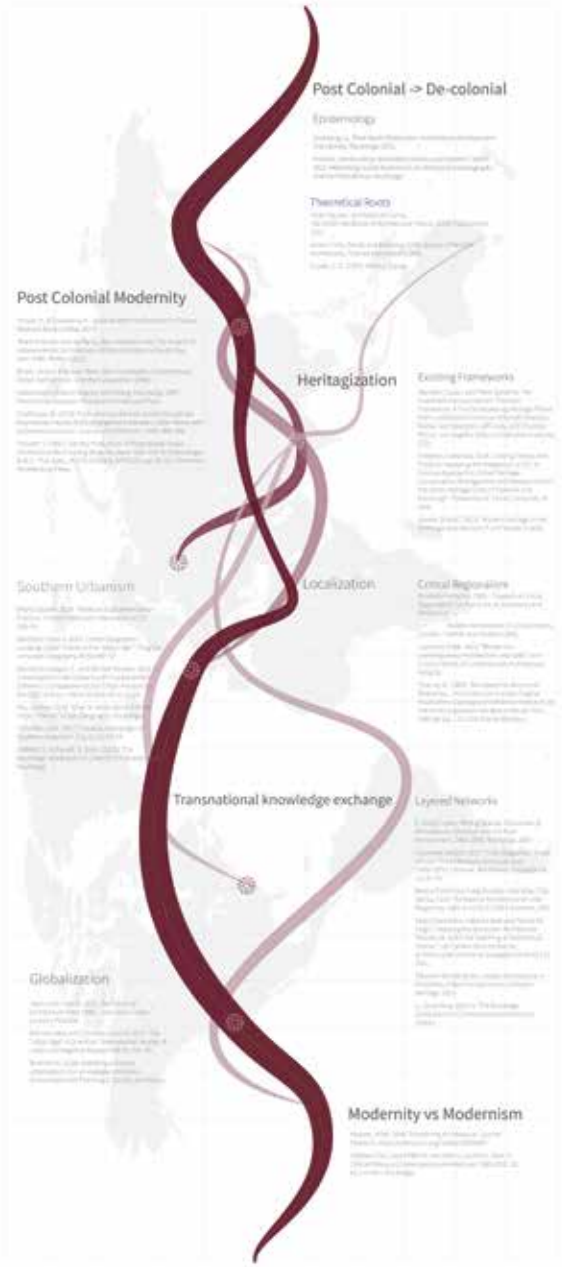
Post Colonial -> De-colonial
Epistemology
Theoretical Roots
Post Colonial Modernity
Heritagization
Existing Frameworks
Southern Urbanism
Localization
Critical Regionalism
Transnational knowledge exchange
Layered Networks
Globalization
Modernity vs Modernism

Internationalization of the Yugoslav Periphery: UN Development Programs in Socialist Republic of Montenegro (1967–1988)

Danilo Bulatović



Cycle 39th

Supervisors Filippo De Pieri, Alessandro De Magistris, Luka Skansi

What was the UN developmental agency in housing, building and planning among other antagonistic "worldmaking" projects during the geopolitical divide of the Cold War?

Using the Center for Housing, Building and Planning (UNCHBP) and Center for Human Settlements (UNCHS) as a backdrop, the thesis traces the role of the United Nations in distributing ideas of expertise and sketching the shape of developmental planning, before moving to an examination of its projects in Yugoslavia to illustrate relations between this international organization and the only eastern European country to receive such aid within the socialist bloc. The first mission resulted in the Regional Development Plan for South Adriatic (1967–1971), while the second one, was the consequence of the catastrophic earthquake (1979) resulting in the new Spatial Development Plan of Montenegro (1979–1985). The overarching goal is to uncover new circuits of knowledge distribution and the complex institutional patterns through which the overlapping Cold War globalizing tendencies intertwined with the domestic socio-political and urban-architectural context.

The role of the technical assistance as a diplomatic tool wrought within the UN policy has been less visible among other unilateral capitalist or communist forms of "world-making" across geopolitical divide. In this context, the research aim is twofold. First, it addresses the process of conceptualization, evolution and implementation of the Technical assistance program in housing building and planning as a common pooling of skills – a multinational cooperative effort – rather than a one-way flow, developed within the UN aid mechanism between 1949 and 1977. Although the post-war aid project was American, the thesis however advocates the position in which the UN technical assistance, while inherently political, also consisted of a distinctive internal forces whereby the principles of aid in self-reliance of the independent nations could be traced within the aid conceptualized and provided through the development projects of CHBP and CHS. The assistance in consolidation of the local design and planning institutional frameworks, collaboration between foreign (both from East and West) and domestic actors, specialization schemes (both to the East and West), comprehensive economic surveys as well as the feedback to the intellectual base of the constantly evolving aid approach, are just some of the features which positioned the UN technical aid system somewhere in the "in-between" spectrum of the Cold War divide.

Second, the research assesses the position of Yugoslavia as an important recipient of the UN development policies during the Cold War period. This includes the questions how did the UN's program served as a legitimization of the specific social, political and economic dynamics of Yugoslavia and how did UN development policies aligned with the supranational constructs such as the Non-Alignment Movement and self-management? More specifically, the objective of the research is to interrogate the contribution of the plans to the progressive economic expansion of the southernmost coastal part of Yugoslavia. Following the knowledge transfer and the refraction process between the actors of the local planning institutes on one side and the UN actors coming both from the East and West, represents an important objective in deconstructing converging influences within the UN aid mechanism. Also, the research aims to illuminate in which way the projects contributed to the planning traditions of the local urban-architectural hierarchy and how did specific conditions declinated different strategies of development regarding tourist industry, protection of the landscape and the preservation of the historic settlements.

Positioning the Yugoslav case within the broader context of the UN internationalist engagements and laying down new coordinates within the field of the urban development diplomacy, the thesis seeks to enact a wider impact in the international developmentalist scholarship during the Cold War. Examining a diffuse genealogy between actors and actants, agents and agencies, institutions and institutionalizations, and through it evaluating the intrinsic values of the UN technical assistance, the thesis will open up new avenues for further examination of the dependent relationship between the local and the global context.

#UNCHBP, #UNCHS, #cold war

Captions

Figure 1 - The Ernest Weissmann Archive (Boxes 1–40). Special Collections, Figure 2 - Frances Loeb Library, Harvard University Graduate School of Design.

Figure 3 - Miscellanious (Boxes 1–120). Republic Institute for Urban Planning and Design of Montenegro Archive.

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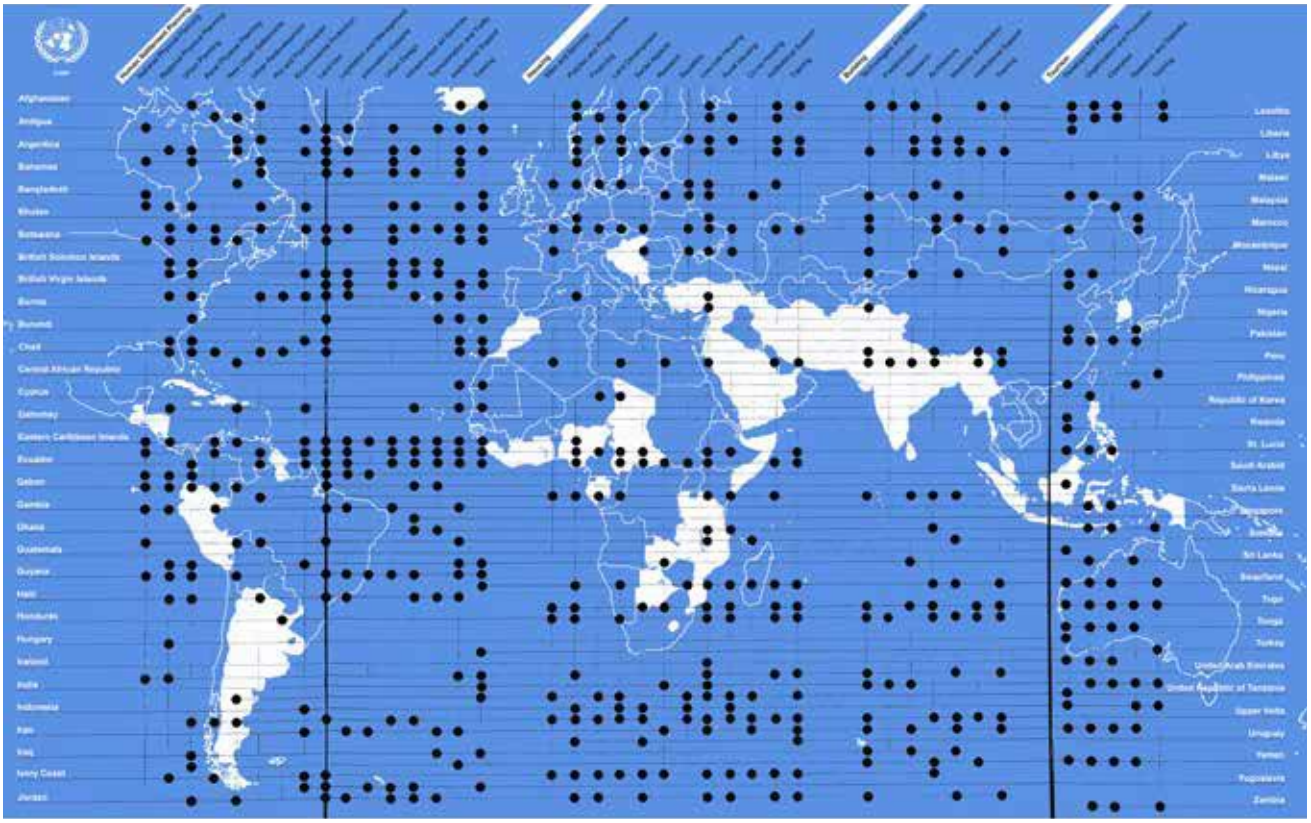





Before and After the 1980 Earthquake: Strategies, Dynamics and Actors in the Processes of Urban Reconstruction, Territorial Development and depopulation in the "crater zone" between Campania and Basilicata.

Marco Celenza



Cycle 39th

Supervisors Michela Comba

Did the 1980 seismic event act as a catalyst for the processes of urban and territorial transformation in Campania and Basilicata – with particular focus on the "crater zone" – influencing its dynamics of reconstruction, planning and development over time?

On November 23, 1980, a 6.9 magnitude earthquake lasting ninety seconds, with its epicenter deep beneath the Cervialto mountain range (Centro di Specializzazione e Ricerche Economico-Agrarie per il Mezzogiorno, 1981, p. 9), left an indelible mark on central-eastern Campania and north-western Basilicata. The affected territories included the upper Ofanto valley, the mountainous Terminio area, the upper and middle Calore valley, the upper Sele, the north-eastern Tanagro area, the Marmo Platano and Melandro valleys - all inland areas of the southern Apennines bordering the two regions. These areas, composed of small municipalities in the provinces of Avellino, Salerno and Potenza, became the epicenter of a disaster that remains in public memory as the "Irpinia Earthquake": 687 affected municipalities (36 destroyed, 295 severely damaged), 2.914 deaths, 8.850 injuries and approximately 280.000 displaced people (Ventura, 2020, p. 42).

It was a watershed event, crucial for the fate of territories that had already - by the late 1950s - exhibited conditions of marginalization and divergence not only in comparison to the more developed and prosperous areas of northern Italy but also relative to certain zones within their own regions: «si trattava di terre in genere poco popolate o in via di spopolamento, con struttura demografica dispersa in piccoli centri, dominate da suoli poco fertili e acclivi, scarsamente dotate di vie di comunicazioni e di collegamenti con le città, le pianure, il mare. Esse apparivano e di fatto costituivano l'appartata geografia della povertà» (Bevilacqua, 2002, p. 7). Based on these considerations, this study aims to investigate whether the seismic event served as a catalyst, examining its role and impact on the processes of urban and territorial transformation (Guidoboni & Valensise, 2022). The research conducts an analysis of changes in Campania and Basilicata, with particular reference to the so-called "crater zone" and, more specifically, to the portion of territory at the border between the two regions where the earthquake dealt a decisive final blow. The study follows several phases: urban and territorial conditions before the earthquake, the seismic event and the interventions in reconstruction and territorial planning, strategies and actors in post-earthquake evolutionary processes and the current situation.

What was the pre-earthquake condition of these territories? How did the reconstruction process unfold and with what strategies? What professional and institutional figures were involved and in what capacity? What was the fate of local architecture and built heritage? What infrastructure and territorial transformation projects were carried out? What are the current conditions of these areas? These are the key questions that the research seeks to address, identifying, among the 36 municipalities declared devastated, three specific case studies (Muro Lucano, Teora and Conza della Campania) emblematic of three distinct approaches that summarize the heterogeneity of interventions and reconstruction policies: "as it was, where it was" reconstruction, ex novo reconstruction and relocation.

This research aligns with the field of post-earthquake reconstruction studies while introducing a comparative and interdisciplinary approach that interweaves urban and architectural aspects with territorial planning, political dynamics, economic programming and mechanisms of public consensus. Additionally, it proposes viewing the seismic event through a different lens - that of the history of professions - focusing on the roles of the involved actors and their interactions, while delving into the contributions of specific figures in architectural design, engineering (Pace & Allocca, 2018), industry, and the political/institutional sphere, distinguishing between endogenous and exogenous knowledge and power structures.

#earthquake #development #depopulation

Captions

Figure 1 - from https://www.avellinesi.it/anni60prima/album/#.

Figure 2,3 - map produced by the author.

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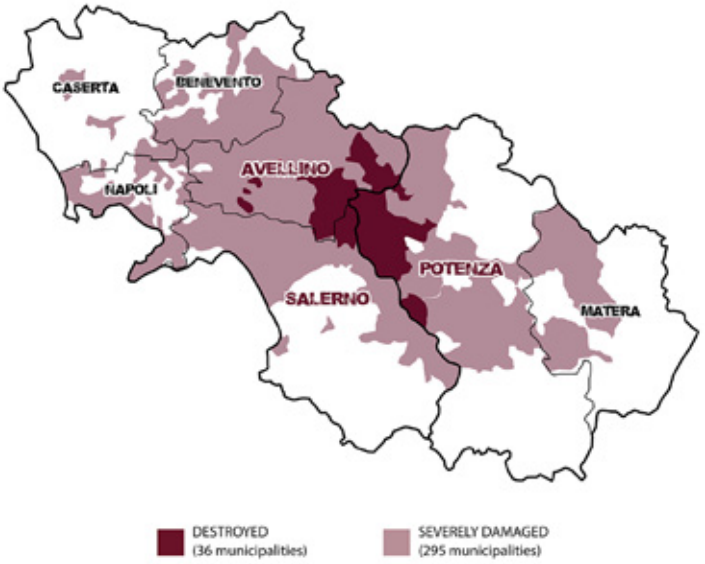
RESCUERS
DESTROYED BUILDINGS
DISPLACED PEOPLE
EARTHQUAKE
NEW LIVING AND WORKING CONDITIONS
PROFESSIONAL FIGURES
POPULATION RETURN


CASERTA
BENEVENTO
AVELLINO
NAPOLI
POTENZA
SALERNO
MATERA
DESTROYED (36 municipalities)
SEVERELY DAMAGED (295 municipalities)


BENEVENTO
CASERTA
FOGGIA
B.A.T.
AVELLINO
CONZA DELLA CAMPANIA
BARI
NAPOLI
TEORA
POTENZA
MURO LUCANO
SALERNO
MATERA
DESTROYED MUNICIPALITIES
CASE STUDIES

“Atelier Rural”: Rethinking Art-Work Through Cosystem Practices in Inland Areas

Alessandra Faccini



Cycle 39th

Supervisors Camillo Boano, Elisabetta Rattalino

How can rural contexts, as spaces of productive marginality, offer alternative models of artistic labor that challenge neoliberal logics and rethink the economy of art in terms of ecological, social, and economic interdependence?

This research explores the intersection of art, labor, and environment through the political-economic critique of art-work, analyzing how rural contexts emerge as sites of productive marginality that enable new forms of artistic labor beyond urban, institutional, and neoliberal circuits. While the global art system remains structurally dependent on precarious labor, extractive economies, and speculative markets, rural-based artistic practices challenge these logics by experimenting with alternative models of production, distribution, and organization.

At the core of these practices is a shift toward an ecosystemic perspective, repositioning artistic labor within broader ecological, economic, and social entanglements. Moving beyond the modernist separation between culture and nature, these experiments engage with local resources, non-human agencies, and regenerative practices, fostering models of artistic work embedded in their environments rather than imposed upon them. This shift from an individualist to an interdependent conception of artistic labor challenges the logics of extraction and accumulation that characterize both the contemporary art market and capitalist economy.

Through an analysis of artistic initiatives and theoretical reflections, this study investigates how the shift from urban to rural reconfigures the material conditions of artistic labor and the processes of subjectivation of the artworker. In contrast to hegemonic metropolitan artistic capitalism—where individualization, competition, and financialization prevail—rural-based experiments foster collective practices, self-managed infrastructures, and ecological approaches to production.

Drawing on the critical political economy of artistic labor, contemporary art history, visual and rural studies, environmental humanities, and landscape history, this research examines whether and how rural artistic practices function as laboratories for rethinking the economy of art beyond commodification and speculation. By embedding artistic labor in economies of care, cooperation, and sustainability, these practices open new perspectives on art’s role in social and ecological transformation. Ultimately, this research contributes to debates on post-capitalistic art economies, advocating for a radical reimagining of artistic labor as an ecological, collective, and politically engaged gesture.

The fieldwork examines three Italian experiences that reinterpret rurality to promote new understandings of cultural work beyond cities and institutions. Casa delle AgriCulture (Castiglione d’Otranto) integrates artistic production into land governance and agro-ecological engagement, addressing depopulation in Salento region. Robida Collective (Topolò/Topolove) explores “radical residentiality” in a post-rural village close to the mountain border with Slovenia, experimenting with situated writing (Robida Magazine), radio station (Radio Robida), and landscape-based practices. L’Aquila Reale (Licenza) reimagines the art institution in a territory marked by abandonment and exclusion from touristic route, adopting a “rural art residency” format and institutional permaculture principles while seeking financial independence.

Here, the reconfiguration of the relationship between art, labor, and environment generates specific aesthetics, temporalities, spatialities, and relationalities, challenging conventional structures of production, extraction, and circulation in the neoliberal art circuit while influencing the subjectivation of the artworker. This study asks: Is it possible to produce (art) differently? If so, where, and under what conditions? What is the identikit of today’s artworker? How can we counter the culture of unsustainability at work and in relation to the environment without replicating neoliberal and neocolonial dynamics or exacerbating artistic precarity?

#art-work, #ecosystem practices, #italian ruralities

Captions

Figure 1 - Désanges, G. (2023). On Institutional Permaculture. For a Living and Productive Site of Contemporary Creation. Palais de Tokyo, graphic reworking by the author.

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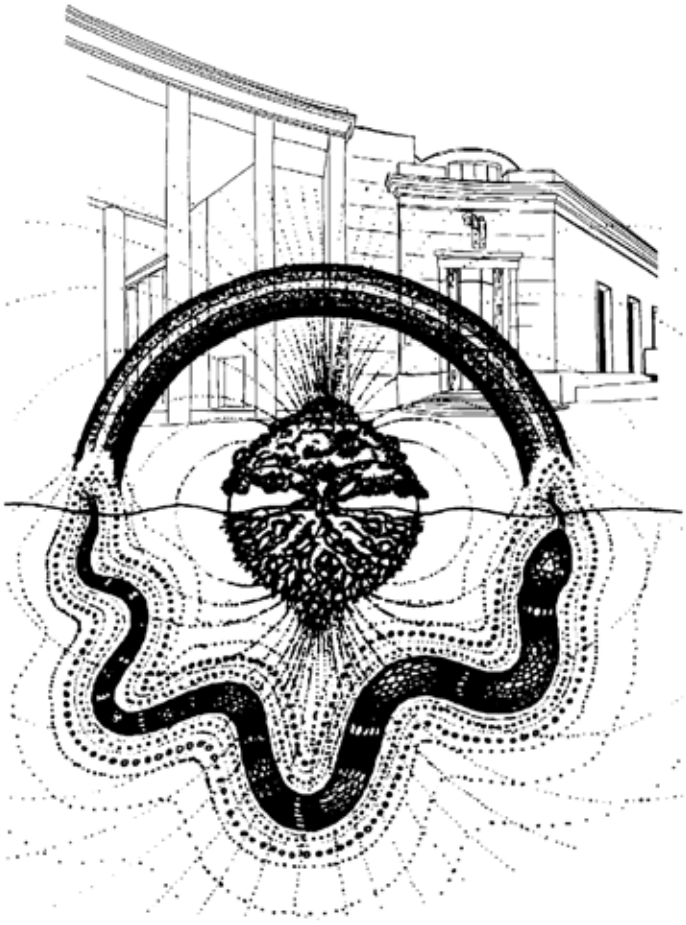
VISIONARY LANDSCAPES
THE TRANSFORMATION
NATURE, CULTURE, & ECONOMICS
Living on the Water
Ecological Acquaculture
Living Machines & Restorers at work
Farms, Forests & Re-inhabiting the Rural Landscape
The Rise of an Ecological Economy & Culture
Urban Farms & Ecology in the City
Ecological Industrial Parks, Biomimicry & the Transformations of Manufacturing
Redesigning the Campus Community



Trans-Species Labor and the Production of Techno-Ecologies. Architecture of Silk in East Asia

Giorgia Greco



Cycle	39th
Supervisors	Michele Bonino, LIU Jian
Research Group	China Room

Captions

Figure 1 - Drawing by the author.

Sources

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How can we challenge the anthropocentric narratives embedded in Western models of modernization that have reduced nature to capital, and architecture as a device for biological control and exploitation?

The refined glow of silk both seduces and deceives, but beneath its aura of luxury and sustainability lies an economy of bodies—human and non-human—steered by capital interests, policies and cultural narratives that shape architectures and landscapes.

This research, grounded in post-human, post-natural, and ecofeminist thought, proposes looking at modern and contemporary sericulture as a microcosm of global tensions: domesticated silkworms (Bombyx mori), hybridized mulberry trees (Morus alba), rural communities and ethnic minorities, all labor forces under capitalism, where architecture acts as device of power and biological control. How can we decode the invisible?

Three acts, three parallel explorations.

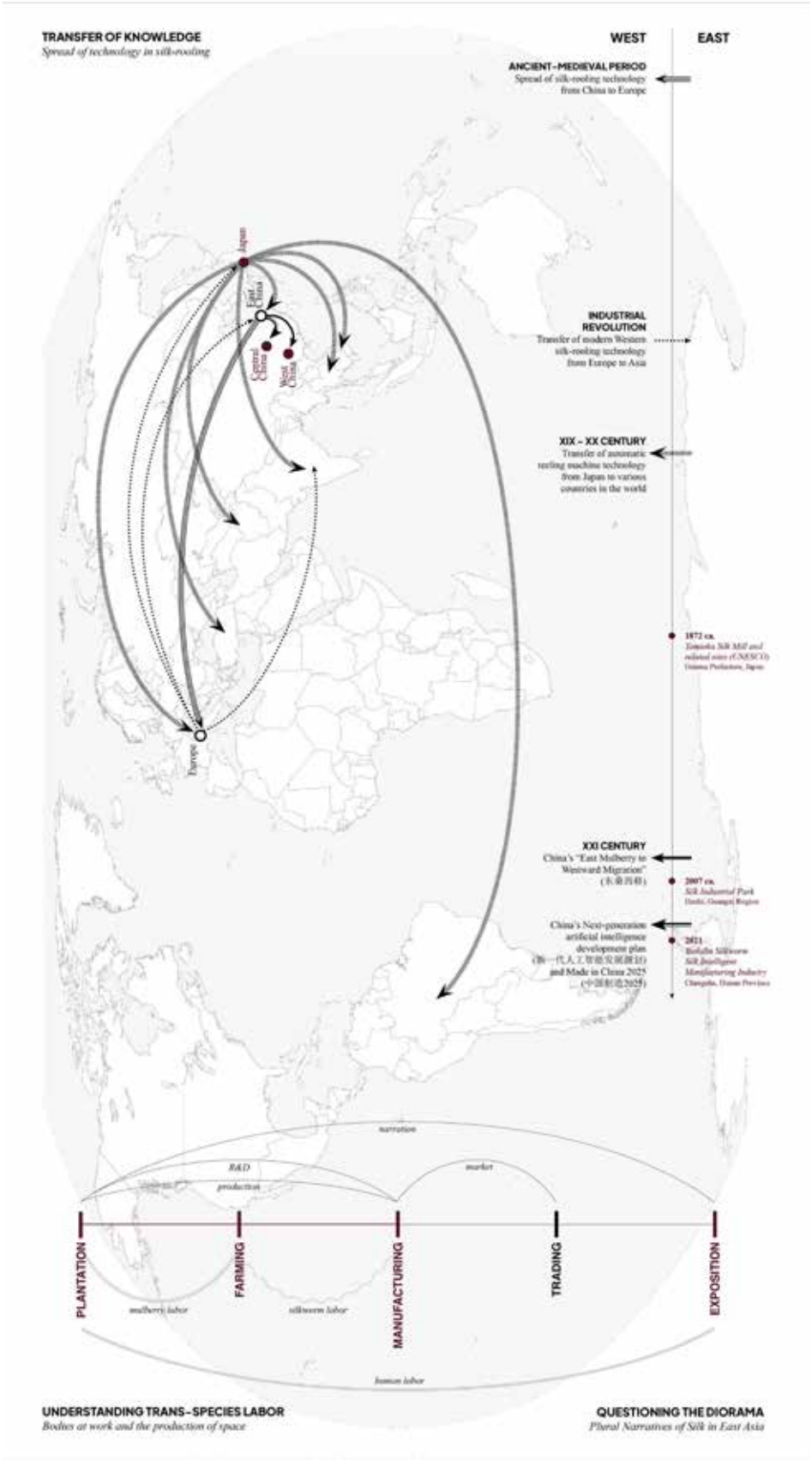
In the first act—Mapping Techno-Ecologies of Silk, I explore three paths in different time and space that moved silk technology from modern Japan to contemporary China. From the Japanese Tomioka Silk Mill (Gunma)—UNESCO heritage—to the Chinese massive production in Hechi (Guangxi) and the high-tech industrial park in Changsha (Hunan), a mosaic of spatial-devices emerges: extensive monocultures, automated ruralities, robotic machineries, humans and non-humans forced to align with capital logics.

In the second act—Understanding Trans-Species Labor, the aim is revealing how silk arises from an interplay of lives: mulberry trees, driven to optimize photosynthesis; silkworms, designed to spin cocoons within perfectly controlled conditions; and human workers, often gendered and marginalized communities. How is this labor producing space? If we conceive architecture as the backbone that materializes the sericultural production system—from plantation to manufacture—it becomes an assemblage: one vast hybrid body. This thermodynamic choreography extends the architectural body well beyond formal design: air, humidity, light, and even the DNA of other species come into play. A microcosm of a techno-biological capitalism feeding off living intelligence without granting it any real dignity.

In the third act—Questioning the Diorama, I focus on museums and exhibitions and try to challenge the grand narrative that envelop silk. Considering Yuk Hui's condemns of technological neocolonialism through globalization and Frédéric Neyrat's spectral ecology, the aim is to explore a plurality of counternarratives of muted and invisible voices: new ruralities and hyper-technological landscapes, ethnic minorities absorbed into a "global" economy, silkworms and mulberries treated as biological automata.

Within the current ecological crisis, the architecture of silk reveals itself not just in the shape of landscapes, factories or museums, but as a controversial tool that regulates the lives of humans and more-than-humans. Thus, silk becomes a "mirror" of a broader global system, encapsulating the fault lines between capital, living labor, the environment, and the embedded storytelling. This research calls for a critical reading of the silk chain and, by extension, the way we build our world. In an era shaped by neoliberalism, ecological tensions, and technoscientific dominion, the need for counternarratives is inescapable. Silk, in all its deceptive delicacy and symbolism, uncovers patterns of power and environmental manipulation: understanding how Western technocracy invested this industry means recognizing how global capitalism subordinates nature to a factory of bodies. This goes beyond academic debate: it becomes a tool for demystification, revealing the crucial role of architects as designers in fabricating both material and immaterial realities. Examining it up close means opening paths to alternative worldviews, in which humans and non-humans might truly share space.

#trans-species, #techno-ecologies, #silk-narratives


TRANSFER OF KNOWLEDGE
Spread of technology in silk-reeling
WEST
EAST
ANCIENT–MEDIEVAL PERIOD
Spread of silk-reeling technology from China to Europe
Japan
East China
Central China
West China
Europe
INDUSTRIAL REVOLUTION
Transfer of modern Western silk-reeling technology from Europe to Asia
XIX – XX CENTURY
Transfer of automatic reeling machine technology from Japan to various countries in the world
1872 ca.
Tomioka Silk Mill and related sites (UNESCO)
Gunma Prefecture, Japan
XXI CENTURY
China's "East Mulberry to Westward Migration"
2007 ca.
Silk Industrial Park
Huzhu, Guangxi Region
China's Next-generation artificial intelligence development plan
and Made in China 2025
2021
Baiyalin Silkworm
Silk Intelligent Manufacturing Industry
Changsha, Hunan Province
narrative
R&D
production
market
PLANTATION
FARMING
MANUFACTURING
TRADING
EXPOSITION
mulberry labor
silkworm labor
human labor
UNDERSTANDING TRANS-SPECIES LABOR
Bodies at work and the production of space
QUESTIONING THE DIORAMA
Plural Narratives of Silk in East Asia

Navigating Porosity: Redefining Urban Morphological Tools through Ambiguous Edges

Ezgi Nur Güngör



Cycle	39th
Supervisors	Marco Trisciuoglio
Research Group	Transitional Morphologies

How can the concept of porosity be redefined within urban morphology to analyze the formation, transformation, and adaptive capacity of urban form in contemporary cities?

This research redefines porosity within the framework of urban morphology to analyze the formation and transformation of ambiguous edges and enclaves in cities. Traditionally, urban morphology has centered on urban fabrics—the structured patterns of built environments—while largely neglecting in-between spaces that resist formal integration. Shaped by neoliberal urbanization, these spaces emerge at the peripheries of urban fabrics, often materializing as accumulations of mega-plots. This study argues that understanding the adaptive capacity of these spaces is key to analyzing the evolution of contemporary cities.

Building on the work of Walter Benjamin, who first used porosity to describe architectural thresholds that facilitate social interaction, various scholars engage with a range of theoretical perspectives through porosity. Scholars such as Stavrides, Sennett, Wolfrum, Hein, Moretti, Maas, Pessoa et al., Dovey, Allen, and Waldheim have applied porosity to themes including social networks, permeability, visibility, and landscape urbanism. More recently, Paola Viganò conceptualized porosity as an urban agenda, distinguishing between porosity of fracture—which refers to discontinuities and breaks in the urban fabric—and porosity of material, which describes the flexibility of urban environments to accommodate change. Despite these interpretations, porosity remains an open-ended concept, making it a productive analytical tool for studying contemporary urban transformations.

Through a case study of Istanbul, Ankara, and İzmir, this research explores how urban voids—once peripheral to structured urban fabrics—have transformed into enclaves due to large-scale speculative development. Since the 1980s, Turkish cities have been shaped by neoliberal planning policies, which have prioritized market-driven urbanization over historical continuity. As a result, large-scale plot developments have proliferated, often replacing urban voids without fully integrating into their surroundings. This shift replaced the serial typological development of Turkish cities—once characterized by apartment blocks as the dominant habitat—with a disjointed accumulation of building types, including towers, high-rise point block clusters, and plinth buildings, lacking any typological continuity. These spaces, initially forming the edges of urban fabrics, thus, have become ambiguous urban boundaries, and in many cases, they are now evolving into enclaves—territorially distinct zones disconnected from their broader urban context.

To systematically examine these transformations, this research proposes a catalog of ambiguous edges, mapping different forms of porosity across Turkish cities. By analyzing large-scale plot patterns and their typological relationships with building forms, the study identifies spatial and temporal variations in porosity, revealing how urban voids are reshaped through speculative processes. This methodological approach challenges the rigid frameworks of traditional urban morphology, which have historically categorized cities into fixed morphological units based on Western urban experiences. While these models have been effective in European cities with regulated planning, they struggle to capture the fluid, fragmented, and often unpredictable nature of urbanization in the Global South.

By reassessing the foundational principles of urban morphology, this research provides a framework for understanding cities shaped by emergent enclaves and speculative urbanization. It emphasizes the need to move beyond fixed typologies and develop new morphological tools that account for the evolving complexities of contemporary urban landscapes. Through the lens of porosity, this study contributes to broader discussions on urban adaptation, spatial fragmentation, and the transformation of city form in the age of neoliberal urbanization.

Captions

Figure 1 - Relation between porosity and urban morphology

Figure 2 - Form of porosity of fracture

Figure 3 - Plot-block types as representation of porosity of material

Figure 4 - Ambiguous edges of Istanbul

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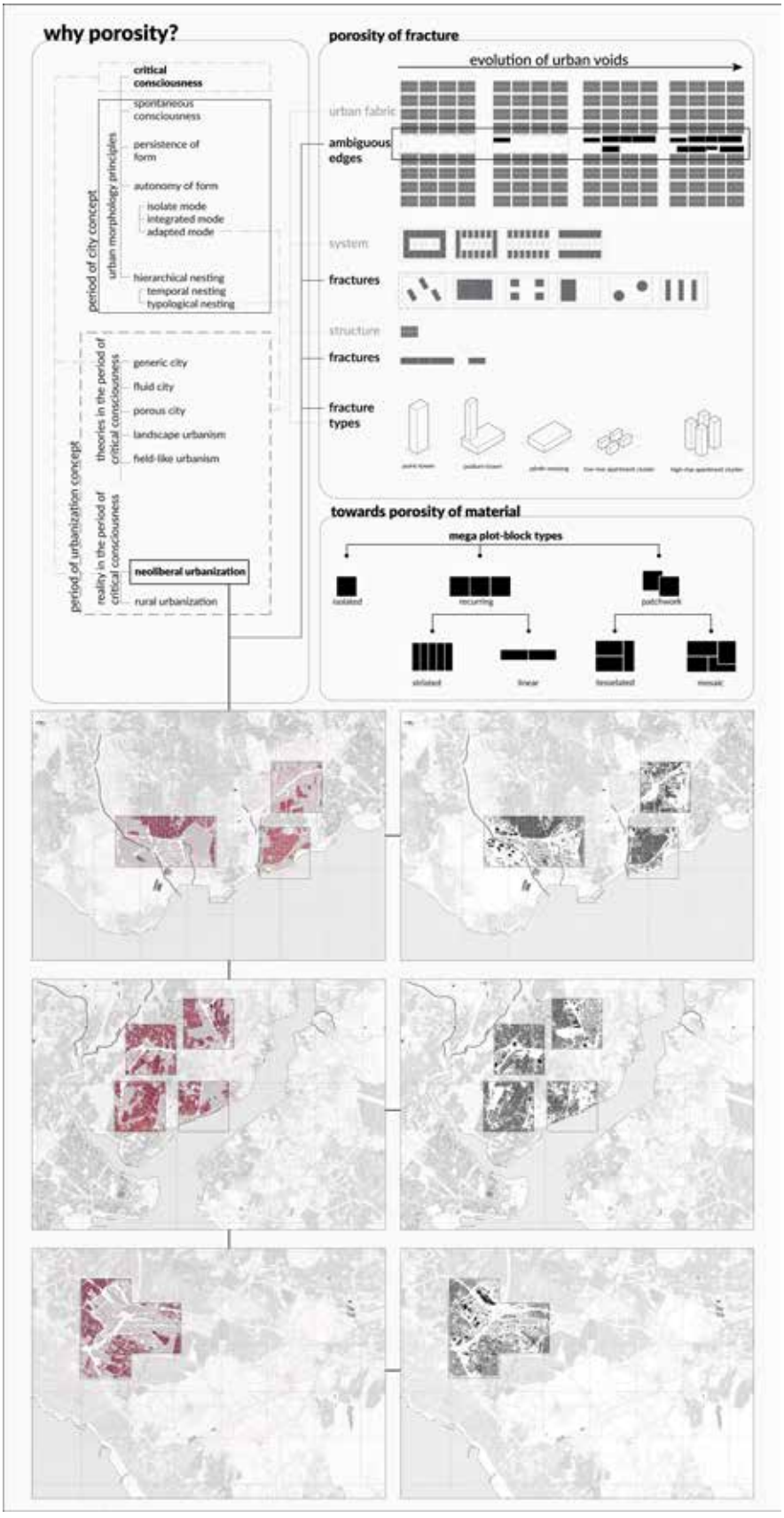
#porosity, #spatial morphology, #ambiguous edges


why porosity?
critical consciousness
spontaneous consciousness
persistence of form
autonomy of form
isolate mode
integrated mode
adapted mode
hierarchical nesting
temporal nesting
typological nesting
period of city concept
urban morphology principles
generic city
fluid city
porous city
landscape urbanism
field-like urbanism
theories in the period of critical consciousness
neoliberal urbanization
rural urbanization
reality in the period of critical consciousness
period of urbanization concept
porosity of fracture
evolution of urban voids
urban fabric
ambiguous edges
system
fractures
structure
fractures
fracture types
towards porosity of material
mega plot-block types
isolated
recurring
patchwork
striated
linear
fenestrated
mosaic

Typo-morphological Transitions of Core Areas in the Eastern, Western, and Southern Historical and Cultural Blocks of Luoyang Old Town

HU Ruotong



Cycle	39th
Supervisors	Marco Trisciuoglio
Research Group	Transitional Morphologies

How can a localized typo-morphological framework be Constructed to interpret the Typo-morphological transition of Luoyang Old Town and to propose Urban regeneration strategies grounded in Building typology and Urban mophorlogy continuity?

As one of the cradles of Chinese civilization, Henan Province has long held a central and influential position in China's political, cultural, and economic history. Throughout millennia, it has served as a heartland of dynastic power and a vital region for the continuous development of urban form, architectural traditions, and cultural identity. However, due to the combined effects of historical disruptions, prolonged economic decline, and institutional limitations, the protection and development of its historic and cultural districts—particularly in cities like Luoyang, the capital of thirteen dynasties—are now facing increasingly severe and complex challenges.

The Historical and Cultural Blocks in Luoyang Old Town still retain a rich typo-morphological structure characterized by traditional building types, spatial layouts, and layered cultural memory. These features make them one of the Central Plains region's most representative and historically valuable urban heritage areas. However, in recent decades, rapid urban expansion, insufficient and inconsistent funding, a persistent shortage of qualified professionals, and a general lack of public awareness and engagement have led to widespread neglect, progressive degradation, and, in some cases, irreversible destruction of these valuable historical assets.

This study focuses on Core Areas in the Eastern, Western, and Southern Historical and Cultural Blocks of Luoyang Old Town, examining their typo-morphological transition from the late 19th century to the present. It systematically investigates typo-morphological transformations across multiple dimensions, including route, built lot, building arrangement, structural arrangement, building type, and buildings and land utilization. The research adopts a cross-cultural analytical framework that integrates the typo-morphological theories of the Conzenian and Muratori-Caniggia schools, combining extensive field investigations in Luoyang, historical cartographic analysis, spatial mapping, and a mixed-methods approach involving both qualitative interpretation and quantitative measurement. Based on this integrated methodology, the study constructs an analytical framework tailored to the specific characteristics of Chinese historical and cultural blocks.

Theoretically, the research contributes to the localization and adaptation of typo-morphological theory in China, helping to bridge the gap between established Western models and Chinese urban realities. It proposes conservation and renewal strategies grounded in typo-morphological transition, offering a feasible model to support the adaptive regeneration and cultural revival of the Eastern, Western, and Southern Historical and Cultural Blocks of Luoyang Old Town. More broadly, the study responds to the imbalance between cultural richness and research scarcity in the Central Plains, aiming to establish a solid empirical foundation and conceptual basis for protecting and transforming historical urban areas in contemporary China.

Ultimately, this research seeks to formulate a regeneration framework that balances the transmission of historical value with the demands of contemporary urban vitality, contributing to the sustainable conservation and high-quality development of Luoyang's historical and cultural blocks.

Captions

Figure 1 - Evolution of Luoyang City, by the author, 2025.

Figure 2 - Roof Plans and Ground Floor Plans of Xiaoxihu, by Xiaoxihu Research Group, 2025.

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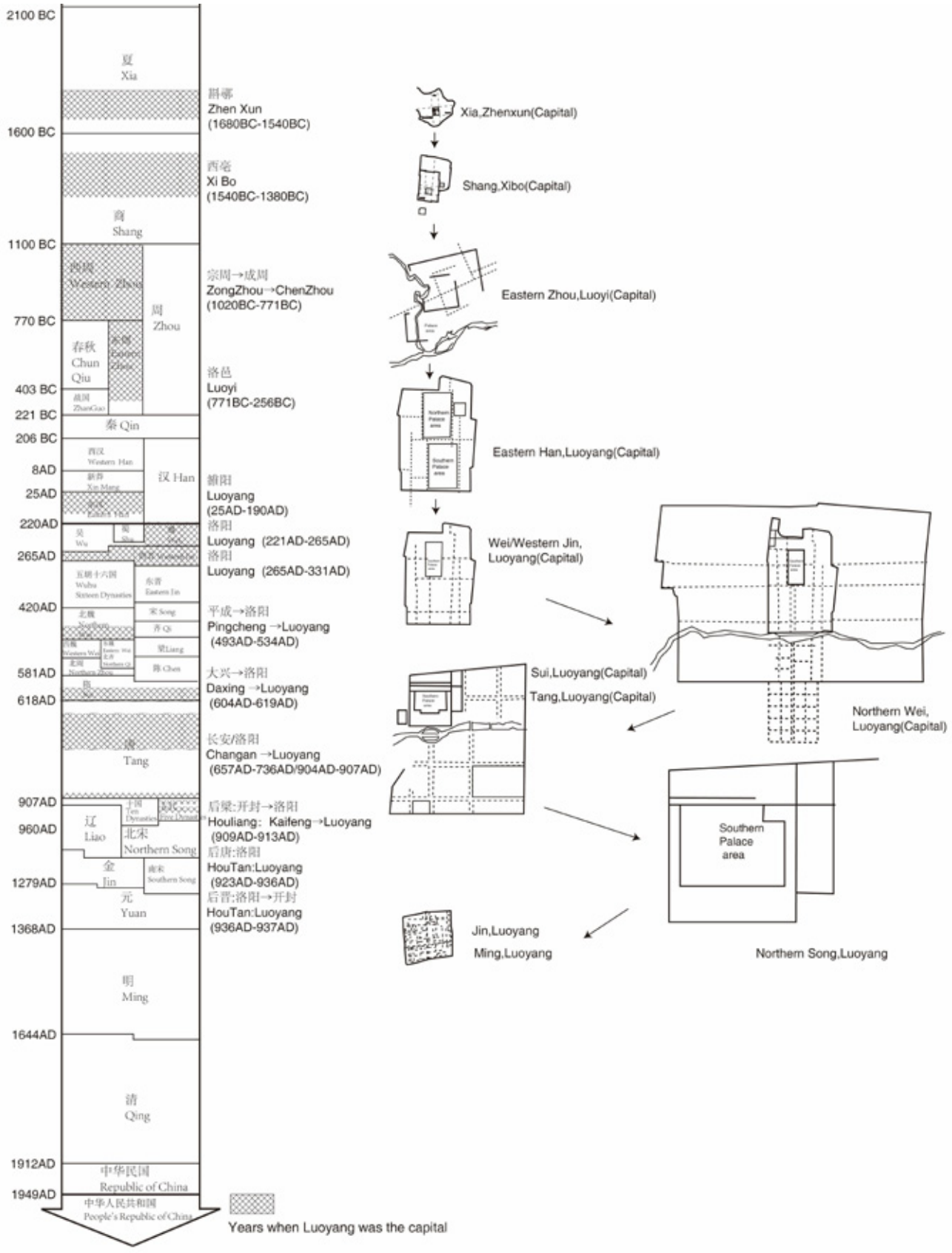
#luoyang old town, #typo-motphology, #transition


2100 BC
夏
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1600 BC
商
Shang
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周
Zhou
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Chun Qiu
东周
Eastern Zhou
403 BC
战国
ZhanGuo
221 BC
秦 Qin
206 BC
西汉
Western Han
新莽
Xin Mang
东汉
Eastern Han
汉 Han
8AD
25AD
220AD
吴
Wu
蜀
Shu
魏
Wei
265AD
西晋 Western Jin
五胡十六国
Wuhu Sixteen Dynasties
东晋
Eastern Jin
420AD
北魏
Northern Wei
宋 Song
齐 Qi
西魏
Western Wei
东魏
Eastern Wei
梁Liang
北齐
Northern Qi
北周
Northern Zhou
陈 Chen
581AD
隋
Sui
618AD
唐
Tang
907AD
十国
Ten Dynasties
五代
Five Dynasties
辽
Liao
960AD
北宋
Northern Song
金
Jin
南宋
Southern Song
1279AD
元
Yuan
1368AD
明
Ming
1644AD
清
Qing
1912AD
中华民国
Republic of China
1949AD
中华人民共和国
People's Republic of China
Years when Luoyang was the capital
斟鄩
Zhen Xun
(1680BC-1540BC)
西亳
Xi Bo
(1540BC-1380BC)
宗周→成周
ZongZhou→ChenZhou
(1020BC-771BC)
洛邑
Luoyi
(771BC-256BC)
雒阳
Luoyang
(25AD-190AD)
洛阳
Luoyang (221AD-265AD)
洛阳
Luoyang (265AD-331AD)
平成→洛阳
Pingcheng →Luoyang
(493AD-534AD)
大兴→洛阳
Daxing →Luoyang
(604AD-619AD)
长安/洛阳
Changan →Luoyang
(657AD-736AD/904AD-907AD)
后梁:开封→洛阳
Houliang: Kaifeng→Luoyang
(909AD-913AD)
后唐:洛阳
HouTan:Luoyang
(923AD-936AD)
后晋:洛阳→开封
HouTan:Luoyang
(936AD-937AD)
Xia,Zhenxun(Capital)
Shang,Xibo(Capital)
Eastern Zhou,Luoyi(Capital)
Eastern Han,Luoyang(Capital)
Wei/Western Jin,
Luoyang(Capital)
Sui,Luoyang(Capital)
Tang,Luoyang(Capital)
Northern Wei,
Luoyang(Capital)
Southern
Palace
area
Northern Song,Luoyang
Jin,Luoyang
Ming,Luoyang

Optimizing Health-Supportive Domestic Cooking Spaces (Kitchens): an Ergonomics and Movement Biomechanics Study

JIN Shuang



Cycle	39th
Supervisors	Francesca Frassoldati, Michele Bonino,CHENG Xiaoqing
Research Group	China Room

How can domestic kitchen environments be ergonomically optimized to support users' health, comfort, and physical capabilities, and what evidence-based design criteria can be derived through the integration of user behavior analysis and movement biomechanics?

This doctoral research investigates the optimization of health-supportive domestic cooking spaces through the integrated lens of ergonomics and movement biomechanics. In response to the increasing awareness of kitchen-related discomforts and health challenges, this study aims to provide a scientific foundation for refining the spatial design of kitchens to accommodate diverse physical needs, particularly in aging societies.

Beginning in January 2023, a nationwide field investigation was conducted across 38 households in various provinces and municipalities of China. All residences were occupied post-2000, ensuring relevance to contemporary housing stock. The research methodology combined in-home observations, architectural documentation, semi-structured interviews, and a tailored questionnaire to assess residents' spatial usage and lived experiences. Detailed floor plans were drawn, photographic and video records were collected, and behavior-specific data were gathered to capture everyday challenges in domestic environments. Kitchens, consistently identified as critical yet problematic spaces, revealed a range of ergonomic shortcomings. Commonly reported issues included insufficient storage due to increased appliance density, awkward or hazardous reaching postures, physical strain during food preparation, limited spatial flexibility for cooperative cooking, and fatigue-related discomfort—especially among older users or individuals with differing statures.

These findings prompted further inquiry into what constitutes a health-supportive cooking environment and how to scientifically quantify spatial-user interactions. Between 2023 and 2024, an ergonomics-based experimental study was conducted. Participants of various ages and genders were invited to perform simulated full-cycle cooking tasks in prototype kitchen mock-ups. Real-time body movement data were captured using wearable inertial motion capture devices and dual-angle video systems. A dynamic spatial-behavior model was developed through motion reconstruction platforms, enabling in-depth analysis using principles from movement biomechanics.

Preliminary experimental results reveal significant age- and ability-related variations in movement patterns. Compared to younger participants, older adults exhibited specific compensatory or risk-prone behaviors. For example, some required continuous physical support (e.g., leaning on countertops) to maintain balance, while others demonstrated high-risk backward-leaning postures when retrieving items from overhead cabinets. Such insights highlight the limitations of conventional kitchen designs and underscore the necessity of nuanced, evidence-based adjustments that account for physical diversity and changing bodily capacities.

By integrating qualitative lived experiences with quantitative biomechanical data, this research offers a multidimensional understanding of how domestic kitchen environments can be more inclusively and supportively designed. The findings contribute to the broader discourse on age-friendly housing and human-centered spatial design, providing both conceptual and technical frameworks for improving everyday domestic health outcomes.

This research is currently ongoing, with additional data collection and analysis expected to further strengthen the evidence base.

Captions

Figure 1 - Kitchen Challenges & Samples in China, by the author, 2024–25.

Figure 2 - Photograph & drawing of participant performing cooking task inkitchen, by the author, 2024.

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#health supportive, #cooking, #spatial optimization





Real-time human skeletal data acquisition from an 80-year-old subject using inertial motion capture technology. (with ethical review)

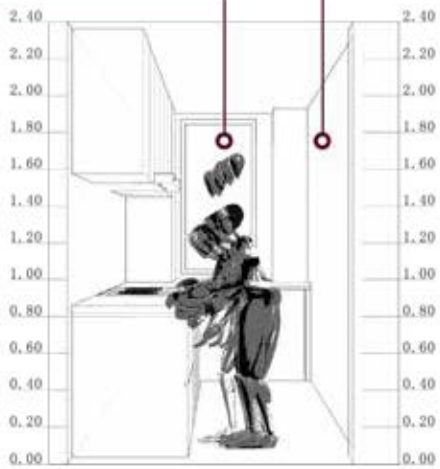




Cooking task experiment conducted in a residential kitchen of a newly built (2022) Beijing apartment. Dual-angle video recording was implemented on-site.



Fit the dynamic 3D skeleton of the subject to spatial model



Unveiling the Ground(line) Hidden Potential. A Morphological Analysis of Torino's Threshold and its Role in Shaping the City's Identity.

Caterina Juric



Cycle	39th
Supervisors	Marco Trisciuoglio, Mauro Berta
Research Group	Transitional Morphologies

How does the groundline function as a dynamic threshold in the morphological evolution of the city, and what impact does it have on urban design, with particular reference to the case of Turin?

This research explores the groundline as a dynamic threshold in the morphological evolution of the city, investigating its role in shaping urban space and mobility. In traditional city models, the groundline is often conceived as a static boundary between the built environment and the sub-surface. However, this study challenges this notion by examining how the ground line shifts over time due to excavation, adaptation and construction altering the spatial and social dynamics of the city. The research investigates the interplay between solids and voids, the creation of lost spaces, and the impact of underground mobility on urban form. Particular attention is paid to the relationship between surface and underground spaces, exploring their historical, social and political implications. By applying this framework to the city of Turin, the study assesses the impact of underground infrastructure on land use, property values and accessibility. Ultimately, this research offers new perspectives on urban planning, arguing for an integrated design approach that considers the evolving nature of the ground in contemporary cities.

The concept of the subsoil focuses on the human experience of what lies beneath our feet. This contrasts with the notion of landscape, which evokes a sense of frontality, representing everything within our line of sight. The subterranean, however, remains hidden. Thus, there is an apparent opposition between landscape and subterranean: the landscape is the space we can immediately perceive and articulate, whereas the subterranean requires time and exploration. Therefore, the superficial urban landscape changed its form with underground transport, defining a space based on its temporal achievement. It created a city that could no longer be assimilated as a unicum but as separate areas that could only be ideally connected.

Since the beginning, humans have had a complex relationship with the underground, initially perceived as a place of darkness and danger. In ancient Greece, for instance, Hades (ἀ- ἰδ, "invisible") ruled the realm of the dead, a world hidden from sight that reinforced the cultural fear of what lay beneath the earth. Through a historical analysis of underground urbanism and a focus on the vertical layering of the subterranean city, the research introduces a new perspective to analyse the city as a three-dimensional object. By the concepts described in the Figure-Ground Theory introduced by Trancik et al. (1990), the study seeks to understand the relationship between different areas and levels in the city. The usual relationship between solids and voids in the two-dimensional city is extended to the vertical, creating a paradox: what is usually perceived as solid above ground is represented as void underground, and vice versa. Furthermore, the ground line, which serves as a boundary in traditional figure-ground analysis, becomes a problematic threshold. Rather than acting as a simple divider, it highlights the ambiguity of interpreting solids and voids across vertical levels: it appears as a support for built forms but also defines a solid container for underground excavations. Moreover, the movement of the ground line has changed over the centuries, adapting to social and economic needs. If, from a geographical point of view, it is mainly influenced by the topography, historically and socially, the threshold has moved according to technological inventions such as the sewerage system, the lift or the need for anti-aircraft protection. These oscillations have brought about some changes in the perception of the ground: it has gone from being a spiritual object to be venerated in the traditional city to being the remnants of the Flood in the modern city and a structural reference in the contemporary world.

The city of Turin has been chosen as a case study, and through the study of its historical maps after the arrival of the underground line, the number of people using underground public transport, the changes in land use and the value of the land, it is provided with a mirror of how the city has changed according to the land transformations. Then, according to the results obtained, the previous ones are added to the new metropolitan line.

#groundline dynamics, #threshold shift in urban space, #subterranean spatial morphology

Captions

Figure 1 - Mundus subterraneous by Athanasius Kircher, 1865.

Figure 2 - The Map of Hell by Sandro Botticelli, 1480–1495.

Figure 3 - The Otis Bulletin: Special 125th Anniversary Edition by Otis Elevator Comapny, 1978.

Figure 4 - Nuova Topografia di Roma by Giambattista Nolli, 1748.

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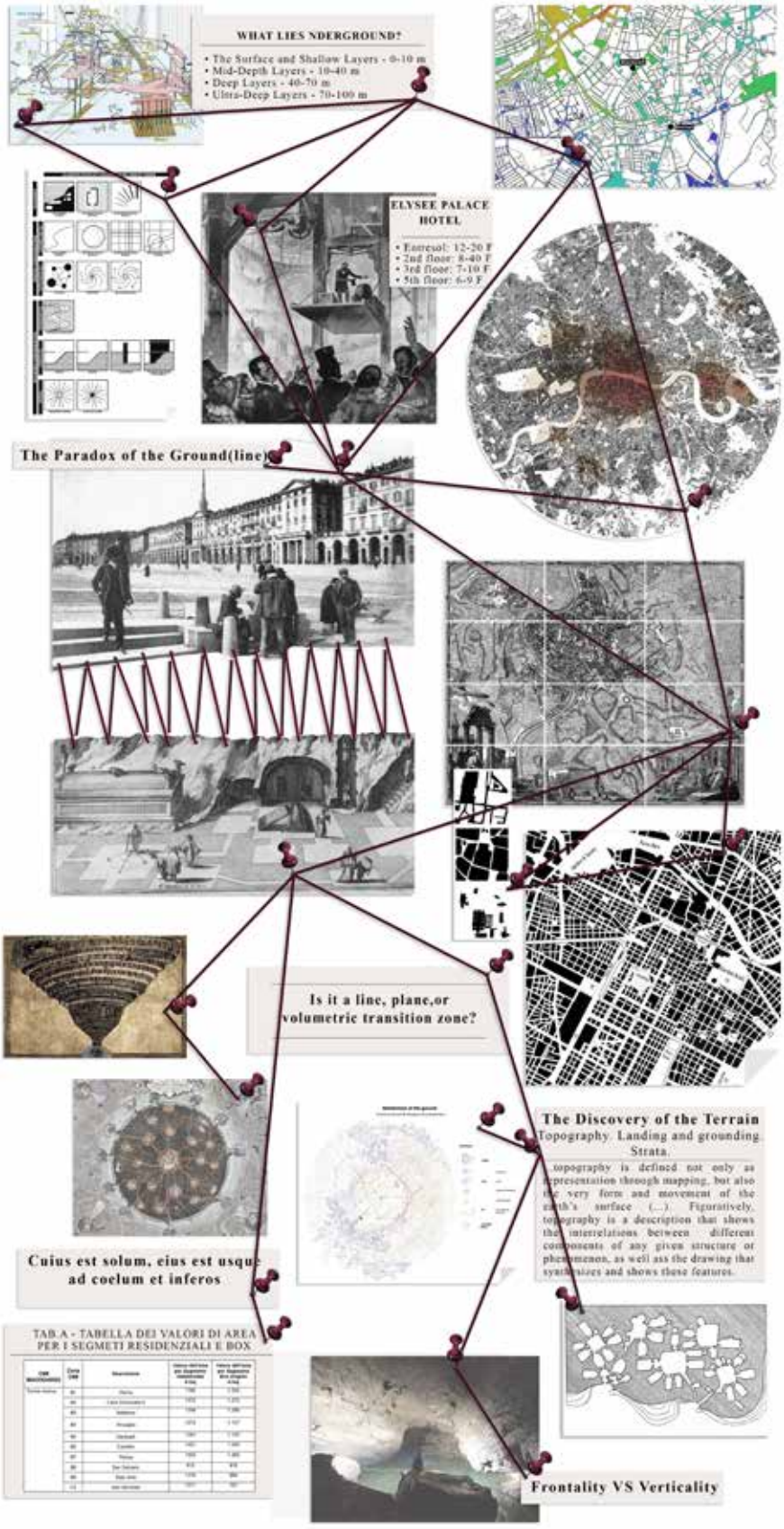
WHAT LIES NDERGROUND?
• The Surface and Shallow Layers - 0-10 m
• Mid-Depth Layers - 10-40 m
• Deep Layers - 40-70 m
• Ultra-Deep Layers - 70-100 m
ELYSEE PALACE HOTEL
• Entresol: 12-20 F
• 2nd floor: 8-40 F
• 3rd floor: 7-10 F
• 5th floor: 6-9 F
The Paradox of the Ground(line)
Is it a line, plane,or volumetric transition zone?
Cuius est solum, eius est usque ad coelum et inferos
The Discovery of the Terrain
Topography. Landing and grounding Strata.
topography is defined not only as representation through mapping, but also the very form and movement of the earth's surface (...). Figuratively, topography is a description that shows the interrelations between different components of any given structure or phenomenon, as well ass the drawing that synthesizes and shows these features.
TAB.A - TABELLA DEI VALORI DI AREA PER I SEGMETI RESIDENZIALI E BOX
Frontality VS Verticality

Public Art Intervention in Industrial Heritage: Multi-Criteria Evaluation Frameworks

LIU Yuxuan



Cycle 39th

Supervisors Rossella Maspoli, Harry den Hartog

How can public art contribute to the regeneration and reinterpretation of industrial heritage sites in post-industrial urban contexts, and how can Multi-Criteria Evaluation Process frameworks be effectively applied to assess its value and performance in regeneration projects of such sites?

Public art is a dynamic and multifaceted cultural practice that transcends mere aesthetic embellishment, actively engaging with the socio-spatial, historical, and political dimensions of urban environments. Scholars such as Liu Yongtao (2010) have highlighted its capacity to serve as a powerful medium for environmental requalification, landscape enhancement, social cohesion, and cultural continuity—bridging contemporary urban life with historical narratives through creative interventions. This theoretical framework is further enriched by Miwon Kwon's (2002) seminal work on site-specificity and locational identity, which emphasizes the crucial importance of contextual relevance and community participation in contemporary public art.

Public art in post-industrial settings can contribute to collective memory, identity construction, and the democratization of public space. It is also a means of reclaiming post-industrial ruins, transforming them into spaces of dialogue and cultural productivity. The evolving nature of public art, from monumental sculptures to participatory, process-based works, reflects its responsiveness to complex urban and socio-political conditions.

Several case studies demonstrate the transformative potential of public art in post-industrial regeneration:

Internationale Bauausstellung Emscher Park, Germany: Art and design interventions have redefined disused coal and steel sites into cultural landscapes, integrating industrial relics into new urban narratives. This transformation not only preserved the region's industrial heritage but also created vibrant public spaces that attract visitors and foster local pride.

Shanghai Yangpu Riverside, China: Site-specific installations have revitalized former factories and warehouses, blending historical preservation with contemporary cultural programming. This integration of art and heritage has transformed the area into a thriving cultural district, contributing to both economic revitalization and social cohesion.

Bethlehem Steel Stacks, USA: The Bethlehem Steel Stacks Arts & Cultural Campus exemplifies the adaptive reuse of an iconic steel mill complex. Through the incorporation of performance spaces, sculpture, and illumination, the site has been reimagined as a creative and communal space, preserving the industrial legacy while fostering cultural and economic regeneration.

Case studies demonstrate that public art can play a key role in post-industrial regeneration. Art interventions preserved industrial heritage, enhanced spatial quality, and activated public space. They fostered local identity, community engagement, and social cohesion while promoting economic revitalization through cultural tourism and creative industries. These examples show that context-sensitive, participatory public art contributes to sustainable urban renewal. The findings support the need for a multi-criteria evaluation framework to assess the diverse impacts of public art in industry heritage regeneration.

At present, there is no standardized methodology in the literature that comprehensively analyzes the role and overall impact of public art in post-industrial regeneration. Traditional evaluation methods often fail to capture the full range of outcomes associated with such interventions. This study aims to develop a multi-criteria evaluation framework to explore methods for assessing the impacts of public art projects on industrial heritage.

Captions
Figure 1 - Learning content frameworks

Sources
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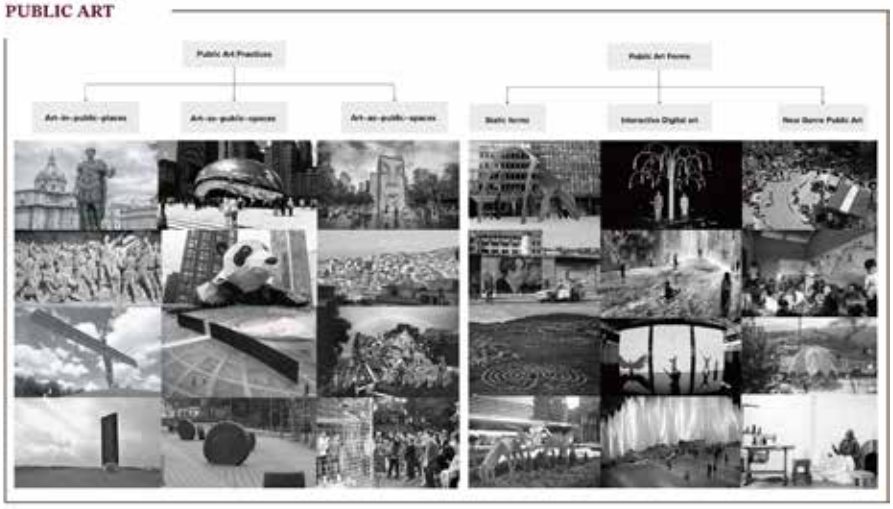
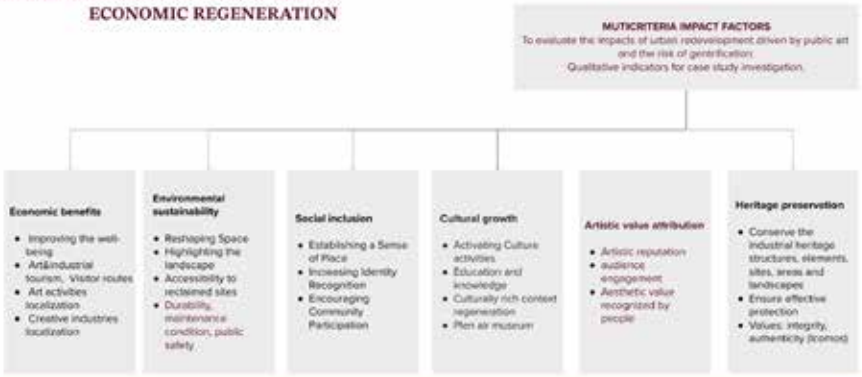
#public art, #industry heritage, #evaluation

PUBLIC ART

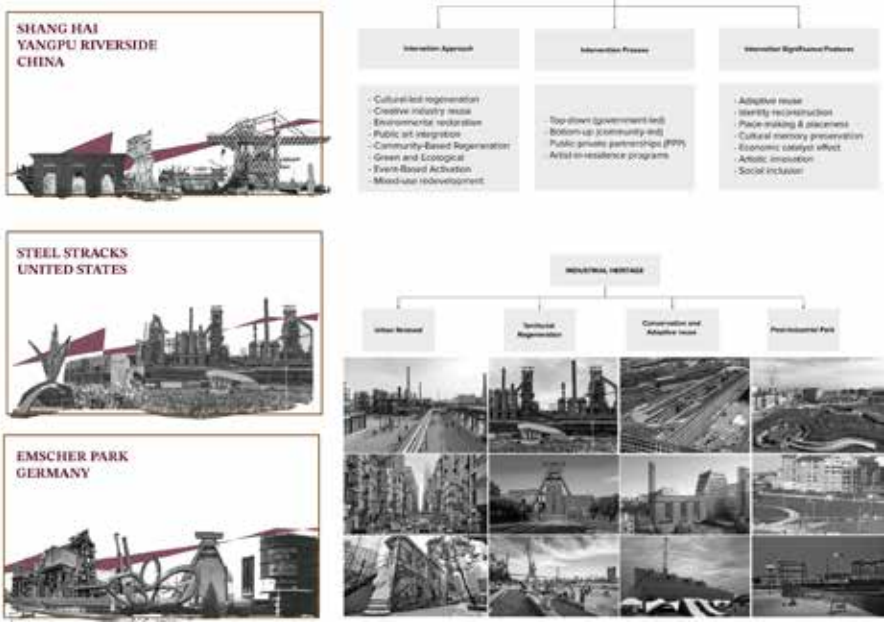


PUBLIC ART ROLES IN CULTURAL AND ECONOMIC REGENERATION



INDUSTRIAL HERITAGE

CASA STUDIES:



The Form of the Image. Mapping the Urban Fabric in its Narrative Perception.

Alessandro Lovisolo



Cycle	39th
Supervisors	Marco Trisciuoglio
Research Group	Transitional Morphologies

How can the relationship between Urban Morphology and the Mental Perception of the city be mapped? What role do Ground-Floor Morphology and Spatial Patterns play in the development and persistence of Friction Spaces in the Urban Fabric?

The idea that urban form profoundly influences human spatial perception and the construction of a mental image has been extensively explored in urban studies since the mid-twentieth century. Starting from the so-called pseudo-scientific texts—as Karl Popper might describe them—of Gordon Cullen and Jane Jacobs, to Kevin Lynch's early theories on Mental Image, through Rudolf Arnheim's Gestalt-based studies on form dynamics, and finally to Giancarlo Motta and Antonia Pizzigoni's investigations into urban fragments, which draw methodological inspiration from Carlo Aymonino and Aldo Rossi.

The works of both the Muratorian and Conzenian schools also contain an implicit reference to mental and symbolic imagery concerning morphological studies. This underlying theme becomes even more evident in Augusto Cavallari-Murat's research on Turin and Alba in the 1960s and 1970s.

Despite this extensive theoretical foundation, no systematic and programmatic approach has been developed to map this relationship, resulting in a lack of graphic analyses capable of illustrating the phenomenon. This absence may explain why the relationship between urban form and collective perception remains generally overlooked in architectural and urban design practices.

Has the lack of a graphic corpus to illustrate this relationship in favour of a richer textual discourse contributed to the limited integration of the form-image relationship within design methodologies?

This question leads to the first research inquiry: How can the relationship between Urban Morphology and the Mental Perception of the city be mapped?

Addressing this question requires identifying a shared conceptual ground between the two fields: movement. Urban Morphology examines movement through history, while urban perception considers movement through everyday space and time. A focus on movement, tied closely to temporality, was explored in the same years through distinct methods: Muratori's morphological mappings and Cullen's Serial Vision.

Another crucial point of contact between these fields is the focus on building ground floors and their connection to public space, understood as a relationship between inside and outside, here and there. Despite being abstract and difficult to represent graphically, any mapping of this relationship must take these aspects as its starting point.

A similar concern was central to Cavallari-Murat, who, in 1976, regarding his drawings of Turin, argued for the need to "liberate urban-architectural design from the bureaucracy of descriptive geometry, favoured by topographers, and from the seductive pictorial representation of merely rhetorical and ornamental environmental aspects." He contended that topography has historically neglected the more immaterial aspects of the city, aesthetic and social characteristics essential to defining urban imagery despite their continual transformation.

The second research question emerges from a desire to shift the analytical focus from a predominantly historical perspective to one oriented toward the present and future. Examining Friction Spaces and marginal spaces within the built city situates this research within an operational analysis and classification system. This mapping explores the morphological and perceptual evolution of places and establishes a foundation for future urban developments.

In this sense, the research engages with the operational approach of typo-morphological analysis characteristic of Caniggian thought, integrating an emphasis on spatial perception. The resulting mapping remains fundamentally oriented toward design intervention as a critical starting point for further inquiry.

Captions
Figure 1 - Friction Spaces and Triggers in Porta Palazzo area, Turin, drawing by the author, 2025.
Figure 2 - Reverse Nolli Map and Path, Edge and Node in Porta Palazzo area, Turin, drawing by the author, 2025.
Figure 3 - Cavallari-Murat (1968), Urban Form and Architecture of the Torino Barocca.

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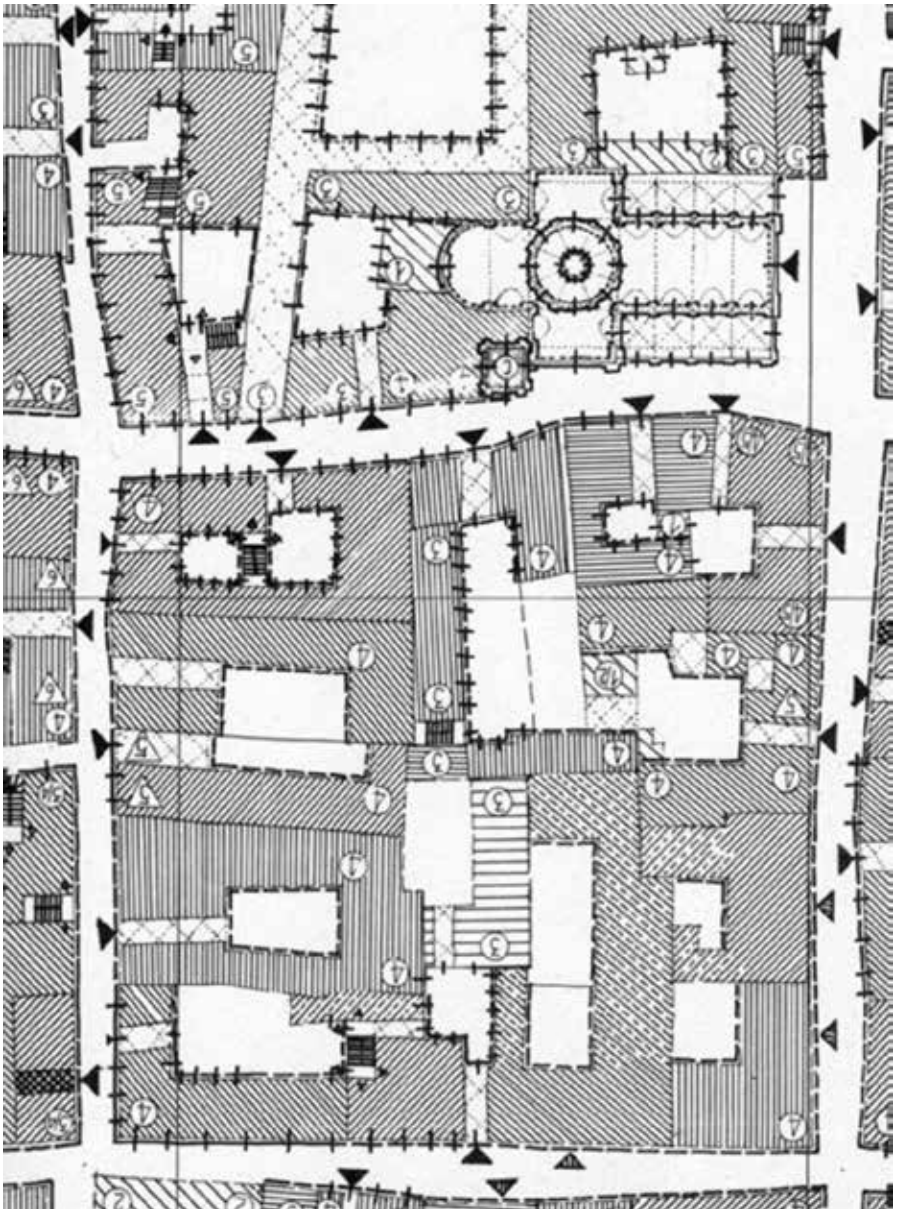
#friction spaces, #ground floor, #morphological map


EDGE
NODE
PATH



A Strategic Framework for Space Architecture. Navigating Social and Technical Realms

Marta Rossi



Cycle 39th

Supervisors Giovanni Durbiano, Valentina Sumini

How are space habitat design processes structured within the network of human and non-human actors, and how does architectural design operate within this system?

Over the last few decades, the space industry has witnessed considerable growth, marked by the rise of private space companies and the beginning of NASA's Artemis program, which aims to return humans to the lunar surface. As the space industry transitions into this new era, characterized by an expected increase in human presence in space, the role of space architecture is evolving.

Rather than assuming the existence of space architecture as a predefined discipline, this thesis investigates it as a practice with its own specific rules and methods, thus examining how space habitat design processes unfold within a highly structured sociotechnical environment. This leads to two key questions: How are space habitat design processes structured within the network of human and non-human actors in the space industry? In what ways does architectural design act within this network, and how does it interact with other actors involved?

The first official definition of space architecture was given in 2002 by a group of professionals and academics, which later became known as AIAA Space Architecture Technical Committee. During the Space Congress in Houston, this group established the principles and a definition of space architecture as the "theory and practice of designing and building inhabited environments in outer space" (Adams, C. et al., The Millennium Charter, 2002). While this definition provides a foundation, space architecture has developed through collaborations across the history of human spaceflight projects, with architects contributing to projects such as Salyut, Skylab, Mir, and the ISS. Over the years, new technologies have been explored to improve both technical requirements and habitability. The TransHab project, a NASA initiative for inflatable habitat technology, is an example of how architects played a role in bridging engineering and human-centered design. Today, with the rising interest in developing lunar, orbital, and Martian habitats, the question is not whether architects should be involved, but rather how their design actions operate within the larger system.

The technical dimension typical of space architecture represents a fundamental point to ensure survivability. However, the design of space habitats is not only a technical endeavor but also a product of social, economic, and geopolitical factors. By tracing the connections between these dimensions, this research shifts the focus to the actual mechanisms through which space habitats are designed. To do so, this research applies Bruno Latour's Actor-Network Theory (ANT) to map the intricate relationships between human and non-human actors in space habitat design. ANT's emphasis on complexity and plurality provides a framework for analyzing the interactions between architecture, technology, and policy in space projects.

Building on this theoretical framework, the research methodology consists of multiple approaches. First, it involves mapping human and non-human actors to understand the relational structure of space habitat design. This is followed by a survey to investigate which professionals currently participate in space habitat development and in what capacity, helping to identify patterns of involvement and contribution within the field. The survey will help identify participants that will be interviewed to further explore their experiences. Additionally, the research will incorporate ethnographic fieldwork within space companies and research facilities, such as Spartan Space, Thales Alenia Space, and LunAres Research Station, thus ensuring direct engagement with design and development processes.

By investigating the integration of architectural design within the space industry, this research traces how design activities shape the specific sociotechnical fabric of space habitat development. Ultimately, this research proposes a strategic framework that bridges the technical and socio-political dimensions of space architecture, offering a new perspective on the role of the architectural project and its effects within the field.

#space architecture, #geopolitics, # design process

Captions

Figure 1 - Diagram of the space habitat design network, by the author, 2025.

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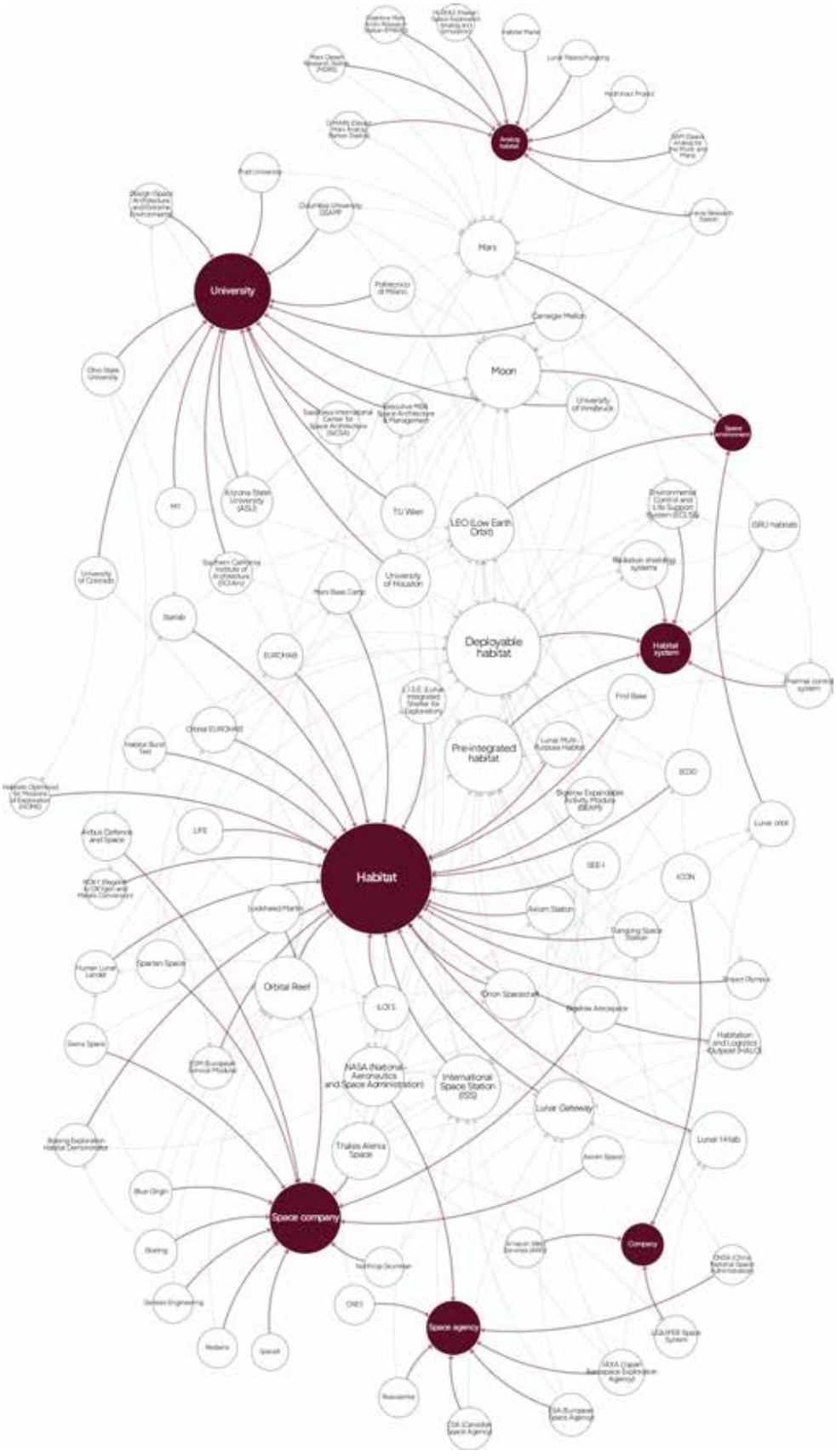
Habitat
Deployable habitat
Pre-integrated habitat
Habitat system
University
Space company
Space agency
Company
Analog habitat
Mars
Moon
LEO (Low Earth Orbit)
Space environment
NASA (National Aeronautics and Space Administration)
International Space Station (ISS)
Lunar Gateway
Orbital Reef
Axiom Station
Starlab
Voyager Station
Lunar Habitat
Lunar Gateway
Lunar Orbit
Lunar Surface
Mars Base Camp
Mars Desert Research Station (MDRS)
Haughton Mars Project
Lunar Research Station
Lunar Resupply
Lunar Mars Analog Mission Station
Mars Analog Research Station
Space Analog for the Moon and Mars
Haughton-Mars Project
Habitat Demonstration Unit
Habitat Optimized for Missions of Exploration (HOME)
Habitat Burst Test
Orbital EUROHAB
EUROHAB
Lunar Multi-Purpose Habitat
First Base
Lunar Surface Habitat
Habitation and Logistics Outpost (HALO)
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Lunar Surface Habitat
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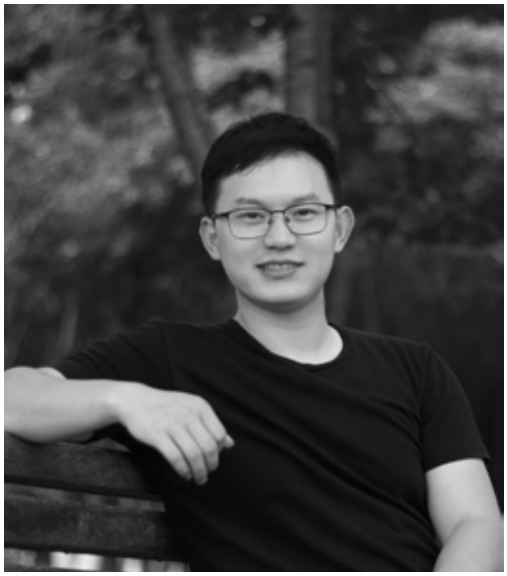
A Study On The Design And Notion Of Landscape Buildings In The Guilin Region Of China By Shang Kuo Based On The Beaux-Arts System

SHEN Pan



Cycle 39th

Supervisors Filippo De Pieri

How did Shang Kuo achieve localized development of Beaux-Arts in China through the design of Guilin landscape buildings?

During the political turmoil of the 1970s, normal construction in China came to a halt, paralyzing design units across the country and causing an unprecedented catastrophe in the field of architecture (Zou Denong et al. 2010) . In 1973, Guilin was designated as one of the 24 open cities for tourism by the State Council to strengthen diplomatic relations with foreign countries. The city of Guilin aimed to showcase and publicize socialist construction achievements, leading to numerous planning and landscape activities. Shang Kuo took this opportunity to create various types of landscape buildings in the 1970s, such as pavilions, gazebos, water pavilions, reception rooms, bonsai gardens, gates, bridges, etc. , which were rare during the "window period" of the national architectural industry at that time. Consequently, Yao Yanbin considers Shang Kuo as a representative of regional architecture in the 1970s, and his landscape building as emblematic of China's regional architecture from 1965 to 1979 (Yao Yanbin 2009).

As an architect educated in the Beaux-Arts system, Shang Kuo designed a series of landscape building works in Guilin. These landscape buildings demonstrate Shang Kuo's exploration of the localization of Beaux-Arts.One of the core meanings of Beaux-Arts (or "Academicism") represents a specific design style characterized by a set of procedural, methodological, and ideological principles(WANG Xiaoqian et al. 2021).In the early 20th century, the first generation of Chinese architects "transplanted" the Beaux-Arts system from the United States to China. the eclectic design approach of Beaux-Arts gradually changed, This marked the beginning of the localized development in China under different socio-political and cultural contexts (Wang Yanze et al. 2017; Gu Daqing 2007). Shang Kuo grew and developed during this stage, and research has discovered that he not only received education in the Beaux-Arts system but was also influenced by modernist notions (Shen Pan et al., 2020; Shen Pan et al., 2022).

This study primarily employs a case study approach within the framework of historical research methods. Firstly, this paper synthesizes the existing discussions within the industry regarding Shang Kuo's works, as well as Shang Kuo's descriptions of certain landscape buildings. Among approximately 16 landscape buildings designed by Shang Kuo during his 14-year period in Guilin starting from 1965, 6 main projects have been selected for case analysis. These projects include the Waterside Pavilion in Ludiyan, the VIP Reception Room in Ludiyan, the Waterside Pavilion in Shan Lake, the Bonsai Garden Water Pavilion in Seven Star Scenic Area, Bixu Pavilion in Seven Star Scenic Area, Building No. 4 in Rong Lake Hotel. Subsequently, based on research data from books, journals, architectural drawings from the Urban Construction Archives, field surveys, interviews, and other sources, the study analyzes cases based on the core elements of the Beaux-Arts system, including its composition, elements, and primary rules. A detailed analysis is conducted on the case examples in terms of the axis system of architectural plan composition, spatial composition, the architectural style of facade composition, and the principles of aesthetic form. Finally, the characteristics of Shang Kuo's Guilin landscape buildings and the design notion of Beaux-Arts are summarized, thus revealing a path for Beaux-Arts architecture to transition from tradition to modernity.

The research reveals that Shang Kuo's works exhibit three balanced choices of axis composition in their plans. He innovatively incorporates elements such as residential buildings, garden architecture, traditional Chinese art, and natural elements into the composition of his buildings, while emphasizing the harmonious integration of interior spaces and facades and adhering to the principles of aesthetic form. This study showcases the path of localizing Beaux-Arts architecture through Shang Kuo's landscape buildings in Guilin and contributes to the understanding of the development of modern Chinese architecture.

#landscape building, #beaux-arts, #composition

Captions
Figure1 - Guilin Location Map.
Figure2 - Asymmetrical composition of the landscape building of Ludiyan.
Figure3 - Analysis theParti of Shangkuo landscape Building.
Figure4 - Road map and viewpoint for enjoying the water pavilion at Ludiyan.
Figure5 - Analysis of Facade Composition of Landscape Building.
Figure6 - Diagram of the interior space combination of the reception room of Ludiyan.
Figure7 - Seven Star Scenic Area Bonsai Garden 1-5 space sequence diagram.
Figure8 - Scale analysis of Landscape Building.
Figure9 - A model of the "Beaux-Arts" design methodology for Shang Kuo.

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Figure 1



Figure 2

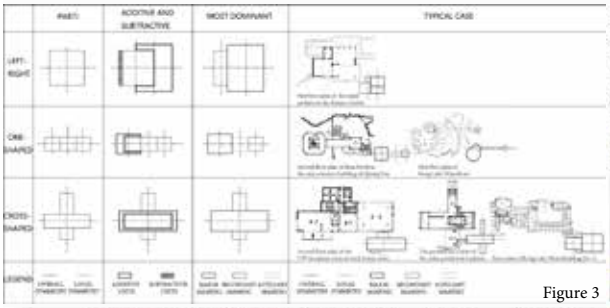

Figure 3

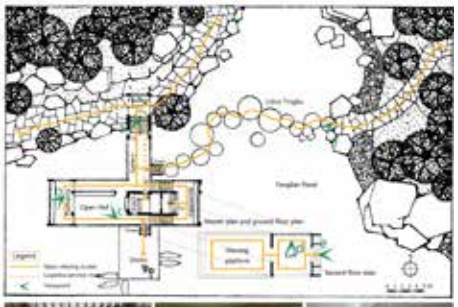



Figure 4

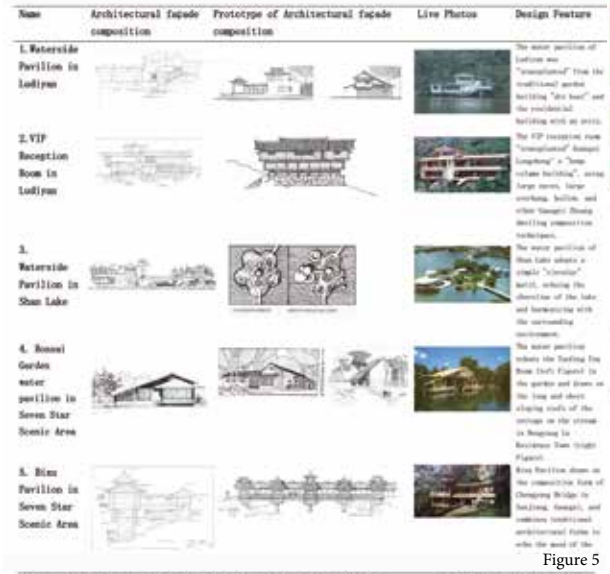

Figure 5

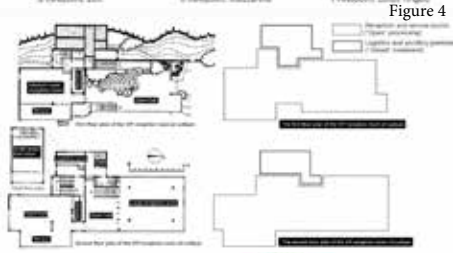

Figure 6



Figure 7

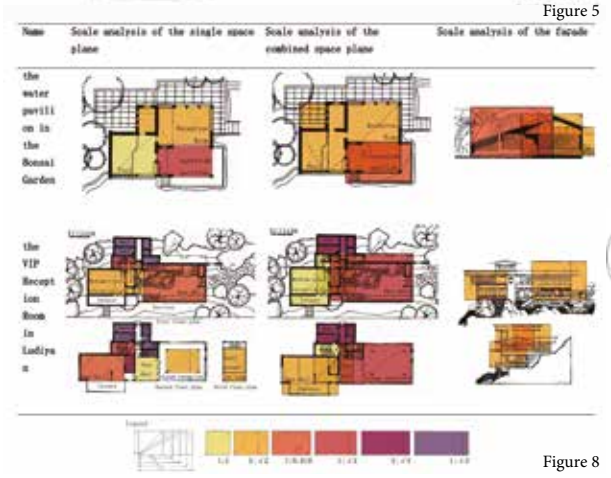

Figure 8

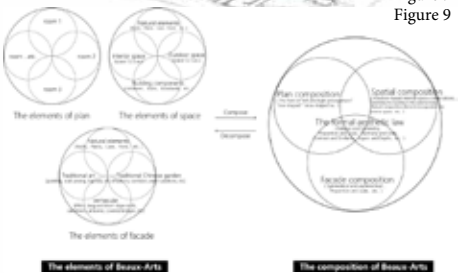

Figure 9

Contemporary Garden City. Alternative Design for Post-Growth Cities

Jowita Aleksandra Tabak



Cycle	39th
Supervisors	Elena Vigliocco, Justyna Zdunek-Wielgołaska
Research Group	FULL

Captions

Figure 1 - From Theoretical to Empirical: The Construction of a Hypothesis. Visual by the author, 2025.

Sources

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Ungers, O. M. with Marot, S. (2013). The City in the City. In Oswald Mathias Ungers and Rem Koolhaas. (1977). *The City in the City. Berlin: A Green Archipelago: A Manifesto*. Lars Müller Publishers. Original work published 1977. Reinhold.

Can radical design solutions transform underutilized and unused urban areas into new devices for the ecological and post-growth city?

The research project idea is inspired by the work of O. M. Ungers and R. Koolhaas from 1977, titled The City in the City: Berlin, A Green Archipelago (Ungers, 2013). This visionary and architectonic masterplan proposed a new approach to city development, emphasizing degrowth principles - designed around natural voids within the city, suggesting a potential reversal of urbanization trends to achieve a balanced relationship between built and natural environments. Building upon the design approach of Ungers and Koolhaas, the core concept of the research project is to envision a new city form for post-growth cities. By conceptualizing urban voids as integral components of the city's form, the aim is to foster a reevaluation of the notion of growth and cultivate synergies between urban life and nature. Moving beyond traditional dichotomies, starting from the heightened desire for nature catalyzed by the pandemic, the research rethinks and redefines the architectonic approach to the principles in the design of cities.

The study aims to develop an alternative model for post-growth cities by shifting the focus from solid structures to voids, emphasizing the revitalization and repurposing of neglected spaces as essential for urban regeneration. Drawing on both historical and contemporary studies, as well as city design theories and projects, it proposes an approach for transitioning into the post-growth era. By examining and conceptualizing urban voids, the research analyzes underutilized and unused urban spaces alongside the city's active, functional collective elements. Together, these components form a core—a "heart" of the city—a garden space that serves both human and non-human urban dwellers. Through a transformative, post-Anthropocene approach to the regeneration process, the study aims to propose radical solutions that not only involve the reuse of existing urban structures but also their subtraction (Easterling, 2014) from the city fabric as practical actions for a post-growth future.

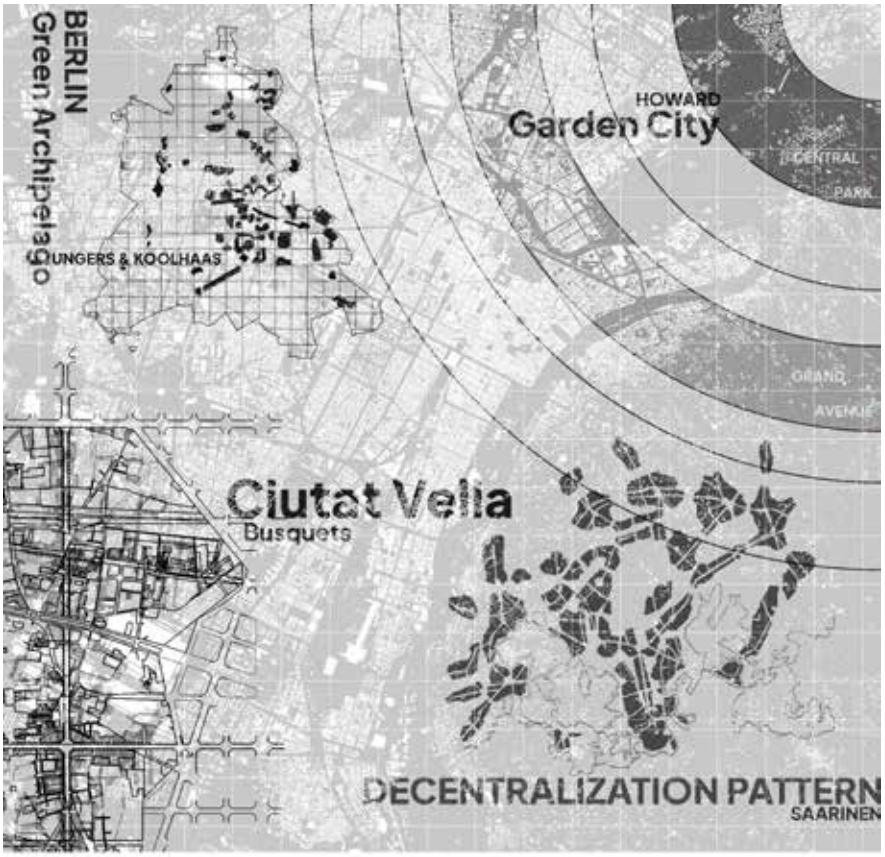
The research is divided into two overarching parts. The first part involves the formulation of hypotheses based on historical analysis, a literature review, urban theories, and studies. It includes examining urban development and analyzing cities' growth patterns and spatial transformations to understand the past and envision the future. It engages with and experiments on existing projects—such as Howard's Garden City, Saarinen's Decentralization Pattern, Ungers and Koolhaas's Green Archipelago masterplan, and Busquets' (2003) model of city, Ciutat Vella de Barcelona, along with plans and projects developed for the city between 2011 and 2015—as well as theories, including Trancik's (1986) theory of Lost Spaces and Koolhaas's concept of Junk Space.

hypothesis:

When reimagined through the new Contemporary Garden City Model, underutilized and unused urban areas, together with collective elements of the city, will transform into vital urban commons within green spaces, contributing to ecological regeneration and promoting a shift in societal values toward the post-growth era.

The second part focuses on developing a scientific model using case studies of Torino and Łódź, incorporating observations, experiments, verifications, and generalizations. This phase involves the analysis of the cities, including mapping common urban spaces and areas for redevelopment. Using Romano's (1993) abacus of collective themes—expanded to include contemporary urban objects and spaces—the cities are first analyzed from a positive perspective, identifying vibrant and functional urban elements. Subsequently, the research identifies hostile or underutilized areas for redevelopment—such as abandoned, lost, and junk spaces—assessing their potential for regeneration and integration into the urban fabric.

#urban voids, #subtraction, #radical design



theoretical framework

hypothesis

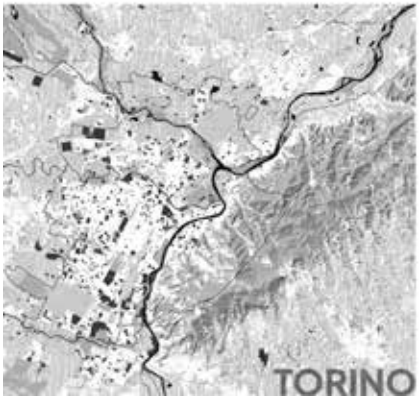
empirical framework

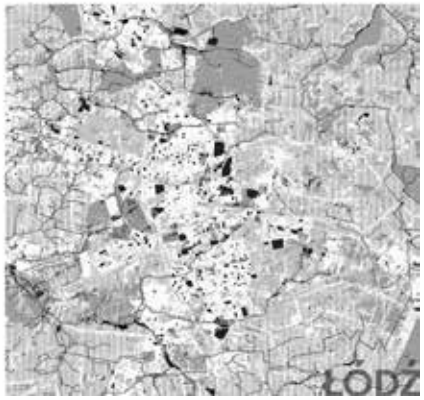

agriculture


collective space


greenery: parks and forests


unused, lost, junk space





Visual Art and Interactive Technology in Communicating Urban Evolution under Climate Change

WANG Jiaxi



Cycle 39th

Supervisors Luca Caneparo

How can interactive web-based visual narratives effectively engage urban residents in understanding and responding to climate change in the context of future city life?

This PhD research investigates how visual and interactive media can shape public understanding of climate futures, with particular attention to the urban scale where daily life, policy, and environmental change converge. While climate change is often communicated through distant or global indicators—glaciers, sea-level rise, planetary temperature curves—this project starts from the local, the graphic, and the experiential. It asks how interactive visual environments can translate complex climate data into forms that are both emotionally compelling and cognitively accessible to non-expert audiences. The project uses ClimaTO 2050 as its central case study: a speculative, web-based visual platform that simulates how residents' everyday decisions—mobility, energy consumption, food choices, material use—may cumulatively shape Turin's climate trajectories from 2050 to 2100. The platform combines city maps, stylized illustrations, and data-driven transformations of urban scenes. These elements function as a sequence of narrative panels (Image 1: "Baseline Turin, 2025"; Image 2: "Lifestyle Scenario A: Low-emission Daily Routines"; Image 3: "Scenario B: High-emission Urban Futures"; Image 4: "Adaptive Interventions and Public Action Pathways") that guide viewers from present conditions toward plausible future states. Methodologically, the research advances an integrated approach that draws on visual communication theory, interactive art, urban design, and environmental psychology. Quantitative datasets—temperature projections, pollution levels, land-use change—are converted into visual grammars that the public can interpret intuitively: color gradients, material textures, dynamic overlays, and gesture-based interactions. Through user testing sessions conducted with local residents, students, and policy stakeholders, the study evaluates how these design choices influence risk perception, emotional engagement, sense of agency, and willingness to adopt sustainable behaviors. Beyond the case study, the dissertation positions interactive climate visualization as a form of civic pedagogy. It argues that artistic and web-based representations act not merely as communication tools but as interpretative infrastructures that enable citizens to rehearse possible futures. When users can "touch" climate data—by clicking, dragging, zooming, or altering micro-scenarios—they begin to perceive climate change as a lived, local phenomenon rather than an abstract global threat. The anticipated contribution is twofold. First, it provides a replicable design framework for constructing immersive visual models of climate futures that are scientifically grounded yet aesthetically engaging. Second, it offers empirical evidence on how such models reshape public environmental literacy and potentially influence sustainable behavior. Ultimately, this research proposes that climate engagement must move beyond textual explanation toward embodied, interactive, and contextually grounded visual narratives, capable of transforming data into experience and passive awareness into active urban imagination.

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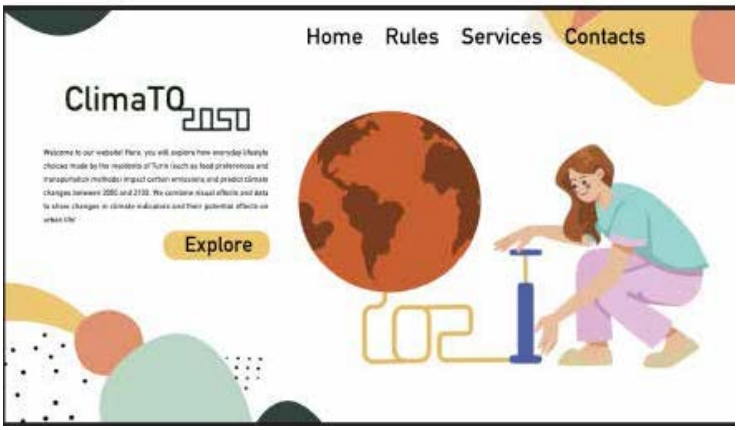
#interactive design, #climate change communication, #urban futures


Home
Rules
Services
Contacts
ClimaTO 2050
Explore


Your daily choices will shape the future climate.
Start by choosing your character!
Confirm


Start


We need to know
How we feel

Research on Improving the Quality of Informal Learning Spaces (ILS) in University Libraries Based on Multi source Data Analysis

WANG Li



Cycle	39th
Supervisors	Luca Caneparo, GWO Weihong

Impact of multiple environmental factors of space clusters for informal learning in library renovation and update.

With the advancement of globalization, the educational concept is gradually moving towards interdisciplinary education model. More and more universities are paying attention to the cultivation of innovative talents, which has led to an emphasis on informal learning methods. Compared to traditional learning, informal learning has no fixed framework and learning content, and is a student-centered learning mode. This method can promote interaction among students, which is more conducive to interdisciplinary collaboration and the cultivation of innovative abilities. Informal learning is more in line with the current development requirements of higher education, so it is widely welcomed by students.

Informal learning spaces (ILS) have received widespread attention owing to their diversity, flexibility, and richness. Many university libraries are undergoing renovation After partial renovation, the ILS of the library often appears in a 'group embedded' organisational model. This study used a study cluster of a university library as an example to research the quality of the internal spatial environment and its influencing factors in the study cluster. In terms of research methods, this study adopted a combination of high-precision positioning, questionnaires, and environmental data measurement. The questionnaires integrated the opinions of both users and designers. Drawing on the literature, this study surveyed multiple university libraries, summarised the spatial quality and influencing factors of 'group embedded' libraries, and compared them with the ILS of other two organisational models. There is currently no targeted framework for the design of ILS, and no scholars have discussed the specifics of their organisational models. This study established a multi-factor analysis model for 'group embedded' ILS. Finally, this study found four key determinants and their weights, they were Physical environment (30.65%), environmental atmosphere (26.76%), spatial ontology (25.03%), and spatial facilities (17.56%). Among the 20 key factors, the first three factors and their weights are privacy (10.34%), illumination (9.20%), and noise (8.62%). Unlike the other two spatial organization models, users of clustered embedded libraries paid more attention to space privacy. This paper proposed six major improvement measures to address privacy, illumination, noise, temperature, air quality, and nature friendly design.

On the basis of actual research, the paper tries to solve the existing problems of ILS in college campus, improve the environmental quality of informal learning space, and create a more efficient campus environment for learning. 1) Attempt to use a multi factor model to solve the problem. Establish a multi factor model of different factors and spatial environment quality. 2) Attempt to use high-precision positioning instruments to obtain positioning information data, so as to obtain real-time relationships between positioning information data and other data. 3) Conduct experiments by combining real-time objective quantitative data with subjective evaluation. Summarize the complete relationship between user learning behavior and internal learning environment, such as the relationship between behavior and time, behavior and physical environment, and behavior and subjective evaluation.

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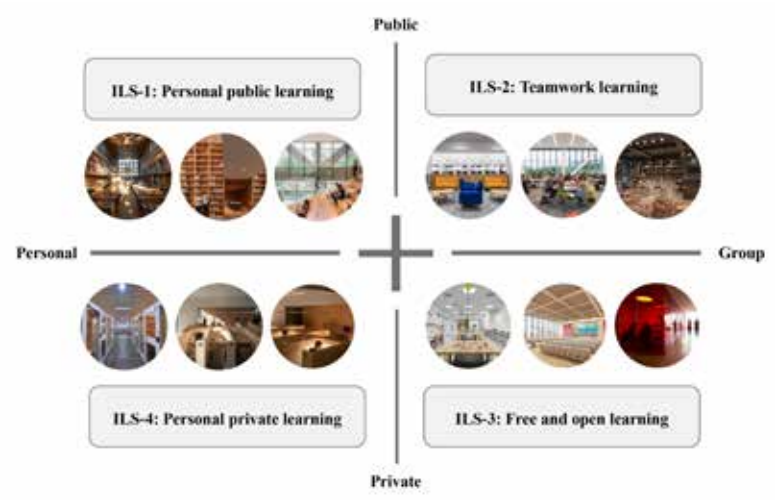
#informal learning spaces, #university libraries, #multi-source data analysis


Public
ILS-1: Personal public learning
ILS-2: Teamwork learning
Personal
Group
ILS-4: Personal private learning
ILS-3: Free and open learning
Private





The Adaptive Reuse Of Industrial Heritage Catalyzed By The Mega-events. Take Parco Dora, Italy and Shougang Park, China and Landschaftspark Duisburg-Nord, German as case studies.

ZHANG Xinwen



Cycle	39th
Supervisors	Michele Bonino, Zachary Jones, Jörg Gleiter
Research Group	China Room

Captions

Figure 1 - Land Use and Land Cover Change Trend in Parco Dora, 2000–2022 - by GLC_FCS30D.

Figure 2 - The Section of Oxygen Plant Complex - Oxygen Plant of 2022 Beijing Winter Olympics - by Atelier TeamMinus.

Figure 3 - The Design Manuscript of Shougang Oxygen Factory in 2022 Beijing Winter Olympics - by Design Team.

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How does the adaptive reuse of mega-event-driven industrial heritage reshape the interactive mechanisms between tourist perception and local identity within urban regeneration processes?

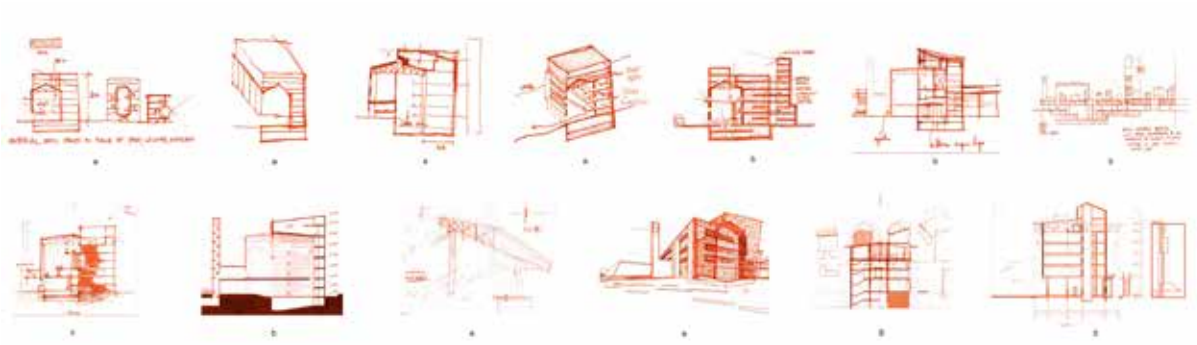
The adaptive reuse of urban space has become a common trend, driven by the need for more sustainable and cost-effective methods of hosting large-scale events such as the Olympic Games. Increasingly, cities are moving away from the traditional model of needing to build new, expensive venues and infrastructure. This shift is evident not only in sporting mega-events, such as the 2022 Winter Olympics in Beijing, the 2024 Paris Olympics, and the future proposed 2026 Milan-Cortina Olympics but also in cultural mega-events, such as the Venice Biennale and the European Capitals of Culture (ECoC), which have long adopted strategies for integrating heritage sites into event planning. The reuse of industrial heritage for this purpose provides an innovative model for heritage preservation while contributing to urban regeneration. Challenges remain, however, including spatial conflicts over the reuse of large-scale industrial heritage and the risk of post-event under-utilization, which requires the development of integrated frameworks that combine heritage conservation standards with planning protocols for large-scale events. This evolving relationship positions industrial heritage not only as a protected artifact but also as a dynamic platform for the reconstruction of cultural identity, low-carbon experimentation and participatory governance in 21st-century cities.

Despite extensive research on the design and infrastructure of mega-events and the retrofitting of individual industrial heritage buildings, the intersection of these two fields - especially from an architectural perspective - still lacks systematic exploration. In order to fill this gap, this study adopts an architectural design perspective and investigates the empirical practice of adaptive reuse of industrial sites for mega-events. Through in-depth analyses of notable case studies in the context of both sports and cultural mega-events, such as the transformation of Parco Dora for the 2006 Winter Olympics in Turin, the transformation of Shougang Park for the 2022 Winter Olympics in Beijing, and the transformation of the Landschaftspark Duisburg-Nord for the 2010 Essen ECoC, the study provides comprehensive insights into how mega-events can act as catalysts for sustainable urban regeneration.

The study employs a combination of qualitative and quantitative research methods, including on-site observations, interviews, questionnaires, literature review, big data analysis, case studies, and content analysis to ensure a comprehensive investigation. The research aims to explore how industrial heritage can be re-imagined and revitalized to meet the demands of contemporary urban life while maintaining a balance between conservation and the changing functional needs of modern urban environments. The study also explores how mega-events can reshape public perceptions and collective memories of industrial heritage sites, further shaping their role in contemporary urban development, as well as, examines the crucial role of integrated cooperation between stakeholders involved in different stages of the process.

Finally, the research provides strategic recommendations for cities aiming to utilize industrial heritage sites to prepare for future mega-events. Also, it outlines a potentially practical framework for improving the sustainability and resilience of urban regeneration.

#industrial heritage, #mega events, #adaptive reuse







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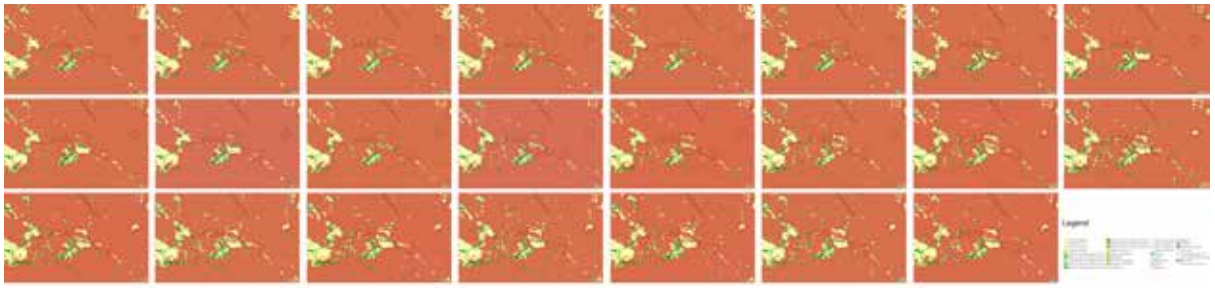

40th

CYCLE

Living Modernism: From Bunkers to Playgrounds and the Afterlife of Socialist Urban Utopias

Mariolina Affatato



Cycle	40th
Supervisors	Alessandro Armando
Research Group	Invisible Cities Lab

How can the spatial and architectural legacy of socialist modernism in cities like New Belgrade inform strategies to design and inhabit inclusive urban futures amidst market-driven transformations?

Often described as peripheral, degraded, or unfinished, the Bežanija Blocks (61–64) in New Belgrade offer a compelling counter-narrative to dominant interpretations of socialist-modernism housing as a failed urban experiment. Conceived in the 1970s within Yugoslavia's modernist planning framework, these blocks unfold a surprisingly rich and layered spatial configuration: high rise lamellas, elevated mezzanines, interconnected green corridors, atomic bunkers, playgrounds and infrastructural voids form a complex system designed to facilitate collective life in a heavily industrialised environment. While their architecture has long been overshadowed by the more symbolically charged Central Zone of Novi Beograd, the Bežanija Blocks invite renewed attention—not as relics of an obsolete ideology, but as spatial artefacts that continue to structure urban life under new political and economic conditions. In addition, their significance does not lie solely in their brutalist aesthetic or structural form, but in their capacity to accommodate difference, transition, and inclusion. The project situates the Bezanjia Blocks within broader questions about the fate and value of modernist public housing in post-socialist cities. As matter of fact, it is relevant to document how the modernist principles of light, air, pedestrian accessibility, and functional zoning have evolved or eroded over time. Although now fully privatised under a liberalised real estate market, these neighbourhoods retain many of the spatial logics of socialist planning: generous green spaces, pedestrian routes separated from vehicular traffic, integrated playgrounds and schools, and shared semi-public infrastructures. The research seeks to re-evaluate the capacity of this built environment to absorb and contain deep socio-economic and morphological transformations and to identify which elements—such as playgrounds, open corridors, or shared circulation spaces—have resisted, adapted to, or suffered from neoliberal restructuring.

This PhD project sets out to combine architectural and urban analysis with a critical reading of planning history, complemented by ethnographic fieldwork and spatial documentation. Fieldwork conducted between February and March 2025 adopted a method of situated immersion: a different apartment in the Bezanjia Blocks was inhabited each day, allowing for direct experience of the interior and exterior spatial conditions. By tracing how everyday uses and informal practices rework the original modernist framework, the study aims to develop a grounded, context-sensitive assessment of modernism's continued evolution. The investigation adopts the theoretical lens of critical heritage, moving beyond the view of modernist housing as inert architectural stock or outdated ideology. Instead, it explores these sites as active repositories of public memory, social identity, and cultural resilience. Drawing on theoretical contributions from Smith (2006), Prakash et al. (2021), and the framework of multiple modernities, the project seeks to reposition post-socialist modernist housing within heritage discourses that challenge Eurocentric and monumental definitions of conservation. It proposes a shift from preserving built form as static object toward recognising housing as lived infrastructure—evolving, contested, and embedded in political, ecological, and social change. The aim is to interrogate what it means to preserve the legacy of socialist modernism not as a monument but as a need or as a cultural artefact shaped by negotiation, occupation, and collective care. It critically addresses the following questions: why preserve these places? What makes them critical? By drawing attention to underexplored spatial devices, the project contributes to emerging discussions on spatial justice, housing quality, and inclusive design in post-conflict and modernist post-socialist urban settings.

Captions

Figure 1 - Arhiv Beograda/ Technical drawing, Stambena Zgrada,Block 62 Sever, presek VII-VIII,1986.

Figure 2 - Block 62 Sever, circulation at ground and underground levels, by the author, 2025.

Figure 3 - Block 63 Sever, North facade and lamella's playground, by the author, 2025.

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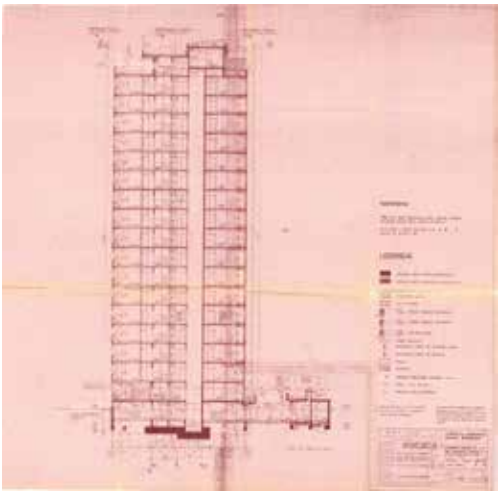
#post-socialist modernism #critical heritage #NewBelgrade







Comparative Explorations of Spatial Edges and Urban Design Strategies in Istanbul, Beijing, and Turin

Alp Arda



Cycle	40th
Supervisors	Michele Bonino, Martijn De Geus, Edoardo Bruno
Research Group	China Room

What if decoding the city starts with its hinterlands, those overlooked edges where power, change, and urban life quietly take shape?

In a world where urban landscapes are as intricately connected as they are uniquely distinct, the research "Decoding Hinterland: Comparative Explorations of Spatial Edges and Urban Design Strategies in Istanbul, Beijing, and Torino" emerges as a temporal-spatial exploration into the cybernetic soul of cities. Framed within an enigmatic narrative style and infused with a cyberpunk ethos, this study engages with a provocative inquiry: "What if the true essence of a city begins to unfold not from its congested centers but from its overlooked edges?" This question launches a multifaceted exploration into the urban fringes of Istanbul, Beijing, and Torino, recasting urban designers and architects in the role of 'urban/archi-coders' who navigate, deconstruct, and reconstruct the urban fabric through a cybernetic lens.

To truly understand and effectively reshape urban environments, we must embrace the concept of the "city as a program"—a sophisticated, layered computational system where all elements, from infrastructure to social interactions, are intertwined and dynamically modifiable. This approach compels us to see cities not just as static entities but as dynamic, programmable platforms where changes can be systematically implemented. Central to this is the need to 'decode the hinterland.' Often overlooked yet crucial, the hinterland acts as a buffer and bridge between the urban core and its peripheries, embodying complex socio-economic, cultural, and infrastructural dynamics. Decoding these areas unlocks critical data and insights, revealing the city's operational subroutines and underlying code, which is vital for urban/archi-coders to understand the city holistically, allowing for precise interventions that foster a more programmable and adaptable urban future.

Building on this understanding, the research employs a mixed-methods approach that combines rigorous fieldwork, targeted interviews, comprehensive surveys, and extensive archival research. This methodological framework is designed to decode the socio-economic, cultural, and infrastructural underpinnings that animate these areas. Leveraging spatial and statistical data for nuanced spatial/temporal analysis, the study slices through the urban fabric to reveal layers of complexity in design strategies that can transform hinterlands from neglected outskirts into pulsating hubs of transformation and backdoors of cities.

As the study transitions into the 're-code' phase, the focus sharpens on the speculative reengineering of urban peripheries. Guided by the concept of the "city as a program," urban spaces are treated as programmable systems, capable of continuous updates, debugging, and enhancements. Here, the city's socio-economic patterns, infrastructural networks, and regulatory frameworks are reimagined through speculative urbanism. Urban/archi-coders utilize AI-driven simulations and interactive media to dynamically rewrite the urban code, crafting innovative, programmable solutions. This transformative process turns hinterland zones into vibrant, opportunity-rich areas, fundamentally enhancing their social and economic potential.

To conclude, "Decoding Hinterland" transcends conventional urban studies, redefining hinterlands not as peripheral outskirts but as essential hubs of innovation within the urban fabric. Infused with the essence of cyberpunk and mirroring the narrative depth of complex films, this research pioneers a novel urban design paradigm. Here, urban designers and architects, as coders of the city, engage in a continuous, recursive loop of feedback and revision. This transformative approach ensures urban environments are not static backdrops but dynamically experienced and constantly reimagined. By integrating cutting-edge technology and speculative urbanism, hinterlands are positioned as critical catalysts for a responsive urban future, suggesting that urban edges can serve as programs to decode the 'cities of the past-present-future.'

#decoding hinterland, #city as a program, #urban/archi-coder

Captions

Figure 1 - decoding_hinterland.exe, "BIOS framework of the Alpha version of the program", by the author.

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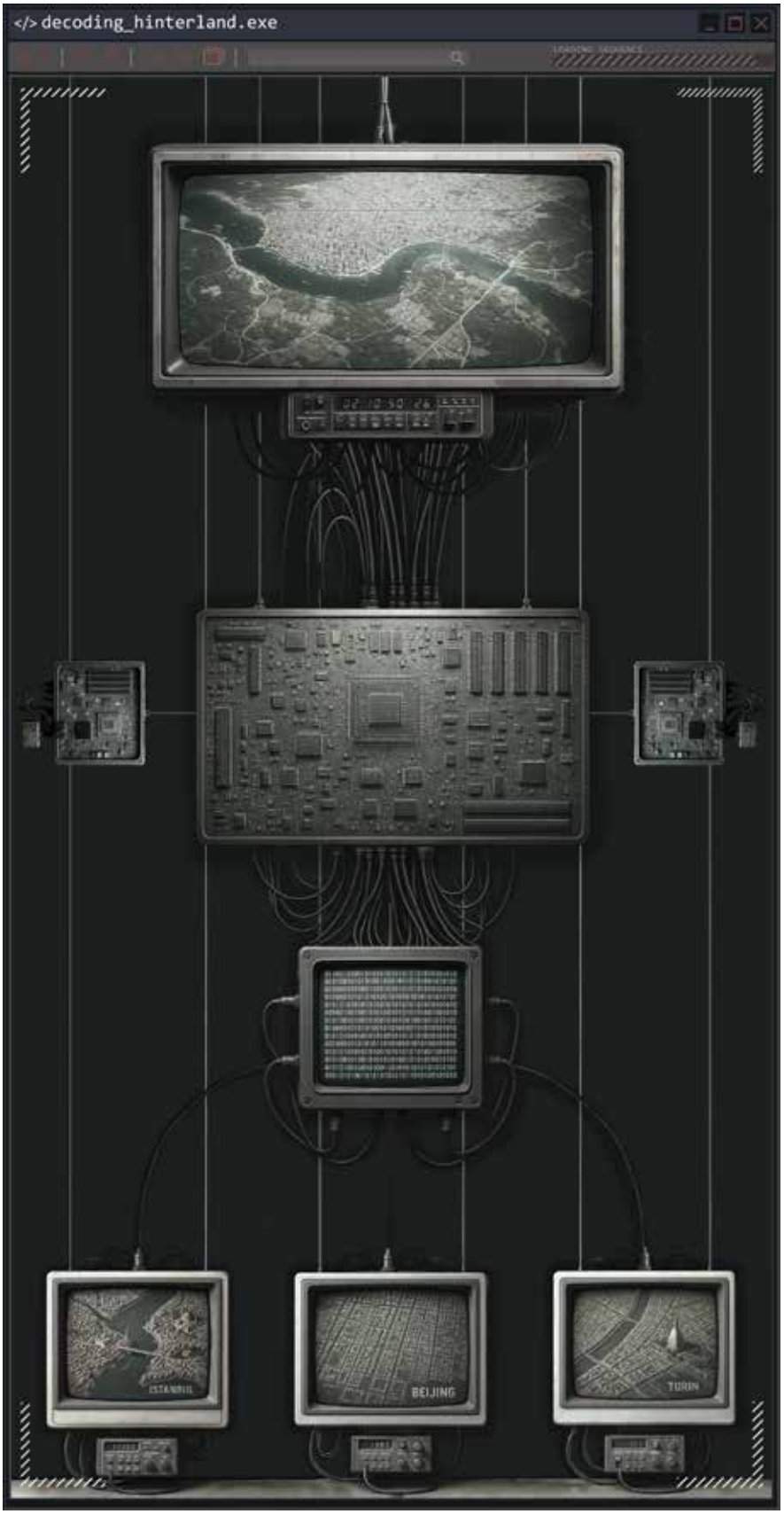
decoding_hinterland.exe
BEIJING
TURIN

100 Years of Architecture at the Politecnico di Torino: Manuals as Mirrors of Change

Miriam Brignolo



Cycle 40th

Supervisors Filippo De Pieri

Captions

Figure 1 - Occupazione della Facoltà di Architettura, Torino, February 28, 1963. Photo by Giuseppe Garelli. Source: Fondazione Istituto piemontese. A. Gramsci - Archivio storico.

Figure 2 - Collage of sources, guide and contro-guide from Politecnico di Torino at the BCA by the author, 2025.

Sources

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How have the manuals and study material of the Faculty of Architecture of Turin, since the 1960s, influenced architectural pedagogy and reflected the socio-technological changes of their time?

The Faculty of Architecture at the Polytechnic University of Turin, a meeting point between humanistic and technical culture, celebrates its centenary with a research project aimed at critically reconstructing its evolution in the second half of the twentieth century.

Following the publication of the volume dedicated to the years 1924–1936 (Pozzati, 2024), a new investigation begins, starting from 1968 – a symbolic year of political, social, and academic change at the national and international level – which proposes to explore the history of the School through a multidisciplinary and documentary perspective.

The project has provided for the creation of a working group involving teachers and researchers from the two current departments (DIST and DAD), and it is structured as a collective investigation aimed at restoring the complexity of the history of the School of Architecture, giving voice to all disciplines and highlighting the interactions between teachers, students, and the urban and cultural context in which they operated.

The aim of the research is to go beyond the simple chronology of events, to immerse oneself in the cultural, technological, and social dynamics that have shaped the training of Turin architects through the teaching of architecture in the second half of the twentieth century.

In this framework, a specific research perspective is inserted: investigating the evolution of university teaching of architecture through the study of printed educational sources. Manuals, handouts, notes, and academic publications produced by key members of the teaching staff and prominent figures in the university faculty represent fundamental tools not only for transmitting content but also for testifying to pedagogical choices in shaping architectural education, disciplinary languages, and visions of architectural projects.

Starting from the model of the manual (Enchiridion) and drawing inspiration from some recent historiographical experiences, the research has as its initial short-term goal the construction of a serial source through the systematic collection of manuals and dispense, searching for these documents in the university libraries and archives initially, and then moving to a broader field of investigation.

This proposal starts from the idea that the manuals and publications of the faculty reflect the historical context of reference, highlighting the experiments and ideas circulated in the academic environment and their reciprocal influence on architectural practice and theory.

Following this preliminary archival investigation, necessary to build a solid framework of reference, where the manuals will be classified and divided, probably by thematic area, it is planned to collect oral sources as well through the realization of some selected interviews. The collection of voices from those who have lived through the evolution of the Turin School of Architecture, in its social and technological transformations, can certainly help navigate the narrative of a path where multiple elements intertwine: spaces, student movements, workshop themes, academic choices, etc.

The study aims to contribute to the international reflection on the history of Schools of Architecture, which is currently at the center of renewed interest (cf. Colomina, B., Galán, I. G., Kotsioris, E., & Meister, A. M. (Eds.). (2022). Radical pedagogies. MIT Press.; Maniaque Benton, C. (Ed.). (2018). Les années 68 et la formation des architectes. ATE (Architecture, Territoire, Environnement). In particular, it fits into the line of studies that connect the history of formative institutions with that of editorial practices and the construction of disciplinary knowledge. The results can flow into a new section of the university's archival heritage dedicated to the teaching of architecture, and they can be useful tools for historical research and stimulate critical reflection on the formation of the architect.

#architectural pedagogy, #archive, #tecnho-sociology


GLI STUDENTI OCCUPANO LA FACOLTA'


POLITECNICO
DI
TORINO
FACOLTÀ di ARCHITETTURA
MANIFESTO DEGLI STUDI
POLITECNICO DI TORINO
FACOLTÀ DI ARCHITETTURA
ISTITUTO DI
1974
CONTROGUIDA
DELLA FACOLTA'
DI ARCHITETTURA 1983/84
A CURA DEL
COORDINAMENTO STUDENTI
ARCHITETTURA
POLITECNICO DI TORINO
FACOLTÀ DI ARCHITETTURA
GUIDA AI PIANI DI STUDIO
E
PROGRAMMI DEI CORSI
ANNO ACCADEMICO 1983-84
PREMESSE - RELAZIONI - CONSIDERAZIONI

Public Space and the Ecological Transition: Urban Regulations, Social Inequalities, and the Politics of Green Design

Irene Carrozzo



Cycle 40th

Supervisors Daniele Campobenedetto, Michele Bonino, Ettore Bompard

How can urban regulations addressing environmental issues be formulated to account for their potential effects on the amplification of inequalities within urban space?

In the context of the ongoing ecological transition, public spaces have the potential to act as amplifiers of social inequalities. In response to this issue, the present study aims to investigate how the formulation of urban environmental regulations must take into account the possible exacerbation of spatial inequalities, while also seeking solutions that promote social inclusion. The research objective is to deconstruct the linear narrative often associated with the urban design of public spaces by revealing their collective and dynamic nature—shaped by economic, political, and social factors. This approach seeks to transcend the dichotomy between nature and society by integrating scientific knowledge and policy-making within a broader and more participatory democratic process.

Within the field of urban design, environmental planning is increasingly applied as a key component of urban regeneration strategies in major European cities. However, the design of green public spaces, for instance, can trigger gentrification processes that lead to rising living costs and the displacement of vulnerable populations. In this regard, urban political ecology emerges as a critical tool for analyzing the tensions between environmental concerns and social justice. Rather than merely incorporating nature into politics, it calls for a redefinition of governance and democratic participation. This perspective invites a radical rethinking of institutional structures and foundational concepts in the face of ecological challenges.

Drawing on the theoretical contributions of Bruno Latour and Albena Yaneva, this research proposes to examine these processes not solely as inherently positive transformations but also as dynamics that, in certain contexts, may reinforce and accelerate social inequalities within urban space.

Environmental considerations in urban design often manifest most explicitly in the treatment of public space, particularly in the form of so-called "spaces of abandonment." These are open public areas typically characterized by poor planning and a lack of defined function, which are frequently rebranded as "green" spaces in response to the current ecological crisis—though often without a coherent strategic vision. The study seeks to understand how such spaces might acquire new value if integrated into a broader and more deliberate urban vision. These areas are sites of tension between public and private property regimes and are frequently enmeshed in complex processes and disputes.

The analysis will focus on two European cities—Turin and Paris—both of which are participants in the NetZero Cities program and currently engaged in drafting their Climate City Contracts (CCC), strategic documents that consolidate local environmental policies with the overarching goal of reducing emissions. Within these cities, specific urban frameworks will be identified where CCC-related environmental policies seek to reduce emissions indiscriminately. The study will explore how the transformation of these spaces affects environmental quality, market values, and urban morphology, with the broader aim of assessing how these changes respond to the evolving needs of contemporary society.

To investigate these issues, the research will analyze the regulatory frameworks concerning public space in both Turin and Paris, placing them within their respective local contexts. This approach involves mapping the controversies surrounding both public and private spaces, and unveiling the interrelations among design, society, and politics through a detailed examination of the actors involved and the processes underpinning spatial transformation. Ultimately, this constitutes a qualitative and process-oriented case study, focused on tracking actors, their interactions, and the evolving dynamics of urban space.

#public space, #political ecology, #controversies

Captions

Figure 1 - Artistic representation of the Stanford Taurus in construction by Don Davis, 1975, graphic rielaboration by the author.

Figure 2 - Artistic representation of the Stanford Taurus in construction by Don Davis, 1975, graphic rielaboration by the author.

Sources

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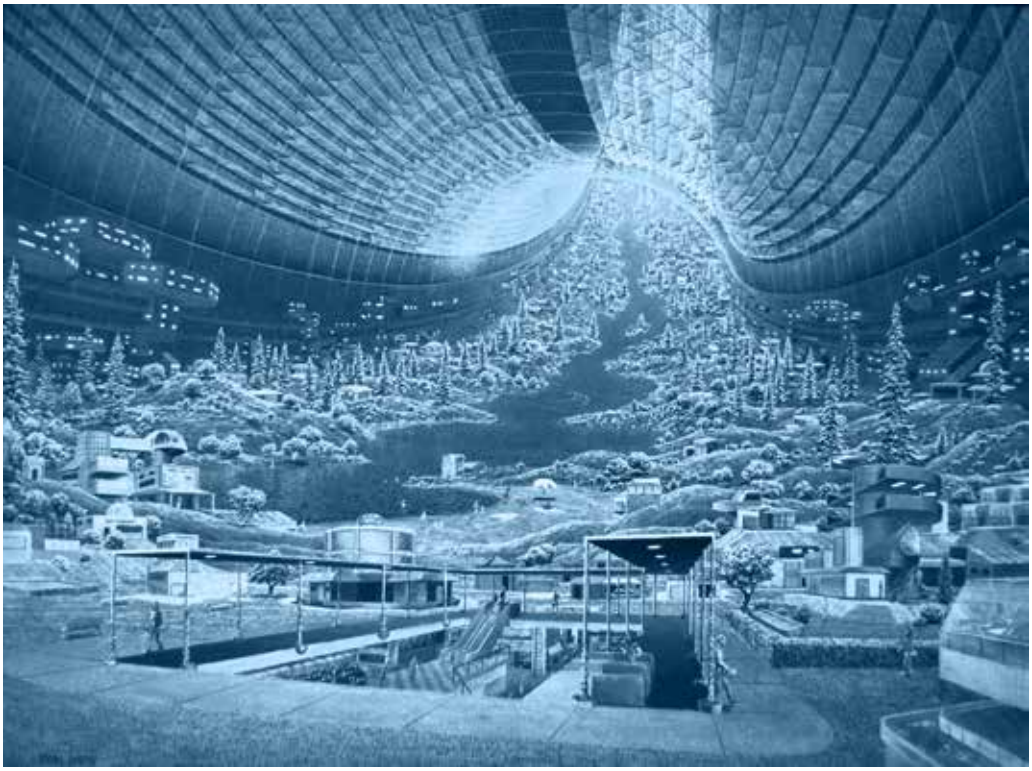

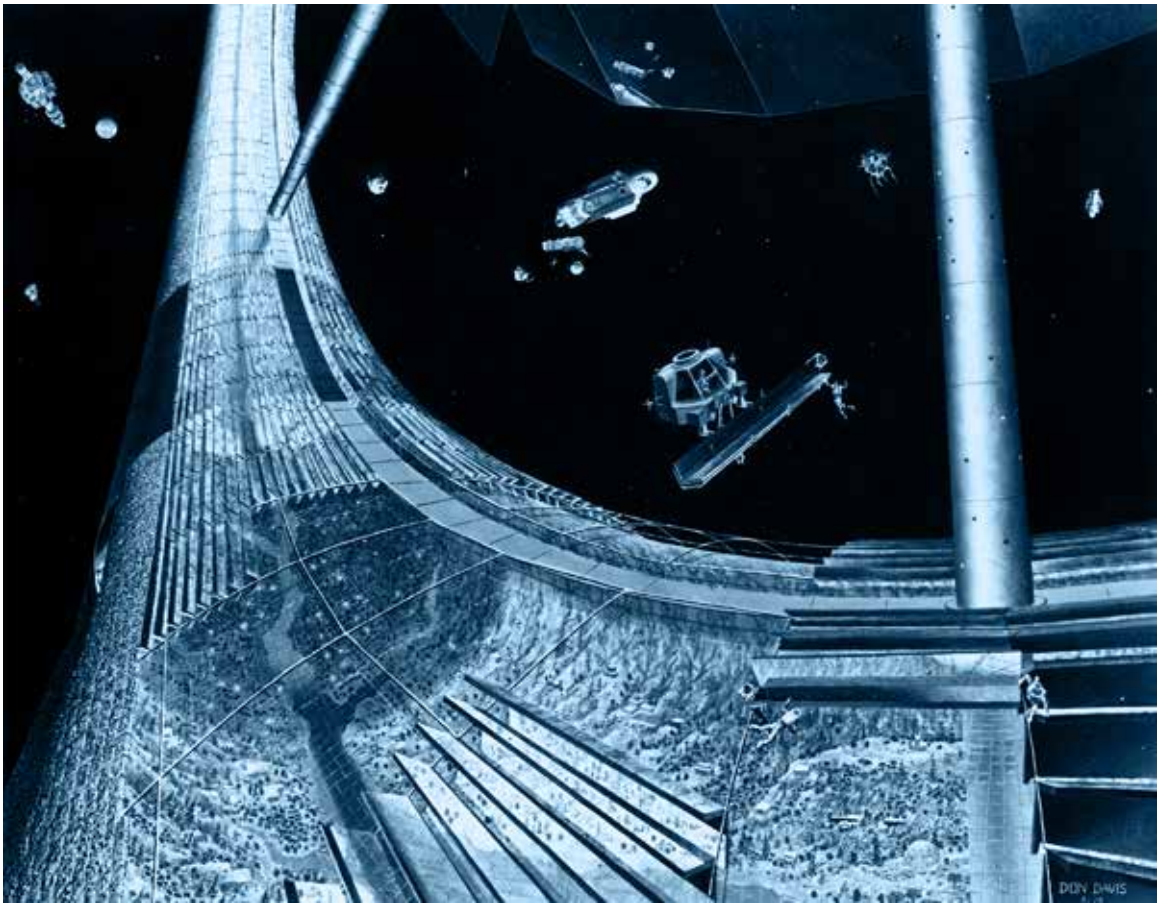
DON DAVIS

Mud & Concrete: The Reinvention of Vernacular Architecture in Egypt at the Turn of the Century

Abdulrahman El-Taliawi



Cycle 40th

Supervisors Filippo De Pieri

What are the historical roots for the phenomenon that building with earth is less viable and more expensive than building with cement and concrete?

Building with earth, though native to Egyptians since time immemorial, has been in a trajectory of decline since the proliferation of industrial building materials around the turn of the 20th century. Today, in the context of the climate crisis, building with the earth is not viable; though from beneath our feet, it is more expensive than building with cement blocks and reinforced concrete. We are reminded of this peculiar phenomenon every summer when the scorching heat is trapped with us inside the building envelop and the temperature is better outside. We resort to air conditioning—in what seems to be a doubling of the negative impact on the environment—only for one to cancel the other, and we ask ourselves: how did we arrive at this point?

This thesis examines the origins of this phenomenon. In the late 1870s, Cairo defaulted on its debts to foreign powers. The state's bankruptcy, due in a large part to financing its massive city-building projects, was the pretext for British colonial occupation later in 1882. As part of its program of reform, the country was essentially opened to the world market. By 1897, the building industry was undergoing a boom due to an influx of foreign investment capital into the construction and real estate market. This boom translated in the proliferation of modern industrial building materials like reinforced concrete, pioneered by engineering entrepreneurs like Francois Hennebique and supplied by a myriad of European construction firms, which would later lead to the market collapse and financial crisis of 1907. In parallel to these developments—in which the building industry and architectural education effectively transformed to center modern industrial construction methods and materials as the typical practice in architecture—a number of foreign architects turned their gaze instead towards mudbrick construction as the prevalent vernacular building method in Egypt, now in a trajectory of definitive decline. Between 1902 and 1908, British architect and archaeologist Somers Clarke wrote about and extensively documented mudbrick construction practices, and in 1911, British architect and colonial officer Ernest Richmond wrote a seminal yet little-known essay on native Building Methods in Egypt, in what constitutes the emergence of a discourse on vernacular architecture in Egypt, much prior to the popularization of the practice through the work of Hassan Fathy in the 2nd half of the century.

This thesis is hence a two-fold investigation. On one hand, it will chart the early introduction and proliferation of cement, reinforced concrete and industrial building materials (1897–1907) by foreign companies in the context of a colonial political economy. On the other hand, it will uncover a parallel and seemingly coincidental emergence of a discourse on vernacular architecture in Egypt (1902–1911) at the moment of its decline.

Building on a body of literature that has considered how urbanization and city-building has acted as an engine for recycling surplus capital, at home and abroad (Harvey 2003 & 2011), and the work of scholars on the market dynamics of building materials in colonial contexts (Stanek 2024; Cupers 2020), it argues that the impetus for 'modernization' in the form of technological development in the construction industry originated through market dynamics in the nascent colony within the imperatives of political economy, rather than merely a search for more durable forms of construction.

Through archival research in the archives of foreign construction companies, the ministry of Public Works, and the writings of colonial officials and foreign architects in Egypt at the time, Mud & Concrete aims to establish a causal relation between the decline of the practice of building with earth and the subsequent emergence of a discourse on vernacular architecture in Egypt at the turn of the century. It contributes to the Environmental and Construction history of the Modern Middle East.

#building with earth, #reinforced concrete, #construction history

Captions

Figure 1 - Le Beton Arme journal, June 1899. Ghent University Library & UGent Magnel Laboratory.

Figure 2 - Musee des Antiquites Egyptiennes, 1899. Centre d'archives d'architecture contemporaine.

Figure 3 - Ernest Richmond, Building Methods in Egypt, 1911. RIBA journal.

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Le Béton Armé

ORGANE

des Agents et Concessionnaires

DU SYSTÈME HENNEBIQUE

Bureau de Turin

sur étable, à Medolago. — Propriétaire, Medolago. — Architecte, M. Murie.

ire de canal, à Gênes. — Propriétaire, la chitecte, M. Verreggo.

s d'hôtel privé (2,000 mq.), à Milan. — Pro- le prince Gonzaga. — Architecte, M. Arpe-

d'hôtel privé, à Gênes. — Propriétaire, Architecte, M. Maine.

de 10 mètres, à Salbertrand. — Propriétaire, vince de Turin. — Architecte, M. Corazza.

de raffinerie, à Verreil. — Propriétaire,

à l'Evêché, à Novare. — Propriétaire, l'Évê- itecte, M. Zorzoli.

Bureau du Caire

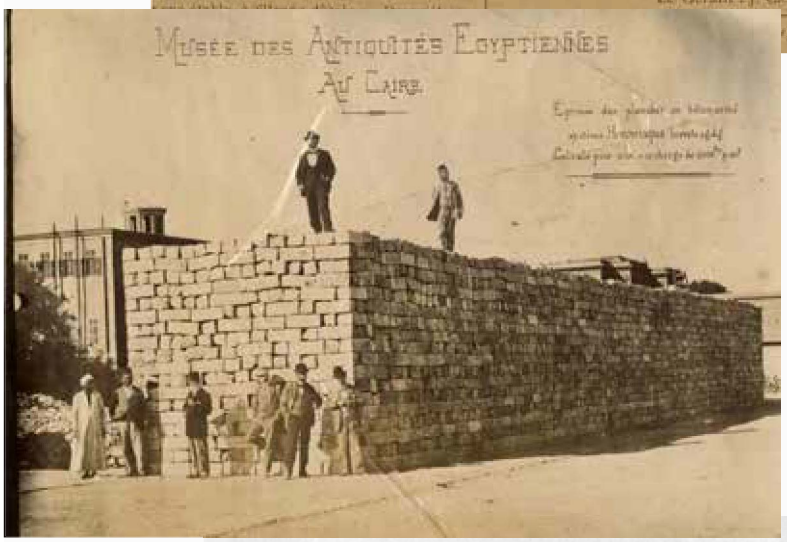
Coupole 1/2 sphérique de R = 8m sur cylindre de 2m = H, reposant seulement en 4 points sur assise carrée, au Caire. — Propriétaire, Etat égyptien. — Architecte, M. Hertz-Bey.

Coupole cylindro-sphérique de 6m.50, percée de 8 fenêtres reposant sur partie octogonale, au Caire. — Propriétaire, Hôtel Shepheard's. — Architecte, M. Favarger.

Planchers divers, dont un à 20,000 kilog. de surcharge, pour trésor; un supportant au milieu un mur de 9m.55 sur 6m.50 de hauteur, recevant encore la terrasse, au Caire. — Propriétaire, Banque Nationale d'Egypte. — Architecte, M. Fabricius.

Le Gérant : J. Crépin-Leblond.

la Halle-aux-Blés.





Mud-brick Tomb, near El Kab, Upper Egypt.

BUILDING METHODS IN EGYPT.

By Ernest Richmond, *Licentiate R.I.B.A.*

Read before the Royal Institute of British Architects, Monday, 12th June 1911.

EGYPT has been described as the chosen home of what is strange and unexampled and paradoxical; as a land eternally and unalterably abnormal. Herodotus in his long list of Egyptian eccentricities illustrates by a variety of curious examples how Egyptian customs are the opposite of those followed elsewhere; and, probably, every modern student of Egyptian affairs could compile his own account of anomalies and peculiarities. Certainly a builder or an architect from Europe, especially if an opportunity be given him of working in every part of the country—in towns, in villages, in the desert, and in the open fields—will gather a variety of strange and interesting experiences, not only in respect of purely local methods, but also in regard to practice imported from Europe.

Extensive foreign participation and co-operation in Egyptian affairs have, of course, brought

Measurement and Optimization of Urban Parks' Landscape Services Demand and Supply: Taking Beijing, China and Turin, Italy as Case Studies.

HUANG Jingxiong



Cycle	40th
Supervisors	Michele Bonino, DANG Anrong
Research Group	China Room

Captions

Figure 1 - Topic Modeling via LDA on Reviews of Parco del Valentino, by the author, 2025.

Figure 2 - Scenes of Chaoyang Park, China and Parco del Valentino, Italy, by the author, 2025.

Figure 3 - Land Use and Land Cover Change Trend in Turin, 2000–2022 (Source: GLC_FCS30D), by the author, 2025.

Sources

Huai, S., Chen, F., Liu, S., Canters, F., & Van de Voorde, T. (2022). Using social media photos and computer vision to assess cultural ecosystem services and landscape features in urban parks. *Ecosystem Services*, *57*, 101475.

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How can the intelligent optimization theoretical and technical framework for urban park landscape service systems be restructured under a human-ecological synergistic perspective?

Urban parks are vital spaces for delivering landscape services, yet conventional methods often fail to capture the multisensory and dynamic nature of human-environment interactions. This gap leads to incomplete assessments of ecosystem service diversity, particularly cultural services, undermining equitable resource allocation and context-sensitive urban planning. Addressing this challenge is critical for optimizing park investments and ensuring spatial justice in rapidly urbanizing areas. This study develops an innovative methodological framework combining multisource perceptual data and computational analysis to measure and optimize urban park landscape services, validated through cross-cultural comparisons of Turin, Italy, and Beijing, China.

Exploring this topic by three phases:

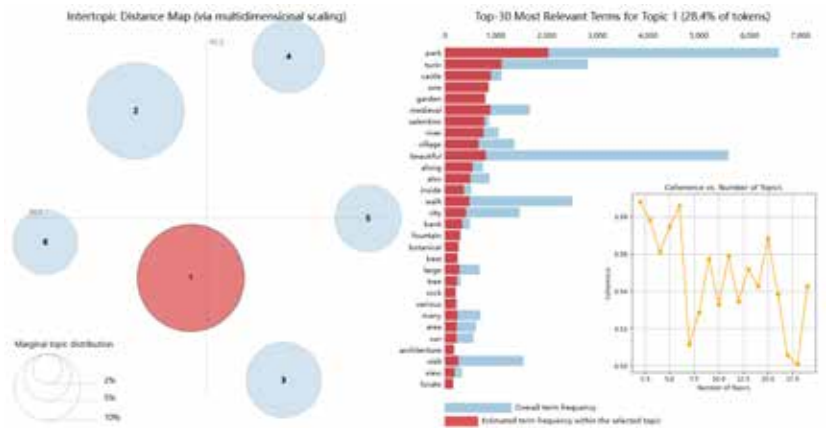
Phase I: Multimodal Decoding of Landscape Service Typologies. Focusing on Turin and Beijing as study cases, this phase integrates social media texts from Google Review and geo-tagged photos from Flickr to systematically decode visitor interactions and perception with urban parks landscapes. A multi-modal fusion algorithm combines natural language processing and visual analytics, enabling the spatial mapping of key landscape service typologies, including environmental improvement, historical-cultural preservation, aesthetic appreciation, recreational activities, and et al.

Phase II: Causal Analysis of Landscape Service Dynamics and Land Use and Land Cover (LULC) Intersection. Building on Phase 1, this phase conducts a cross-cultural comparative analysis of Mesino Park (Turin, Italy) and Chaoyang Park (Beijing, China) to investigate the causal mechanisms linking LULC transitions to landscape service evolution. Leveraging multi-resolution remote sensing data - including 30m global land cover product (GLC_FCS30D) and 10m Landsat imagery (2000–2020), this phase plans to reconstruct high-precision LULC change trajectories. These geospatial datasets are integrated with longitudinal service supply indicators derived from geotagged review texts and user generated photos, decoded through Phase 1' s NLP-visual hybrid model.

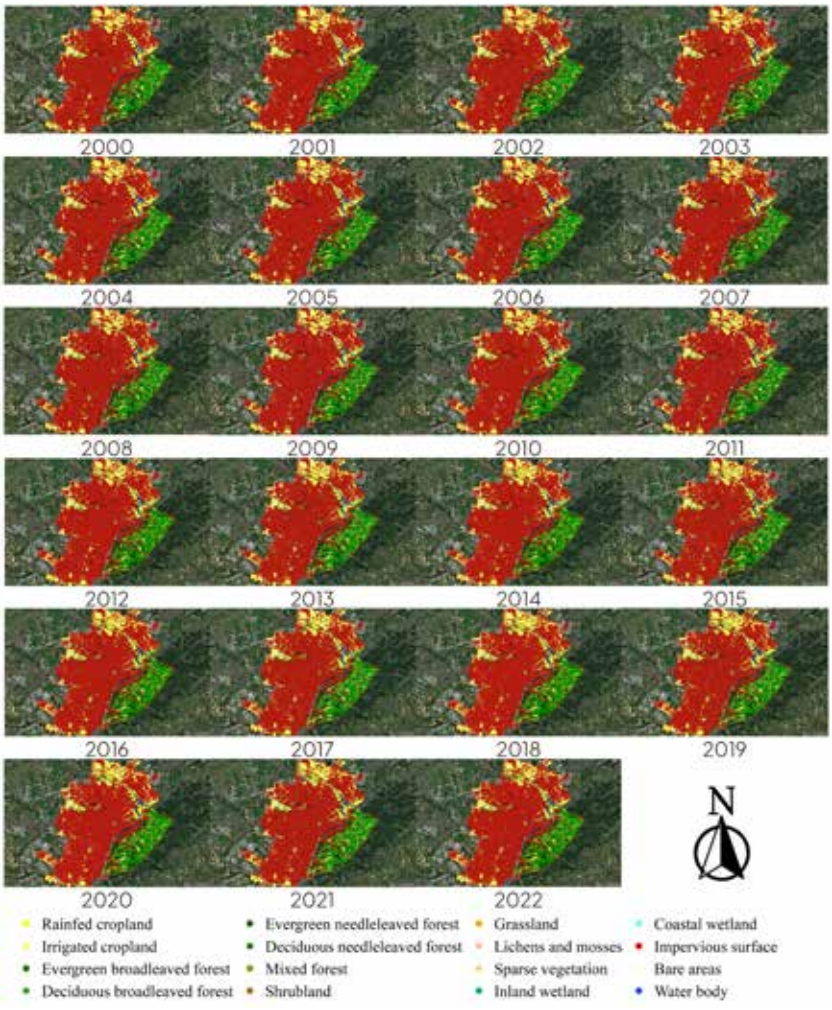
Phase III: Algorithm Development of Spatial Intelligent Optimization. Building on the multisensory service typologies (Phase I) and LULC-service causality insights (Phase II), this phase establishes a demand-responsive optimization framework and algorithm to reconcile behavioral preferences with ecological constraints at the park level. Centered on Mesino Park (Turin) and Chaoyang Park (Beijing), this phase integrates visitor behavior preference surveys, spatial demand modeling, and algorithm-driven urban park optimization technological framework to advance evidence-based park design.

This research tries to establish a novel, interdisciplinary framework for improving urban park landscape services. By blending perceptual analytics, causal analysis, and intelligent optimization, it introduces a "human-ecological co-evolution" approach to park optimization. Through a comparison of Beijing and Turin, this study aims to create a multi-modal deep learning pipeline (Phase I) that identifies spatial disparities in landscape service distribution and availability. Phase II's causal modeling will highlight how different LULC changes lead to varying service dynamics, providing insights for policy decisions. Finally, Phase III applies these findings to create an intelligent optimization algorithm that tailors urban park design to landscape services supply and demand based on visitors' behavioral preferences, resulting in a demand-responsive approach to urban park design and planning

#urban parks, #landscape services, #perception


Intertopic Distance Map (via multidimensional scaling)
Top-30 Most Relevant Terms for Topic 1 (28.4% of tokens)
Coherence vs. Number of Topics
Marginal topic distribution
Overall term frequency
Estimated term frequency within the selected topic

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Irrigated cropland
Evergreen broadleaved forest
Deciduous broadleaved forest
Evergreen needleleaved forest
Deciduous needleleaved forest
Mixed forest
Shrubland
Grassland
Lichens and mosses
Sparse vegetation
Inland wetland
Coastal wetland
Impervious surface
Bare areas
Water body

The Transitional Paradigm in Urban Morphology: Southern Nanjing (XiaoXiHu) as a Living Lab

LIU Ziwei



Cycle	40th
Supervisors	Marco Trisciuoglio, BAO Li
Research Group	Transitional Morphologies

How can the 'transitional paradigm' in urban morphology, as demonstrated by Nanjing's XiaoXiHu case, reconcile historical continuity with modern adaptability during China's rapid urbanization?

Urban morphology research is experiencing a crucial paradigm shift. Originating in Italy, typo-morphology traditionally encompasses two methodological approaches: static typology, which treats the city as a "frozen museum," revealing the combinatorial logic of spatial elements through classification; and dynamic typology, which views the city as a "living organism," tracing morphological evolution across time. While these methods may appear contradictory, they are in fact complementary, providing a critical framework for understanding cities in continuous transformation.

China's rapid urbanization offers a unique cross-cultural perspective for urban morphology studies. As urbanization accelerates, historic cities face unprecedented challenges in balancing preservation and development. Against this backdrop, XiaoXiHu serves as a pioneering example, demonstrating an alternative urban renewal model that prioritizes community inclusivity, historical identity preservation, and sustainable development practices. In stark contrast to commercially driven projects that prioritize market demands over cultural authenticity, XiaoXiHu's approach emphasizes integrating the community's unique cultural and historical context into the development process.

The XiaoXiHu project exemplifies how urban renewal practices are driving a paradigm shift in typo-morphology—from "static preservation" to "dynamic transition." The neighborhood exhibits a distinctive "transitional morphology": neither a fully preserved historic district nor a completely redeveloped commercial zone, but rather an organic assemblage of traditional courtyard houses (43%), Republican-era architecture (31%), and contemporary additions (26%). This spatial configuration vividly illustrates the creative interplay between spontaneous resident modifications and planned interventions, resulting in a balanced solution that reconciles historical continuity with modern adaptability.

Empirical research on XiaoXiHu demonstrates that retaining 60% of historic structures while carefully integrating modern functional elements achieves a spatial coupling between historical fabric and contemporary needs. This incremental renewal strategy establishes a dynamic equilibrium between historical continuity and functional adaptation, preserving the material carriers of place memory while addressing urban development demands. This process aligns with Lu Xun's modernist insight in Old Tales Retold—the continuity of tradition does not rely on mere replication but requires critical reconstruction for creative transformation.

This innovative model transcends the conventional preservation-versus-development dichotomy by adopting a multi-stakeholder collaborative framework (community-experts-government), facilitating organic urban renewal. The project prioritizes preserving the community's social networks and cultural memory, harmonizing residents' daily needs with heritage conservation objectives. As a replicable model for sustainable urban regeneration in China, XiaoXiHu's culture-sensitive, community-driven approach fundamentally differs from profit-driven commercial redevelopment, demonstrating how economic viability and cultural authenticity can coexist.

This study not only validates the feasibility of China's urban renewal practices but also contributes globally significant theoretical insights. By conceptualizing the Chinese experience, it redefines the role of typo-morphology in contemporary urban development, proposing a "third way" that moves beyond the traditional preservation-development binary. The resulting integrated framework, which merges historical continuity with modern adaptability, is both rooted in China's urban renewal practices and universally relevant, offering valuable academic and practical implications for international urban transformation research.

Captions

Figure 1 - Aerial view of XiaoXiHu Historic District, Nanjing., 2021, Source: Lifeweek Magazine Online - photo by Hou Bowen.

Figure 2 - Street view of XiaoXiHu neighborhood, GameLook website.

Figure 3 - Panoramic view of XiaoXiHu regeneration area, Zhihu Column.

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#typo-morphology, #transition, #renewal




小西湖



Danwei Legacies and Urban Spatial Proximity: Toward Sustainable and Inclusive Urban Futures in China

LIU Siyi



Cycle 40th

Supervisors Filippo De Pieri, FENG Jiang

Captions

Figure 1 - Guangzhou Cement Plant and adjacent workers' residential area, 198, Source: Guangzhou Construction Committee. (1994). Guangzhou Chengjian Fengbei. Guangzhou, China.

Figure 2 - Main gate and enclosing wall of the Guangzhou Cement Plant compound, 1989, Source: Guangzhou Construction Committee. (1994). Guangzhou Chengjian Fengbei. Guangzhou, China.

Figure 3 - Collective residential buildings of Xiaogang Workers' New Village, Guangzhou, 1980s, Source: Guangzhou Construction Committee. (1994). Guangzhou Chengjian Fengbei. Guangzhou, China.

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Bonino, M., & De Pieri, F. (2015). *Beijing Danwei: Industrial heritage and urban transformation*. Jovis.
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How can the historical evolution of danwei in Urban China help reimagine spatial proximity, immediate environments, and collective resilience, toward more sustainable and inclusive urban futures?

In the early decades of the People's Republic of China, under the constraints of a centrally planned economy and severe material scarcity, Chinese cities underwent rapid industrial transformation through a unique model known as Work Unit Urbanism. The danwei (work unit) was not merely an administrative or productive unit, but a spatial and social structure that profoundly shaped urban life in socialist China. It integrated workplaces, housing, public services, and political organization into a self-contained compound, fostering everyday intimacy, social cohesion, and collective belonging. The danwei system played a foundational role in shaping the spatial and institutional fabric of Chinese cities from the 1950s through the 1990s.

In contrast, urban China today may be increasingly shaped by conditions of competition, fragmentation, and uncertainty—tendencies that may also reflect broader global urban dynamics. On a planetary scale, cities face mounting pressures from climate change, natural disasters, geopolitical tensions, and the breakdown of shared ideological frameworks. On the everyday level, individuals experience increasing psychological fatigue, social alienation, and spatial disconnection, exacerbated by hyper-digitization and the rise of artificial intelligence. Time and space in urban life have become fractured, routine interpersonal interactions are diminished, and younger generations are potentially losing the ability to form meaningful relationships with their immediate surroundings.

In this context, this research reconsiders the experiential concept of urban spatial proximity—not only as a physical arrangement, but as a conceptual lens for understanding how everyday spatial environments may foster social resilience, mutual aid, and collective life. It argues that the danwei legacy may offer valuable insights into how urban environments can be designed to support sustained human interaction and cultivate a more nuanced understanding of the world around us. Such understanding, in turn, may enable the emergence of new forms of social relationships, collective actions, and public life. These spatial and social possibilities could become especially relevant under conditions of scarcity, crisis, or future urban disruptions—calling for continuous, grounded, and inclusive practices of reimagining proximity in daily urban life.

Methodologically, this project combines historical-spatial analysis, fieldwork, and cross-cultural comparison. It traces the evolution of danwei neighborhoods in Chinese cities—particularly in Guangzhou, with comparative reflection on Beijing—from the socialist era to the present, analyzing how spatial intimacy was produced, transformed, or eroded. It also brings these Chinese cases into dialogue with international experiences, notably collective housing in Italy, to explore alternative trajectories of urban proximity and collective living. Through this multi-scalar approach, the research seeks to address key questions: How did danwei spatial forms facilitate urban cohesion and resilience in the past? What remains of these legacies today? Can their embedded principles be reactivated or reinterpreted to address contemporary urban challenges? And how can comparative urbanism contribute to a more nuanced understanding of proximity in a globalizing yet fragmenting world?

Ultimately, this study aims to contribute to debates on sustainable, inclusive, and human-centered urban futures by grounding them in historically situated, socially embedded, and spatially tangible practices. By reviving attention to the immediate environment and everyday experience, it envisions new ways to reconnect individuals with their surroundings, resist urban alienation, and inspire more resilient forms of urban life.

#chinese danwei urbanism, #spatial proximity, #urban sustainability







The Interplay Between Architecture and Politics in Social Democratic Sweden of Folkhemmet (1932–1976)

Eugenio Lux



Cycle 40th

Supervisors Filippo De Pieri, Sofia Nannini

How did architecture embody, influence, and mediate the political ideals of the welfare state, and in what ways did it contribute to the construction of a collective identity, social equity, and the everyday life of its citizens?

History, according to the Benjaminian conception of "jetztzeit", is marked by revolutionary moments where things collapse to reorganise into a new order. The 1930 represents for Sweden the "modernism's breakthrough" (Rudberg, 1999) and the beginning of a new transformative era for the country. The process of modernisation of the state, anticipated in the 1930 Stockholm Exhibition and theorised in the book-manifesto "acceptera" (Asplund et al, 1931), was definitively established during the "folkhemmet" (1932–1976), a long term political programme of welfare state policy under the government of the Swedish Social Democratic Party. Since the 30s functionalism, in Swedish "funkis", became the new standard for architecture and planning, as it marked a break from national romanticism and nordic classicism and a way to minimise construction costs and to provide more living space for low-income families. During this forty-year period, societal power structures changed: urbanisation accelerated and infrastructures improved significantly with many environmental implications (i.e. resource exploitation in the Norrland). Thus architecture in Sweden became a tool for the political design of the city to create a more equal, prosperous and fair mass society. Swedish neutrality during both World Wars and the non-alignment during the Cold War allowed the country to live in an incubator-like state and to develop modern architecture and urbanism as a propaganda tool for "the middle way" (Childs, 1936). Swedish architecture and planning became famous for their pragmatic, problem-focused stance. The "social democratic management of the city" (Tafuri, 1973) operated by architects with a strong social orientation, both animated by concerns for ideological (social-democratic) and practical (functional) matters, produced excellent results in the growth of the cities, public building and housing. The country can be seen as a model for the relations between architecture and politics, environment and construction, and "acceptera" could be perceived as a social-democratic programmatic manifesto in terms of architecture and planning for the years to come. Today we are approaching fifty years since the end of the social democratic state model, a sufficiently long period to assess the welfare state in its entirety, complexity, and importance over its 44-year span. The 1932–1976 periodisation, borrowed from politics – the government led by Per Albin Hansson, Tage Erlander, and Olof Palme, each of whom lived in modern mass housing blocks – is relevant to architecture as it encompasses a range of different phases of the urban transformation and building regimes (Gullberg and Kaijser, 2007): the expansion of functional row houses in the inner suburbs (1930s-40s), the creation of satellite towns later called the ABC-stad (1950s-60s), the Miljonprogrammet (1960s-70s) and finally the renovation of "the hearth of the city" (1960s-70s). The chosen ends have also a reflection on the major urban transformation in the city of Stockholm: indeed 1932 is the year of the competition for the masterplan of Norrmalm area (350 participants including Alvar Aalto and Le Corbusier) and 1976 coincide with the conclusion of major urban transformations such as Sergelstorg and Kulturhuset and Sveriges Riksbank. Moreover, the 1932 coincides with the start of construction of the Tunnelbanan and 1976 represents the final phase of the Miljonprogrammet which territorial spread was made possible by the development of large-scale public transport system. The proposed ends could be perceived anomalous as they cross the boundary marked by the Second World War but is motivated by Swedish neutrality and non-alignment in the conflicts. The caesura represented by the war for those belonging to the major belligerent nations, is absent in the Swedish context. It could be argued that Sweden lives its "short century" (Eric Hobsbawm, 1994) even faster and within the proposed periodisation: before 1932 Sweden is a 19th century country, after 1976 Sweden becomes the most "Americanised country" in Europe.

#acceptera, #folkhemmet, #funkis

Captions

Figure 1 - Per-Albinhusen, Ålstensgatan 40, Bromma, Paul Hedqvist with Olle Engkvist (1932–33), by DigitalMuseum.

Figure 2 - Erlanderhuset, Fyrverkarbacken 21, Marieberg, Henning Orlando (1960–62), by DigitalMuseum.

Figure 3 - Palmes radhus, Tornedalsgatan 31, Vällingby, Bertil Karlén, Josef Stäck, Jon Höjer e Sture Ljungqvist (1952–55), by DigitalMuseum.

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Domestic Illegality. The Individually-Driven Practices in the Transformation of the Post-Socialist City

Lorenzo Murru



Cycle	40th
Supervisors	Alessandro Armando, Caterina Barioglio
Research Group	Invisible Cities Lab

Which are the ordinary practices behind the illegal transformation of socialist mass-housing buildings in Skopje and how they deal with the institutionalized transformation of the city?

The reconstruction of Skopje following the 1963 earthquake played a crucial role in shaping its architectural and urban identity. Internationally coordinated efforts – documented in Skopje Resurgent (UNDP, 1970) and deeply discussed in Tolic's publication (Tolic, 2011) – resulted in a cityscape dominated by socialist-modernist residential blocks. However, rapid privatization and economic liberalization in subsequent decades have prompted unregulated urban transformations. While large-scale speculative projects, such as the controversial "Skopje 2014" initiative, have drawn wide academic and media attention (Janev, 2016), smaller-scale illegal modifications in socialist-era housing have largely remained underexplored.

Drawing on the field explorations carried out, the exchanges and comparisons that have taken place with local scholars (including Jovan Ivanovski, Divna Pencic, Ognen Marina) from the work done with the SEE:4C group, and the readings on the theme, the research aims at investigate one such phenomenon: the gradual transformation of socialist-era mass-housing complexes in Skopje through successive individual initiatives since the 1990s.

The studied phenomenon is deeply embedded in the broader socio-economic and political shifts that followed the collapse of the Soviet bloc and North Macedonia's independence in 1991 and the subsequent transition to a free-market economy. These modifications aimed to enhance the usability of private apartments through their expansion. Initially unauthorized and unplanned, these changes were tolerated by local authorities, leading to the creation of a form of "domestic illegality", a process in which illegal practices become normalized within the urban environment. These housing units, initially conceived as standardized, state-provided dwellings with extensive public green spaces, have been progressively altered through apartment extensions, balcony enclosures, and ground-level commercial conversions. (Bouzarovski et al., 2011)

The economic shift did not correspond to an immediate change in the legal framework, failing to accommodate new housing demands and the changed household's composition. In this gap, individual initiatives rose, leading to widespread yet unauthorized modifications and the emergence of a whole "economy of illegality" centered around these kinds of operations. Private developers played a significant role by identifying this new market demand: in exchange for withstanding construction costs, developers gained ownership of the new apartments built as elevation of existing buildings. The mechanism enabled residents to expand their apartments without direct financial outlay, gaining consent from the majority. Although these practices began informally, an ex-post legalization process was initiated in 2011, solidifying an institutionalization of the practices once considered illegal.

By focusing on these topics the work seeks to answer specific questions: which are the ordinary practices behind the illegal transformation of socialist mass-housing buildings in Skopje and how they interact with the institutionalized transformation of the city? How do illegal housing expansions in Karpoš redefine spatial legality practices, and what are their implications for urban planning in the transformation of the city?

This research addresses a gap in the existing studies on this city, which have largely focused – especially in the past 15 years – on urban planning history and architectural authorship. What is currently lacking is an in-depth analysis of everyday practices and the small, incremental transformations that, collectively, are reshaping the city.

This study represents a preliminary operative exploration – constrained by research and funds contingencies – that may constitute the groundwork of a research strand investigating the processes of individual strategies and the effectiveness of this kind of transformations of mass-housing buildings following political and social crises in cities in transition.

#mass-housing, #illegality, #post-crisis

Captions

Figure 1 - Research questions' diagram and photo of an apartment extension, by the author.

Sources

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privatization
ordinary practices
archival research of Skopje's post-earthquake reconstruction
economy of illegality
1963 post earthquake reconstruction
post-socialist cities
LONG-TERM POST CRISIS INDIVIDUAL ACTION
how to research illegality?
how to proceed for connecting documents in international archives?
how to carry on an archival research in a foreign language?
SEE:4C research
socialist mass-housing
what are the criticalities of reversing the research path, and how to deal with them?
operative research framework
given conditions
operative questions

Decommissioning of Extensive Production Facilities as Planned Architectural Opportunity for Ex-post Valorization

Simone Parola



Cycle	40th
Supervisors	Elena Vigliocco
Research Group	FULL

Captions

Figure 1 - Drawing of planned obsolescence ratios/possibilities offered by decommissioning: City - Industry - Nuclear Power Plant, by the author, 2025.

Figure 2 - Schemes of World Nuclear Reactors, data source: IAEA International Atomic Energy Agency, 2025 and WNA - World Nuclear Association, by the author, 2025.

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Wong, L. (2016). *Adaptive Reuse: Extending the Lives of Buildings*. Birkhäuser

How can architectural design positivize planned obsolescence principles by exploiting the nuclear factory case as a paradigmatic model of complete subtraction-decommissioning design?

Architecture is commonly understood as the outcome of an additive transformation. Transformative actions always involve subtractions - of materials and/or meanings. However, any narrative connected to the architectural project privileges addition by focusing on the reasons, methods and/or effects produced by the additions. The considerable literature on restoration and adaptive reuse proves the efforts to legitimize and preserve the existing.

Let us use a metaphor. George Perec's 1976 essay "Notes brèves sur l'art et la manière de ranger ses livres" aims to state that the space and order of books is never sufficient. The former is because it is limited, and the latter is because it mutates according to needs that change over time. The library's "resistance to change" acts on the "persistence" and "obsolescence" of its structure, determining stable or temporary classifications.

The ability to adapt within certain limits is what characterizes Perec's library. So is architecture. However, climate change questions the perspective applied to architecture. Subtraction, therefore, becomes an interesting perspective to examine, starting from the effects it produces when applied. In the infinite catalogue of architectural artefacts, those that are most under pressure today are those that suffer from technological obsolescence.

In this framework, Nuclear Power Plant (NPP) decommissioning is placed. Many nuclear factories have been built worldwide after the Second World War, and in 1958, the Nuclear Energy Agency (NEA) was founded. For safety reasons, the NEA establishes that the life cycle of nuclear power plants must be planned from the beginning to achieve decommissioning. For this reason, nuclear factories are an exception in architecture because they escape patrimonialization. While a large amount of literature exists on other productive buildings regarding adaptive reuse, the case study of NPP is neglected for many reasons, including prejudice, collective emotional removal, and lack and inaccessibility of sources.

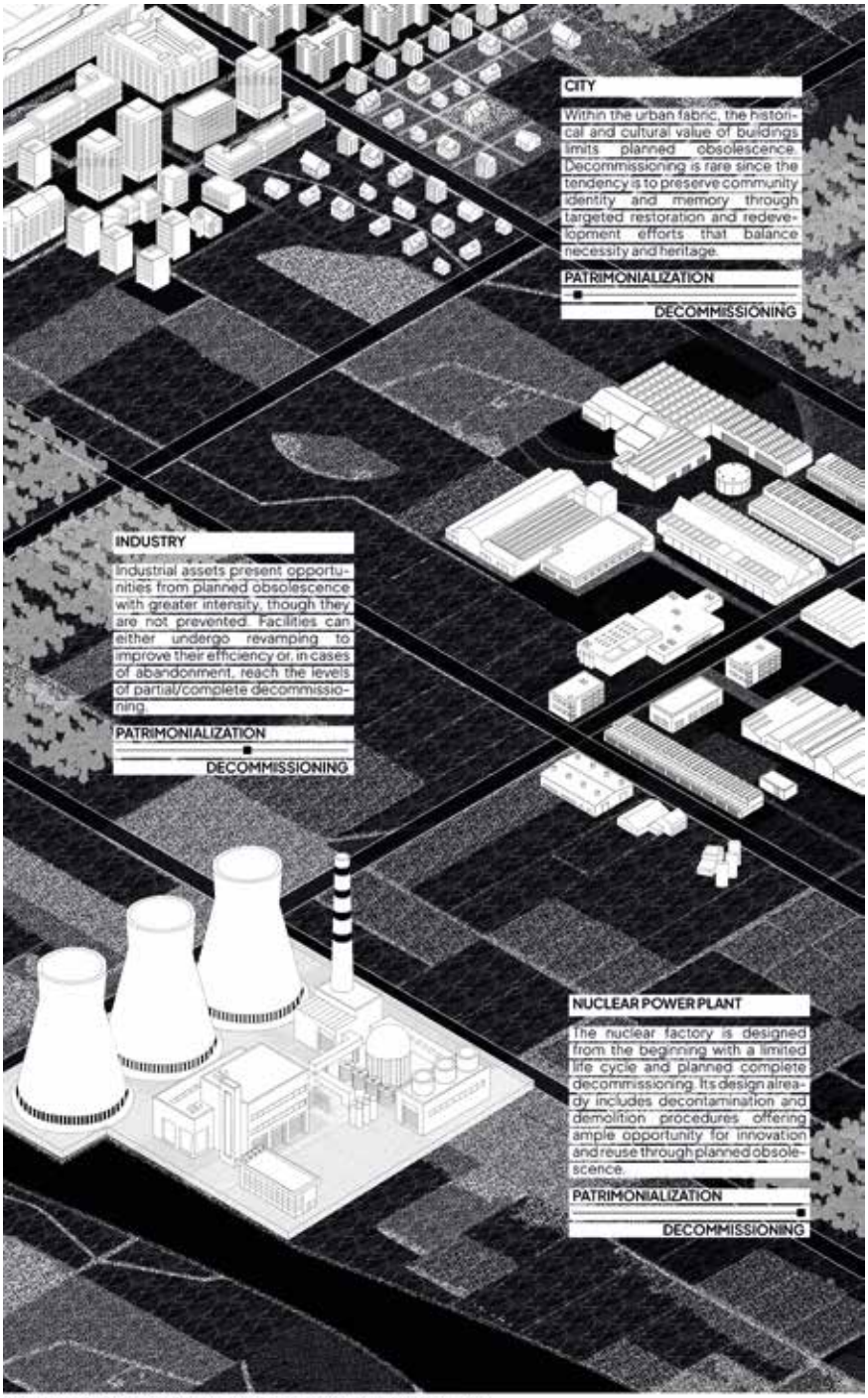
What opportunities does the decommissioning of large nuclear factories offer to architectural design applied to landscape? How can architectural design positivize the principles of planned obsolescence of nuclear factory and expand them to other assets?

Using the decommissioning of NPP as a crucial case study, the research reduces the knowledge gap on nuclear architectural heritage to structure concrete sector literature, investigate the opportunities offered by the sector's technological innovation (SMR, AMR, Generation IV reactors) and analyze the transformative possibilities of this asset - revamping, energetic reuse, adaptive reuse, storage. The goal is to identify design strategies capable of exploiting planned subtraction through the design of construction and recycling.

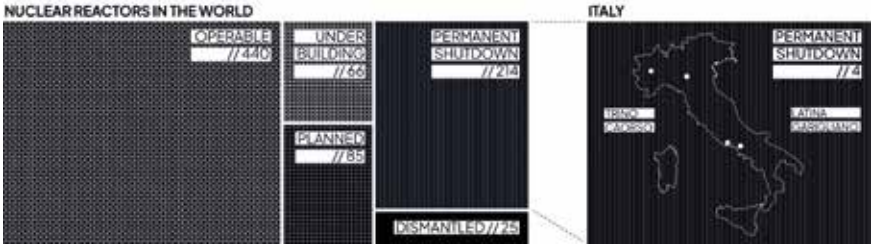
To achieve these goals, the research aims to develop a taxonomy of 10 case studies - under construction, built, and decommissioned - to track best/worst practices through a comparative analysis of existing heritage know-how. In addition, the research project intends to realize an abacus of the opportunities offered by next-generation nuclear and planned subtraction by leveraging technological innovations - AI and machine learning - as collaborative supervised tools to traditional analytical methodologies. Finally, by adopting a "cradle to cradle" approach and research-by-design methodology, the research aspires to return meta-design solutions that relate the two NPP life phases in a bilateral design based on the literature produced.

The ultimate goal is to return design strategies capable of reintroducing the "nuclear factory" into architectural practice and to increase its literature. The research intends to harness this energy as a response to the pressing global needs by designing architectural processes that enhance the productive life of the NPP and can exploit the opportunities offered by the principle of obsolescence.

#decommissioning, #designing obsolescence, #nuclear power plant



PLANNED OBSOLESCENCE AND POSSIBILITIES: CITY - INDUSTRY - NPP



Urban Legacies and Resilience Reimagining the Socio-Economic and Environmental Future of the Ossola and Verbania

Anna Proskuriakova



Cycle 40th

Supervisors Matteo Robiglio

How can urban legacies contribute to enhancing the socio-economic and environmental resilience of Italian provinces, considering the challenges posed by climate change and the opportunities presented by shifting work geographies?

We are living in the era of the digital revolution, where rapid technological advancements, the COVID-19 pandemic, and global geopolitical shifts have reshaped both work and living environments. This transformation has given rise to a new geography of work, with knowledge workers increasingly moving away from large cities to suburban or semi-peripheral areas— a trend expected to continue long-term (Mariotti, 2023, p.2).

This means that new ways of working, and physical environments can significantly affect productivity, quality of life, well-being and innovation activities. In Italy, this shift creates opportunities for both repatriation and foreign relocation, offering a chance to medium and small provincial cities. Despite challenges such as a widespread combination of environmental discomfort and settlement malfunction, the intermediate territories of the Italian Province—or, as Lanzani describe it, Italy in the Middle—have the potential to support less populated regions by leveraging their infrastructure, social networks, and accessibility and offer opportunities for decongesting the most densely populated metropolitan areas (Lanzani, 2024).

Much like the Industrial Revolution radically transformed territorial landscapes, today's shifts encourage us to rethink urban spaces, reassess urban legacies, and, in particular, explore new ways to repurpose industrial heritage. The transformation of urban legacies is not merely a matter of preservation but, more importantly, adaptation—considering challenges such as resource scarcity, political passiveness, and the impact of the climate change.

Within this discourse, I aim to focus my research on the territory of Ossola and Verbania, a region that exemplifies Italy in the Middle. This area consists of small and medium-sized centers with a pattern of widespread urbanization, alongside lake areas that have, in recent years, fostered significant tourism development.

Historically, Verbania—once known as "la piccola Manchester italiana"—was a prominent industrial hub but has since seen declining productivity. Meanwhile, the Ossola Valley has sustained manufacturing, logistics, and extraction industries. Today, this territory finds itself in a transitional state, positioned between the major metropolitan hubs of Milan and Turin on one side and the Swiss border on the other. This intermediate position presents both challenges and opportunities, shaping the region's evolving identity and development trajectory.

Water has always been a fundamental force shaping territorial development. The Toce, San Bernardino, San Giovanni and Strona rivers have historically driven economic growth and structured the region's spatial organization. They should serve as the foundation for the research, as both industrial and urban legacies in the area are directly linked to water—not only as a fundamental infrastructural backbone that connects the region to Milan and the global economy but also as a complex, multi-layered system.

Due to its non-homogeneous development, the region is best analyzed through a system of ecologies, a concept by Reyner Banham that considers both practices of use and physical aspects of the territory, allowing for a deeper understanding of perception, established identity, and functional evolution in the area.

By studying the past and present productive functions of these rivers, we can better understand uneven power dynamics and socio-metabolic transformations—key forces in shaping urban environments. Technological advancements further influence these processes, shaping infrastructure, production, and settlement patterns over time.

As David Harvey argues in Paris, Capital of Modernity (2003), the idea of modernity as a radical break is a myth. He suggests that "no social order can achieve changes that are not already latent within its existing condition." This highlights how hopes, fears, and aspirations have historically driven territorial and economic transformations, reinforcing that today's shifts are deeply rooted in past developments.

#social-ecological transition, #province, #adaptive reuse

Captions

Figure 1 - Inside Mastronauta artistic and cultural center, Omegna, photo by the author, 2025.

Figure 2 - Renovated industrial site, Verbania, photo by the author, 2025.

Figure 3 - Ackermann Factory, Omegna, photo by the author, 2025.

Sources

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I sogni non prendono
spazio, ma lo danno





Triennale/World. An exercise of contextualization

Rayna Razmilić



Cycle 40th

Supervisors Albena Yaneva, Gaia Caramellino

Captions

Figure 1 - The infographic "The Biennialozoic Era" was published with the article Ambrosetti, R. (2011). The Biennale as Design Lab. Domus 952, 70–79.

Figure 2 - The infographic "The Triennale World" was published in Di Battista, N., Romanelli, M. & De Giorgi, M. (2016). La Triennale di Milano I-XX, Domus 1000(Suppl.).

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What can the history of the Milano Triennale —amidst the larger panorama of architecture exhibitions and institutions worldwide— tell us about the nature and history of architecture perennials and exhibitions?

There seems to be a consensus: from the myriad of perspectives discussed on the attempts to recount the official history of the Triennale di Milano, perhaps the most recurrent description is that of an operation or platform "aiming to give identity and strength to the Italian production" (Rocca, 1999) or act as an "effective showcase for Italian products, also finding a place outside national borders" (Besana, 2015). What is published on —and usually by— the Milano Triennale stresses the fact that the event's objective, born as the Biennale di Monza in 1923, was to confer an identity to the country's production, "opening Italian design towards modernity." And 'design' here is always understood in the broadest of senses.

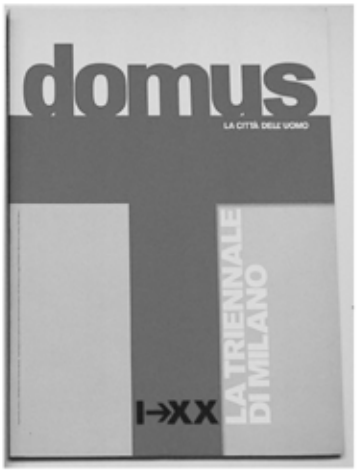
On the other hand, when discussing the Milano Triennale's significance in a larger panorama —both in historical and contemporary terms—, it is often through its institutionalization as an architecture and design museum rather than as a perennial or a recurrent large-scale exhibition, because although "it is true that there are elsewhere museums of architecture and design, schools dedicated to these disciplines, technological structures —perhaps very recent— capable of hosting similar events, these are still buildings not specifically dedicated to these purposes" (Besana, 2015).

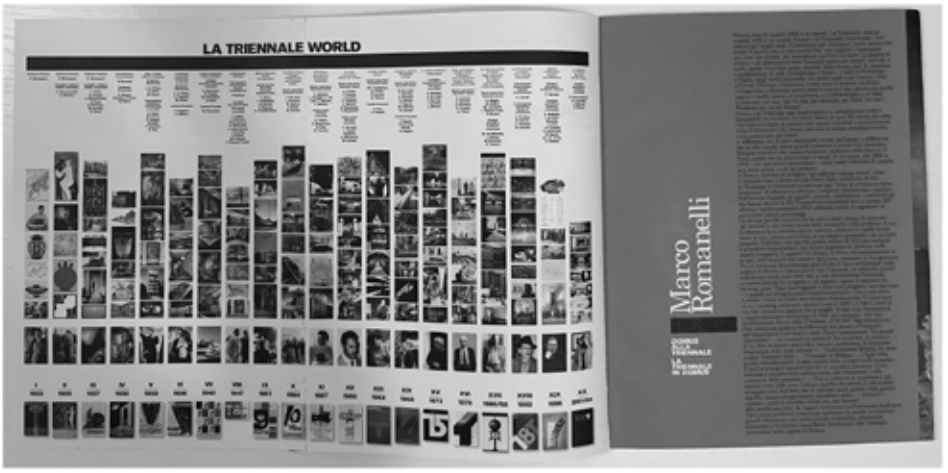
Furthermore, even if the different periodizations emphasize the importance of architecture within the Milano Triennale —particularly from the 1930s onward1— and may also examine its significance for architecture discourse beyond Italy, they rarely explore the Milano Triennale's importance for architecture exhibitions (for instance, the first architecture exhibits within Venice) and, even more noteworthy, its relevance for architecture perennials, despite being the first of its kind. Hence, while its foundation can be of course understood through the Italian and European context of industrialization and subsequent exhibits, understanding the Milano Triennale as the origin of a different universe —that of architecture perennials— opens a different 'world,' one that has been in fact dominated by Venice: "In the forty years since the first iteration of Venice Architecture Biennale, the field of architecture has seen a remarkable change in the role played by exhibition-making," states the book description of Biennials/Triennials (Columbia Books, 2019), which discusses the "rapid proliferation of large-scale perennial exhibitions —particularly in the twenty-first century—," making them today "an integral part of our discipline." However, despite its "locality," the Triennale was part of a crucial period in the history of architecture exhibitions and, as an exhibition, as a laboratory, as a platform, as a construction engine for the city, as a cultural institution, as an architecture and design museum with a year-round program, and so on; ephemeral and permanent, in its continuity and in the survival of its discontinuities, in its failures and reinventions, it somehow has embodied or put to test every —or almost every— characteristic to discuss architecture perennials, their potential and pitfalls. And maybe this is one hypothesis: that the architecture perennial as a device has much to learn from the Milano Triennale's history. Or at least, that an exercise of contextualization —of situating and drawing connections— among the Triennale and the international architecture exhibition scene of the twentieth century— could offer not only a productive reading but also a possible method to study such history. Even more so now, when we have a troubling and paradoxical sense that history is repeating itself at the same time that we seem to be reaching the end of an era. This research, thus, aims to construct (or reconstruct) that panorama, keeping one eye on the past and the other on the contemporary architecture perennial and exhibition phenomena.

#architecture, #exhibitions, #perennials


domus


L'era
Biennalozoica
The Biennialozoic
Era
Una biennale è un campo
di prova in cui il progetto
affronta nuove e inedite
problematiche sociali


domus
LA CITTÀ DELL'UOMO
I→XX
LA TRIENNALE
DI MILANO


LA TRIENNALE WORLD
Marco
Romanelli

Steiner's Gartenstadt Zürich (1942–1957). Tracing the Legacy of Housing as Urban Commons

Natalia Voroshilova



Cycle 40th

Supervisors Filippo De Pieri, Gaia Caramellino, Tom Avermaete

Captions

Figure 1 - Aerial view of Siedlung Im Gut (Baugenossenschaft Im Gut, 1949–1955, architects Karl Egender, Werner Müller), Zürich-Wiedikon, ca. 1958. by Baugeschichtliches Archiv Zürich. No photographer specified. CC BY-SA 4.0.

Figure 2 - Development study for Albisrieden-Heuried by A. H. Steiner, 1955. Baugeschichtliches Archiv Zürich. Public Domain.

Figure 3 - Photograph of a street view of Siedlung Im Herrlig (Allgemeine Baugenossenschaft Zürich, 1947–1948, architects Aeschlimann & Baumgartner), Zürich-Altstetten, by the author.

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How has the legacy of Steiner's Gartenstadt Zürich (1942–1957) persisted, transformed, and been contested across Zurich's physical fabric, planning discourse, and urban identity over time?

This research investigates Steiner's Gartenstadt Zürich (1942–1957) as the last and only moment in the city's history when a comprehensive vision for urban development was collectively articulated and materially implemented. Conceived as a large-scale public campaign to guide an unprecedented level of housing production, the project aimed to embed shared civic ideals into physical spatial form. During this period, Zurich's ambition to shape its future coincided with exceptional political and institutional leverage: rapid demographic expansion, federal housing subsidies, active land policy (Bodenpolitik), and a cooperative development framework. These forces converged in a unique historical context, where a broad public consensus—reinforced by the sociopolitical cohesion of wartime Switzerland—enabled an extraordinary degree of alignment between planning institutions, political actors, and housing cooperatives. The result was the city's largest urban expansion, which continues to define its territorial structure and its urban commons.

While existing scholarship has examined Zurich's Gartenstadt primarily through planning instruments, institutional frameworks, and housing policies (Weidmann 2000; Eisinger 2004; Kurz 2008; Koch et al. 1990), less attention has been paid to how its legacy has evolved across spatial, discursive, and cultural dimensions. Building on these studies, this research focuses not only on the original project's implementation, but also on its afterlife—tracing how the garden city idea has been adapted, translated, and rearticulated through spatial forms, collective memory, and urban discourse. Recent studies on cooperative housing (Glaser & ETH Wohnforum 2014; Kockelkorn et al. 2024) and urban terminology (Topalov 2010) further inform this reassessment.

Today, the Gartenstadt survives only in fragments. While Zurich again faces rapid growth under severe housing pressure, outdated typologies and insufficient densities of Steiner's developments have led to widespread demolition and replacement. Contemporary projects attempt to engage critically with this legacy: key spatial ideas are reframed through the languages of climate adaptation, urban collectivity, and individual well-being. The garden city continues to circulate in planning guidelines, architectural discourse, and everyday urban imaginaries. Its material traces still structure Zurich's neighbourhood commons: gabled volumes embedded in gentle topography, shared green spaces, natural stone paths, and filigree entrance canopies.

This research approaches Steiner's Gartenstadt as a fragmented yet resonant archive. It seeks to reconstruct the cultural and spatial legacy of this collective urban vision—realised through housing—by tracing the everyday interfaces that together produce the urban commons: entrances, paths, gardens, and street edges. Each figure is treated as a spatial actor—a lens through which to examine the intentions, negotiations, and transformations that shaped and reshaped the project over time (Keil, Riesto & Avermaete 2021). Methodologically, the research draws on an actor-based microhistorical approach to construct layered narratives that uncover the complex political, architectural, and social processes behind each figure (Bonomo, Caramellino, De Pieri et al. 2015).

The study is structured as an atlas of five to six microhistories of spatial-narrative figures—protagonists of Steiner's Gartenstadt urban commons—such as Hauseingang, Eingangweg, Siedlungsgartenraum, Spielplatz, or Kindergarten. These figures serve as entry points for reconstructing the layered histories of conception, planning, construction, appropriation, and reinterpretation. To do so, the research combines heterogeneous sources: interdisciplinary archival materials, oral histories, mapping, drawing, and photography. The atlas ultimately aims to offer a critical and situated portrait of Steiner's Gartenstadt Zürich—reframing housing as a central instrument in the production of the urban commons.

#gartenstadt, #housing urbanism, #urban commons







Participatory Frameworks for Age-Friendly Spaces: Integrating Top-Down and Bottom-Up Approaches in Spatial Design

ZHAO Manli



Cycle	40th
Supervisors	Michele Bonino
Research Group	China Room

How can participatory design frameworks effectively integrate top-down policies and bottom-up initiatives to co-create age-friendly spaces across urban and rural contexts?

With the rapid acceleration of urbanization and population ageing, China faces increasing pressure to adapt its urban and rural environments to meet the needs of its growing elderly population. National policies have emphasized the importance of ageing-friendly renovations, aiming to create safer, more accessible, and inclusive spaces for older adults(Gong et al., 2012). However, while efforts to promote ageing-friendly environments are expanding, they largely focus on physical infrastructure improvements and standardized design interventions, often overlooking the diverse lived experiences and evolving social needs of elderly residents across different contexts.

Currently, ageing-friendly space development in China is predominantly driven by a top-down approach, led by government policies, expert planning, and standardized guidelines. This approach ensures efficiency and regulatory compliance but tends to prioritize technical upgrades over meaningful engagement with older adults. In contrast, bottom-up, community-driven practices—such as initiatives led by local NGOs, community groups, and universities—actively seek to reflect the daily experiences and preferences of elderly residents through localized actions, advocacy, and small-scale interventions. However, these grassroots efforts remain relatively scarce and face significant limitations due to insufficient policy support, limited funding, and a lack of integration with formal planning processes. As a result, the disconnect between these two approaches leads to fragmented and less effective transformations of spaces intended to serve elderly populations.

To address these challenges, this research proposes the development of a participatory design framework that integrates top-down policies with bottom-up community initiatives(Tian et al., 2022). Specifically, this study seeks to answer four core research questions:

(1) What are the limitations of current top-down approaches in designing age-friendly spaces across urban and rural contexts?

(2) How can participatory design approaches enhance the effectiveness of age-friendly space transformations in both urban and rural settings?

(3) What participatory strategies can successfully promote bottom-up engagement in the creation of age-friendly spaces?

(4) How can urban and rural experiences of participatory design inform the development of adaptable frameworks for age-friendly space design?

The research will adopt a multi-method approach, combining participatory design techniques such as co-design workshops, focus groups, and real-time feedback mechanisms with digital innovations. In particular, the study will explore how emerging digital tools — including large language models (LLMs) — can facilitate communication between communities and policymakers, helping to translate grassroots insights into actionable planning strategies(Couclelis, 2005). Through comparative case studies conducted in both urban and rural contexts, the research will examine how participatory methods can bridge institutional objectives and community-driven aspirations, while also identifying context-specific challenges and opportunities. Ultimately, the project aims to construct an adaptable and scalable participatory design framework that not only enhances policy responsiveness but also empowers elderly residents as active contributors to their living environments. This framework aspires to inform future policy and design practice, contributing to the creation of genuinely inclusive and age-friendly spaces.

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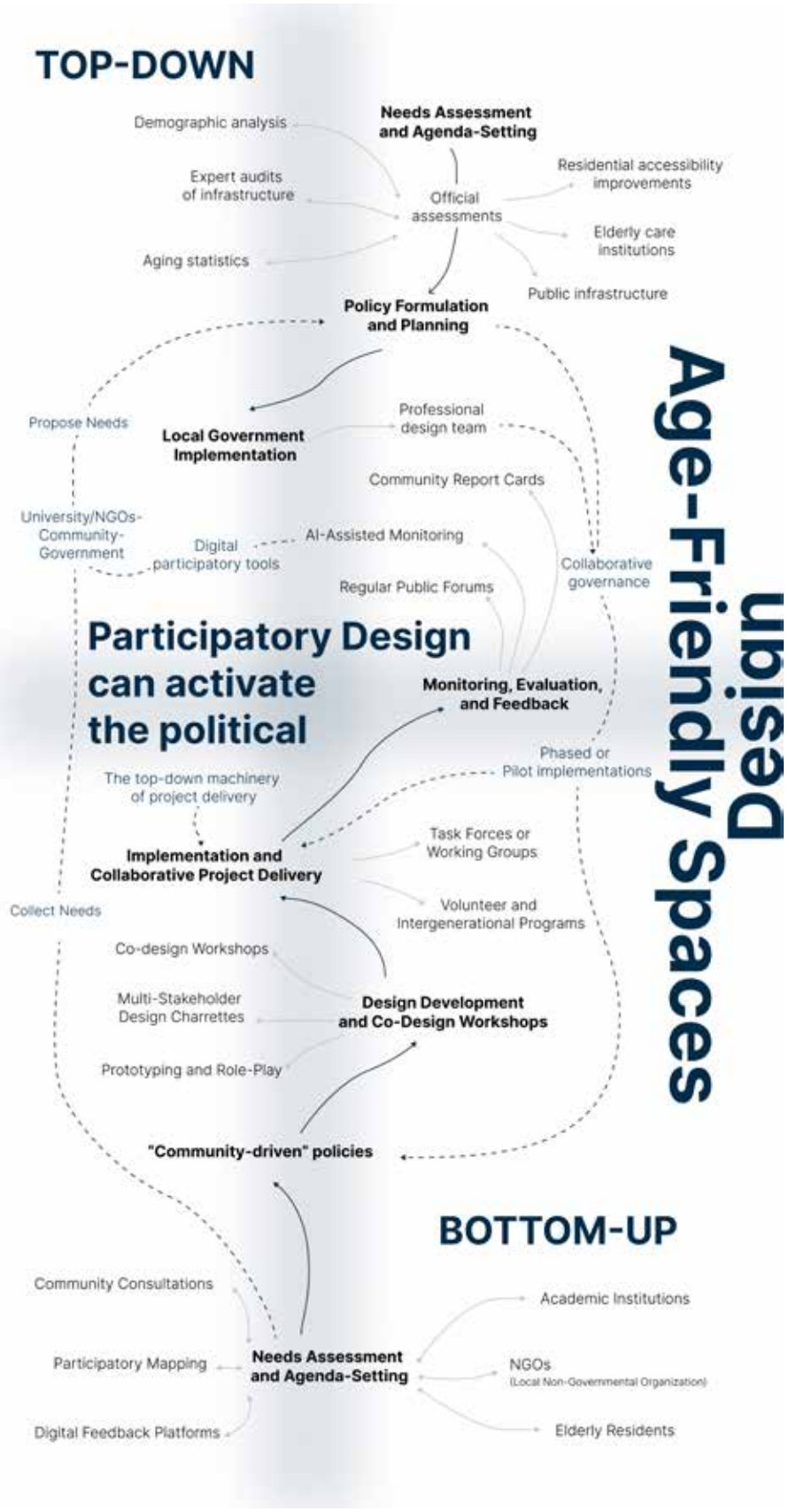
#participatory design, #age-friendly spaces, #top-down and bottom-up integration


TOP-DOWN
Needs Assessment and Agenda-Setting
Demographic analysis
Expert audits of infrastructure
Aging statistics
Official assessments
Residential accessibility improvements
Elderly care institutions
Public infrastructure
Policy Formulation and Planning
Propose Needs
Local Government Implementation
Professional design team
Community Report Cards
University/NGOs-Community-Government
Digital participatory tools
AI-Assisted Monitoring
Collaborative governance
Regular Public Forums
Participatory Design can activate the political
Monitoring, Evaluation, and Feedback
Phased or Pilot implementations
The top-down machinery of project delivery
Implementation and Collaborative Project Delivery
Task Forces or Working Groups
Volunteer and Intergenerational Programs
Collect Needs
Co-design Workshops
Multi-Stakeholder Design Charrettes
Design Development and Co-Design Workshops
Prototyping and Role-Play
"Community-driven" policies
Age-Friendly Spaces Design
BOTTOM-UP
Community Consultations
Participatory Mapping
Digital Feedback Platforms
Needs Assessment and Agenda-Setting
Academic Institutions
NGOs
(Local Non-Governmental Organization)
Elderly Residents

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AFTERWORD

Challenging knowledge as a commitment to the future

Ana Tostões (CiTUA, Instituto Superior Técnico, Lisboa)

The DASP Yearbook is the outcoming of the ongoing research works driven by the PhD students within the Dottorato in "Architettura, Storia e Progetto" of the Department of Architecture and Design of Politecnico di Torino.

The chosen topic "environments" as title for this compilation is a strong topic. Dealing with changing contexts, the themes under research, analysis and critical interpretation by the PhD candidates epitomize contemporary social issues, reflecting the era in which we live in and demonstrate the power of architecture in addressing the challenges of the future.

Changing contexts seems to be a condition. A growing set of reciprocal interrelations has emerged between the various research projects and the diversity of topics relating to diverse environments. The rich dialogue established between history and space influences the shaping of an "open source" approach to knowledge that may be termed "global architecture culture" in environmental terms.

The "major contemporary issues" are framed in the researches with the responsibility of analysing humanity's greatest challenges and futures, covering the impact of technology (AI ethics, Internet rights), social justice (equality, equity), environmental survival (climate change, energy), governance, and identity, considering pressing questions around fundamental human needs such as "Why do we live in society?" and "How do we ensure a liveable future?" for all, especially in the context of the rapid change and uncertainty we are experiencing.

The key questions behind the research trends and those posed by society are the driving forces of the DASP realm. Following the DASP PhD Day involving the three doctoral programmes, the PhD candidates enrolled on a variety of research topics linked by a shared international theme evident in the students' group and their research topics.

I believe this worldwide diversity of interest, alongside the impressive number of students, is an important mark of the programme.

The DASP research methodology is reflected in the Yearbook by the rigorous and sharp presentation set. The organization of the book recovers the posters presented in the exhibition of all students at the opening of the programme, followed by discussions on the various works in progress last April. It is important to mention the effectiveness of communication, which adapts perfectly to all cases, as the students had to organize the information according to a logical sequence: starting with the title, it is followed by the research question, a summary, keywords accompanied by references, images, and captions. And, of course, in a neutral register, the identification of the student with a photograph, the cycle to which they belong, the names of the supervisors, and the research group or research laboratory.

The three cycles presented (38, 39, and 40) correspond to more than 50 students. The degree of internationalization is notable, both in terms of the growing number of international students and the chosen themes covering a wide geographical and thematic spectrum, denoting the attractiveness of DASP worldwide. From China to the Balkans, from Asia to Europe and Latin America, the themes are cross-cutting. From post-colonialism to the end of Eurocentrism, from questioning the notion of heritage to delving deeply into the concept of memory, to analysing cities and urban planning on a global scale, the work conducted weaves a fascinating cross-fertilization of creative possibilities. There is also a stimulating wealth of geographies, with emphasis on Asia, namely on China, which is a reflection of the joint programme embodied within the "China Room" research group in consortium with Tsinghua University.

This volume expresses a doctoral education carried as a thematic network fostering critical awareness and intellectual mobility, and so it assumes its explorative condition and responsive challenge to a changing world. Inhabiting the planet seems to be the cross-cutting theme with emphasis on housing, cities, and urban spaces viewed through the lens of history. It goes from agricultural spaces to landscape identity, or plantation ecologies to the climate emergency awareness considering the post-colonial condition in Asia, America or Africa, considering for example the role of design strategies to improve healthcare facilities.

Territorial balancing, inter-species, techno-ecologies; architecture as a device for biological control and exploitation; mapping the urban fabric, urban form and porosity; urban design strategies for a more inclusive and adaptative city; public space and the ecological transition addressing urban regulations, social inequalities, and the politics of green design – these are the tools used in the researches to reconcile historical continuity with modern adaptability during the worldwide rapid urbanization. Addressing transformation while considering heritage as a concept in transition; tackling heritage conservation considering celebration and rituals, industrial legacy and mining exploration; studying a civilization regarding the reinvention of the vernacular; questing the phenomenon that building with cement is less viable and

more expensive than with concrete – these are some other research lines pursued to understand the adaptative potential of architecture.

Furthermore, there are research works following the path of rethinking art creation assuming a critical attitude towards neoliberal logics, going beyond Eurocentric bases, engaging with postcolonial critiques, with attention to cold war studies within the socialist era. They pose questions – going from the large vision of infrastructures or architectural cartography to micro-histories on housing and domestic culture – on how architecture did embody, influence, and mediate the political ideals of the welfare state. In what ways did it contribute to the construction of a collective identity, social equity, and the everyday life of its citizens? How did the individually driven practices act in the transformation of the postcolonial or the post-socialist city? One of these works relates political crises in cities in transition while tracing housing as urban commons, analysing Steiner's Gartenstadt Zürich and how its legacy has evolved across spatial, discursive, and cultural dimensions, not only on the original project's implementation, but also on its afterlife. Others follow the study of how participatory frameworks for age-friendly spaces can be approached in spatial design, while researching space architecture, space industry and geopolitics.

Another important issue relates the research on landscape services demand and supply in cities as Beijing or Turin; or the impact of the Milano Triennale amidst the panorama of architecture exhibitions and institutions worldwide on the nature and history of architectural culture. But there is also a very specific vision on the 100 Years of Architecture at Politecnico di Torino researching on the Manuals as Mirrors of Change, seeking to understand how the pedagogical and study material of the Faculty of Architecture have, since the 1960s, influenced architectural pedagogy while reflecting the sociotechnological changes of the time.

In accordance with the objectives of the doctoral programme, on the one hand, the composition and technology of architecture favour an interpretation of the project as an instrument for measuring the stratifications of theoretical elaboration, technical innovations and modifications of built landscapes. On the other hand, the historical disciplines of architecture and the city, far from a localist vision and thanks to cooperation with other histories (economic, social, anthropological and aesthetic), trace paths that can be followed by architects and urban planners, but also by other scholars in the humanities, such as philosophers and linguists. In recent years, the interconnection of the two research traditions has established the DASP as a research space of reference, capable of fostering innovative humanistic studies within architectural culture.

As we know, a PhD involves an intense attention on research, where the study of architecture at a deep theoretical, historical, technological, and sociocultural level must produce original knowledge. With a focus on research, theory, and innovation, I am confident that questions about how buildings, cities, technologies, environments, and cultures function and evolve will be stimulated by the more than 50 studies currently underway. In the hope of making an original contribution to knowledge, within the framework of independent work guided by the incredible team of supervisors at DASP, it will certainly contribute to our disciplinary area in the near future, with important discoveries for the academic and social fields, and in some way, for a better world.

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DASP IN 2025

COURSES

Hard skills doctoral courses offered by DASP in the academic year 2024/25:

HiPotheses: Histories, Projects, and the state of architectural knowledge
(guest lecture series, with Tom Avermaete, Mia Fuller, José Ignacio Linazasoro, Jala Makhzoumi, Antonio Pizza de Nanno, David Wendland)

Critical theory and the architecture of livability. From refusal to abolition
(Camillo Boano, Marco Trisciuoglio)

Design with/for non-humans: histories, narratives, challenges
(Sofia Nannini)

Designing energy landscapes
(Elena Vigliocco)

Estetica e architettura. Lessico inverso
(Guido Brivio Gabutti di Bistagno, Marco Trisciuoglio)

Housing histories. Investigating 20th-century residential landscape
(Gaia Caramellino, Nicole De Togni, Filippo De Pieri)

Morphologies.
The form of the cities from Nolli to AI
(Marco Trisciuoglio, BAO Li)

Prima delle cose ultime.
Alcuni princìpi per scrivere e pensare scientificamente in architettura
(Sergio Pace)

Research-by-design.
Revisiting architectural design as research and its tools
(Francesca Frassoldati, Matteo Robiglio, Caterina Barioglio)

Research strategies in architectural and urban history
(Filippo De Pieri)

ACTIVITIES

Department events

DAD PhD Day
"The state and perspective of doctoral research"
November 19, 2024
Castello del Valentino
Elena Cogato Lanza (EPFL), Stefano Della Torre (Politecnico di Milano), Lorenzo Imbesi (Sapienza Università di Roma), in conversation with Filippo De Pieri, Claudio Germak, Monica Naretto (coordinators of the PhD programs of the Department)
Introductions by Stefano Grivet Talocia (Director of the Doctoral School) and Michele Bonino (Director of DAD)

DASP Day
April 15, 2025
Castello del Valentino
Poster display of the thesis works
Guest discussants: Beatriz Colomina (visiting professor, DAD), Mark Wigley (Columbia University), Junjie Xi (University of Liverpool)
Keynote Speech: Ana Tostões (Instituto Superior Técnico, Lisboa)

Seminars, workshops and conferences co-organized by DASP

Essere pietra / Being a stone
March 6, 2025
Conference at Castello di Rivoli Museo d'Arte Contemporanea
with Federico Luisetti, Andrea Caretto, Raffaella Spagna
Co-organized by DASP, Castello di Rivoli and Almanac

A+ Lectures
"Critical Unboxing. Projects and Processes"
March-June 2025
Conference series of Politecnico di Torino's Architecture School (Collegio di Architettura)
Coordinated by Cristina Coscia with an organizing and editorial team composed of DASP PhD candidates

IPHS PhD Writing Workshop
May 21–23, Dutch University Institute for Art History, Florence
International workshop co-organized by Filippo De Pieri within the International Planning History Society, with the participation of DASP PhD candidates

Urban Morphology in the Age of Artificial Intelligence
ISUF 2025 Conference
June 17–20, Castello del Valentino
Organized by Marco Trisciuoglio with the collaboration of DASP PhD candidates

Tentacular Thinking! Tentacular Writing?
Castello Dialogue
June 23–26, 2025, Castello del Valentino
International PhD workshop co-organized by Albena Yaneva, Alessandro Armando and Sofia Nannini, with the participation of DASP PhD candidates

Giancarlo De Carlo: Architecture as a Project for Society
August 25–29, 2025, Urbino
International PhD workshop co-organized by DASP and ENSA Paris Belleville, with the support of Università di Urbino, Fondazione Carlo e Marise Bo per la Letteratura Europea, and Fondazione Ca' Romanino

La storia ambientale nei dottorati italiani
September 4–5, Castello del Valentino
PhD workshop co-organized by DASP and SISAM (Società Italiana di Storia Ambientale)

PUBLICATIONS

DASP theses published in book form

Simona Canepa, *Abitare il carcere. Gli spazi della quotidianità della detenzione in Italia*, Siracusa, LetteraVentidue, 2025

Valerio Della Scala, *Oltre l'aporia postbellica. Pristina e la politica della progettazione*, Firenze, Editpress, 2025

Lorenzo Fecchio, *Il Libro dei Misteri di Galeazzo Alessi: La nuova Gerusalemme e il Sacro Monte di Varallo (1565–1572)*, Roma, Officina Libraria, 2025

Elena Guidetti, *The Potential of Form: How to Transform Existing Buildings in Post-Functional Europe*, Berlin, Jovis, 2025

Raimondo Mercadante, *Between History, Ideologies and Conflicts: Architecture in Slovenia, 1968–1991*, Roma, Aracne, 2024

Sofia Nannini, *The Icelandic Concrete Saga: Architecture and Construction (1847–1958)*, Berlin, Jovis, 2024

Monica Naso, *Curated in China: Manipulating the City through the Shenzhen Bi-City Biennale of Urbanism/ Architecture*, Abingdon, Routledge, 2024

Aurora Riviezzo, *Forme di città nuova. Napoli nella storia italiana dell'urban design dalla legge 167 agli anni Ottanta*, Milano, FrancoAngeli, 2025

Books published in the DASP collection "Progetti e storie"

Tommaso Listo, Isabella Consolati (eds.), *Critica, crisi, progetto. Per una politica della tecnologia*, Torino, Accademia University Press, 2025

Prizes awarded to DASP theses and related works

Bruno Zevi Prize for essays in architectural history, 2024: awarded to Valeria Casali for the paper *Clichés, stereotypes, and the North American representations of the post-war Italian architect*

Legacoop Bologna Calanchi-Turrini Prize for PhD theses on cooperation, 2024: awarded to Silvia Cafora for the thesis *Community-Led Housing Development: A Key Ingredient for a New Housing Architecture and Policy*

AISU Roberta Morelli Prize for PhD theses in Urban History, 2024: awarded to Betsabea Bussi for the thesis *Verso la capitale europea della villeggiatura invernale. Istituzioni, attori e processi di trasformazione urbana a Nizza (1815–1860)*

AISU Roberta Morelli Prize for PhD theses in Urban History, 2025: special mention awarded to Elena Giaccone for the thesis *The Common Man of the Street. A conceptual history, 1947–1975*

Plečnik Medal for architectural publications, 2025: awarded to Raimondo Mercadante for the book *Between History, Ideologies and Conflicts: Architecture in Slovenia, 1968–1991*

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The chosen topic “environments” as a title for this compilation is a strong topic. Dealing with changing contexts, the themes under research, analysis and critical interpretation by the PhD candidates epitomize contemporary social issues, reflecting the era in which we live in and demonstrate the power of architecture in addressing the challenges of the future.

Ana Tostões, Afterword