

**History Urbanism Resilience  
Planning Theories, Pedagogies and Practices**

Hein, Carola

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17<sup>th</sup> IPHS Conference ▪ Delft 2016

# HISTORY URBANISM RESILIENCE

VOLUME 07

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Planning Theories,  
Pedagogies and  
Practices

International Planning History Society Proceedings





17<sup>th</sup> IPHS Conference ▪ Delft 2016

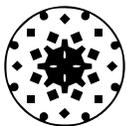
# HISTORY URBANISM RESILIENCE

VOLUME 07

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Pedagogies and  
Practices

International Planning History Society Proceedings



17<sup>th</sup> IPHS Conference, Delft 2016 | **HISTORY ■ URBANISM ■ RESILIENCE**  
VOLUME 07 Planning Theories, Pedagogies and Practices

The International Planning History Society (IPHS) is dedicated to the enhancement of interdisciplinary studies in urban and regional planning history worldwide.

The 17<sup>th</sup> IPHS Conference was held in Delft, The Netherlands, from July 17 to 21, 2016.

The conference theme 'History – Urbanism – Resilience' inspired contributions investigating a broad range of topics in planning history: modernisation, cross-cultural exchange, and colonisation; urban morphology, comprehensive planning, and adaptive design; the modern history of urban, regional and environmental planning more generally; destruction, rebuilding, demographics, and policymaking as related to danger; and the challenges facing cities around the world in the modern era.

*Convenor*

Carola Hein, Chair, History of Architecture and Urban Planning, TU Delft

This series consists of seven volumes and one Book of Abstracts. The seven volumes follow the organisation of the conference in seven themes, each theme consisting of two tracks and each track consisting of eight panels of four or five presentations. Each presentation comprises an abstract and a peer-reviewed full paper, traceable online with a DOI number.

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# PREFACE

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Conferences are unique moments of academic exchange; international gatherings allow people from around the world to interact with a scholarly audience and to learn about diverse theories, academic approaches, and findings. Proceedings capture these emerging ideas, investigations, and new case studies. Both the conference of the International Planning History Society (IPHS) and its proceedings place presentations from different continents and on varied topics side by side, providing insight into state-of-the-art research in the field of planning history and offering a glimpse of new approaches, themes, papers and books to come.

As a collection of hundreds of contributions, proceedings are a unique form of publication, different from both peer-reviewed journals or monographs. They are also an important stepping stone for the authors; along with the conversations held at a conference, they are opportunities for refining arguments, rounding out research, or building research groups and the presentations they are often stepping stones towards peer-reviewed articles or monographs. Having a written track record of the presentations and emerging research provides allows conference participants to identify and connect with scholars with similar interests, to build new networks.

Many conferences in the history of architecture, urbanism, and urban planning don't leave an immediate trace other than the list of speakers and the titles of their talks; the International Planning History Society (IPHS) has long been different. The first meeting in 1977 has only left us a 4-page list of attendees, but many of the other conferences have resulted in extensive proceedings. Some of them, such as the conferences in Thessaloniki and Sydney have resulted in printed proceedings, while others are collected online (Barcelona, Chicago, Istanbul, Sao Paolo, or St. Augustine). These proceedings form an exceptional track record of planning history and of the emergence of topics and themes in the field, and they guarantee that the scholarship will be available for the long term.

The conference call for the 17th IPHS conference in Delft on the topic of History – Urbanism – Resilience received broad interest; 571 scholars submitted abstracts. Of those proposals, we accepted 439, many after revisions. 210 authors went through double-blind peer review of the full paper, of which 135 were ultimately accepted. The proceedings now contain either long abstracts or fully peer-reviewed contributions. We are currently establishing an IPHS proceedings series, digitizing earlier paper versions, and bringing electronic ones into one location. We hope that the IPHS Delft proceedings and the whole series will be both an instrument of scholarly output and a source for research and that they will contribute to further establish research on planning history throughout the world.



Carola Hein, Convener  
Professor and Head, Chair History of Architecture and Urban Planning, TU Delft



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# Keynote



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# CHANGE – NEW DIRECTIONS FOR ARCHITECTURE AND URBANISM

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## Floris Alkemade

Chief Government Architect

‘The big challenge for the twenty-first century is the promotion of freedom of thought. The destructive mechanism of the crisis has ensured that exuberance, radicalism and even the longing for utopia have been demolished among architects. I believe these are precisely the qualities we now need in order to innovate.’  
Interview with Floris Alkemade, the Chief Government Architect, ArchiNed, 29 March 2016.

Although demands for a new, social role for architecture are growing louder, central government’s time-honoured role as a guiding force has been marginalised and new strategies are called for.

Chief Government Architect Floris Alkemade presents his vision and agenda for the coming four years. Central to his talk is the search for the social element within the architecture brief and innovation through design.

How can architects and planners engage with social issues such as population decline, migration, vacant buildings and an ageing population? What role does research play in this? What are the conditions under which design can have a real influence? What does this mean for the discipline?

## CHIEF GOVERNMENT ARCHITECT

The Government Architect advises the Central Government Real Estate Agency on the architecture and urban surroundings, not only of state-owned property, either at the Agency’s request or at his or her own initiative. As an adviser to the State, the Government Architect acts independently.

### WHAT DO THE GOVERNMENT ARCHITECT AND HIS OR HER ADVISERS DO?

- Select the architects who will design or renovate state-owned properties.
- Investigate the functional use and potential redesignation of buildings and lands that the State no longer requires.
- Select artists to produce works for new buildings or major renovations, based on the Art Percentage Scheme.
- Encourage the training and professional competences of architects within the context of the Architects Title Act.
- Safeguard the architectural quality of government buildings and how they fit into their urban context.

The Government Architect is a member of the Board of Government Advisers.

## HISTORY OF THE GOVERNMENT ARCHITECT

The title of Government Architect was established more than 200 years ago. The first Government Architect, Jean Thomas Thibault, was quickly assigned a far-reaching advisory role in construction-related matters in Dutch society. That role has since been expanded and reinforced. After 1957, the duties of the Government Architect shifted from producing designs to advising the Government Buildings Agency and central government in general on specific construction projects and offering guidance in broad public discussions concerning the discipline. In the past fifteen years, Government Architects Kees Rijnboutt, Wytze Patijn, Jo Coenen, Mels Crouwel, Liesbeth van der Pol, Frits van Dongen and Floris Alkemade (since 2015) have extended their advisory role by counselling the Dutch Government on such general matters as urban planning, heritage sites, architecture, infrastructure, architectural policy and the fine arts.

Floris Alkemade is Chief Government Architect (Rijksbouwmeester) as of 1 September 2015.

The Chief Government Architect protects the architectural quality of the Dutch state property and their incorporation into the urban area as a whole. He is a Dutch architect, urban designer and former partner of Office for Metropolitan Architecture (OMA). He gives lectures and seminars at universities in the Netherlands, Belgium and France. In August 2006, Alkemade opened his own office and is currently director of FAA and FAA/XDGA. Alkemade works on complex projects both within the Netherlands and abroad. He stands out due to his attention for infrastructure and logistics, as shown by the area development and incorporation of the TGV station in the center of the French city of Lille, as well as studies for the A12 and other Dutch motorways. Themes such as rezoning and urban development are also an important part of his work.

### **Floris Alkemade**

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Planning Theories, Pedagogies and Practices

# Planning Theories, Pedagogies and Practices



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# Universities and Cities: Educational Institutions as Urban Form in Microcosm

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Chair: Jeffrey Cohen



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# THE RESILIENCE OF UNIVERSITY BUILDINGS: DISCIPLINARY DEVELOPMENT AND REPUTATIONAL SYMBOLISM

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**James Hopkins**

*University of Manchester*

Universities have invested considerable resources in their built environment. In many world cities, university architecture sits alongside civic buildings as urban landmarks, in part because student numbers or specialist functions have dictated every increasing size. Building commissions have attracted many notable architects and their exquisite design, innovative features and place in master plans that heralded new physical form for these institutions, have distinguished the results. In common with civic governments and religious bodies, universities have been attuned to the symbolism of their buildings and have invested considerable energies to ensure that their structures reflect their university's importance, reputation and place in society.

However, universities change as the knowledge they acquire and disseminate develops and so their requirements for the built form changes too. Their options have been to demolish and rebuild, or reconfigure structures to suit contemporary needs.

This paper uses the campus of the University of Manchester to explore the resilience of university buildings in the context of developing knowledge.

The paper outlines the development of the University's campus, including the adapted uses of its major buildings and the instances in which demolition and reconstruction have been the response to changing demands. It moves on to explore two cases of resilience through the University's medical school buildings. The first was completed in 1874 and later superseded by a structure completed in 1973. Both buildings were designed for contemporary medical education, research and practise, and their form and use altered with developments in the discipline.

The paper traces the changing physical form of the buildings in light of evolving requirements. It argues that the spaces and configuration of education and research buildings illuminate changes in knowledge and demonstrates how physical structures provide important evidence for disciplinary development. It also argues that the resilience of university buildings is as much connected to their symbolism and reputational status, as resilience built into their original design.

**Keywords**

universities, knowledge, adaptation, symbolism



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# FROM STEM TO STEAM: THE CHANGING ROLE OF UNIVERSITIES IN ARTIST WORKFORCE DEVELOPMENT

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**Amanda Ashley | Leslie Durham**

Boise State University

In the United States, universities or higher institutions of education, have played important roles in helping communities and regions respond and adapt to economic and community crisis. Often treated as part of the “anchor set,” these rooted institutions in the urban core are both planners and stakeholders due to their sizable landholdings, metropolitan location, regional employment numbers, and role in educating and training future workforce participants. While pressures for universities to grow their Science, Technology, Engineering, and Math (STEM) disciplines have increased due to dwindling public investment and criticism of liberal arts educations, some universities are exploring alternative investment or curriculum strategies that include, if not prioritize, creative arts education. They do so not only through traditional curriculum pathways but also through new organizational and governance models. While most regional economic and workforce development research focuses on universities and STEM occupations, we are interested in how universities support arts workforce development in a time when arts, culture, and creative placemaking are viewed as important planning and community strategies for being competitive and resilient in the modern era. In this explorative historical study, we ask several questions. Why have these AED-geared universities taken such a direction? How are they designing, financing, and implementing such innovative strategies? Who are their public and private partners? What are the critical junctures and barriers to change? Our transdisciplinary research cluster explores these questions by applying the panarchy model, developed in ecological science, for understanding how universities envision and position the arts as a strategy in regional economic resilience (Simmie and Martin 2010).  
Simmie, James, and Ron Martin. 2010. The Economic Resilience of Regions: Towards an Evolutionary Approach. *Cambridge Journal of Regions, Economy, and Society*. 3 (1): 27-43.

## **Keywords**

artist workforce development, resilience, anchor institutions, universities



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# THE MAKING OF AN URBAN DESIGNER: INTERDISCIPLINARY GRADUATE EDUCATION AT ISTANBUL TECHNICAL UNIVERSITY (ITU)

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İpek Akpınar | Nuran Zeren Gülersoy | Turgay Kerem Koramaz | Ahsen Özsoy | Ebru Erbaş Gürler

ITU

Any new understanding of the built environment and the ways of modifying urban design needs to incorporate the ability to communicate with different, yet interwoven, disciplines. The design studio is the most popular and widespread method for teaching and training students at every level how to work together on emerging complex urban issues, and how to accept a dialectic exchange, both with instructors and classmates. To what extent can a graduate program, and the design studio, in particular, allow an understanding of complex urban issues, and also nurture an ability to develop resilient projects and policies for emerging contemporary urban problems? What are the benefits of using exchanged or integrated methods of landscape architecture, architecture, and urban planning to improve resiliency? In response to these related questions, this study aims to reveal the challenging milieu of an urban design studio within the ITU Interdisciplinary Graduate Urban Design Programme. The methodology of this study is based on a literature review of “urban design education and studio culture.” This paper also provides a critical discussion to allow a broader understanding of resiliency in urban design education, and it is hoped that it may serve as a guide for the reassessment of urban design teaching within the broader history of planning.

## Keywords

resilient urban design, interdisciplinary, graduate design education

## How to Cite

Akpınar, İpek; Gülersoy, Nuran Zeren; Koramaz, Turgay Kerem; Özsoy, Ahsen; Gürler, Ebru Erbaş. “The Making of an Urban Designer: Interdisciplinary Graduate Education at Istanbul Technical University (ITU)”. In Carola Hein (ed.) *International Planning History Society Proceedings, 17<sup>th</sup> IPHS Conference, History-Urbanism-Resilience, TU Delft 17-21 July 2016, V.07 p.021, TU Delft Open, 2016.*

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## INTRODUCTION: SETTING THE CONTEXT

**“In the recent decades rapid and uncontrolled urbanization, inadequate land-use planning and construction, insufficient infrastructure and services, and environmental degradation caused the increase of earthquake disaster risks (which stands at about 65% during the coming 30 years) in Istanbul.”**

The literature related to urban design theories and applications largely focuses on the making of places for people<sup>2</sup>, and emphasizes the value and significance of “place.” Since urban design operates in the “real” world, with its field of opportunity constrained and bounded by both economic (market) and political (regulatory) forces, the associated literature also asserts the importance of urban design as a process. Ambiguities in the definition of urban design also stress differing views of the discipline, such as “product,” “process”, and the “dilemma between product and process.”<sup>3</sup>

Although the urban design is typically defined as the “common ground” between architecture and town planning, it is inherently collaborative and interdisciplinary as it requires an integrated approach that utilizes the skills and expertise of a wide range of professionals.<sup>4</sup> Discussions on urban design theories and applications have revealed that the main challenges for the teaching of this profession are calculating to what extent the curricula can be improved and made more interdisciplinary, and understanding how programs can be modified to reflect recent paradigm shifts regarding interventions on the built environment. The introduction of this paper is structured to respond to these two issues. In the increasingly globalized world, the “modern” urban experience, as depicted by Walter Benjamin and others at the beginning of 20<sup>th</sup> century, has intensified and gained numerous complex and ambiguous layers.

The fragmentation of everyday life, the speed of transportation and communication, and the changing conceptions of time have all deepened the transformation of human existence. In the meantime, however, some of the most crucial spatial and cultural public landmarks of the city have been destroyed for the capitalization of space. In the main cities, this is the political and spatial climate in which today’s urban designers practice, and is most assuredly true for the case area under discussion in this paper: Istanbul.

Like all the other actors that take part in the space production processes of the major cities like Istanbul; the role of urban designers can only be conceptualized concerning the urban politics that dominate those processes.<sup>5</sup> Within neoliberal space production processes, the architect-planner/landscape architect becomes visible only for as long as his or her reputation enhances the profitability of the process. Nevertheless, it is hard to say that this visibility corresponds to a comprehensive architectural and planning/design agenda that includes the “right to the city” due to the intense pressure of capital upon urban space.<sup>6,7</sup> To sum up, the architect-planner / landscape architect plays certain roles and creates certain domains of influence within the mechanisms of urban space production. However, the capability of these functions to create powerful disciplinary positions depends on upon the development of critical yet constructive; uncompromising yet collaborative; creative yet participative practices that can arrive at the “productive differences” claimed by Tanyeli.<sup>8</sup>

All through the process of globalization and the ambiguities it has produced, the city of Istanbul has been faced with a series of complex and uncertain problems due to the emergence of neoliberal urban policies, the continuing issues of the residential neighborhoods of former internal migrants, and finally the new challenges thrown up by the arrival of a massive number of transnational migrants. Similar space production processes are underway in most metropolis around the world, and Istanbul is no exception. Today, it can be argued that the mainstream space production processes in Istanbul be shaped by neoliberal urban policies adopted by global capital working hand-in-hand with central and local governments.<sup>9</sup>

The question then becomes; what kind of design education can challenge the creation and demands of this urban condition? The design studio is the most popular and widespread method of the teaching and training of students at every level to work together on emerging complex urban issues, to accept a dialectic exchange with instructors and classmates, and to acclimatize to the “real-world” environment with all of the noises, intrusions and nuisances of the modern city. To what extent can a graduate program, and the design studio, in particular, give students an understanding of complex urban issues, and improve urban design skills including the ability to develop resilient projects and policies for contemporary urban problems?

In response to the ambiguous context of globalization, this paper aims to reveal the challenges facing the urban design studio of the ITU Interdisciplinary Graduate Urban Design Programme. What makes this design studio extraordinary is not only the participation of three departments but also the multi-departmental student profile. By incorporating three professions (architects, planners, and landscape architects), the urban design studio is intended to give the students the ability to work in interdisciplinary groups with a high level of interaction and dialogue. The studio is also an attempt to encourage the students to consider different viewpoints, and to combine their undergraduate knowledge with disciplines outside their specialized fields.

In this paper, the research methodology is based on a literature review of urban design education and studio culture. Following a brief description of the program, the paper focuses on the studio’s interdisciplinary design and teaching approach in response to complex urban issues, namely; evaluating ambiguous events concerning urban design theories; incorporating resilient practices and methods, and refining the design process. By focusing on the objectives of the studio, the paper also gives a description of the contextual design process and briefly depicts the abilities gained through a graduate-level education in urban design. Finally, its concluding remarks regarding the graduate education of an urban designer are made according to its bearing on improving resiliency.

## **INTERDISCIPLINARY DESIGN AND EDUCATION APPROACH IN URBAN DESIGN MASTER PROGRAMME**

There is some confusion over the interdisciplinary nature of urban design. One of the reasons for this is that each of the traditional design professions regards the products of its domain as “urban design” if they are located within cities. Also, architects assume many urban problems can be treated as architecture, landscape architects as landscape architecture and city planners as city planning. They look at urban design through the norms of their professional products.<sup>10</sup>

The term first became widely known during a lecture entitled “urban design,” which was given by Joseph Lluís Sert (the president of CIAM and Dean of the Harvard University Graduate School of Design) at the AIA conference in Washington, D.C. in 1953. At the time, Sert was advocating the cultural and political value of urban pedestrian life and the integration of city planning, architecture and landscape architecture.<sup>11</sup>

To understand interdisciplinary nature of urban design discipline, it still seems necessary to comprehend the climate created by the followers of CIAM, who believed that there was no “borderline” between architecture and city planning.<sup>12</sup> If “urban design is a joint work of architect, planner and landscape architect”, as described at the Harvard Design Conference in 1956, how can these disciplines’ knowledge be integrated into a holistic perspective to solve new urban agenda of cities, today? Moreover, what are the benefits of using exchanged or integrated methods of these three disciplines concerning resiliency? Having far more than merely a physical or quantitative existence, the contemporary city is a multiplicity of social, political, cultural and economic projections. Architects, planners, and landscape architects are only one social actor in the complex and multi-layered process of the production and reproduction of space. This process involves various mechanisms within which different interest groups and actors play different parts according to their identities, responsibilities, and agenda. As different

space production patterns demand different urban design services in the global city, it is only fair to talk about a multiplicity of “roles” and positions as architects-planners / landscape architects instead of a single urban design practice.

More than ever, the spatial and political climate of the city in the 21<sup>st</sup> century requires the production of productively critical, pluralistic, inclusive urban design practices that advocate public welfare. In that sense, such practices are becoming more and more interdisciplinary as they incorporate a delicate balance between urban politics and economics, plurality and singularity, ethics and aesthetics, and urban and ecological. Therefore, it is crucial to inject this disciplinary awareness, sensibility, and versatility. In other words, urban design education should adopt itself to respond to contemporary urban conditions and should take the city as a design laboratory where real life situations are critically addressed to properly equip the young designer practicing within today’s urban environment with;

- a critical mindset that can problematize and question given urban conditions;
- a sense of awareness that urban space is almost always politically and economically charged;
- an open mind towards alternative viewpoints and existences within the urban realm;
- the ability to work with different disciplines and professionals as a team player;
- the versatility to cope with and produce responsive solutions to rapidly changing urban demands and conditions;
- the capability to reconcile and negotiate conflicting urban agendas while preserving his/her disciplinary stance;
- the substantiality to form his/her unique disciplinary voice while listening and responding to others;
- a proactive disciplinary approach that conceptualizes the citizens/public as the new client to develop a disciplinary reflex to define and address urban problems even before being commissioned.

The question then becomes one of the formulating ways to educate such an urban design professional. When attempting to improve education quality, an investigation of urban design graduate programs further afield becomes necessary. Since this paper aims to discuss the case of an interdisciplinary urban design master program, the “Continuous Quality Improvement Process in Graduate Education (LESKIS)<sup>13</sup>” criteria will be used to highlight certain points for this investigation. Various master programs (especially those of American and British Universities) were evaluated, and their curricula were compared concerning the content and structure of their studio courses. The cases studied for this paper included such programs as Master of Architecture in Urban Design or Master of Science in urban design. The curricula of the selected urban design master programs mainly contained modules such as history and theory, seminar, studio, final dissertation (or design project report). The programs which were evaluated during this process are:

- Harvard University, Graduate School of Design, Department of Urban Planning and Design - Master of Architecture in Urban Design<sup>14</sup>
- The University of Westminster, School of Architecture and Built Environment - Master of Architecture in Urban Design<sup>15</sup>
- University College London, The Bartlett School of Architecture - Master in Urban Design<sup>16</sup>
- University of California, Berkeley, College of Environmental Design - Master in Urban Design<sup>17</sup>
- London South Bank University, Faculty of Arts and Human Sciences, Department of Urban, Environment and Leisure - Master of Architecture in Urban Planning Design<sup>18</sup>
- The University of Texas at Austin, School of Architecture - Master of Science in Urban Design<sup>19</sup>
- Massachusetts Institute of Technology - joint graduate program in Urban Design<sup>20</sup>

When selecting the cases of programs around the World, different types of programs are chosen in terms of their department and school, holding the program. Among these master programs, Massachusetts Institute of Technology (MIT) offers an interdisciplinary program in urban design by the execution of two departments “Architecture” and “Urban Studies and Planning.”<sup>21</sup> Both in their studios and dissertations, students of this

program are expected to combine creativity and designing skills to develop the quality of the environment usually associated with “architecture,” with the ability to regulate, managing the development and decision-making among multiple stakeholders that planners possess in the urban planning process. The urban design studio modules in all master program curricula, account for at least eight hours a week throughout each 14-week term (Harvard University<sup>22</sup> and University of California, Berkeley<sup>23</sup>. Studio modules may also contain lecture hours for studio credits, or separate seminar courses for separate credits integrated with those for the studio modules. In cases where such a significant amount of the course load and content is being delivered through studio modules, ateliers should be conducted on at least two days per week to allow the professional review of the students’ design work.

In Harvard University and University College London, the urban design studio modules are conducted across two consecutive terms. In these cases, the first term studio is an introduction and preliminary discussion of urban design projects containing core issues and strategies in spatial consideration. The second term studio develops design ideas for detailed review, involving various international case studies.<sup>24,25</sup> For instance, in the 2012-2013 academic year, urban design students at Harvard University studied Mexico City and Milano, and students in University College London studied Marseille, Messina-Sicily, Beirut, Tunis, Algiers and Athens (Studio Option: Mediterranean). The Urban Design Master Program at the University of Westminster<sup>26</sup> also consists of two-term studio modules. The first term studio at this university uses a master planning approach aimed at improving urban design and development planning skills, however, the second term studio is dissimilarly organised with subject-specific studio modules such as conservation policy and practice; environmental policy, assessment and climate change; housing and regeneration; public participation and engaging communities; public realm: significance, design and experience.

## HISTORICAL BACKGROUND OF THE URBAN DESIGN MASTER PROGRAMME AT ITU

Urban design graduate programs in Turkey are provided within the auspices of Urban and Regional Planning Faculties. In general, the institutions of Architectural Faculties in Turkey offer “Urban Design” courses at both the undergraduate and graduate level, mostly in their urban and regional planning and landscape architecture departments. However, the architectural curricula may include related topics in “urban studies and issues”.

In 1973, an administrative reorganization was carried out in the Istanbul Technical University Faculty of Architecture, and thirteen chairs were created within the Faculty. Among them, three chairs were responsible for urban design and planning education. There were, Planning Theories and Methods Chair, Zoning and Transportation Chair and Urban Design and Renewal Chair. During that time, four urban planning lectures (2 hours each) and four urban planning projects developed and took place in the curriculum of the architecture education.<sup>27</sup>

ITU has started two levels undergraduate and graduate education starting from 1969-1970 Academic Year. The first urbanism master program including urban design issues was established in the 1974-1975 Academic Year. This education had two years of graduate (MSc) level studies which followed a 5-year (later 4-year) undergraduate course and which replaced the former 10-semester, 5-year advanced undergraduate engineering (architecture) degree. According to the ITU 1978-1979 Faculty of Architecture Post-Graduate Catalogue, there were five professors members when this program was established. The catalog, published in 1979, also gave detailed information about the ITU Urbanism Graduate Program Curriculum<sup>28</sup> (see Table 1).

1ST SEMESTER	2ND SEMESTER	3RD SEMESTER
Statistical Analysis	Geography and Settlements	Concepts of Urban Design

ELECTRONIC CALCULATIONS	URBAN ENGINEERING	URBAN RENEWAL
Urban Sociology	Policies of Settlements and Housing	New Urban Policies
Urban Economy	Land Use Planning	Principles of Metropolitan, Regional and Country Planning
Theories on Planning	Equipment Planning	Landscaping
Planning Techniques	Transportation Planning	Diploma Preliminaries
Urban Evolution	Urbanization and Migration: Demographics and Settlement Dispersion	Studio III (Urban Design and Urban Renewal)
Planning Management and Legal Perspectives (Land Use and Transportation)	Studio II	
Studio I (Planning Theories and Techniques)	4th Semester	
Elective Courses (Current Planning Problems)	Secme Dersler	
Elective Courses	Diploma Preliminaries	
		Diploma Thesis

TABLE 1 ITU Urbanism Graduate Program Curriculum in 1979<sup>28</sup>

A new Higher Education Law (no 2547) came into force in 1981 in Turkey, and the academic organizations of the Faculties of Architecture were renewed, and two Departments were established: The Department of Architecture and Department of Urban and Regional Planning. At ITU, the first undergraduate students of the Urban and Regional Planning Department started in the 1983-1984 and graduated in the 1986-1987 Academic Year.<sup>29</sup>

The post-graduate education for the first graduate students of the Department began in the 1987-1988 academic year. To provide specialization in the urban planning profession, the Department offered four graduate programs: Urban Planning, Regional Planning, Urban Design and Landscape Planning Master's and Ph.D. programs were founded. These programs were managed by Department of Urban and Regional Planning Division within the ITU Graduate School of Science, Engineering, and Technology, and offered Master's and Ph.D. level degrees in Urban Design. The first Curriculum of the Urban Design Master Program is given in Table 2.<sup>30</sup>

	FALL TERM	CREDITS	SPRING TERM	CREDITS
<b>Compulsory</b>	Applied Statistics	2	Studio II	2
	Studio I	2	Urban Design Theory II	2
	Urban Design Theory	2		2
<b>Electives</b>	Urban Land-use Planning	2	Culture and Urban Form	2
	Visual Analysis Techniques	2	Central Business Districts and Planning of Urban Centres	2
	Use of Plants in the Design of Space	2		2
	Evaluation of Historic Environment	2	Urban Renewal Methodologies in Developing Countries	2
	Housing Design	2		2
	Use of Meteorological Data for Architectural Design and Urban Planning	2	Planning Problems in Different Urban Design Areas	
	Urban Pattern	2	Urban Conservation Case Studies	2
	Effects of Climate and Energy on Settlement Design	2	Urban Design by the Use of Computer Techniques	2
Solar Radiation and Settlement Design	2	Appraisal of Climate Performance in Settlement Patterns	2	

TABLE 2 ITU Urban Design Graduate Program Curriculum in 1989<sup>30</sup>

The master's and Ph.D. programs governed by ITU Institute of Science and Technology were reorganized in the 2001-2002 Academic Year. Four master's programs and four Ph.D. Programs under the Urban and Regional Planning Division were also reconstructed. Three Ph.D. Programs combined into the one, and titled Urban and Regional Planning Ph.D.; Urban Design Ph.D. program was joined with the Urban and Regional Ph.D. Program. The Landscape Graduate Program Master's and Ph.D. were transferred to newly established Department of Landscape Architecture. Urban Design Master's Program was formed under the control of inter-disciplinary structure consisting of Urban Planning, Architecture and Landscape Department.<sup>32</sup>

## **BRIEF DESCRIPTION OF CURRENT URBAN DESIGN MASTER PROGRAM AT ITU**

After this broad shift, the Interdisciplinary Urban Design MSc Program was conducted under the auspices of the ITU Graduate School of Science, Engineering and Technology in collaboration with three departments: Architecture, Urban and Regional Planning, and Landscape Architecture in the Faculty of Architecture. In 2011, Urban Design Master Program was revised according to the guidelines of the ITU Graduate School of Science, Engineering and Technology's "Continuous Quality Improvement Process in Graduate Education" program. To this end, the aims and the mission of the program were redefined, a program advisory board was formed, and the curriculum was revised.<sup>33</sup>

The vision of the Interdisciplinary Urban Design MSc Program is defined as: "to educate those students specializing in the field of urban design by focusing on improving urban spatial quality and physical form and to evaluate ambiguous events concerning urban design theories, resilient practices, methods and the design process itself."

The most recent Interdisciplinary Urban Design MSc Program requires a total of 36 credits (90 ECTS). The Program includes compulsory courses (8 credits), electives (28 credits) and a seminar presentation (Table 3)<sup>34</sup>. The program finishes with the submission of the thesis. The courses include research methodology (12.5% of the entire program); theory (12.5%); design thinking (25%); and several specialized fields of urban design study. The specialized areas of study offered by this Interdisciplinary Urban Design MSc Program are Environmental Quality of the Urban Fabric; Urban Design Standards; Urban Renewal, Urban Preservation; Urban Development; Design of New Residential Areas; Urban Image and Identity; Computer Aided Urban Design; and The Evaluation and Design of Public Areas. The curriculum of Urban Design Master Program at ITU is intended to cover the dimensions of urban design research fields such as morphological, perceptual, social, visual communicative, functional and temporal issues. There are currently 117 students in the program, 35 of whom have passed the courses and had only to submit their dissertations. There are 3.4 students per faculty member in the program.<sup>35</sup>

	FALL TERM	CREDITS	SPRING TERM	CREDITS
<b>Compulsory</b>	Urban Design Project I	6 (15)	Urban Design Project II	6 (15)
	Urban Design Theory	3 (7,5)	Contemporary Approaches to Urban Design	3 (7,5)
	Research Methods for Urban Design	3 (7,5)	Urban Morphology	3 (7,5)
	Seminar	—	Seminar	—
	Specialization Field Course	—	Specialization Field Course	—
<b>Electives</b>	Housing Design	3 (7,5)	Urban Renewal Methods	3 (7,5)
	Urban Pattern	3 (7,5)	Social Ecology and Built Environment	3 (7,5)
	Environmental Evaluation of Urban Open Spaces	3 (7,5)	The Role of Urban Design in Economic Development	3 (7,5)
	Land Development Process	3 (7,5)	Sustainable Urban Design	3 (7,5)
	Cities of Tomorrow	3 (7,5)	Interdisciplinary Design Research	3 (7,5)
	Urban Representation: (re) mapping of Istanbul	3 (7,5)	Special Topics in Urban Design	3 (7,5)
	Planning, Design and Management in Conservation Areas	3 (7,5)		
	Interdisciplinary Design Research	3 (7,5)		
	Special Topics in Urban Design	3 (7,5)		

TABLE 3 ITU, Interdisciplinary Urban Design Master Program in 2016, credits and (ECTS credits)<sup>34</sup>

## STRUCTURE AND PROCESS OF THE INTERDISCIPLINARY URBAN DESIGN STUDIO

The Urban Design Studios aim at developing alternative proposals of an urban scenario, interactions between spatial organizations of buildings and the built environment, daily urban life, land use and transportation problems in new or existing urban areas which have different functions. Designing of contemporary settlement pattern towards future generation and presentation of ideas in two and three-dimensional urban design techniques and models. The complex issues confronting the cities in Turkey have obliged the studio to be based on a primarily urban context, rather than the selection of a study site. Various types of case study areas have been selected for studying these approaches within the Interdisciplinary Urban Design Studio. In the past five years, these were Tokat and Mardin, which are Anatolian cities with a strong cultural heritage potential, and those sub-districts of Istanbul, which have undergone change selected to investigate and promote discussions on the city’s vulnerability and resiliency.

Urban design studios should be interdisciplinary rather than multidisciplinary as explained by Hirt and Luescher. “Multidisciplinary typically refers to knowledge-building, which occurs when problems are addressed through the lens of several disciplines operating in parallel to each other”<sup>36</sup>; and Julie Klein expressed same approach as “It is a means of solving problems and answering questions that cannot be satisfactorily addressed using single methods or approaches.” Interdisciplinary takes a step further. It fosters learning between the disciplines and seeks their analytical and methodological integration.<sup>37</sup> The studio process is aimed at encouraging an interdisciplinary environment conducted according to urban design phases when analysing a given project site (Figure 1), discussing the urban context (Figure 2), understanding the urban design studio dynamics with their processes and phases (Figure 3, and 4); and finally submitting a detailed proposed program. During this process, there is a platform that allows an information flow between the students and the instructors. Also, both desk critiques and juries are held throughout the term, and there are scheduled seminars with contributions from academic and professional scholars and colleagues.



FIGURE 1 Project from Kazim Karabekir Neighbourhood Urban Design, Sariyer, Istanbul, held in the urban design studio – Master Plan, held in the Urban Design Studio 2014



FIGURE 2 Project from Kadikoy, Istanbul, held in the urban design studio – the poster represents the site of urban settings, 2015



FIGURE 3 Project for the Tuzla Water Treatment Facility and its surrounding, Istanbul, held in the urban design studio – Master Plan, held in the Urban Design Studio, 2015



FIGURE 4 Urban Transformation Project, Haskoy Istanbul, held in the Urban Design Studio 2015



What makes the ITU urban design studio extraordinary is not only the participation of three departments, but also the student profile, which consists of three professions: architects, planners, and landscape architects. The studio is therefore based on not only on integrated methods of the included disciplines but also on an interactive study environment among the students. This approach has benefits in developing their discussion and critical thinking skills concerning complex urban dynamics. This collaborative work enhances the students' theoretical knowledge via conversation and reveals some affirmative conflicts. In addition to the interaction within the student groups, there is also mutual information flows between the instructors and the students.

## CONCLUDING REMARKS

This paper focuses on the interdisciplinary design and education approach in the studio, and its ability to respond to complex urban issues by evaluating ambiguous events concerning urban design theories; incorporating resilient practices and methods, and refining the design process. Also, the historical background structure of the studio and recent changes to both the program and contextual urban design studio process were given.

In answer to the experiences and literature discussions of interdisciplinary urban design, the Interdisciplinary Urban Design Program, and Studio is intended to equip prospective urban designers with the joint professional skills indicated below:

- Understanding the relationships between the complex built environment and social, economic and cultural factors;
- Finding solutions to problems related to land-use, transportation system, building ordinance, etc.
- Defining other factors which create urban patterns and the interactions between them;
- Designing contemporary settlement patterns for future generations. Accounting for the multi-layered city dynamics of the 21st century and developing resilient design proposals for new challenges such as global warming, high-profit urban transformation projects, immigrants and ecological problems.

This paper may provide a critical discussion for a broader understanding of the resiliency in the urban design education in Turkey, and in general may serve as a guide for the relocation of urban design teaching within planning history.

## Notes on contributor(s)

İpek Akpınar is an associate professor at ITU, and conducts architectural and urban design studios as well as lecturing master and Ph.D. courses on the relationship between architecture and the urban, political and cultural contexts. Currently, she is the member of Urban Design Master Program Committee.

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# EDUCATIONAL MEGASTRUCTURE FOR THE UNIVERSITY OF BRASÍLIA

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The University of Brasilia (UNB) was born in the 1960s with the ideal of becoming a model institution for Brazil and Latin America. Important Brazilian educators and intellectuals planned it as a synthesis of the most advanced thought about higher education in Brazil, highlighting, among them, the notion of university integration. Lúcio Costa developed its master plan and Oscar Niemeyer designed many of its buildings, among them the Central Institute of Sciences (CIS). This paper aims to analyze the campus plan of the UnB and its interface with the educational field, highlighting the relevance of the CIS building, which represents an important chapter in the history of university spaces in Brazil. The Central Institute of Sciences building completely redefined the Costa's plan because it translated fully the ideals of academic integration advocated by educators involved in the planning of this university. Instead of designing various institutes isolated amid the campus, Oscar Niemeyer has grouped these institutes into a single megastructure. This structure is composed of two linear blocks, slightly curved, with three floors high and 600m long interconnected by a long garden 20m wide. To respond to the constant changes that the development of science imposes on university spaces, the architect designed the CIS with sophisticated technical solutions to allow flexible spaces, which can accommodate constant changes in their use.

In this way, the creation of this megastructure shifted the idea of the campus from urban planning to architecture. Therefore, it became to explore new technological resources. In the construction of UNB, Oscar Niemeyer coordinated a group of young architects, among them João Filgueiras Lima, known as Lelé, in a significant effort to deploy Brazilian prefabrication technology. This construction technique required the incorporation of industrial mass production. Thus, the entire campus of UnB became a site of experimentation and the CIS building is the main example. Over the subsequent years, as the university grew, it followed the principles designed by Niemeyer for the ICC. They were abandoned only in the 1980s when, in the context of redemocratization of the country, there was a significant change in national political and educational thought. However, Niemeyer's legacy was disseminated subsequently at various university campuses he designed and the ICC building remains an important moment of communion between architecture and higher education in the mid-twentieth century.

## **Keywords**

campus, megastructure, Oscar Niemeyer



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# Resilient Approaches in Urban Development

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Chair: Andre Sorensen



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# URBANISATION AND LANDSCAPE JUXTAPOSITIONS IN MINAS GERAIS, BRAZIL: REVISITING HISTORICAL CARTOGRAPHIES

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**Patrícia Capanema Álvares Fernandes**

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The recent discussions following the biggest mining disasters in Minas Gerais bring to the fore the paradoxical relations between economical development versus mining ecological collateral damages, central in this state. Since the eighteenth century colonial gold rush, urban and territorial development in the region, rich in gold and iron, has long been paired with topographical manipulations related to the extraction of these prime resources. Since the foundation of its capital Belo Horizonte, created from scratch in the end of the 19th century, extreme manipulations of ground-surface conditions have not been limited to mining but are largely performed to allow urbanisation. Later, its first satellite town in Pampulha is exemplary of the critical entwinement between enclaved settlement formation and artificial ground operations, offering an inspiring terrain for re-imagining the relations between urbanisation and landscape. The paper addresses three moments in the history of Belo Horizonte, from colonial precedents to Pampulha, the spearhead of the entanglement of enclaved urbanism that is currently a dominant form of urbanisation in Brazil. Aiming to understand the complexity in the processes of transforming earth into land, territory is approached as a palimpsest, combining archival material with descriptive mappings done within the scope of the doctoral research.

## Keywords

Belo Horizonte, mining, urbanisation, landscape

## How to Cite

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## INTRODUCTION

The paper aims to foster reflections on the relations between (urban) development and landscape in the region of Minas Gerais, Brazil, through a historical perspective. Urbanisation and development will be tackled through mining, urban plans and projects as well as infrastructure implementation. Landscape is understood as the territorial material preexistences such as topography, water, soil and population.

In Minas Gerais, the efforts in engineered transformations of the landscape, the mining activities and the topographical amnesias<sup>1</sup> resulting from city materialization raise questions on the results of the (conflictual) juxtaposition of urbanisation and landscape. Taking the premise that the encounter of distinct materialities and oppositions between natural and artificial rationalities are subjected to the emergence of conceptual and physical fissures and cracks, this research seeks to expose what types of tissues and spaces emerge when imposed orders are transcended.

This investigation is done through the navigation of the three different times and spaces previously mentioned with special attention to the material outcomes of engineered landscape formation having archival cartography as a central tool. By confronting urbanisation and landscape this paper aims to question the resilience of imposed urban orders towards socio-material transcendences.

Since its consolidation in colonial times, extreme manipulations of ground-surface conditions have not been limited to mining activities but are largely performed to allow urbanisation to take place. In the province that carries mining in its name, the radical transformation of landscape is (continuously) not seen as impediment but rather as the motto for progress. Over time, engineering rationalities have been used to found new territories associating economic growth with territorial expansion. Such logics were applied to the establishment of its first capital Vila Rica de Ouro Preto, nestled on an impossible topography, but nevertheless a booming centrality during its golden era. Decadence advocated for its substitution, in a context of mineral shortage and extraction difficulties. At the turn of the 19th century, Belo Horizonte was designed and implemented as its opposite, where straight streets directly confronted a wavy topography rather than being meandered by it. Forty years later, additions and subtractions of land are again performed to allow urban horizontal expansion in the form of enclaved settlements with the damming of Pampulha creek.

## MINING LANDSCAPES

In colonial Brazil, and especially in the province of Minas Gerais, the course of exploitative colonisation was radically transformed as the discovery of gold and diamonds, easily accessible and in large quantities meant the enormous inflow of migrant miners and the establishment of many mining towns in the colony's hinterlands. The beginning of the 18<sup>th</sup> century saw the emergence of Vila Rica<sup>2</sup>, a village soon elevated to capital of the Province of Minas Gerais, as the region gained autonomy. The economic rise and fall of the golden period triggered a series of political and fiscal disputes that were crucial to the multilayered panorama of Brazil's independence, achieved in 1822<sup>3</sup>

According to Saint-Hilaire<sup>4</sup> a French naturalist traveller and explorer of Brazil's hinterlands, the sole reason for the foundation of Vila Rica in such locality was the great amount of gold found. Otherwise, it would have been impossible to choose a less favourable location. Unlike Humboldt, a contemporary explorer of South-America, Saint-Hilaire left no similar cartographical treasures. However, his extremely detailed descriptions offer rich understandings about the landscape, nature and culture found in his travels around 1817-1818<sup>5</sup>. Travelling from Rio de Janeiro to the gold lands, Saint-Hilaire was positively surprised by the landscape encountered after overcoming the mountain ridge running parallel to the coast. Expecting a monotonous plateau of pastures, he found instead a sea of green mounds, gracious forests and fertile ground in addition to rich soil. However, some days later when

he approaches Vila Rica, his impressions are weighted by the feeling of melancholy. When descending the valley, the sight offered a succession of turned-over ground, dug for gold extraction, absence of vegetation, heaps of gravel scattered here and there giving an air of sadness to the landscape. Reaching the village nestled between two mountain ridges and unevenly occupying four hills, this sentiment endures<sup>6</sup>.

A scenario of mountains that advance and retreat dominating the village, old houses badly conserved and a feeble commerce have also contributed to Saint-Hilaire's melancholy. He found it extremely difficult to give a precise idea of this very irregular village but nevertheless makes an attempt to describe it as been built over a long sequence of hills that border the river Ouro Preto, some advancing others retreating, some of them too steep to have houses on with poor vegetation and big excavations. Overall, the images of mining and sterile soil seemed to deeply strike him. For Richard Burton<sup>7</sup>, a later visitor, the most impressive aspect of Vila Rica was the amount of shapeless curves and narrow streets and, "amongst the many inconveniences of this town we can mention the circumstance of not being able to make use of cars. Even riding a horse is rather dangerous inside the city. There is no land for bigger expansion (...)"<sup>8</sup> Also for him, 50 years after Saint-Hilaire, the mining activity was something remarkable in the panorama, characterised by hills and reminding of the gold, "because everything had been turned over and removed by the *mineiro*"<sup>9</sup>.

The absence of precise colonial cartography revealed travel record literature as a useful tool for reconstructing an image of human-landscape relations at the time. Lacking drawings and measurements techniques, travellers relied on detailed territorial descriptions. As personal accounts, texts carry the writer's values and should therefore always be read through the lens of comparison from the writer's home or other environments seen along the journey. For example, when comparing the mining surroundings of Vila Rica to the previously visited forests, Saint-Hilaire's impression was of devastation and sadness.

The foreigners' testimonies help however to illustrate arguments repeatedly appearing in historical accounts on the foundation of Belo Horizonte<sup>10</sup> defending the urgent necessity for providing the province with a new capital due to the inadequacy of Vila Rica to fulfil this role. The topography in which it is inserted clearly made access, circulation and expansion impossible. The dark representations of decadence give background to the motivations and aspirations behind the horizontality of the plan presented for the new city.

In a simultaneous move of continuity and rupture, Belo Horizonte's foundation can be seen as a continuation of the *Inconfidência Mineira* (the insurgency against the Portuguese crown, initiated in Vila Rica in reaction of taxes applied to gold extraction) and also a rupture with its colonial past as it rejects the old colonial provincial capital as representative of the newly inaugurated Republic and its emergent modern society<sup>11</sup>. It is exemplary of Latin American urbanism in which the city was - and perhaps still is - largely used as the object through which modernity is achieved .

## THE NEW CAPITAL

The construction of a new capital for Minas Gerais had been a recurrent idea since Vila Rica's (today renamed Ouro Preto) decadent times but became a reality only after a decree in December 1893, which determined only four years for construction. The first step for the new endeavour was the formation of a team of technicians commissioned to choose the most appropriate location<sup>12</sup>. The engineer Aarão Reis, who studied at Escola Politécnica do Rio de Janeiro, being highly associated with positivism and follower of Saint-Simon and Auguste Comte, headed the group<sup>13</sup>. As demonstrated by Salgueiro, themes as hygiene, beautification and geographical and economic centrality appear several times in Reis' discourses concerned with the choice of locality for the new city. Indeed, the surveys reveal the influence of the "scientific reading of the landscape"<sup>14</sup>, a recurrent idea in France and Europe in the preceding century.

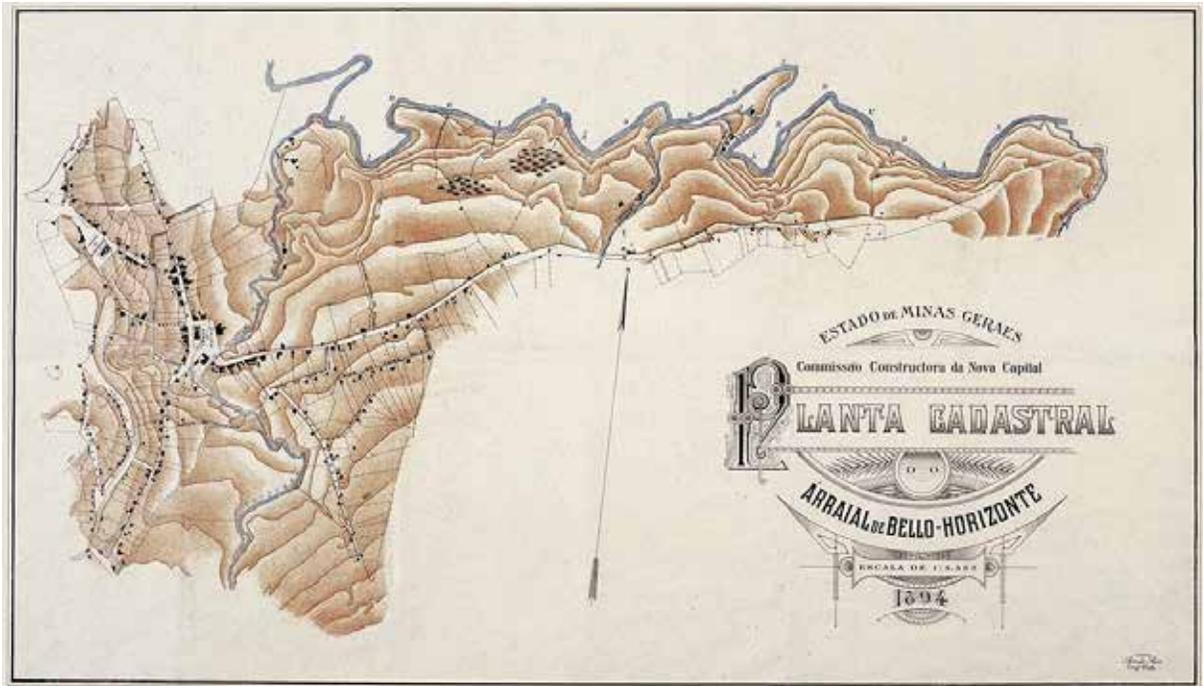


FIGURE 1 Cadastre plan Arraial de Belo Horizonte, 1895.

To deliberate between the candidate locations, the commission performed a profound analysis of their physical conditions including topography, soil, availability of water and construction materials but also economical and political factors as it was expected for the new capital to be the intellectual, economic and political centre of the state. It is interesting to notice that none of the candidate sites<sup>15</sup> was in a more or less flat location, announcing that topography was something to be tamed in Minas Gerais.

Despite all the scientific measurements presented in the technical report the decision was at last political. The victory of Belo Horizonte<sup>16</sup> reflects more the influential power of its economic groups, along with its strategic central location than its pure territorial attributes.

With little time for accomplishing the aim, works had to be performed simultaneously in three fronts: mapping the territory; cadastre and expropriation of land, farms and urban properties and finally locating and defining uses and accesses. These mappings were carefully executed through a positivist-oriented dissection of the landscape. In the two years that separated the decree and the launch of its final design, a great cartographical collection was produced, in several scales. The speed of the works suggest that the plan was elaborated almost in parallel to the site survey, possibly explaining the evident mismatches between the site's reality and the utopian project.

To found the capital of Minas Gerais, a territory of significant topographical features was soon confronted with the symmetrical array of perpendicular and diagonal streets proposed by the 1895 plan. By means of a strict geometry, “the city whipped out the history of Ouro Preto so the Republic could demonstrate the hypothesis of the State as a spatial structure, translating its ideals of form and function to geometry.”

The choices and influences of the planner are very poorly documented, probably due to his premature alienation from the *Comissão Construtora* in may 1895<sup>17</sup>, leaving therefore open grounds for educated speculations. As a son of the *Escola Politécnica*, it becomes clear that his design incorporated the main axis of the technical rationality, the one of circulation, fluidity, accessibility, speed, etc; as well as the belief in men's control over nature.

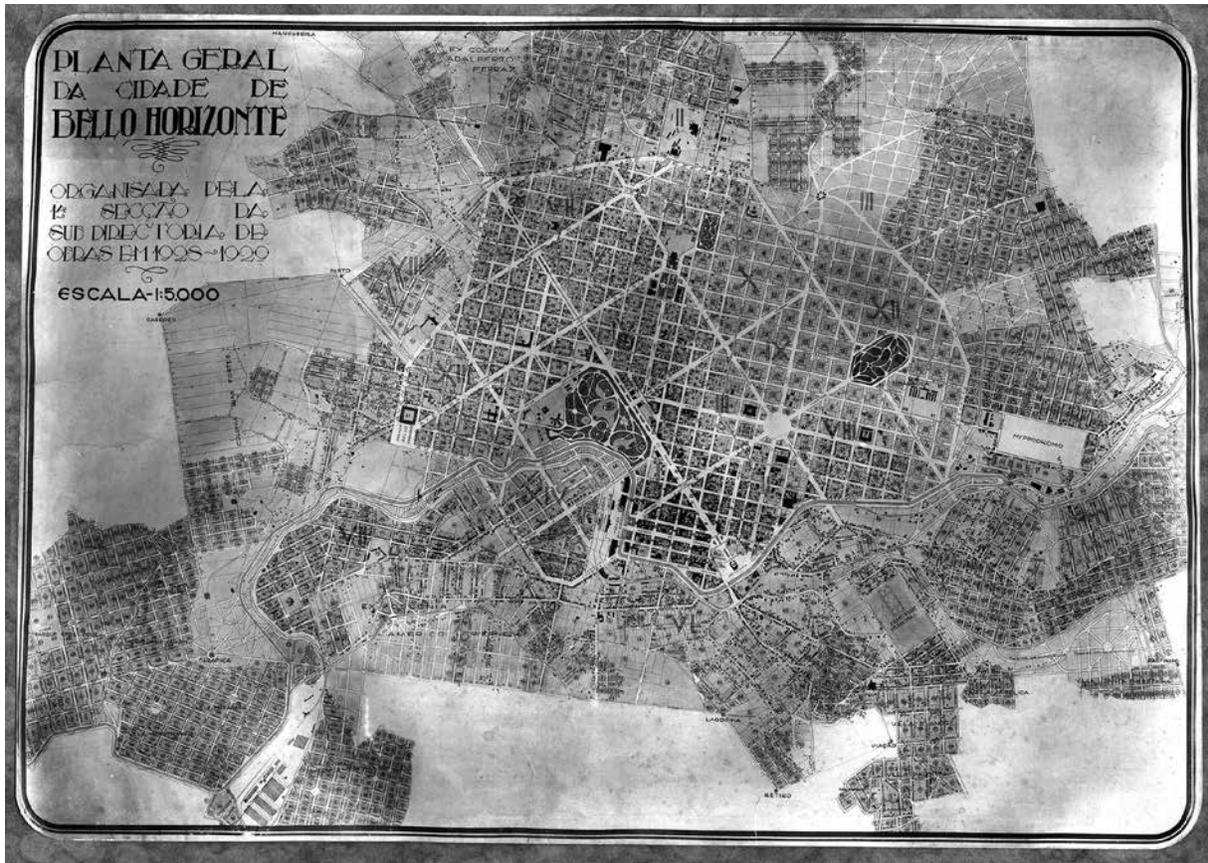


FIGURE 2 Cadastre plan of Belo Horizonte, 1928.

The plan, along with its implementation becomes exemplary not only of the status of urbanism and architecture at the end of the 19th century but also about the transference of models – or rather, “transculturating assimilation” that is so common in Brazil. The proposed grid has often been associated with the plan of Washington D.C, drawn by L’Enfant one century before, as well as with Haussmann<sup>18</sup>. However, as Corboz argued, while unpacking Washington’s plan himself, “it is not enough to identify an antecedent to conclude that it constitutes a precedent”<sup>19</sup>. A closer look between both plans reveal many similarities but also many differences. As its precedent, Belo Horizonte presents an orthogonal grid superimposed by a diagonal mesh. The blocks of Belo Horizonte were rigorously drawn with equal sides and all diagonals form a 45° angle in relation to the smaller mesh, perpendicular to each other and equally distributed. In opposition, Corboz has demonstrated that Washington’s grid is neither continuous nor symmetrical like it might seem. The “poetic of irregularity” he found in Washington will only appear in Belo Horizonte when the plan fails and its built differently due to territorial or social preexistences.

The contemporary criticism of the stark contrast between the site conditions and Reis’ plan, leads to the immediate interpretation of the ignorance of later in relation to the former, a general agreement in the critical historiography of Belo Horizonte. However, other authors suggest otherwise, highlighting for example the strategic position of *Praça da Liberdade*, the administrative core of Belo Horizonte in the highest topography, following of the classic Greek model of locating the centre of power in the highest point. According to Lemos, the carefully study of the local topography allowed the aesthetic and locational strategic organisation of space in search for the perfect perspective and functional efficiency.

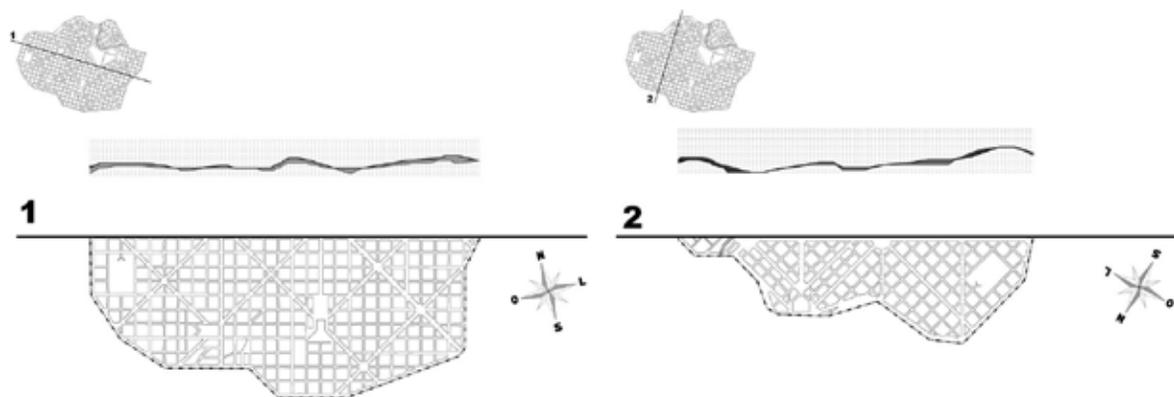


FIGURE 3 Schematic section comparing original topography and current.

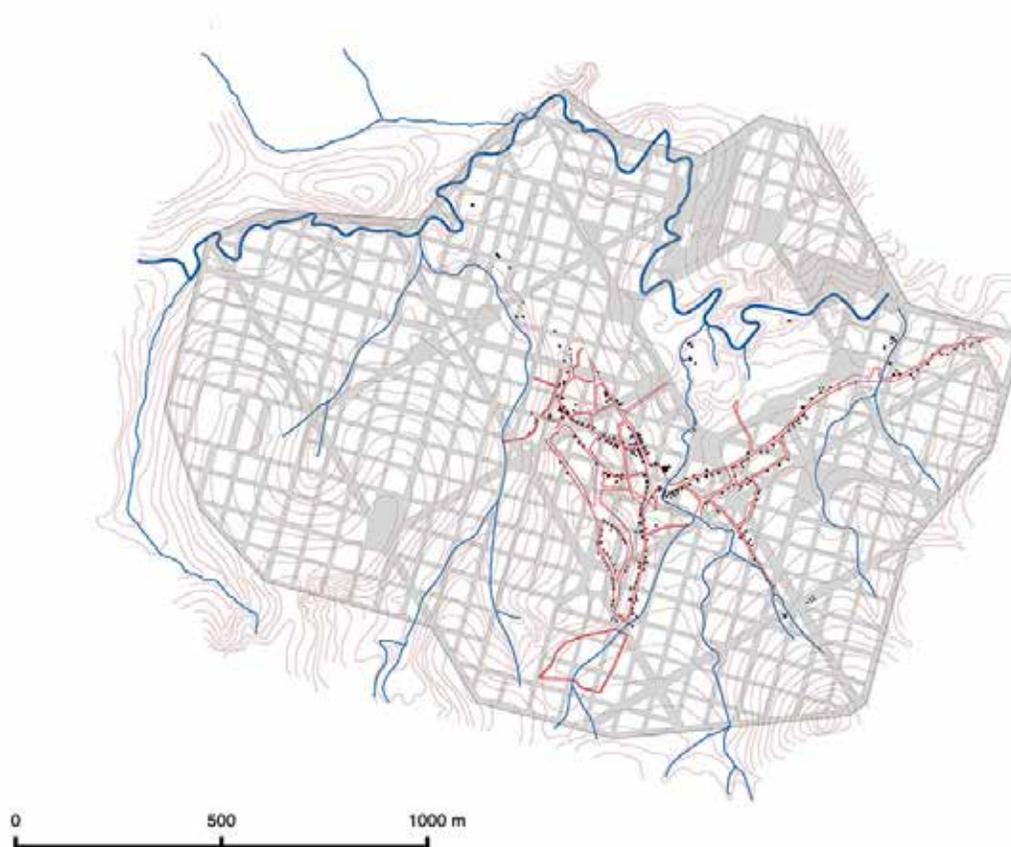


FIGURE 4 Plan of 1895 superimposed on old village plan.

However the good intentions, the mismatches between the orthogonal grid and the undulated topography with other pre-existences soon became very critical as the works for the canalisation of rivers and the addition of subtraction of soil delayed construction for many years and caused several disturbances in its occupation processes, which included expropriation and eviction in large numbers<sup>20</sup>. About one third of the plots were reserved for the functionaries of the State, who waited long to effectively move to the city partially doubting its success, partially waiting until it was developed enough. In addition, Belo Horizonte suffered, in its beginnings, the crisis of the coffee and the economic depression, meaning that only one third of its construction was concluded, leaving construction sites abandoned at the foundation level, contributing to the formation of a paradoxical image of decay and progress. The last component to be mentioned in this equation is the fact that the plan didn't foresee the housing of the people who were (manually) building it. The unreserved were put on auction in high prices with unreachable conditions for the poorer. Builders and migrants from all over were temporarily allowed to "camp" inside the urban core, but were eventually evicted as urbanisation advanced. This situation led to the emergence of the first favela of Belo Horizonte, over the steepest hill across the Arrudas valley, over a small section of the foundational plan cut-off by the railway and the river and the last to be urbanised. In fact, the tissue built there goes completely in discordance with Reis' plan. After the first favela, many others came and their populations were constantly evicted and re-settled.

Another consequence of dysfunctional construction and occupation processes of Belo Horizonte relates to its demographical and physical expansion in contrast to its internal vacancy. While most of the internal core was either still under construction or reserved, a great portion of its suburban and rural zones were being occupied rather spontaneously. Most of it was done by the gradual urbanisation of the surrounding agricultural colonies, established simultaneously to the city's inauguration. Starting from the 1920s many workers villages started to materialize in the green belt of Belo Horizonte in response to its obvious incapacity to host the workers inside the urban core despite many efforts to control informal settlement expansion, inaugurating a pattern of patched urbanisation.<sup>21</sup>

## PAMPULHA'S DAM

Only forty years after its foundation, Belo Horizonte already inaugurates its first satellite town 12 km north from ground zero. Pampulha was to Belo Horizonte what it was to Vila Rica. As the precedent foundational core, its emergence represented simultaneous continuation and rupture. Rupture in the sense that it breaks away from the rigidity of the grid and starts a new form of occupation in a 'virgin' location according to new principles; continuous in the sense that it is also foundational, it is essentially segregative and, however less radically, its construction is associated with intensive ground manipulations.

Pampulha was inherently different from the many workers villages that had been appearing since the previous decade at the immediate surroundings of the city's foundational core, done completely by private enterprise, still highly attached to the city. These patches emulated the grid model, trying as much as possible to belong to the city, containing smallest possible plot sizes for the workers unable to afford living at the elite dominated areas inside the urban zone. Instead, Pampulha was established completely detached from the existing city and, in similarity with the foundational plan, disregarding preexistent villages. Differently from its predecessor the morphology of its streets attempts to more adequately fit to the topography previously manipulated for its sitting.

The first documented ideas about constructing a new and exclusive neighbourhood appear almost simultaneously to beginning of the construction of the Pampulha dam, making it difficult to imagine that the idea of taking advantage of the beautiful landscape in formation comes as a genuine and obvious consequence of technical rationalities. It is instead more likely the hypothesis of the marriage between both ideas. In the administrative reports written by mayor Negrão de Lima the construction of the dam comes as a solution for the water supply of the city, given its overwhelming demographic growth and physical expansion. The choice of Pampulha creek is

defended as the less costly and therefore more favourable solution in comparison to the Arrudas river, bordering the city core, which valley was already occupied by railway and industry. Soon later, the same mayor announces in a speech at the municipal chamber the “edification of a new and picturesque leisure neighbourhood”<sup>22</sup> Later, in the context of metropolitan territorial articulation, Negrão de Lima mentions Pampulha as one of the satellite towns having Belo Horizonte as centre in a highly centralised system in which each town would have a specific function: agriculture, industrial or housing, while Pampulha’s role was tourism and entertainment. The slow development of Pampulha meant that it was far from being a satellite town, being incorporated in the city’s administrative limits decades before it became independent in terms of services.

Yet various documents witness the construction of Pampulha, no holistic plan that spatializes the reservoir and bordering neighbourhoods could be found. Besides the above-mentioned report, rather detailed maps elaborated by the Secretary of Agriculture, witness the topography, hydrology, surface-use and urbanisation in 1936 and 1940 at the city scale. The exercise of analysis and re-mapping of archival cartography supported by textual material allowed, through comparison, better understandings on the transformations in the landscape in the period. The map of 1936 depicts urbanised areas by a heterogeneous puzzle of grid patches. They are alternatively represented in full or dotted lines, leaving ambiguous interpretations between the real city and its imagined future. A patchwork of hatches indicates intensive farming, while small preexisting villages also figure, detached from Belo Horizonte’s daily life.<sup>23</sup> Interestingly, it displays a projection of a first neighbourhood to be constructed at the future shoreline, while no sign of the dam is seen and only the creek is represented. The map of 1940 shows the completed dam and still a projection of a future occupation, similarly to the previous representation.

Such picturesque leisure neighbourhood was nevertheless designed for a very selected elite. Following the steps of the foundational core, Pampulha’s new settlements established no relation with its previous occupants nor its previous morphologies. The new urban materiality of Pampulha was determined not only by the strong figure imposed by the lake and tributary creeks, but also the urban parameters that regulated its materialisation. To ensure that the shoreline would be populated primarily by weekend-homes and therefore by the local elite, a decree determined its legal and spatial exceptionality already in 1939. Outstanding from the rules guiding land subdivision since 1935, it determines special conditions to allotments to be performed at the shoreline. Firstly, the Municipality was to perform the projects, measurements and topographical levelling by request - and of course payment - of the owners. As Reis’ plan, Pampulha is exceptional in a scenario of privatised urbanism where all land allotments are completely private enterprises, from project to plot selling. Segregation was secured by the establishing a minimum plot size of 1000 square meters and 20-meters-front, almost three fold the regulations applied to the rest of the city (360 sq m and 12 m front). As the city didn’t launch its first land use zoning law until 1976, a premature zoning defined housing and commerce areas while industrial use was strictly forbidden within the shoreline strip.

The archives of the municipality administration contain the allotment (cadastre) plans, which are the closest witness found to the original design of these enclaves. Although they are presented in fragments, according to land property, they all contain the approval stamp and signature of the then mayor Juscelino Kubitschek in 1943 and, patched together, form a (sort of) cohesive urban form. Besides following ownership the morphology of the fragment is also determined by geography: they more or less try to follow a topographic logic leaving gaps along Pampulha’s tributaries, to be later otherwise filled.

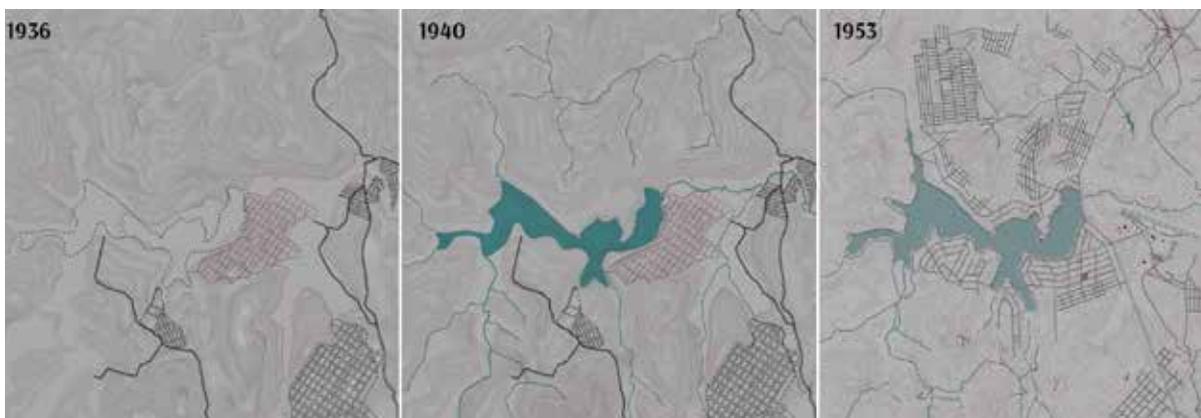


FIGURE 5 Maps of 1936 and 1940.

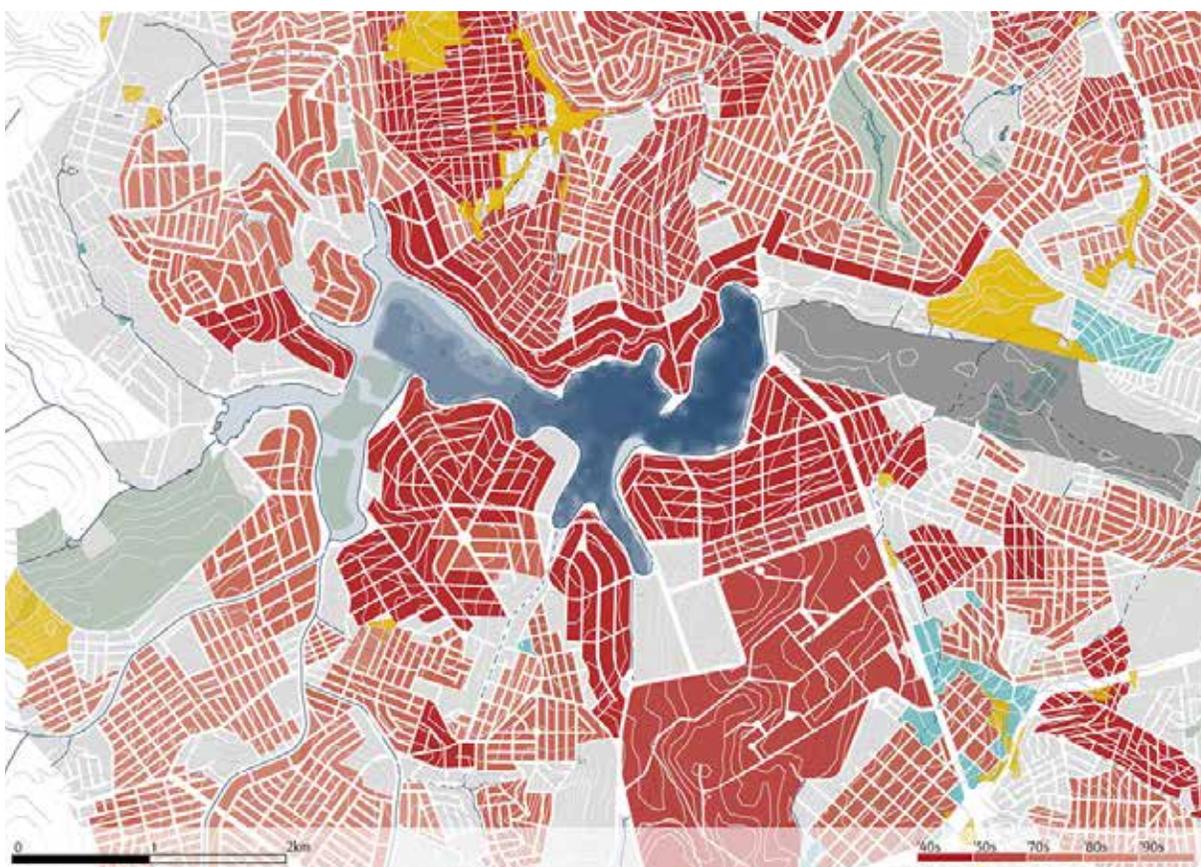


FIGURE 6 Composition of cadastre maps by date of approval.

After its inauguration, Pampulha went through a sleepy period, serving mainly as a weekend destination for some decades. It would be only after the mid-1970s that the region starts consolidating, as Belo Horizonte's concentric expansion starts to reach as far as the lake. The first zoning law instigated the formation of a second ring of patch-worked allotments around the reservoir targeting middle class groups with plots of around 360sqm. From this moment on, Pampulha starts to mutate from a mono functional isolated rich enclave to a more diverse and cohesive urban realm. The gradual and spontaneous occupation not only on new allotments but mainly in the gaps left in-between have allowed the insertion of other typologies, uses and diverse social groups. Avenida Flemming can be cited here as an example of this phenomena. Having a creek at its axis, the avenue was only implemented in the 1980s, with canalisation. Holding for a long time in this transitional state, the avenue is still slowing being occupied by diverse uses such as restaurants, student and social housing, educational and sports facilities. Lately, it is been advertised as the centre of social life of Pampulha, a region that went through decades of being 'center-less' still depending on the traditional city centre for commerce and, surprisingly, cultural activities.

At the other hand, the pioneer elite neighbourhoods such as São Luiz and Bandeirantes have been frozen by successive restrictive regulations under the flags of heritage and environmental protection and suffer today from abandonment, security and identity crisis. The view of the lake is no longer valuable when its waters have been highly polluted for more than two decades due to the intensive and uncontrolled urbanisation along its tributaries.

## CONCLUSIONS

The focus on the relations between urbanisation and landscape in the central region of Minas Gerais, a territory highly marked by its geomorphological features, allowed an overview of different tactics and material outcomes related to practices of taming of landscape as a tool for development.

In the past, ground conditions have determined the materialisation of a fragmented and dysfunctional urbanity, advocating for its substitution. While the particular (under) ground features of Vila Rica were essential preconditions for its development, they were also barriers for growth.

At the foundational core, the factual difficulties in reconstructing landscape while attempting to stamp preconceived images on territorial pre-existences – including topography, soil, water bodies and population - have resulted in syncopated developments, exemplified by Belo Horizonte's inverted growth, from the outside to the inside.<sup>24</sup> The confrontation between the surveyed socio-material realities and the plan has revealed a selective gaze towards the territory that borders schizophrenia. After having examined the pre-existing village with precision, its forms and population were ignored when conceiving the new city.

Similarly, the urbanisation of Pampulha was done on the basis of the construction of a new landscape through lake formation. In a less holistic transformative approach, the first settlements of the satellite occupation took advantage of the better topography, enjoying viewpoints to the lake and taking distance from the tributary creeks, the only truly natural features of the site. Similarly as in the foundational core, the "borders of civilisation", the leftover spaces outside the grid, have been left for the less privileged and therefore subjected to spontaneous occupation processes.

The partial results of this research have identified contextual ground materialities – topography, hydrology, population - as the main structuring elements for urbanisation, which transcend urban projects and can be potentially used as tools to historical reviews but also projectively. As seen in the studied cases, when landscape is confronted by urbanisation (here interpreted through the implementation of urban plans and projects), the outcomes are perceived as much in ground transformations as in adaptations and exceptions made in the imposed orders. Rather than interpreting as failures of the plan or incomplete modernities, the processes here exposed exemplify the resilience that is culturally embedded in Latin American, having improvisation and incrementing as central tactics.

## Disclosure Statement

No potential conflict of interest was reported by the author.

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## Image Sources

Figure 1: Arquivo Público Mineiro

Figure 2: Arquivo Público Mineiro

Figure 3: Elaborated by the author over data provided by Prodabel

Figure 3: Elaborated by the author over data provided by Prodabel and Arquivo Público Mineiro

Figure 4: Elaborated by the author over data provided Arquivo Público Mineiro

Figure 5: Elaborated by the author over historical maps available at Arquivo Publico Mineiro and Escola de Arquitetura / UFMG

Figure 6: Elaborated by the author over data provided by Prodabel and Sistema Plantas Online – SPOL

## Endnotes

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- 3 Others factors contributing to this scenario are certainly the transference of the metropolis, due to Napoleonic advancements and surely the recent independence movements in North-America.
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- 5 This expedition any many others occurring at the same time were allowed after 1808, when the Portuguese court is transferred to the Brazilian territory elevating it to a Metropolis and therefore opening its ports for foreigners. It generated the influx of all sorts of explorers and naturalists, curious about the virgin nature.
- 6 Perhaps Saint-Hilaire was there in the wrong time, when decadence was at its peak. In addition the particularity of the local climate might have influenced his impression: more humid than the surroundings, with an almost ubiquitous fog.
- 7 Burton, Richard. *Viagens aos planaltos do Brasil: Minas e os mineiros*: Companhia editora nacional. (1983, Original edition, 1869), 60
- 8 free translation by the author. In the Portuguese version: "Entre os muitos inconvenientes dessa cidade podemos mencionar a circunstância de não se poder fazer uso de carros. Mesmo montar a cavalo é um tanto perigoso dentro da cidade. Não há terrenos para maior expansão; as ruas são demasiado estreitas para nelas serem colocados trilhos e a região é imprópria para o "carro de ferro". Richard Burton, *Viagens Aos Planaltos Do Brasil: Minas E Os Mineiros* (Companhia editora nacional, 1983), 63.
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- 16 Belo Horizonte won by two votes over Várzea do Marçal, in a dispute between congressmen representing all regions of the state, but basically divided between pro-change and against-change. The terms used by Maria Efigênia Lage is "mudancistas" and "antimudancista" (Lage 1974 cited by Plambel 1979)
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- 20 With the complete demolition of the old village 430 properties were expropriated, 2000 inhabitants were removed and compensated.
- 21 Already in 1902 the western portion of the central core, the 8a section, today's Barro Preto was reserved for industrial workers to whom were given free and temporary concessions in order to avoid the uncontrolled growth of favelas. Around 2000 people were removed from favelas and allocated in this area. Samuel Silva Rodrigues de Oliveira, "A Identificação Das Favelas Em Belo Horizonte," in *XVII Simpósio Nacional de História, 2013* (Natal: UFRN, 2013, 2013); Plambel, "O Processo De Desenvolvimento De Belo Horizonte: 1897-1970 ".
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- 24 The cadastre map of 1928 (Figure 2) illustrates well the phenomena.

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# ARCHAEOLOGY AND URBAN SUSTAINABILITY: CAN THE PAST PROVIDE A KEY TO THE FUTURE?

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It is argued that we have much to learn from history, that the past can be applied in the present to create a better future. But can archaeological knowledge of ancient cities contribute to the discussion of modern urban development and sustainability? In this paper I explore the potential of using archaeology and archaeological knowledge when addressing modern sustainability issues by using Västergarn, today a small rural community on the island of Gotland (Sweden) which rest upon the remains of a prosperous early medieval urban settlement, as case study. In order to illustrate the assertion that archaeological knowledge of prehistoric cities and urban settlements make a useful tool illustrating long-term consequences and effects of urban strategies, some key factors that posed challenge to Västergarn's medieval development trajectory are highlighted. Furthermore, two methods that may be used in an analysis of ancient urban sustainability are introduced and briefly discussed. The paper show that archaeology can provide valuable perspectives on current urban sustainability issues such as coexistence, social cohesion and community dynamics.

## **Keywords**

urban sustainability, sustainable urban development, urban growth, resilience, archaeology, Västergarn, Gotland

## **How to Cite**

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## INTRODUCTION

It is often said that we have much to learn from history, that the past can be applied in the present in order to create a better future. But what can something as specific as archaeological knowledge of ancient cities contribute to the discussion of modern urban issues such as urban development and sustainability?

It has been argued that a key to understanding modern cities and general processes of urbanization can be found within the unique long-term perspective that archaeology can provide on these questions<sup>1</sup>. Regarding that, there are in fact a number of writers who have studied ancient cities and civilizations and compared their development and lifestyle to contemporary society. However, the main focus of these studies have been the collapse of these civilizations and how to avoid a similar fate in the future<sup>2</sup>. Within historical and archaeological disciplines, a few scholars have set forth programmatic articles showing that there are in fact some aspects of modern urbanity that could gain from a comparison between ancient and modern cities<sup>3</sup>. Drawing upon an article by Michael E. Smith, Professor of Anthropology at Arizona State University, this paper build on the assertion that archaeological research on variations in the durability of prehistoric urban settlements may be one of the most useful contributions that archaeology can make to the discussion and general understanding of urban sustainability<sup>4</sup>.

This paper explores the potential of the archaeological long-term perspective by presenting the longevity of Västergarn, a small rural community on the southwestern coast of the island of Gotland (Sweden) which today rests upon the remains of a prosperous and dynamic early medieval urban settlement. In order to illustrate the above mentioned assertion, I will briefly discuss some of the factors that posed challenge to Västergarn's medieval development trajectory and introduce two methods that could be used in an analysis of ancient urban sustainability. My aim is that this paper will launch a wider discussion and provide a starting point for comparative research between ancient and modern cities or urban settlements in the light of sustainability issues.

Research that investigates the contemporary interplay between archaeology and modern urban planning in relation to sustainability issues is much needed. Different views on what constitutes a sustainable city and ways of communication could potentially curb the ability to create interdisciplinary cooperation on urban sustainability<sup>5</sup>. The first consideration of this paper is therefore the relations between archaeology and urban planning and how the concept of sustainable cities is conceived by archaeologists.

## THEORIZING THE ARCHAEOLOGICAL APPROACH TO SUSTAINABLE URBAN DEVELOPMENT

Sustainability is a guiding principle of much contemporary development policy and a popular concept in both scholarly and popular discourse today. To connect archaeology and cultural heritage to sustainability would be quite logical since both deal with change and preservation in a global context<sup>6</sup>. Some recent attempts to approach the concept and challenges of sustainability have been made within the field of Heritage Studies.

Diane Barthel-Bouchier's study *Cultural Heritage and the Challenge of Sustainability*<sup>7</sup> make a much desired contribution on the topic. Based on interviews with heritage professionals as well as written sources, the book provides an analysis of current trends in the cultural heritage sector. However, it is noteworthy that the most part of the book is devoted to threats to the preservation of cultural heritage due to environmental challenges induced by climate change. Even though the writer recognizes the so-called three pillars of sustainability (environment, economy and social) little is said about the potential of cultural heritage in regard to economy or social sustainability. A more recent contribution on the topic is *Perceptions of Sustainability in Heritage Studies*, edited by Mari-Theres Albert<sup>8</sup>. The book consists of a large number of disciplinary and interdisciplinary perspectives on heritage and sustainability that aim at providing insights on how to better understand the significance of heritage

as well as its function within the transformation processes that come with sustainability issues. Albert initially notes that the various and at times conflicting conceptualizations of sustainability have led to heritage-related activities that are anything but sustainable and that heritage have become more of a highly valuable marketable product rather than being a common good of human society<sup>9</sup>.

However important these contributions on cultural heritage and sustainability are, they lack a discussion on how to bridge potentially different views on sustainability between different practitioners. The fact is that within archaeological research the issue of sustainability still remain fairly unexplored<sup>10</sup>.

## IDENTIFYING A PROBLEM AND ILLUSTRATING A WAY FORWARD

Today there are a number of initiatives and networks that discuss and explore the role of archaeology in relation to architecture and contemporary urban planning<sup>11</sup>. Some aim at launching new dialogues and building closer relations between these experts as well as finding new ways to incorporate or invest archaeological and heritage values in current or future planning programs<sup>12</sup>. The contribution of such an approach is said to be the generation of alternative interpretations of ancient settlements and new ways of handling the challenges of contemporary urbanization. This is of course important. Mapping out different perceptions on planning issues and investigating how archaeology can contribute to current or future planning programs would not only improve communication but point to common interests that are valuable to the development of both disciplines. In this ambition there is also a need for research that explore how archaeological knowledge may contribute on a broader scale to modern sustainability issues.

One main problem for archaeologists trying to approach urban development and sustainability is that archaeology tend to conceive and define the term 'sustainable' differently than, for example, urban research and planning. Archaeologists usually classify cities and urban settlements that survive for long periods as 'sustainable' while those abandoned or destroyed as 'unsustainable'. In trying to find out what made a city or civilization unsuccessful or unsustainable, an archaeologist would probably investigate the cause for the failure or collapse. A researcher of modern cities or urban life would probably never calculate the risk of collapse, seeing that modern cities are perceived as virtually indestructible<sup>13</sup>. Another aspect is that archaeologists hitherto seem to know more about the outcomes of development of ancient cities than about the processes that lead up to it. This could also easily be seen as disincentive for any contributions on the issue. These differences may partly be what creates difficulties for archaeologists to take part in the general debate on urban sustainability and make archaeological knowledge seem irrelevant to contemporary urban discourse.

So how do we go about that?

In a paper focusing on how archaeology and modern urban development, Michael E. Smith draws upon his research of the Aztecs in Mexico to illustrate how archaeological knowledge can be useful to research on modern urban issues such as sprawl, informal housing and urban sustainability<sup>14</sup>. The conclusion he makes is that archaeological research of ancient cities will not only improve our understanding of some of the social dynamics at play in the cities of the past, but it has also considerable potential to increase our understanding of modern urban issues and that archaeology can provide a wide range of examples and data that move beyond those that researchers of modern cities normally use. The question, he says, is finding the methods to analyse them and then making the results available to a wider, interdisciplinary audience<sup>15</sup>.

The question of how to plan and develop communities that will meet long-term human needs is often pointed out as particularly important to address when exploring issues of urban sustainability<sup>16</sup>. Even though the contemporary world doubtless is and will be quite different from that of the past in countless ways, we can assume

that some of those human needs almost certainly were the same in prehistoric and medieval communities. Hence a study based on how basic needs and social conditions were met and sustained in the past could provide insights on how to meet them in the future. To be able to make an assessment on prehistoric urban sustainability through such a perspective we could lean on another definition of sustainability as noted by Smith:

[...] sustainability as reducing the ecological footprint (energy, water, land materials, waste) while simultaneously improving quality of life (health, housing, employment, community) within the capacity constraints of the city<sup>17</sup>.

The archaeological method of site catchment could be used in assessing ecological footprint of past societies. The method allows a reconstruction of a sites economy by identifying the resources available within a reasonable distance from it, e.g. the catchment area. This area is defined by drawing a circle around the site; the radius often set at 5 kilometres (i.e. 1-hour walk) for agriculturists and 10 kilometres (two hours) for hunter-gatherers. Resources such as fresh water, arable and pastoral land as well as material for different types of craft production is then calculated within the area<sup>18</sup>. As such, site catchment offers a valuable method for analysing the relationship between site location, technology and available resources – all which play an important role in measuring the urban sustainability.

Another method for analysing the sustainability of past societies is presented in a recently published book edited by Paul James<sup>19</sup>. Focusing on the intersection between sustainability and basic conditions of human social life, the book emphasizes the need for a new paradigm that move beyond the current focus of the sustainability debate and introduces a new methodology, the Circles of Sustainability (Figure 1). The approach challenges the usual conception and assessment method put forward in three pillars of sustainability and splits the social pillar into two, renaming one politics and introducing a fourth aspect to the trinity: culture. Each of the four domains are divided into seven subdomains to which different types of questions can be directed. The answers are then assessed on a nine-point scale reaching from ‘critical sustainability’ (first step) to ‘vibrant sustainability’ (ninth step). The benefit of this method is that it is flexible and modular and intended to work across time and on different places. The concepts, methods and principles connected to it is designed to either be used singularly or in relation to the other. Or as the writers’ state, it

[...] can be used as the base from which to build an integrated planning approach useful for your city or urban settlement<sup>20</sup>.

As so, it might be a useful method in analysing urban sustainability in the past. In the following section I will use Västergarn, an early medieval urban settlement, as an example of to illustrate some of the types of archaeological results that can be explored using these methods in relation to contemporary challenges for urban sustainability.

# Urban Profile Process

## ECONOMICS

Production & Resourcing  
 Exchange & Transfer  
 Accounting & Regulation  
 Consumption & Use  
 Labour & Welfare  
 Technology & Infrastructure  
 Wealth & Distribution

Organization & Governance  
 Law & Justice  
 Communication & Critique  
 Representation & Negotiation  
 Security & Accord  
 Dialogue & Reconciliation  
 Ethics & Accountability

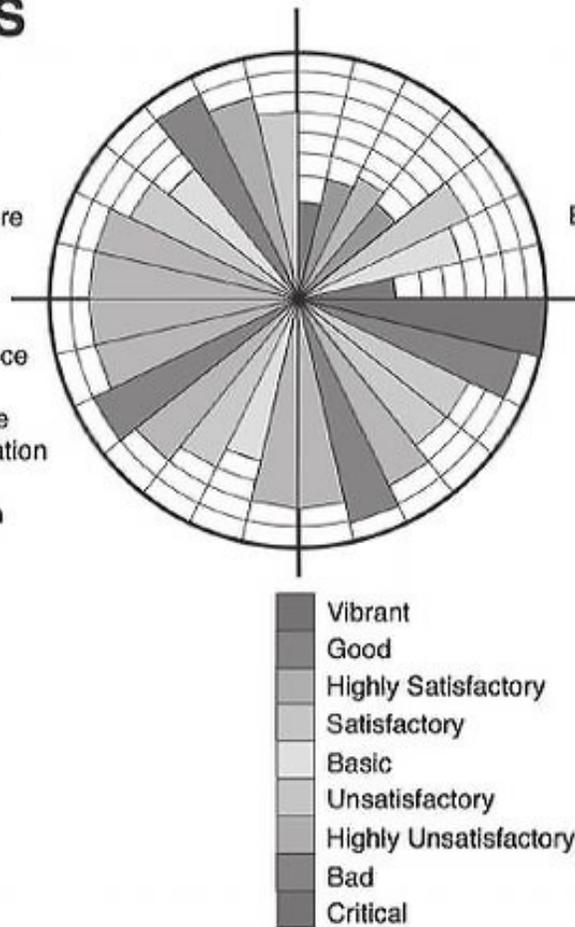
## POLITICS

## ECOLOGY

Materials & Energy  
 Water & Air  
 Flora & Fauna  
 Habitat & Settlements  
 Built Form & Transport  
 Embodiment & Sustenance  
 Emission & Waste

Identity & Engagement  
 Creativity & Recreation  
 Memory & Projection  
 Belief & Meaning  
 Gender & Generations  
 Enquiry & Learning  
 Well-Being & Health

## CULTURE



# Circles of Sustainability

FIGURE 1 Circles of Sustainability. The four dimensions of sustainability and the seven subdomains accompanying them.



FIGURE 2 Map of Northern Europe and part of Scandinavia. The location of Västergarn, on the south western part of the Swedish Island of Gotland, marked on map by red dot.

## THE VÄSTERGARN EXAMPLE

Västergarn is situated on the southwestern coast of Gotland (Figure 2) and the easy access to water probably contributed to the site's importance during the Middle Ages. As many other settlements that arose around the year 900-1000 AD in Sweden, Västergarn grew rapidly in an urban-like fashion over the next couple of hundred years. The remains of the massive, 1000-meter-long semi-circular wall, the overgrown base of a round defence tower and the foundation ruins of the Romanesque church that lie alongside the standing Gothic church are today the only visible evidence of the prosperous and dynamic early medieval settlement. The modern houses and farmsteads that make up the small rural community of Västergarn today are to some extent enclosed by the arms of the wall and the area which is interpreted as the location of the early medieval settlement are now mostly undeveloped land. However, the location on the seafront make it highly interesting from a developmental point of view and often contribute to clashes between development and cultural heritage interests.

The written sources mentioning medieval Västergarn are scarce but the archaeological material collected during decades of archaeological work speak of an urban ambition in line with more prominent cities in Scandinavia such as Visby, Sigtuna and Ribe<sup>21</sup>. Although only about 0,9 % of the total area within the wall has been subject to excavations, the rich archaeological record make an invaluable source to understanding Västergarn's medieval development and urban life<sup>22</sup>.



FIGURE 3 House under excavation at Västergarn in 2012. Houses in residential area were built on a frame and resting on stone sill plates.

The remains of ten medieval house foundations have been detected within the wall area, indicating a complex settlement area. Based on specific artefacts found in and around the foundations, the settlement seems to have been used during a period from 1000 to 1400 AD. The architecture is dominated by houses built on a frame and resting on stone sill plates (Figure 3), some may have been dovetailed or bole houses with a hearth bricked against one of the outer walls. The expansion phase of the residential area that seem to coincide with the construction of the gothic church (which probably began in the middle of the 13th century<sup>23</sup>) suggest, together with a large collection of coins, that Västergarn was at its urban peak during the period 1200-1350 AD<sup>24</sup>. The rich artefact material consisting of ceramics and luxury goods speak of a population with a distinct urban consumption and widespread network connections reaching todays Russia, northern Europe and England<sup>25</sup>.

Like many of the cities around the world today, the medieval urban settlement in Västergarn showed remarkable resilience as its development trajectory was challenged by a number of contemporary occurrences, some most likely more disruptive than others. The Hanseatic emergence in the middle of the 12th century, whose purpose was to maintain trade relations and guard trade privileges, surely had a gradual effect on the trade and production. The restrictions on the freedom of trade possibly led, as in so many other urban areas of the time, to an unrest that probably affected the population<sup>26</sup>. From analysing the archaeological material from Västergarn we can recreate sequences of different spatial states and observe changes in location and distribution of imported (traded) goods and study changes in local production patterns of material such as ceramics or combs<sup>27</sup>.

The agrarian expansion, 1000-1200 AD, was facilitated by new inventions such as the plough but the climate was also unusually warm, especially in northern territories. In the early 1300s a long period of cold and wet weather subsequently led to crop failure and starvation among the populations of Europe. From England we know that the rains were so heavy in 1315 AD that people hardly harvested any crops for sales or storage in the barns<sup>28</sup>. Accumulations of fish and animal bone, as well as residues of nuts and berries, at Västergarn could provide valuable information Västergarn's possibilities to meet food needs over longer periods of time or in times of crises such as rapid climate change.

A city is only as resilient as its citizens, Thomas J. Campanella notes<sup>29</sup>. Resilient citizens have enabled urban resilience and development throughout history and this probably goes for Västergarn as well. One factor that most certainly affected the resilience of people during the medieval period was the breakout of the Black Death in the 14th century. Even though we do not have hard numbers testifying to how many died of the plague in Västergarn, we must assume that it affected the population to a significant extent here as well. The skeletal material found during excavations have been analysed to some extent<sup>30</sup> but more need to be done in order to explore how resilient the population was to different kinds of disease.

However, we know that the population of Västergarn was not able to sustain the urban development initiated in the early medieval period. The archaeological material so far indicate that by the beginning of the 15th century, Västergarn had lost its former importance<sup>31</sup>.

## CONCLUSION

The significant similarities that events of the past carry to those of today make it possible to use archaeological knowledge as a tool to illustrate the effects and long-term consequences of different urban strategies in a way that is often hard, or nearly impossible to do, only by using contemporary conditions<sup>32</sup>. Even though archaeology cannot provide ready solutions to current planning challenges and answer exactly how to achieve urban sustainability in the future, archaeological knowledge on prehistoric cities can offer a variety of urban examples that move beyond the mega cities that often are used as examples in the global discussion on sustainable cities<sup>33</sup>.

A full-scale case study of Västergarn, focusing on spatial organisation in relation to developmental trajectory over time by using the site catchment analysis or Circle of Sustainability method, could make an excellent starting-point for exploring different aspects that help create sustainability today. It may for example provide valuable perspectives on sustainability issues such as coexistence, social cohesion and adaptation that is significant to an understanding of the urban dynamics of modern cities<sup>34</sup>.

Archaeological research that uses concepts of modern urban studies will promote the potential of the archaeological material to other scholars if published outside the traditional archaeological domain. Opening up for a multidisciplinary approach on urban issues might help break down the artificial barriers created by current disciplinary structures that possibly curbs the ability to achieve the goal of creating sustainable cities.

An increased interaction between archaeologists and urban scholars, historical or modern, could very well mean that the past will be able to provide one of the keys to the sustainable future of our cities.

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## Disclosure Statement

No potential conflict of interest was reported by the author.

## Notes on contributor

Ulrika Söderström is a PhD student at GRASCA, at Linnaeus University in Kalmar, Sweden. Her PhD project investigates how archaeological knowledge of ancient cities and urban settlements can contribute to sustainable urban development now and in the future.

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- 3 Christian Isendal, 'Med facit i hand?: hur arkeologisk kunskap kan bidra till en hållbar stadsutveckling', In: Daniel Nilsson & Krister Olsson, *Det förflutna i framtidens stad: Tankar om kulturarv, konsumtion och hållbar stadsutveckling*, 2014, p189-201.
- 4 Smith, 2010a, p246
- 5 See Franscesco Bandarin et. al, 'Why development needs culture', *Journal of Cultural Heritage Management and Sustainable Development*, Vol. 1 Iss 1 p 15 – 25; also Erika Avrami, *Making Historic Preservation Sustainable*, *Journal of the American Planning Association*, 2016.
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Figure 2: ArcGIS map of Scandinavia and Sweden, ESRI 2013.

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# THE INFORMATION AS A SOLUTION FOR THE DEVELOPMENT OF SUSTAINABLE CITIES: THE DEMOCRATIC MANAGEMENT MODEL IMPLEMENTED IN THE STATE OF SÃO PAULO, BRAZIL

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The Brazilian Federal Constitution of 1988 is based, with regard to urban planning, in creation of mechanisms to implement the functions of cities, in order to ensure quality of life, aiming at sustainable development in economic, social and environmental aspects. Hence, the concern of the Brazilian Constitution with the fulfilment of the principle of social and environmental functions of urban property, in articles 170 and 182, which impose on the owner's duty to act in accordance with the preservation of environmental quality.

Social and environmental functions mean the imposition of the exercise of rights aimed at the interest of society. Moreover, Brazilian Civil Code, respecting this constitutional provision, innovated to address environmental protection in the exercise of property rights, at paragraph 1º, of article 1228. Thus, the property can be restricted to meet the collective interests, adapting to the environmental needs of each location. Such determinations are primarily designed to foster the development of sustainable cities through commitments on national, regional and local context. However, for the effectiveness of these commitments, the participation of civil society in actions and policies about it is essential. For this to be possible, it is necessary that the public is properly informed. Information becomes a condition and a tool for citizen awareness of sustainability, as it gives the possibility of creating efficient practices for better use of urban spaces, combined with quality of life and preservation of the environment.

In this sense, through a dialectical approach methodology (from appreciation of the material collected, the arguments will be held, adopting a methodology procedure fundamentally based on bibliographical and legal analysis, to ponder and question the main theories about the topics discussed, through a critical and reflective posture), this paper assesses the Brazilian constitutional content about the social and environmental function of the property, indicating its concept and importance, as well as relating this principle to sustainable development.

Afterwards, ponders about the challenges of Brazilian cities have to become "sustainable cities", in order to ensure quality of life. Then, discussions on how access to information by the society may contribute to the creation of this new urban social reality.

Thereby, this paper aims to answer the following question: Is it possible the participation of civil society in the formation and implementation of commitments to sustainable cities, from the adequate information? This question will be answered by showing that the information can be considered as a catalyst for popular mobilization, since it allows the citizen to have grounds to participate with quality in matters involving primary interests, such as ecologically balanced environment.

Finally, it gives, as example and parameter, the democratic management model implemented in the city of São Paulo (Brazil), through instruments of transparency and management that allows the knowledge of society about the municipal urban issues and it is, thus, a legal and institutional advancement for participatory governance mechanisms. Take, for example, platforms like "Infocidade", "Observa Sampa", "São Paulo Aberta" and "Planeja Sampa", which serve as empirical reference of the issues addressed in the text.

## **Keywords**

Sustainable City, Urban development, Democratic management, Information, São Paulo, Brazil



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# ARCHITECTURE, RESILIENCE AND THE ARTICULATION OF URBAN DILEMMAS

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**Rahoul B. Singh**

RLDA

This paper views the City as the product of a complex web of ongoing social and cultural developments. It bases its understanding on the premise that a City and its landscapes, act as agents of historic transmission and documentation that are bound together by the varying degrees of elasticity embodied within them. It proposes that when an engagement with the past happens through the insertion of catalytic programs posited against the historic artifact it creates an episodic urbanism. Collectively viewed these, “episodes” which place the individual at the center of a negotiated urban experience pushes the elastic limits of a city’s resilience and hence acts as both an agent for continuity and change.

#### **Keywords**

Architecture, Palimpsest, Resilience, Thirdspace Urbanism, Urban Episodes

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## INTRODUCTION

Architecture is the product of the conditions and dilemmas that bind it. It represents not an absolute but constructs a terrain wherein that which is construed and imagined can be en-acted. Through its materiality and spatial configuration it not only structures thought and action but also situates a work within the greater crucible of cultural production and consumption. Collectively seen, along with the spaces in between, architecture's greatest contribution to civilization is undoubtedly the City.

Between 1990 and 2015, the world's population grew from 5.3 billion to over 7.3 billion people. Fifty percent of this population is currently residing in urban areas. This figure is projected to grow to 9.7 billion by 2050.<sup>1</sup> With much of this growth coming from Africa and Asia, it becomes imperative to form an understanding of the city as both a conduit and a receptacle for a notional past as well as an imagined future.

The imagined terrains and the negotiated geographies that determine an urban imagination and inform the experience of a city is a condition based on the existence of a large heterogeneous population, a physical terrain that has evolved in response to social and cultural conditioning and the means of communicating an urban experience. Collectively, these act as an impetus for the city's population to create new futures.

This paper views the City as the product of a complex web of on going social and cultural developments. It bases its understanding on the premise that a City and its landscapes acts as agents of historic transmission and documentation that are bound together by the varying degrees of elasticity embodied within them. It proposes that when an engagement with the past happens through the insertion of catalytic programs posited against the historic artifact it creates an episodic urbanism. Collectively viewed these, "episodes" which places the individual at the center of a negotiated urban experience pushes the elastic limits of a city's resilience and hence acts as both an agent for continuity and change.

The text is divided into four sections. By way of an introduction to the Indian city some key types are identified and their histories briefly described. This would serve to lay the groundwork for an understanding of the contemporary metropolis as a heterotopic amalgamation. The palimpsest as a metaphor and a plane of occurrence is examined as a socio – spatial field and is discussed in the second section. Resilience and elasticity are examined thereafter, and finally by way of a conclusion, the material articulation of the dilemmas that the conditions of difference produce is proposed as a possible form of / means of articulating our current urban condition.



FIGURE 1 Chandigarh Manhole and City Plan.

## THE INDIAN METROPOLIS: FROM CITY TO MULTIPLICITY

Multiple ideas, rooted in the social and spatial structure of an ancient society contributed to the development of the Indian city. However, these multiplicities were often manifested in a predominantly singular form and in a particular place. This was especially true of the pre-colonial Indian city. For example, the spatial structure of temple towns such as Varanasi or Madurai were very different from the political and administrative towns of Delhi and Agra. Likewise, Ahmedabad, Surat and Cochin were representative of the sub continent's commercial hubs. The East India Company in the seventeenth century brought with it two new types of cities – the trading outposts of Bombay (Mumbai), Calcutta (Kolkata), Madras (Chennai) and subsequently the cantonment towns of which over one hundred and fifty were built as instruments of governance, law and order.<sup>2</sup> Against the backdrop of Lutyen's and Baker's Imperial Delhi (1911), the grand colonial capital, was built Prime Minister Nehru's nationalist city, Chandigarh (1952).

During the early part of the twentieth century, the Indian city became an instrument of expression for both state power and subjugation on the one hand, as well the locale where Nehru's faith in democracy and the "modern project" could be scripted and subsequently disseminated (from city to village) on the other. This dichotomy brought with it very differing views on how to engage with the city as both a tool in the freedom fight and a vehicle to transform India from being an ancient civilization to a modern nation.

Mahatma Gandhi for example, saw the city as an object that was foreign to the intrinsic mechanism of the country's traditional villages. Habitats that were informed as much by the complex social structures of class and caste, religion and tradition, had developed a spatial structure that responded to it, and its immediate confrontation with the landscape through both local material, cultural and craft practices. In it, there was little space for the abstract geometries of the colonial city or the homogenizing grids of the modern city.<sup>3</sup>

Gandhi saw the city as an instrument of nationalist subjugation and in it found an opportunity to use the image of the city and its spaces as agents of protest. He for example, appropriated the spaces of the colonial city and used it as a stage set against which his protests or *morchas* were posited. For once, crowds of people saw themselves as a collective mass against the symbols of subjugation. The street instantaneously became a theatre, a space that could be occupied and from which a message could be broadcast. It ceased to be solely the conduit to a destination but in fact in years to come became the space wherein the practice of everyday living was routinely enacted.

The establishment of the Indian Railway system in 1853 and its subsequent knitting together of the Indian sub continent, along with the depiction and propagation of the city through Bollywood cinema, and the employment opportunities of a modern nation being built in the decades following Independence, made the City an object of both desire and destination.<sup>4</sup> With growing migration from rural India to its cities, not only did the city see a greater demographic mix but with it came new and different imaginations that inhabited it differently and brought with it a social and spatial structure that was otherwise foreign to it.

Apart from Independence, two other events in Modern India's history had a lasting impact on the cultural landscape – the imposition of Emergency and the suspension of civil liberties between 1975 and 1977 by Prime Minister Indira Gandhi and the liberalization of the economy in 1992 by Prime Minister PV Narasimha Rao.

While the former was short lived, the latter gave architecture in India and its cities a new impetus. With liberalization came global capital and global images. Their instantaneous production and consumption meant that one no longer resided within the single city urban agglomeration but now on a trans global temporal terrain. The materiality of its construction shifted from the concrete of the Nehruvian socialist imperative to the ephemerality enabled by media, communication devices and the widespread availability of the internet.



FIGURE 2 Mahatma Gandhi, Jawahar Lal Nehru and Mulana Abdul Kalam Azad.

The fragmentary coalescence and amalgamation of traditional and new city and building types, were made possible by the construction of the different utopias that began to migrate to and inhabit the contemporary city. The secular imagination that formed as a result of this had little or no place for a city conceived of as the embodiment of a singular idea or form. In its transformation, the terrain, “where the construed and imagined can be enacted”, came to represent a multi - tiered heterotropic amalgamation of past inscriptions and contemporary imaginations, a place wherein social and cultural ceremony were routinely enacted.

## **PALIMPSEST: LAYING THE GROUND**

Commonly understood, a palimpsest is a sheet of parchment on which narratives were written, erased and written over. It enabled the readers to situate themselves within either the most recently inscribed piece of writing or between the various layers of texts thereby enabling them to construct new individualized texts and readings. The palimpsest recognized that it is the material universe that gives to human awareness a sense of time extending beyond individual lives and perceptions.<sup>5</sup>

The Indian city when viewed through the lens of critical distance offers varied and differing meanings to otherwise commonplace objects and occurrences. Simultaneously conditioned by the cognitive and symbolic representations of time and place, the palimpsest becomes a field of interplay between acts of inscription and erasure. The accrual of time, material agglomeration on an object and the social engagement with its fragments enabled the city to be individually constructed.

Divorced from their original contexts, the material remnants serve as agents of past narratives and histories that through their current day engagement serve to blur an arbitrary boundary between past and present landscapes. Within themselves, palimpsests represent a displaced field of engagement with differing material histories residing on different temporal scales juxtaposed with each other. Collectively seen, the cumulative whole represents a level of complexity and opportunity that is greater than its constituent elements.

Buildings and their associative urban plans are culturally situated and situating. However, with the development of modern media and its associative means of information reproduction and dissemination, historical memory is no longer either stable or absolute.<sup>6</sup> The question, “what does the instant availability of ever more pasts do to our system of temporal and spatial perception?”<sup>7</sup> takes on great significance especially when we view the role that globalization, with its dispersed national traditions and historical past(s) plays (has played) in depriving physical remnants of their geographic and political groundings, and thereby creating a notion of memory as being borderless.<sup>8</sup>

The pre-occupation with the moment, its transitory nature and the simultaneous availability of multiple pasts along with a decentered and displaced image of oneself, has led to the creation of a place wherein an unknown territory is mapped on to what was otherwise outwardly familiar. The consequent development of a peripheral consciousness that negotiates between these real and imagined spaces, differs sharply from a consciousness that understood space as either the reproduction in physical form of a set of social relations (as manifest in an organic city) or the utopic / visionary idea of a city imposed on an otherwise unsuspecting landscape.

By virtue of encompassing the physical, the construed and the represented, the urban palimpsest acts as a meta – metaphor through which the existence of multiple, simultaneous and varied recorded histories reside on the singular material plane of the everyday. As a field of occurrence within which *difference* is enacted, the palimpsest acts as a medium of exchange wherein selectively particular “pasts” are rejected in favor of others and layers of meaning and action are further inscribed by the social invention of relationships set within the physical remnants of past histories. The palimpsest thus serves as a metaphoric coupling device that “reifies

and aids an understanding of the *other* concept (in this case the relationship between individual and the multi-tiered transhistorical city), and that concept enables a reinscription of the palimpsest that sophisticates our understanding of its complex structure and logic.”<sup>9</sup>

The city as a social instrument thus manufactures through its terrain and its inhabitants a series of mutually constructed and negotiated microcosmic urbanities or episodes that constantly erupt within the outward structure of the city. The “hybridities” that the temporal juxtaposition of these urbanities create, together challenges the limits of a city’s elasticity and in doing so pushes the limits of its resilience.

## RESILIENCE: ELASTICITY IN THE CITY

Commonly understood, resilience is the ability of a system to, “bounce back” to an original state or form after the occurrence or subjection of a force that is otherwise foreign to it. Resilience seeks to develop an understanding on the source and role of change across dynamic spatial and temporal cycles. <sup>10</sup>Drawing on social memory as a stabilizing factor in the return of a system to its original state and the convergence and coalescence of multiple “micro urbanities” on to a singular plane as a means of inventing the new, they collectively have a de-stabilizing and transformational effect on the system and on each other. Understood together, Gunderson and Holling have termed this theoretical framework “panarchy”. <sup>11</sup>

While resilience theory seeks to develop an understanding on the source and role of change across dynamic spatial and temporal cycles<sup>12</sup>, it also acknowledges the heterogeneity of key adaptive elements in it. These elements need to be flexible enough to react and adapt to evolving physical and social contexts.<sup>13</sup>

The Indian metropolis with its heterogeneous population residing within the crucible of multiple and fragmentary pasts are infused with levels of resilience that operate as episodes both at the scale of the immediate and present as well as well through ceremonies, social and faith based cultural practices on a trans historical notion of time.

In identifying key features of the system, Holling and Gunderson, state that change is neither consistently chaotic, nor continuous or gradual but rather episodic. The “accumulation”, through both erasure and inscription, of “urban capital” is punctuated by the re-organization of legacies of the micro urban encounter. Additionally, the associated spatial and temporal attributes are not uniform but dis-junctous and discontinuous, and hence the resilient system has multiple sets of referents and hence states of equilibria. The de-stabilizing forces within it are important for inculcating diversity and flexibility in the system while the stabilizing forces are important in the creation of a collective social memory. And lastly, fixed structures and rules designed to achieve consistent yields independent of scale and context, erode a systems levels of resilience. <sup>14</sup>

With the legacies of such encounters forming the ground for future interventions and engagement with the city, the articulation of “the conditions and dilemmas” that bind it simultaneously inscribe within the system new levels of resilience – the capacity for the city to embrace change both as a stabilizing factor and as an agent of invention and re-invention.

As a field of intervention the insertion of catalytic programs that empower people to either individualize an urban experience or engage in a collective experience of it becomes an agent for building urban capital. Often located within the intersitial spaces of the city or a region, these programs establish a rapport with their physical context based on the immediacy of the present. With limited material trace and an agility that contrasts sharply with the stoicism of the static city, these programs propel future growth by pushing the elastic levels of a city’s resilience.



FIGURE 3 Urban Episodes - Street Dentist.

Urban resilience exists within a series of linked dynamic cycles, across spatial, temporal and material environments that are invested in each other through a system of networks of exchange. These networks through social and cultural ceremony, view the transient and dynamic nature of the historical setting as an urban artifact that is re contextualized through a displaced socio temporal field. Individual necessity and a collective impulse have for cities necessitated a form of adaptive governance and adaptive urban programming that has led to either legislative action or opportunities for private entrepreneurship within these spaces.

## CONCLUSION: INSCRIPTIONS AND ERASURES IN THE CITY

The Gazette of India in a March 5, 2014 announcement through the Ministry of Law and Justice, legalized vending in certain designated zones in the city by decreeing that a street vendor is defined as, “a person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler, squatter and all other synonymous terms which may be local or region specific, and the words “street vending” with their grammatical variations and cognate expressions, shall be construed accordingly.”<sup>15</sup>

The temporal nature of these activities as a form of urbanism is recognized by the state through its legislature. By providing essential services at locations within the city which is otherwise found wanting of them, they, create a “third space” of invention through their inhabitation and juxtaposition with the planned city.<sup>16</sup>



FIGURE 4 Urban Episodes - Sleeping in the City.

Other examples of episodic urbanism can be found in Shaunak Sen's film, "Cities of Sleep", which identifies in New Delhi, a sleep mafia who, "controls who sleeps where, for how long, and (of) what quality of sleep". With government unable to provide adequate affordable housing, the privatization of sleep both fulfills a primordial need and thrives in a space where the government and the real estate industry have failed. Located on pavements, under fly overs, and in alleyways, sleep vendors rent out blankets for the night and for an additional sum of money would screen a Bollywood movie – entertainment for some, white noise to block off the sound of the city for others. Come daylight, the quilts are returned to the sleep vendor and the street to the city.<sup>17</sup>

While the occupation of interstitial spaces within the city may find precedent in the Gandhian idea of appropriating space for individual action, it also finds resonance in the transformation of elements of the landscape into grounds for faith based cultural practices that exist on a trans historical notion of time.

The Peepal tree for example is a part of the religious narratives of Hinduism, Buddhism and Jainism, and acts as a catalyst for the establishment of initially a spot of worship and thereafter a temple. Its location and intent as a place of congregation and worship was never part of the planned city but as a manifestation of a collective social belief, and a natural landscape has come to be so. The transition from tree to temple on the cityscape demonstrates a shift from a temporal to a more permanent inscription on the city's palimpsest. The appropriation of symbols of the natural landscape in the city and their use as the protagonist in the occupation of the spaces around them challenges a city's levels of resilience through its subsequent material intervention and social inhabitation. In doing so it represents both continuity of belief and change in the city.



FIGURE 5 From Tree to Temple.

The ephemerality of the act and its recurring engagement with the physical landscape can be seen in most parts of the India, however, taken to its extreme is the festival of the Kumbh Mela, an occurrence once every twelve years on the flood plains of the holy rivers Ganga and Yamuna at the cities of Ujjain, Nasik, Haridwar and Allahabad. Rahul Mehrotra and Felipe Vera in their essay on the Kumbh Mela, described it as, “The Ephemeral Megacity –A City with an Expiration Date.”<sup>18</sup>

Describing it as the, “most densely populated and rapidly urbanized spaces on earth”,<sup>19</sup> the 2013 Allahabad Kumbh Mela covered an area of 23.5 square kilometers with an additional fifteen square kilometers available for a temporary tent city to be constructed once the river receded post monsoon. The fair with an initial population of about 5 million people grows to 10 to 20 million people on the auspicious bathing days. In addition to the regular bridges that cross the river, 18 other pontoon bridges are made, 150 kilometers of temporary roads, 90 parking lots, 5 bus stations, 7 temporary train stations and an additional 3500 buses are employed to run on the main bathing days.<sup>20</sup> The quantum of civic infrastructure constructed, deployed and subsequently removed takes on an urban scale.

Unlike in other temporary settlements such as refugee camps or natural disaster shelters, the infrastructural grid at the Kumbh Mela does not seek to homogenize either the terrain or the individual but provides open areas within it where independent religious communities can construct and design environments as expressions of their own structure and identity. The grid thus forms a framework within which *difference* occurs, with the final form of the city being the result of a number of intertwining dynamic cycles. For example, the shape and size of the flood plain once the river recedes is an uncertainty that is dependent on the duration and strength of the monsoon.



FIGURE 6 Kumbh Mela - Pontoon Bridges.



FIGURE 7 Kumbh Mela - Tented Settlement.

The number of people visiting the Mela is a constant act of approximation with its numbers swelling greatly on the auspicious days. At every stage in its development, the ephemeral city embraces uncertainty in its design process through the distribution of risk amongst its infrastructural sub components, as a strategy to build system resilience.<sup>21</sup> Resilience redundancy thus becomes a tool in addressing a dynamic physical and social context.<sup>22</sup>

The spatial, cognitive and cultural differences of the inhabitants of the city, from being an attribute of segregation and compartmentalization, have with urban mobility become a unifying factor in the city of fragmented wholes. The co existence of multiplicities united through an idea of *difference* and its consequent hybridity, the juxtapositions of which along with their amalgamation gives rise to a dynamic form of urbanism.

The third-space as a proponent of this form of urbanism thus pushes the boundaries of resilience in the city and in doing so builds “resilience redundancy” into the system. Collectively, the “negotiated” space constructed out of this ontological process forms a social memory of a place that ensures a symbiotic relationship between the creation of new boundaries of resilience and the physicality of the place. This relationship begins to view the city as a self-organizing open system based on the symbolic social interactions between people, buildings and the spaces in between.

As a form of urbanism the third space necessitates the need for new types of interventions within the city. Projects that view a city’s resilience and heterogeneity as materials through which to blur boundaries of the city inevitably engage with the democratic impulse of a people, ones right to the city, its imaginations and its representations. Such urbanism shares an inextricable relationship with a city’s palimpsest by drawing on both the physicality of past as well as the accumulative social and cultural capital of it’s histories.

The ground for such an urbanism lies in the space of the threshold, the intersitial spaces, that zone of inhabitation where fissures in the formal city erupt. These points of intervention that articulate the dilemmas and locational inadequencies offer opportunities for invention and create episodes that collectively push the elastic limits of a city’s resilience and hence act as an agent for both continuity and change, erasure and inscription.

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### Disclosure Statement

No potential conflict of interest was reported by the author.

### Notes on contributor

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He received his education in architecture and the fine arts at the Rhode Island School of Design, USA.

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Edward Soja in his discussion of trialectics of spatiality, distinguishes between first, second and third-space in the following manner –  
"First space epistemologies tend to privilege objectivity and materiality, and aim toward a formal science of space."  
"Secondspace is the interpretive locale of the creative artist and the artful architect, visually or literally representing the world in the image of their subjective imaginaries..."  
"Thirdspace epistemologies can now be briefly re-described as arising from the sympathetic deconstruction and heuristic reconstitution of the First space-Second space duality...." The "deconstruction" and "reconstitution" of the preceding descriptions of first and second space does not adequately address the encounter between the collision of individual lived space imaginations with the material traces of the "first" and "second" spaces. This negotiated (between materiality and imagination as well as between the imaginations of a people to people encounter) space fills a void and occupies the interstitial spaces of a city. The insertion of programs or functions in these spaces would thus serve as a catalyst for further invention and hence stretch the elastic limits of the city and in doing so re define its levels of resilience.
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Fig. 6. R.M. Nunes, Constructing The World's Biggest (Disassemblable) City.

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[https://dgprhlfudt76.cloudfront.net/assets/Articles/60/Images/\\_resampled/SetWidth1200-1785910.jpg](https://dgprhlfudt76.cloudfront.net/assets/Articles/60/Images/_resampled/SetWidth1200-1785910.jpg)



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# Inaugural and Valedictory Speeches: Connecting Practice and Education

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*Chair: Charlotte van Wijk*



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# PROFESSOR ADSHEAD'S TWO INAUGURAL LECTURES: THE UNIVERSITY OF LIVERPOOL (1909) AND UNIVERSITY COLLEGE LONDON (1914)

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**David Massey**

University of Liverpool

Stanley Adshead (1868-1946) held the first two chairs of civic design/town planning in Britain, of Civic Design at the University of Liverpool from 1909 and the chair of Town Planning at University College London (UCL) from 1914. His lectures were given at a time when the planning hardly existed academically, professionally or in policy terms. This paper begins with an introduction to Adshead – artist and architect – and his early work. Within six months he had to familiarise himself with the subject as best he could, to formulate a new curriculum and assist in the foundation of a quarterly journal. Five years later it was a more experienced academic and practitioner who moved to London to take up the new (part-time) chair at UCL.

These different stages were reflected in the content of the two inaugurals. Adshead's first Inaugural 'An Introduction to Civic Design' began with a clear statement that 'city building ought not to be left entirely to individual control'. It continued with a review of historical precedents, concluding with some observations on the relationship between the built environment and social welfare, calling for planning to create 'a fit complement to modern city life' such as he had found in Paris. Adshead's second Inaugural 'The Democratic View of Town Planning' at UCL again opens with a historical overview, quickly moving to the different conditions for town planning in the early 20th century. The involvement of local authorities and new statutory powers are set against the need to maintain character, concluding with a case study of Oldham, a Northern industrial town, with whose planning he had recently been engaged on a professional basis.

## **Keywords**

Inaugural Lecture, Professor Adshead, Town Planning, UCL



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# CRAFT AND INDUSTRY

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**Charlotte van Wijk**

TU Delft

The paper begins with an introduction to the department of Decorative Arts in Delft, and its collections and housing under its first professor Sluyterman. This is the first, and for decades the only, institute of higher education in the field of product design in the Netherlands. The department's move to new localities in 1917 comes at a time when the teaching supported by the collections had already become outdated. The department's relocation to Huis Portugal seems a token of appreciation but actually reveals the perception of the collections as irrelevant to up-to-date science. Sluyterman's successors modernise the programme, and bring it up to date with practise abroad.

The professorship of Herman Rosse (1887-1965) and Frits Adolf Eschauzier (1889-1957) cover the most important developments in the field in the twentieth century, from an outdated ideal of beauty that belonged to the previous century, to a department for interior architecture, and an independent institute for industrial design.

The two professors' inaugural speeches set the scene for these alterations. Rosse shifts teaching away from the transferring of an ideal of beauty, towards contemporary practise. Towards the end of his professorship, Rosse publishes a restauration plan for the city centre of Delft. The plan, more idealistic than realistic, turns Delft into an open air museum, with an important role for craft industries. His attitude toward craft and industry places him at a cross roads between Morris and the Werkbund.

Eschauzier continues the development in the department in education, moving attention away from ornament and craft, towards interior architecture. Besides that Eschauzier lies the foundation of an independent department for industrial design, modelled on the educational approach in other countries.

**Keywords**

inaugural speech, decorative art, Delft, teaching collection



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# MARCHING ALONG THE RESEARCH-DESIGN RIFT IN PLANNING: WILLEM STEIGENGA VERSUS SAM VAN EMBDEN

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**Arnold van der Valk**

*Wageningen University*

November 19, 1962 Willem Steigenga was appointed full professor of Planning and Demography at Amsterdam University. Steigenga's inaugural lecture was conceived of by contemporaries as an important step forward in a simmering controversy in the Dutch planning community between social-science oriented planners and architect-planners. One year later Sam van Embden, acting chair of the Dutch Association of Architect Planners (BNS), was appointed professor in urban design at Delft Technical University. Both their inaugural speeches reflected the opposed ideals of two emerging schools in Dutch spatial planning thus transferring ideological battles from the planning offices and professional organisations to the university lecture rooms. The paper offers a historical view of the growing tensions between architect planners and researcher planners in Dutch practice. This division was a result of the evolution of practical planning work along the line of a survey-analysis-plan approach and the survey-before-plan model Geddesian style. Up until today the consequent rift in planning education throws shadows over the Dutch planning community.

Steigenga's inaugural lecture unfolded a working programme for planning inspired heavily by modernist American planning theory. He laid the foundations of a rational methodology in planning which dominated Dutch planning schools for most of the nineteen sixties and seventies. Steigenga made a case for close cooperation between researchers and designers. Architect planners united in BNS were annoyed by the 'unfounded' pretensions to gain primacy in planning as expressed by Steigenga and the likes. Van Embden ridiculised the underlying methodological claims. Both texts are conceived as pawns on the chess board of a long-lasting professional power struggle in planning.

**Keywords**

planning history, planning education, survey before plan, planning theory, rational planning paradigm



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# VAN DEN BROEK AND BAKEMA: TWO TYPES OF FUNCTIONALISTS – ARCHITECTURE AND PLANNING EDUCATION AT TECHNICAL COLLEGE OF DELFT IN POST-WAR SOCIETY

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**Evelien van Es**

*Evelien van Es architectuurhistoricus*

Europe was damaged badly during the Second World War. Despite the sheer size of the task ahead, the significant destruction, and shortage of manpower and building materials, the Netherlands took up reconstruction expeditiously. With unprecedented resilience battered cities and villages re-emerged from the rubble. The reconstruction was a large-scale operation in which industrially manufactured mass housing and a new cityscape were pursued. During the reconstruction Van den Broek and Bakema Architects were one of the largest offices with influential designs such as the Lijnbaan Shopping Center, the new heart of the bombed city of Rotterdam. Both architects showed great social commitment. Because of the grand scale of construction output in the first decades after the war, J.H. van den Broek and J.B. Bakema asked themselves what the architect's role and responsibility were in an increasingly technology-dominated society. As both architects were professors at the Technical College of the Dutch university town Delft, it is not surprising that this question was the main theme in their teaching. That goes for their inaugural speeches as well. Addressed in 1948 and 1964 – marking the start and the completion of post-war reconstruction – they show that the architect's focus had shifted profoundly.

**Keywords**

post-war reconstruction, modern movement, architecture and planning education

**How to Cite**

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## INTRODUCTION

After the Second World War Van den Broek and Bakema Architects formed a key player in the post-war reconstruction of the Netherlands. The office was known for its large-scale building projects and earned a reputation for its problem-solving ability. Simultaneously, the office acted as a generator of new ideas about architecture, urbanism and society. The office directors represent two types of Dutch functionalists. J.H. van den Broek (1898-1978) is regarded as one of the founders of *Nieuwe Bouwen*, the modernist movement in Dutch architecture and construction; J.B. Bakema (1914-1981) was among the enthusiastic architects moving modernist architecture in a new direction. Van den Broek and Bakema were two outstanding characters, invariably typified by architectural historical literature as opposites: the analyst and the idealist, the pragmatist and the philosopher, or the schoolmaster and the vicar. Both architects were appointed extraordinary professors at the Technical College of Delft; Van den Broek from 1947 until 1965 and Bakema from 1963 until his death in 1981. Each in their own way left their mark on both architecture education and the atmosphere of the Department of Architecture. Their inaugural speeches demonstrate great social commitment. The grand scale of construction output in the first decade after the war raised questions about the position and responsibilities of the architect in a technology-dominated society. Van den Broek gave his inaugural speech in 1948; Bakema in 1964. These two dates coincided with the period during which the reconstruction of the Netherlands took place.

## VAN DEN BROEK AS PROTAGONIST OF MODERNIST ARCHITECTURE

Van den Broek and Bakema Architects has a long history dating back to M. Brinkman who started the office in 1910 and earned a reputation with an experimental design for municipal housing in Spangen, Rotterdam (1919-1922). His son J.A. Brinkman and his partner L.C. van der Vlugt took over the office in 1925 and subsequently produced much talked about designs such as the Van Nelle Factory in Rotterdam (1926-1930), the icon of the Dutch modernist movement. In 1937, a year after Van der Vlugt's sudden death, Van den Broek joined the office. Van den Broek replaced the traditional hierarchical distinction between designers and engineers, and between design and the execution of a design, with the new concept of teamwork. Since Brinkman struggled with health problems, Van den Broek asked Bakema in 1947 to reinforce the office. After the death of Brinkman in 1949 Bakema associated himself with Van den Broek. Together they reorganised the office structure in order to make it suitable for the post-war architectural climate of scaling up and mass production. In 1951 the office was named Van den Broek and Bakema Architects and in this constellation it made a significant contribution to the reconstruction of the Netherlands.

While the Netherlands was reconstructed, its society changed rapidly. During the fifties a modern society came into being which was characterised by increasing wealth, population, individualisation, democratisation and the rise of a consumer culture. These new conditions had far-reaching consequences for architecture and urban planning. Institutionalisation and industrialisation of the building sector and the focus on producing more houses developed into a huge reconstruction machinery. The Dutch government interfered actively with the housing programme. The design process was bound by a large number of regulations set by a complex system of advisory committees. Moreover, the scaling up of trade and industry resulted in an increasingly complex structure of clients. In this climate of efficiency and standardisation technocrats displaced the designing architect. In response, architects searched for references to enable a new culture and found inspiration in the pre-war avant-gardes as *De Stijl* and *Nieuwe Bouwen* which led to a widespread interest in national architectural history. Architects, critics and historians created the inspiring myth of a new architecture that was rooted in experiments of the inter-war years.

Van den Broek was rooted in the social functionalism of pre-war modernist architecture. His conception of the modernist tradition was averse to any heroism and came down to an open and pragmatic attitude to modern construction methods, combined with a great sense of the social significance of the architectural profession.<sup>1</sup>

He pursued another goal than mere efficiency. He thought about the meaning of these functions within society and summarised his belief in a statement derived from his philosophical and theological studies: “Der Funktionalismus ist ein Humanismus”.<sup>2</sup> He realised that an architect’s designs reflect his attitude to life; Van den Broek was acutely aware of the almost religious dimension.

In 1924 Van den Broek completed his training as an architect at the Technical College in Delft. At that time the curriculum was based on the model of the *École des Beaux-Arts*. Architectural education included lectures on the history of architectural styles, design exercises based on architectural briefs that became progressively more complex and finally discussing different types of buildings. Conceived as a pragmatic planning doctrine, which did not necessarily lead to one kind of architecture, academicism never disappeared entirely from Van den Broek’s designs.<sup>3</sup> He excelled in designing efficient floor plans; during the late twenties and early thirties he acquired an excellent reputation in the field of cheap and good quality housing.

After the bombing of Rotterdam in 1940 Van den Broek became heavily involved in the reconstruction of the city. His approach and experience attuned seamlessly to the necessary mode of production for its reconstruction. As a housing specialist, he considered the design process as an organisational problem in which diverging specialists and stakeholders had to be aligned. Because of his involvement with the technical and organisational aspects of the building process, he aspired to reshape the post-war building practice. Exemplary of his practical and activist method is the partly by Van den Broek initiated project ‘Woonmogelijkheden in het nieuwe Rotterdam’ [Housing opportunities in the new Rotterdam] (1941), in which co-operating architects presented a realistic alternative to the official reconstruction plan of the municipal Public Works, while clearing of debris was still ongoing. Van den Broek focused his activities especially on the network of institutes and organisations in which governments, architects and building contractors were looking for an efficient approach to housing, trying to realise as many goals as possible. Both at home and abroad: in 1946 he represented the Netherlands when the UIA (*Union Internationale des Architectes*) was first established, the international architects’ network for the exchange of knowledge about, among other things, reconstruction of cities, which had been affected by the war.

## VAN DEN BROEK AT DELFT

Van den Broek’s appointment as extraordinary professor at the Technical College in Delft was initiated by C.H van der Leeuw, former director of the Van Nelle Factory and curator of the Technical College since 1946. Van der Leeuw and Van den Broek were both professionally involved in the reconstruction of Rotterdam and they happened to be good friends as well. Besides Van den Broek, the kindred spirits urban planner C. van Eesteren and architect G.H. Holt were appointed extraordinary professors. Their appointment was intended to counterbalance the traditionalist Delft School. The well-known modernist architect J.J.P. Oud expressed his approval in *De Groene Amsterdammer* [The Green Amsterdammer], pleased as he was with the appointment of the three new professors. Oud considered Van den Broek and Van Eesteren as influential and active protagonists of modern architecture and assumed that they would stand firmly and remain committed to their view.<sup>4</sup> Modern architects needed to justify their conviction and their way of working amidst the predominant traditionalist Delft School, which had been able to secure leading positions in post-war planning and reconstruction and at the educational practice of the Technical College in Delft. The size of the task ahead, the ascent of planning devices and industrialisation of the building sector were of such a scale that basically only modernist architecture could provide an adequate response.<sup>5</sup>

Amid the style and ideology conflicts at Delft, Van den Broek unfolded his pragmatic and inclusive architecture vision. His inaugural speech *Creative forces in the architectural conception* united the existing diversity of movements and trends in a national architectural discourse.<sup>6</sup> In the multitude of architectural phenomena Van den Broek distinguished the modernists, traditionalists, the romanticists and the classicists. Hereby the

romanticists and classicists were primarily driven by their expressive or objective sense of beauty; the modernists and traditionalists moreover, by a certain lifestyle and view towards society. The creative forces of architectural thinking should not be sought in a multitude of architectural styles, Van den Broek argued, but should be jointly present in the mind of the architect as a creative artist. The unity of those creative powers should manifest itself primarily as a cultural movement. Facing his predominantly traditionalist colleagues Van den Broek weakened their prejudices. Modernist architecture and construction were not *a priori* and automatically interlocked. Modern architecture should emphatically be considered as art, and not as engineering. On the other hand, modernist architecture was not an artistic expression of the architect, but an activity for the community. By using contemporary means, modernist architecture expresses 'conscious human life'. Therefore modernist architecture was not sheer materialistic.

The decisive element in the speech is his optimistic belief in the certainties of pre-war architectural culture. But Van den Broek was certainly not blind to the practical problems of reconstruction and large-scale planning. In view of this complexity, he appealed to the intellectual content of the various tendencies within Dutch architecture. Van den Broek did not find these certainties in the history of the modernist movement only, but in a much more nuanced and pluralistic historical image of contemporary architecture in which ample space was created for a wide range of architectural tendencies.<sup>7</sup> Van den Broek juxtaposed the modernist architects' search for 'pure forms to fulfill pure needs' and the doctrine-based hermetic aesthetics and morphology of the traditionalists. He wondered why the forms of modern architecture were not covered by the traditionalist aesthetics, which pretended to capture the established principles of architecture. Not the absolute truth, but a value judgment was based on the traditionalist aesthetics, he concluded and proposed to change the principles of the aesthetic system and broaden aesthetic intellection. Subsequently he painted an experimental building, which in all aspects responded to the ambitions of such an aesthetic system. Van den Broek's speech is a vigorous attempt to re-determine Dutch architecture at a time when the emerging consumer society confronted architects with complex typological problems.<sup>8</sup>

Van den Broek started as extraordinary professor of Architectural Design and it was not until 1955 that he became a full professor by succeeding N. Lansdorp and getting more influence on the Department of Architecture. He taught fourth-year students to design according to the main principles: function and technique. Modernist architecture by Alvar Aalto and Le Corbusier set the example and Van den Broek took his students on excursions to the Van Nelle Factory in Rotterdam. His series of lectures were first named 'Grand design' and later 'Typology of buildings'.<sup>9</sup> Students worked individually on the design of certain building types, which were discussed during the various courses. After several conversations with his aides, students came by appointment to Van den Broek, who thoroughly engaged in their designs and gave them directions. He discussed the final results in front of the other students during the notorious so-called 'confrontation lectures'.<sup>10</sup> In 1960 Van den Broek initiated the so-called 'commentary lectures', which soon became an important institution in the Department of Architecture. During the commentary lectures relevant practitioners were invited to elaborate on their work and students got the opportunity to question them about their ideas. The artist Constant Nieuwenhuys presented the future of human society in *New Babylon*, a project within the *Situationist International*. Urban planners of the Amsterdam Urban Development Department displayed their design for the Bijlmer [area of Amsterdam]. And Van den Broek seized the opportunity to show his design for the new building of the Department of Architecture or he questioned the future of architectural education and the professional practice of the architect.<sup>11</sup>

At all times Van Den Broek presented the various coexisting architectural styles and methods from a synthetic point of view. Using slides he gave an overview of the various architectural movements and positioned engineering and architecture in the development of modern society, which originated in the Industrial Revolution. He discussed the various building types and laid the foundations for a functionalist approach to architectural design.



FIGURE 1 Van den Broek (left) and Constant Nieuwenhuys (right) during a commentary lecture, 1962



FIGURE 2 Van den Broek (right) and Bakema (left) at their office with a model of the new building for the Department of Architecture at Delft, 1960

## BAKEMA AND THE LEGACY OF THE MODERNIST MOVEMENT

The start of Bakema's career coincided with the start of the reconstruction of the Netherlands. Although he had been taught by Mart Stam and gained practical experience with Cornelis van Eesteren and Wim van Tijen, he didn't experience the heroic period of the modernist movement personally in the same way as Van den Broek did. The activation of the architectural history of the modern movement, as it was partially recorded in the archives of Van den Broek and Bakema Architects, was a natural part of Bakema's design approach. He suggested a continuous line of development from M. Brinkman, making his own work look like a logical consequence of previously developed ideas. In this way he used the cultural prestige of buildings such as the Van Nelle Factory to position Van den Broek's and his own office in the centre of modern Dutch architecture.<sup>12</sup>

Because of his professorship Van den Broek had withdrawn from direct design practice. Bakema took over the daily management of the office, moving it into a more dynamic and expressive direction. He believed that a building should be more than just functional; it must have expressive power as well. The form of the building must show its meaning in society and demonstrate how society works. He considered architecture and urbanism as means of expressing society's idealism. It was all about the appearance of ideas and spreading a mentality. To Bakema the office was a laboratory where inspiring models for a new society could be developed.<sup>13</sup> These models were realistic utopias: seductive images of a near future, exploring the boundaries of technical and social feasibilities.<sup>14</sup>

At the time of Bakema's appointment as extraordinary professor, modernist architecture was completely assimilated to reconstruction and had become dogmatic. His inaugural speech *Towards an architecture for society* bears witness of his discontent with the post-war reconstruction machinery.<sup>15</sup> Bakema criticised the system of the machinery in which administrative, distributive and commercial provisions were decisive, whereas the building of spatial structures had become quite subordinate. Thus he broke with the post-war generation of architects and urban planners.

Bakema's speech reflects a holistic view of the world. It is constructed around four concepts – space, form, structure, man – and explains how the simultaneous use of these concepts in architectural design leads to concepts such as home, workplace, church or school. For designing the interdependence of these concepts is of the same importance as the characteristics of each individual concept. He spoke consistently of 'space' and 'the built environment'. A thread running through his theorisation was his concept of space. The conception had its origin in the neo-plastic spatial concept of *De Stijl*, which treated space as a continuum. Bakema had his first encounter with the spatial continuum in the mid-1930s when he visited the Rietveld-Schröder House in Utrecht. He developed the artistic idea of neo-plastic space into a societal concept of 'total space', and continued refining this idea for the rest of his life.<sup>16</sup>

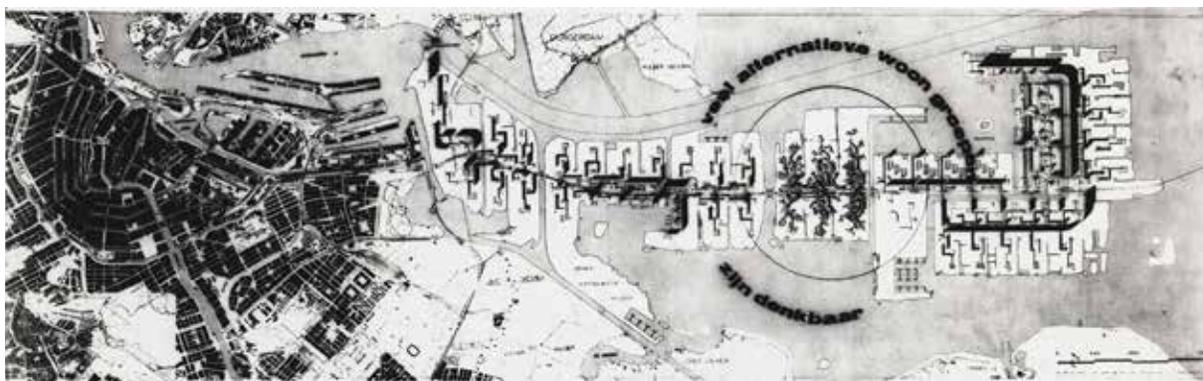


FIGURE 3 Pampus plan, a realistic utopia for an extension of Amsterdam by Van de Broek and Bakema Architects, 1964

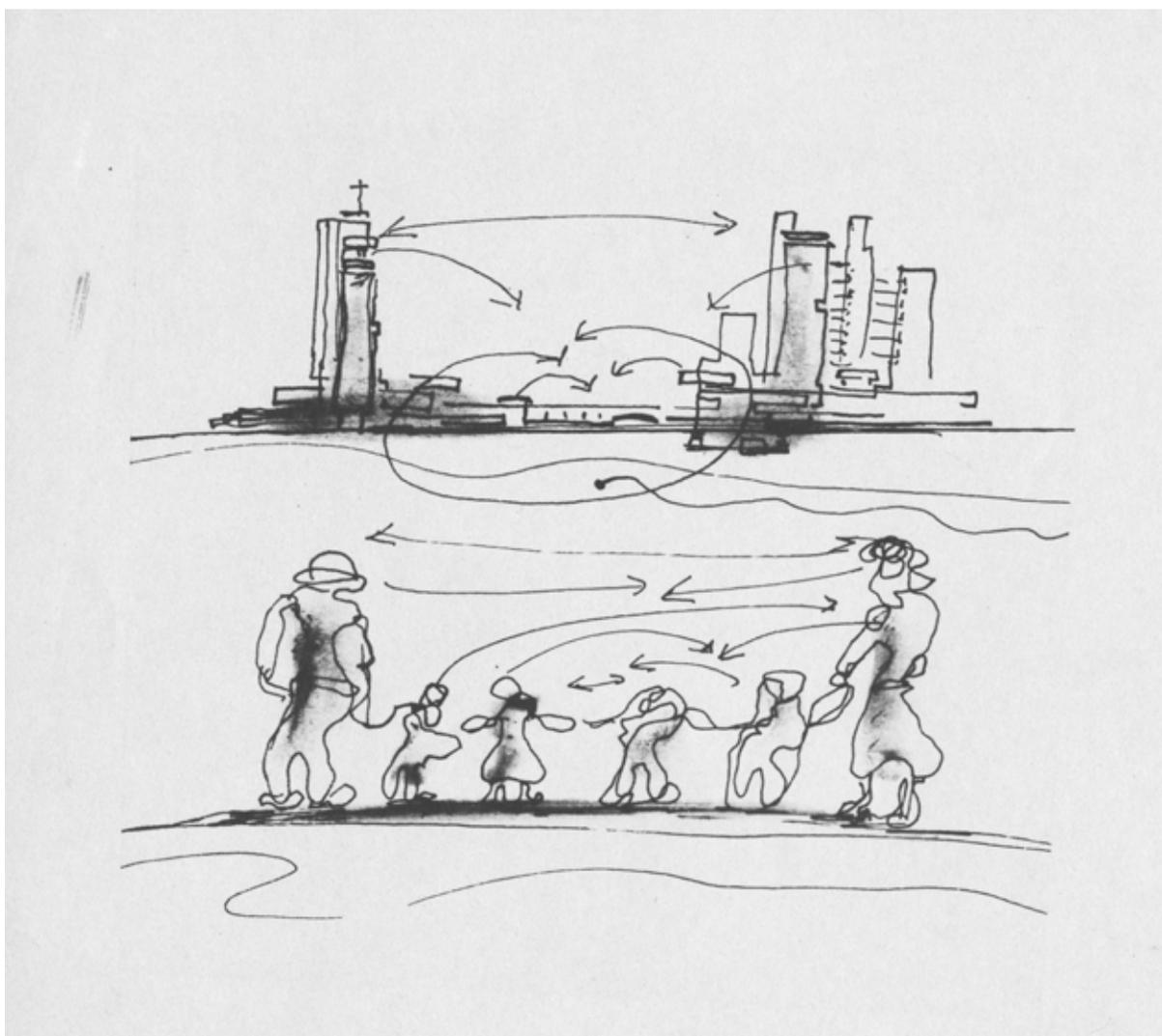


FIGURE 4 With the 'friendship diagram' Bakema demonstrates how architecture can be an expression of human behaviour, 1961-1962

According to Bakema's holistic view, thinking about space was strongly related to thinking about life. Understanding space started in the enclosure of the prehistoric caves and culminated in astronauts seeing planet earth as their focal point in the expanding space of universe.<sup>17</sup> Architectural design is primarily learning to formulate the hidden tasks in society and become familiar with the anonymous clients. Only then spatial structures could be developed; only then the anonymous clients could identify with 'total space'. It made no sense to teach architectural design without accepting responsibility for the impact of the built environment on mankind. Therefore Bakema suggested a basic course, preparatory to learning how to design and construct, in order to teach students to understand the greater context of life in which the architectural form operates.

## BAKEMA'S INSPIRING PERFORMANCES

The publication of his inaugural speech contains sketches, which was rather unusual. The sketch had a special meaning to Bakema, as traditionally it is the most direct manifestation of the artistic design process. As a symbol of the autonomous power he wielded the sketch conscious and provided it with new meanings. Bakema sketched to explain and had a very distinctive visual language. They were not personal notes, but attempts to convey a message. When his employees consulted him, they never got a cut and dried solution. He told them an inspiring story buttressed with sketches. He published his sketches in books and magazines, which characterised his position as an architect. By consciously creating an image, Bakema was trying to recover the cultural prestige of the architect, which was lost in the midst of the reconstruction machinery. Some of the sketches illustrating his inaugural speech, Bakema had made earlier for the television series 'From chair to city', broadcasted in 1962. He appeared on screen as a prophet of a new era and presented collages of diverse architecture media: drawings, models, photos and movies. It was a composite world where images of reality passed seamlessly into images of plans and projects, alternated by Bakema sketching on a blackboard as a traditional professor.<sup>18</sup>

Bakema's television performance was similar to his presence in the office, his functioning in the CIAM (*Congrès Internationaux d'Architecture Moderne*) and his teaching in Delft. Van den Broek invited him for a commentary lecture in 1960. In his first lecture in Delft Bakema criticised the CIAM. His activist stance was reflected in his strong commitment to transforming the CIAM, his contribution to Team 10 and his editorial activities for the journal *Forum*. He refused to compromise. With the same active attitude and inexhaustible energy he took over the Department of Architecture.

In the office Bakema created spatial visions of the future in order to indicate the direction in which he believed future society could or should develop. One of the first assignments for his students was creating such a vision for the Euro Delta (Rotterdam-Antwerp-Cologne), but that proved too ambitious.

As expected, Bakema encouraged his students in their pursuit of educational innovation and democratisation of the Department of Architecture. But when in May 1969 the revolution landed in Delft, he remained critical because of the size of the revolt. The section meeting of the Department of Architecture carried three motions in which the ruling hierarchy in governance and education was questioned. Bakema abstained from voting, although the expectant atmosphere of solidarity and equality did please him. Employees who still addressed him with his title were asked to call him by his first name, which sums up the new situation succinctly.<sup>19</sup>

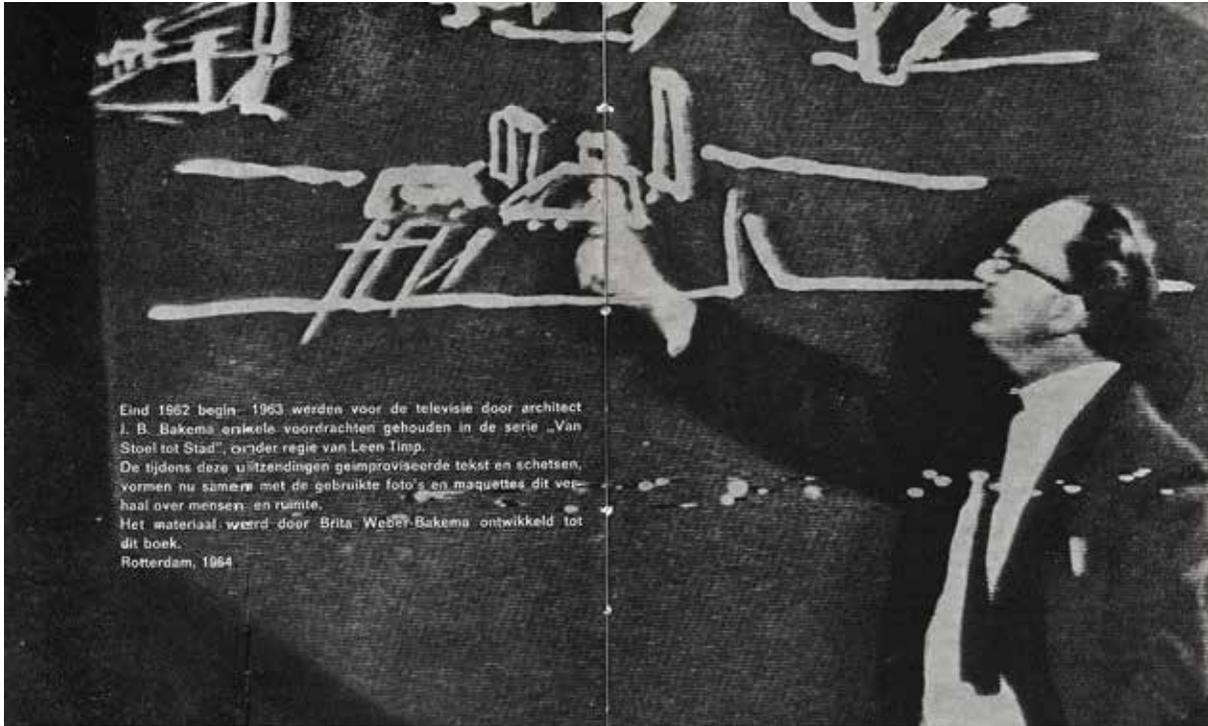


FIGURE 5 Television still of the television series 'From chair to city', broadcasted in 1962

Since 1969 the social relevance of architecture and the role of the architect in society had become the centre of interest. Architecture became an interdisciplinary profession in which society played an important role. The new political aims and objectives formed the foundation for the introduction of project-based education, where students and professors could work together on architectural problems with social relevance. Project-based education was organised both horizontally (multiple disciplines) and vertically (different years) and took place in study groups. On a regular basis, the development and results of the projects were discussed in front of other students. Bakema was present at the intermediate and final discussions, which were lively meetings. He regarded the meetings with students as an essential part of their education. He was concerned with what someone could do within the collective, using everyone's talents to the extreme. Bakema usually showed a slide of Antoine de Saint-Exupéry's *Le Petit Prince* to underline his statement: every person on earth has to take care of his own rose; and must do what he is able to cope with and for that matter use the talents which are at his disposal.

Bakema participated actively in the developments within the Department of Architecture and his 'Chair 8 Housing and Living Environment'. The name of this chair, which was created after the reorganisation of the department in 1973, recalls the Forum world of ideas: architecture and urban development are inextricably interlinked, and housing had become one of the main forms of architecture of the twentieth century. Bakema focused his attention on the possible meaning of architecture and urban planning for the individual and society and on the responsibility of the designers of the built environment. The chair acted promptly as an alternative chair for urban planning, which alarmed the chair of urban planning.

During his lectures Bakema told his students what he had experienced as an architect and about his encounters with Gerrit Rietveld, Mart Stam and Le Corbusier. Those stories were intended to inspire the future designers of the built environment, to make them think about a concrete vision for the future world with an increasing population and urbanisation. He taught his students about the upscaling within contemporary society and made an appeal to them not to walk out of it, but to make plans, such as Van den Broek and he so often had done.

## CONCLUSION

Van den Broek and Bakema were among the torchbearers of Dutch modernist architecture. For that reason they were asked to teach young people what architecture is about and what it means to be an architect. When Van den Broek passed the torch to Bakema in the mid-sixties, the groundbreaking power of the modernist movement had waned. Due to the large scale of the post-war task the modernist movement had become completely institutionalised and bureaucratised. However, the question about the position and responsibility of the architect in an increasingly technology-dominated society remained valid. In modern society, the architect could no longer occupy a central place in the building process. From now on he was part of a much larger and more social process. In the space of time equal to a generation, the focus of the modernist architect had shifted from the quantity of housing to the quality of the built environment; and from the collective community to the community of anonymous individuals. Mission accomplished: the reconstruction of the Netherlands was completed.

### Disclosure Statement

No potential conflict of interest was reported by the author.

### Notes on contributor

Evelien van Es studied art history at the Vrije Universiteit of Amsterdam. She was curator for the collection at the Netherlands Architecture Institute. In 2003 she founded a Rotterdam-based research bureau and works for various clients. She advises in the field of cultural heritage, publishes articles on a wide range of topics, and is guest tutor at the Department of Architecture at the Delft University of Technology. Recent projects include the editing of *Atlas of the Functional City. CIAM and Comparative Analysis*.

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- Figure 1: Maria Austria Instituut in Amsterdam, Archive of B. Wisman.
- Figure 2: Het Nieuwe Instituut in Rotterdam, Archive of Van den Broek and Bakema Architects.
- Figure 3: Het Nieuwe Instituut in Rotterdam, Archive of Van den Broek and Bakema Architects.
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# Unfolding the Role of Urban Metabolism in the History of Urban Design and Planning

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Chair: *Geoffrey Grulois and Marco Ranzato*



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# URBAN METABOLISM: EXTERNALISATION OR RECYCLING? PARIS (FRANCE), 19TH-20TH CENTURY

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**Sabine Barles**

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During the 1960s and 1970s, engineers and ecologists such as Abel Wolman and Eugene Odum defined urban metabolism as the material and energy flows involved in urban functioning, and necessary to support urban life. Viewing cities as depending on external resources and producing lots of pollutants, they emphasised the linear nature of urban metabolism: cities were no more than parasitic ecosystems in Odum's mind. Looking at Paris and at the way material flows were managed since the industrial revolutions reveals something different. Indeed, its metabolism is partly externalised – it is the very definition of a city, as a result of socio-spatial specialisation and dependence on external resources (food at first). But 19th century Paris was characterised by the search for material recycling, as necessary to industry and food production. Before and after the invention of the word “metabolism” (during the 1860s), scientists, engineers, architects, physicians were involved in this search that partially shaped urban infrastructures. Urban fertilisers were produced thanks to night soil and street sludge recovery. Bones and rag collection were of first importance for paper making, sugar refineries, matches factories, etc. More generally, urban by-products (that were nether called déchets i. e. wastes) were used by various industries. Material balances, inspired by agricultural chemistry, were applied to cities, and especially Paris. Indeed, chemistry played a major role in urban knowledge and management.

Only during the inter-two-wars was this recycling ideology replaced by the linear one. The fertiliser revolution (discovery of fossil phosphates, potash and, last but not least Haber-Bosch process that allows the use nitrogen from air), the development of petrochemistry, the search for substitutes for rags, etc. had a huge impact on urban by-products use and management. These became déchets (wastes) and eaux usées (wastewater) during the 1930s.

In this contribution, I explore this recycling momentum on the basis of public archives (Paris archives mainly) and of scientific literature in order to emphasize its role in urban theory and urban transformation in the particular case of Paris.

## **Keywords**

Urban metabolism, Urban infrastructure, Networking, Urban wastes, Paris



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# ON ECOLOGY AND DESIGN: HERITAGE AND EMERGING PERSPECTIVES ON BRUSSELS' URBAN METABOLISM

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The paper aims to highlight the interrelation between ecological studies and urban design, in particular with regard to the Brussels case, given both its pioneer works and the current revival on urban metabolism. As early as the '70s of the last century, the ecologist Duvigneaud studied Brussels as an ecosystem, integrating a scientific and socio-natural understanding of urban metabolism. Afterwards, further studies have flowed into industrial ecology, the study of the material and energy circulation, narrowing the scope of investigation on urban space and nature. More recently, there has been a strong return on the debate of the Brussels' urban metabolism. However, it remains to better understand how and to which extent the discipline of urbanism can actually draw from and bring to urban metabolism studies. In response to the question, we look back to the relations between ecological studies and urban design in the recent history of Brussels. On the one hand, until now results show that, design and planning practice, in Belgium, seems to have little learnt from urban metabolism studies. On the other hand, it emerges that stronger socio-natural perspective is needed in order for urban design and planning to steer the transformation towards more resilient urban metabolism.

## **Keywords**

Ecology, urban design, urban metabolism, Brussels

## **How to Cite**

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## INTRODUCTION

Ecology since its definition as discipline has influenced spatial design<sup>1</sup>. As ecology studies the relationships between living organisms and their environment, it always concerns space and context. Recently, Reed and Lister<sup>2</sup>, have discussed the strong relation between ecology and design studies considering their “parallel genealogies” when referring to the landscape field. On the one hand, ecology is at the heart of landscape ecology, an applied science developed since the 1980s drawing its research tools by remote sensing and geographic information systems and which has enabled large spatial and temporal scale of analysis. On the other hand, ecological thinking has provided landscape and urban designers with innovative spatial conceptualizations, modeling and design tools.

Today, a number of design studies are flourishing that integrate the ecological perspective while investigating around the concept of urban metabolism<sup>3</sup>. However, except for some few cases<sup>4</sup> there is still little about how this emerging interest in urban design and planning for urban metabolism can be regarded within the longstanding relationship between ecology and urban design. This paper aims to contribute to unfolding the history of ecology in urban design and planning focusing on the case of Brussels, since it was the case study of pioneer works on urban metabolism and it is currently the object of a revival on the same subject. In the first part, it briefly traces the historical context placing the contribution of the Brussels School to the study of urban metabolism with respect to regional and urban planning. In the second part, it describes the recent resurgence of debate on the Brussels’ urban metabolism by urban planning and programs. Finally, the conclusion highlights some knowledge transitions and missing links between urban metabolism and design practice.

## THE BRUSSELS SCHOOL

At the end of 1970s, the population of the Brussels’ agglomeration (19 municipalities with more than 1 million inhabitants) grew by three times more respect the beginning of the century<sup>5</sup>. At the same time, a process of transformation of the city in the capital of Europe brought the introduction in the central neighborhoods of new mobility infrastructures and high-rise buildings with little concerns for urban and environmental quality. This process, known as “Brussellization”, is commonly accounted for a lack of urban planning and predominant laissez-faire politic at the regional level<sup>6</sup>. As explicit reaction to the Brussellization stand the creation of the Atelier de Recherche et d’Action Urbaines (ARAU), in 1969, and Inter-environnement Bruxelles. The first was an association of architects and urban designers engaged to promote a different, inclusive urban development. The second a confederation of citizens’ committees gathered to arose their voice against the lack of political representation in urban planning and management.

- 1 See for instance the work of Ian L. McHarg, *Design With Nature* (Turtleback Books, 1995); Anne Whiston Spirn, *The Granite Garden: Urban Nature and Human Design* (Basic Books, 1985).
- 2 Chris Reed and Nina-Marie Lister, “Ecology and Design: Parallel Genealogies,” *Places Journal*, April 14, 2014, <https://placesjournal.org/article/ecology-and-design-parallel-genealogies/>.
- 3 See for instance C. Kennedy, S. Pincetl, and P. Bunje, “The Study of Urban Metabolism and Its Applications to Urban Planning and Design,” *Environmental Pollution* 159, no. 8–9 (August 2011): 1965–73, doi:10.1016/j.envpol.2010.10.022.; but also the 6th International Architecture Biennale Rotterdam, “Urban by Nature” (IABR 2014).
- 4 See for instance Matthew Gandy in conversation with, Daniel Ibañez, and Nikos Katsikis, “On Circulations and Metabolisms: Challenges and Prospects,” *Grounding Metabolism*, New Geographies, 6 (August 2014): 174–83.
- 5 Jacques Aron, *Le Tournant de L’urbanisme Bruxellois : 1958-1978*, Librairie “Du Monde Entier” (Bruxelles, 1978).
- 6 Katarzyna M. Romańczyk, “Transforming Brussels into an International City – Reflections on ‘Brussellization,’” *Cities* 29, no. 2 (April 2012): 126–32, doi:10.1016/j.cities.2011.08.007.

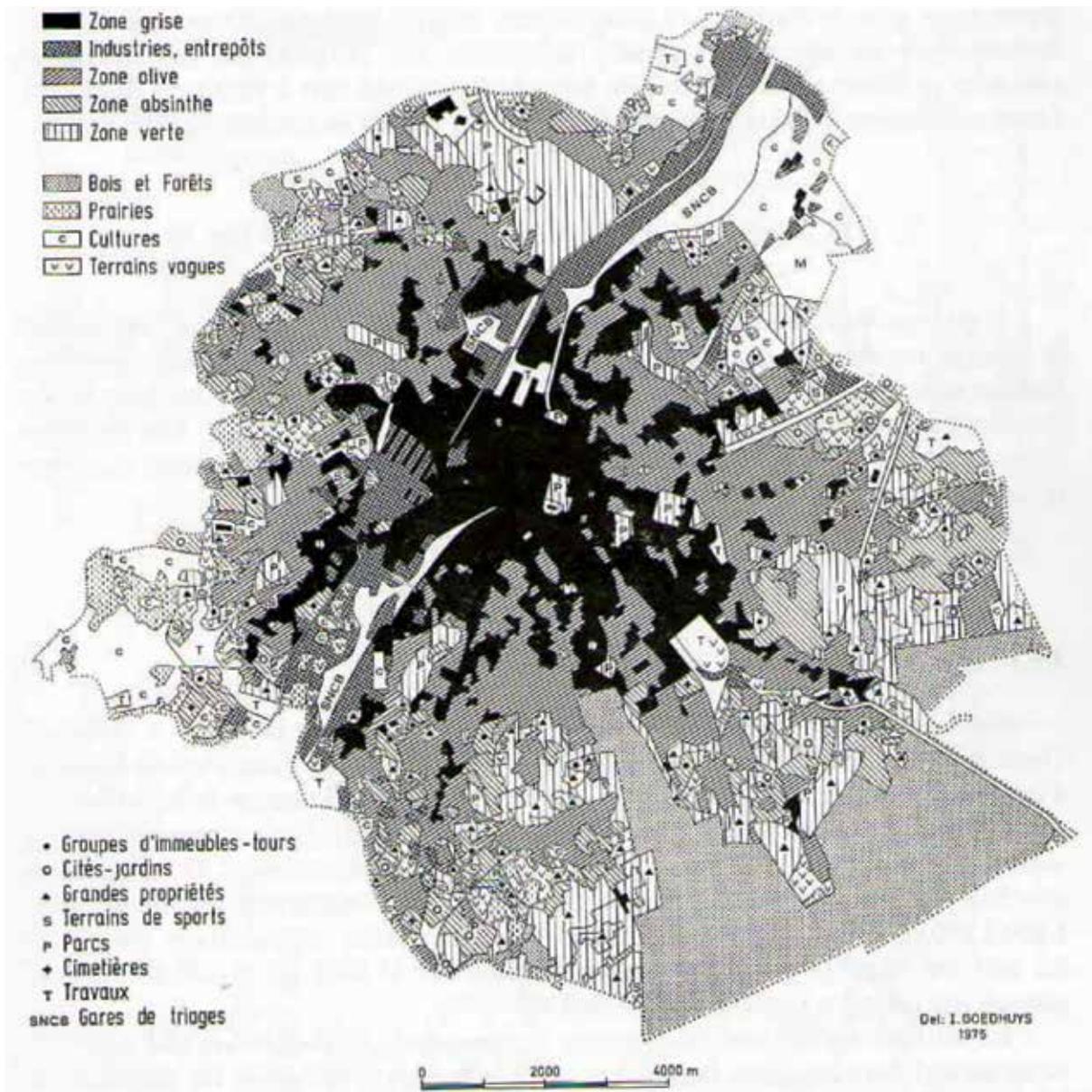


FIGURE 1 Ecological map of land cover and land use of the Brussels Agglomeration, 1977. Based on green cover ratio, it defines the main sub-systems of the Brussels' ecosystem

A third contribution was provided in the '70s, by the ecologist Duvigneaud and his colleagues who began to study Brussels as an ecosystem<sup>7</sup>. At the Faculty of Science of the University of Brussels (ULB), within the framework of the global environmental concern of the time<sup>8</sup>, they set up the centre for the study of the urban environment. In 1977, with the support of the Regional Environmental Agency, the group published the results of their work on Brussels: a detailed cartography [Fig. 1] and report the metropolitan green and open spaces, completed with management prescriptions<sup>9</sup>.

The main purpose of Duvigneaud at that time was both scientific and pedagogic. Also for this reason, the studies on the Brussels' ecosystem were enriched by iconic drawings of the Brussels' metabolism at the territorial scale and section.[Fig. 2].

The work of the Brussels School was one of the first attempts to perform a visualization of the exchanges between the city and the biosphere. Moreover, it deepened the study on the urban environment using biological indicators such as the urban flora<sup>10</sup>. Duvigneaud and his colleagues investigate for the first time the spontaneous vegetation of infrastructural buffers, abandoned train stations, and cemeteries of Brussels<sup>11</sup>, pioneering the study of the *terrain vague*, which only later will be of interest for urban planners and designers<sup>12</sup>. Duvigneaud, was deeply influenced by the urban planning culture. One of his main references were the early XX century hygienist and modernist principles of Le Corbusier 'Ville Radieuse' (presented at the CIAM of Brussels in 1930 and published in 1935). However, Duvigneaud was also fascinated by 'ekistics', the Doxiadis' science for human settlements, which integrated geographical, ecological and anthropological discourses at the global scale and through the use of statistics and cartographic representations<sup>13</sup>. According to Gandy<sup>14</sup>, the regard of Duvigneaud to the city combined the organicist approach of Geddes and the system-based engineering of Wolman. On the one hand, speaking of the city as an ecosystem, Duvigneaud refers to its different components or "subsystems", such as the climate, soil, human and non human communities. On the other hand, speaking of the city as an organism, he refers to its process of growth, and flows- of food, energy, water and waste - which sustain it.

7 Paul Duvigneaud, "Études Écologiques de l'Écosystème Urbain Bruxellois: Contribution No 1 À 4: L'écosystème 'Urbs'"; Mémoires de La Société Royale de Botanique de Belgique 6 (n.d.): 5-35; Martin Tanghe, Paul Duvigneaud, and M. Jouve-Barbezat, "Études Écologiques de l'Écosystème Urbain Bruxellois: Contribution No 2: Premier Aperçu Des Facteurs Écologiques Du Métabolisme de L'agglomération Bruxelloise," Mémoires de La Société Royale de Botanique de Belgique 6 (n.d.): 37-56; Paul Duvigneaud and Simone Denayer-De Smet, "L'écosystème Urbain Bruxellois," in Productivité Biologique En Belgique, Editions Duculot, Travaux de La Section Belge Du Programme Biologique International (Paris, Gembloux: P. Duvigneaud and P. Kestemont, 1977), 608-13.

8 such as the Mab - Man and Biosphere - study program promoted by UNESCO in 1971.

9 Paul Duvigneaud, Simone Denaeyer-De Smet, and Martin Tanghe, "Carte Écologique de L'occupation Du Sol et Des Degrés de Verdurisation de L'agglomération Bruxelloise : Situation Mars 1975" (Agglomération de Bruxelles, Service de l'environnement, 1977).

10 Martin Tanghe, Paul Duvigneaud, and M. Jouve-Barbezat, "Études Écologiques de l'Écosystème Urbain Bruxellois: Contribution No 2: Premier Aperçu Des Facteurs Écologiques Du Métabolisme de L'agglomération Bruxelloise."

11 Paul Duvigneaud, Les Sites Semi-Naturels de L'écosystème Bruxelles : Interpénétration de L'environnement Physique et de L'environnement Sémio-tique, Centre d'études Jacques Georgin, 1990.

12 See for instance Ignasi de Solà-Morales Rubió, "Terrain Vague," Anyplace, MIT Press, 14 (1995): 118-23; Gilles Clément, Le Jardin En Mouvement : De La Vallée Au Jardin Planétaire, Sens & Tonka, vol. 5, Calepin 11/24 (Paris, n.d.).

13 Constantinos A. Doxiadis, EKISTICS: An Introduction to the Science of Human Settlements, First Edition edition (Oxford University Press, 1968).

14 Matthew Gandy, "Marginalia: Aesthetics, Ecology, and Urban Wastelands," Annals of the Association of American Geographers 103, no. 6 (November 1, 2013): 1301-16, doi:10.1080/00045608.2013.832105.

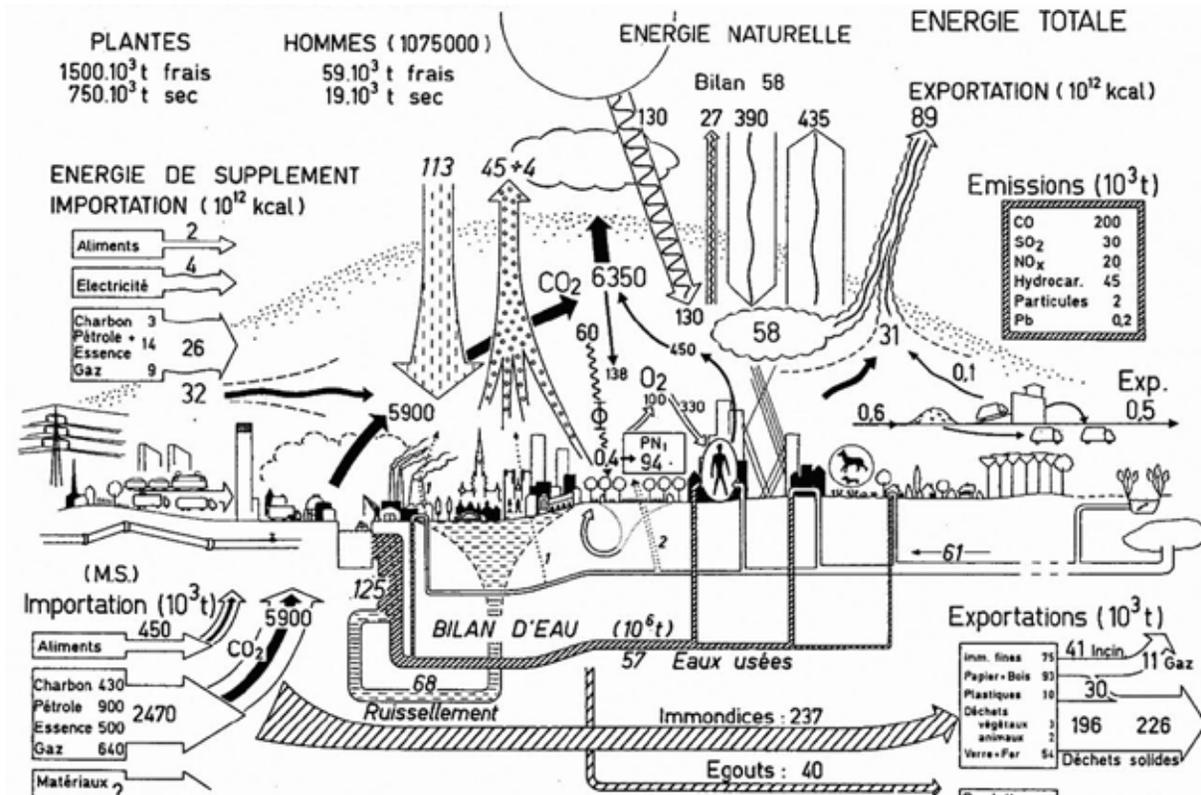


FIGURE 2 The Brussels' urban ecosystem, 1977. It represents the energy and material input and output on an ideal territorial section along the main Brussels' valley

One of the main contributions of the Brussels School is to have coupled the analysis of the whole urban material and energy flows with a detailed investigation of the urban space and ecology. Urban blocks and industrial areas, high rise building complexes and single house neighborhoods, parks and wastelands were catalogued with respect to their vegetation cover (and related capacity in terms of  $C_2$  absorption and  $O_2$  release). This inventory was meant to become a real asset for balancing the urban metabolism of Brussels. Despite that, the comprehensive regard on both technical and natural flows of the city remains an exception in urban metabolism studies. Further remarkable works in Brussels focused on industrial ecology, the study of the energy and material flows<sup>15</sup>, narrowing the scope of investigation on the urban space and environment.

For instance, the collective work 'L'Ecosystème Belgique, Essai d'écologie industrielle'<sup>16</sup>, published in Brussels in 1983, extended the ecosystem study approach to the whole national industrial system, collecting data on material and energy input and output in Belgium. One of the co-author was a former student of Duvigneaud. Differently from Duvigneaud, results were not spatialized on the Belgian territory but rather illustrated through schemes of material and energy flows. The study questioned the efficiency of material circulation in six main productive chains (iron, glass, plastic, lead, wood, and food). The results shown the predominant linearity and sectorialization of the industrial production, implicitly arguing the need for a more integrated policy. Despite the original approach, the study didn't have further developments, and as reported by Erkman<sup>17</sup>, left to its authors the impression of being "a voice preaching in the desert".

15 Suren Erkman, *Vers une écologie industrielle* (ECLM, 2004).

16 Gilles Billen et al., "L'Ecosystème Belgique : Essai D'écologie Industrielle" (Bruxelles : Centre de recherche et d'information socio-politiques, 1983).

17 Robert U. Ayres and Leslie Ayres, *A Handbook of Industrial Ecology* (Edward Elgar Publishing, 2002), 31.

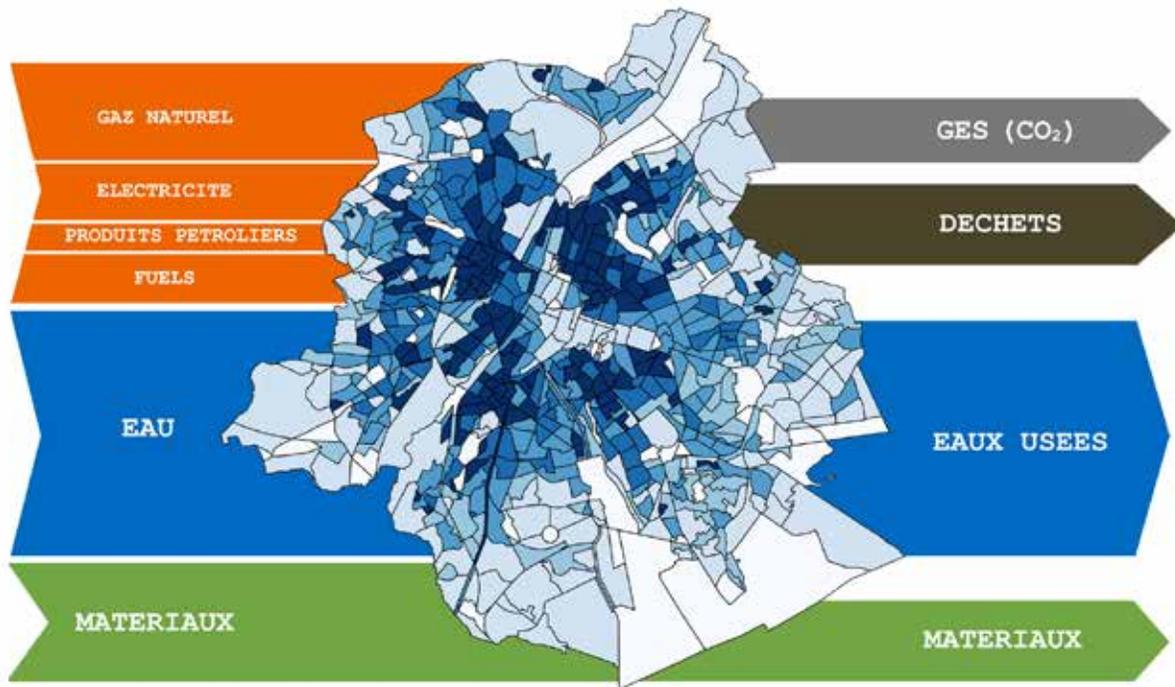


FIGURE 3 Metabolism of the Brussels Capital Region (BCR), 2015. The image is taken from the current research of BATir (ULB) which investigates the functioning of urban systems in terms of direct and indirect resource requirements and resulting environmental impact

The work of Duvigneaud, claiming the need for fundamental research on urban ecosystem in urban planning, provided a remarkable contribution to the rising environmental planning discipline<sup>18</sup>. However, in the years that followed his studies, what clearly has emerged from the Brussels context is a striking dichotomy between the trajectories taken by planning and ecology discourses. On the one hand, a general lack of vision and interest in regional and environmental planning, and on the other, a gradual politicization of ecology by counterculture movements active at the very local scale of single neighborhoods and municipalities. Whether these movements brought remarkable successes in the preservation of certain part of the city, according to Vermeylen<sup>19</sup>, in the following years they also multiplied into small counter powers unable to maintain a common vision.

18 : “[...] la planification du développement de la ville, qui doit régler les rapports futurs entre la ville et les campagnes environnantes et entre les divers sous-système urbains nécessite l’étude approfondie de ces phénomènes de croissance”. Paul Duvigneaud, “Études Écologiques de l’Écosystème Urbain Bruxellois: Contribution No 1 À 4: L’écosystème ‘Urbs’”, 7.

19 IEB, Bruxelles En Mouvements, January 2015, Périodique édité par Inter-Environnement-Bruxelles, Fédération de Comités de Quartier et Groupes d’Habitants edition, 34.

## ECOLOGICAL RESURGENCE IN BRUSSELS' URBAN PLANNING AND DESIGN

Recently, there has been a strong return of debate on the Brussels' urban metabolism. Since the end of 2000s, observers from the academic and civic society of Brussels<sup>20</sup> use the term “urban metabolism” to claim the need for an ecological restructuring of the city. Two main references can be traced in their discourses: industrial ecology principles<sup>21</sup> and the experience of sustainable neighborhoods developed in Europe since 1990s. These principles are extended in the provision of urban services and infrastructure, touching key governance questions such as citizens' behavior and participation. Also spatial concerns reappears in the line of argument: in order to tackle the spatial and functional fragmentation of the city, Vanderstraten underlines the need to reclaim the geographical value of the Brussels' valleys, for instance with respect to water drainage and slow mobility functions<sup>22</sup>.

In addition, new regional programs and plans are asking the urban projects to integrate a strong metabolic perspective in order to boost the regional economic and social development as well as to meet the urban environmental challenges. The Regional Plan of Sustainable Development (PRDD) of 2014 integrates the issue and makes use of the term “urban metabolism” when addressing environmental management and resource efficiency within a regional perspective (:14). Similarly, the term “ecology” is explicitly used referring to “industrial ecology” (:156), and when addressing the economic development through principles such as clustering productive zones. In the plan, besides the use of the two terms, there is no any specification concerning what is meant by ecology nor about in which terms urban design should actually integrate an ecological perspective. The ecological questions posed by the PRDD simply remain close to those provide by the EU 2020 strategy for a smart, inclusive and green development.

As is apparent, beyond the case of Brussels, urban metabolism has lately known resurgence and it is accounted for multiple reasons such as accounting for greenhouse gas emissions, the measure of the urban resource efficiency, and the design of new sustainable, low-carbon, neighborhoods<sup>23</sup>. In this line of studies, fits another recent work concerning Brussels' urban metabolism. Within the framework of the new Regional Circular Economy Programme (PREC), a detailed study on the urban metabolism of the Brussels Capital Region (BCR) has been recently published<sup>24</sup> [Fig. 3].The report is thought for decision-making and collect exhaustive data on actors and flows of the Brussels' metabolism.

Despite that, it does not concern the urban space quality and structural specificities. Criticisms to these approaches, indeed, pointed out the constrains given by working on the concept of circular metabolism considering exclusively the flows and not their underpinning urban structure, which remains fixed at the modernist stage of discrete separation of functions and land uses<sup>25</sup>. Moreover, also the use of the metaphor which regards energy and material urban flows as a metabolism has been pointed as misleading<sup>26</sup>. Even if considered a valuable tool for quantifying the city use of natural resources, flows and stocks do not provide a comprehensive analysis of the urban ecosystem.

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20 See for instance Pierre Vanderstraeten et al., “Brussels, a Sustainable City,” accessed April 5, 2016, [http://brusselsstudies.be/medias/publications/EN\\_72\\_CFB4.pdf](http://brusselsstudies.be/medias/publications/EN_72_CFB4.pdf); Eric Corijn et al., *Où va Bruxelles? Visions Pour La Capitale Belge et Européenne*, ASP Academic and Scientific Publishers, Cahiers Urbains, 2013.

21 Erkman, *Vers une écologie industrielle*.

22 Pierre Vanderstraten in Corijn et al., *Où va Bruxelles? Visions Pour La Capitale Belge et Européenne*.

23 Roland Clift et al., “Urban Metabolism: A Review in the UK Context” (Foresight Future of Cities Project, September 2015).

24 EcoRes, ICEDD, and BATir, “Métabolisme de La Région de Bruxelles-Capitale” (IBGE, 2015).

25 J. Karakiewicz, “Urban Metabolism of Low Carbon Cities,” in 47th ISOCARP Congress (Liveable Cities – Urbanising World, Meeting the Challenge, Wuhan, China, 2011).

26 Nancy Golubiewski, “Is There a Metabolism of an Urban Ecosystem? An Ecological Critique,” *Ambio* 41, no. 7 (November 2012): 751–64, doi:10.1007/s13280-011-0232-7.

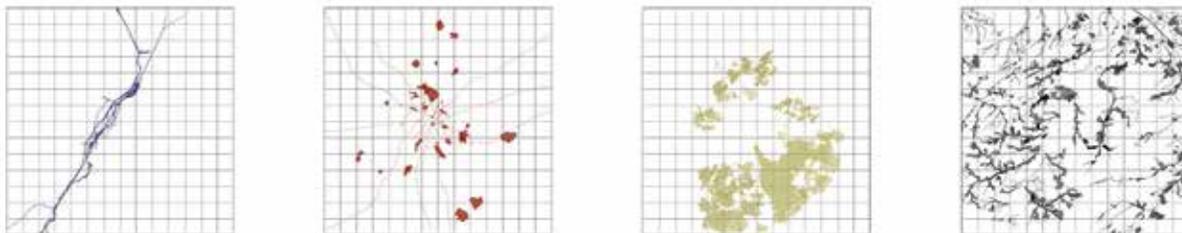
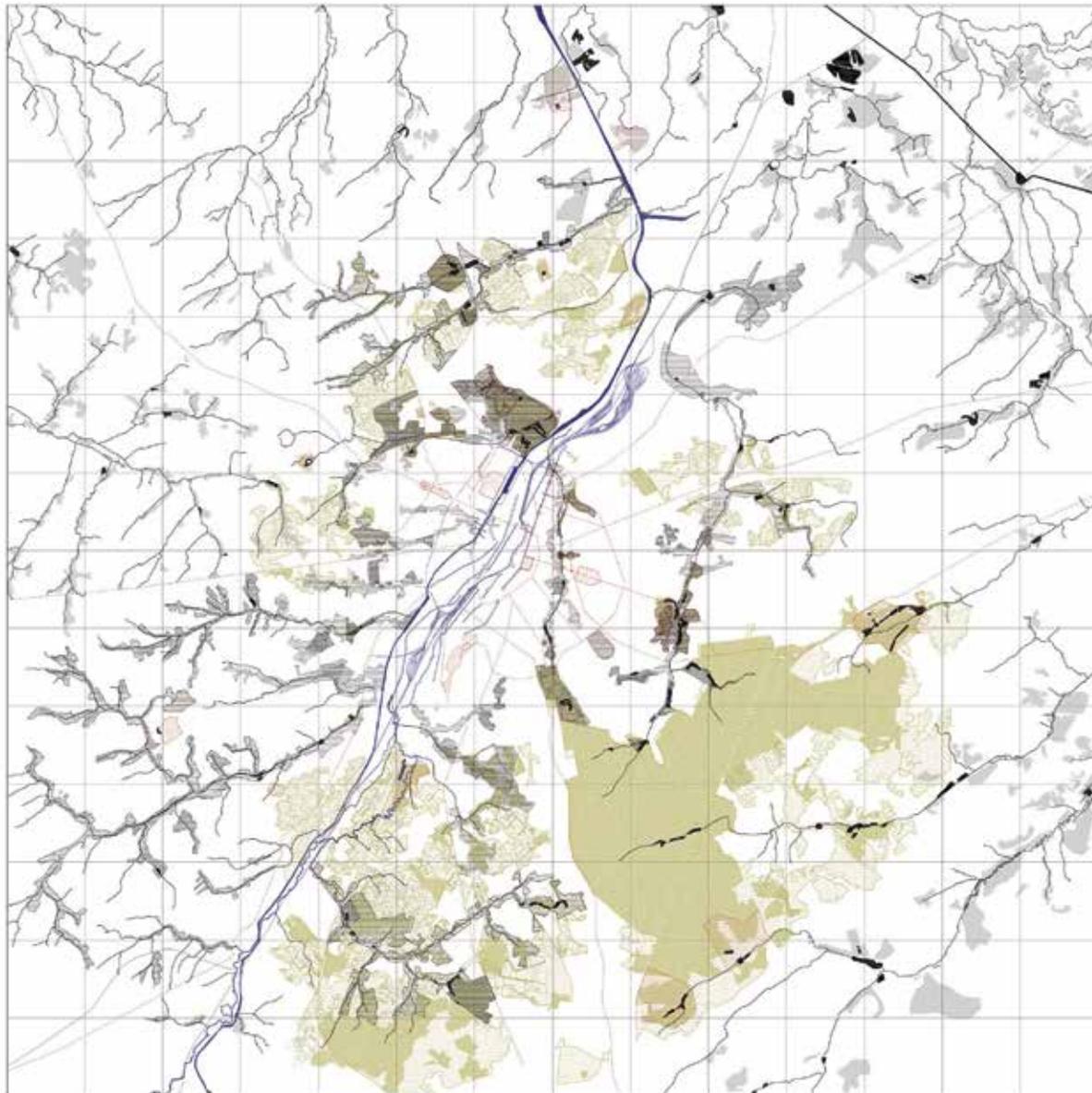


FIGURE 4 Four ecologies of the Brussels' metropolitan area, Bureau Bas Smet & LIST, 2015. The "valley of infrastructures", "constructed landscapes", "parks' system" and "wet landscapes"

Finally, *Metropolitan landscapes*, a strategic design study launched by the Region in 2014, provides some interesting insights on the state of the art of ecology and design in the Brussels agenda. *Metropolitan landscapes* is composed through a series of research-by-design explorations, which aim to test hypothesis of urban transformation at the metropolitan scale, involving various design teams and large public steering committees. The main objective is to enhance the dialogue and collaboration among urban stakeholders while providing a set of rule-based design tools to face complexity and conflicts inherent to large-scale urban projects. In the studies, even though not explicitly mentioned, urban metabolism concept results taken considering the socio-ecological and economic relationships between BCR and its surrounding. The interrelation is described via the figure of the “metropolitan landscapes”. Quite interestingly, these metropolitan landscapes are tackled starting from the residual open spaces which interested also Duvigneaud in his late work<sup>27</sup>, and which border the urban area. They are potential reservoirs of urban expansion but also rich and diverse structural ecological spaces for the city [Fig. 4].

The study’s presumptions are four “ecologies” - taken from the Reyner Banham’s lecture of Los Angeles<sup>28</sup>- or structural landscapes. Each ecology is defined by a territorial figure: the “valley of infrastructures”, the “constructed landscapes”, the “parks’ system”, and the “wet landscapes”. As known, in the urban design discipline, the figure is a key rhetoric tool widely used as a frame within which maintain a larger view on the long-term and large-scale objectives while coordinating the intervention at the small scale<sup>29</sup>. It integrates the long temporality of the urban (metropolitan) project, commonly built up by gradual additions operated by variety of actors through time. In *Metropolitan landscapes*, “ecosystem” and “figure” merge as the base of a discourse with multiple meanings and connections able to integrate complexity and variables within workable synthesis. In conclusion, they provide insights for a political discussion based on alternative future urban metabolisms based on qualitative data. Although it has to be said that the studies does not explicitly aspire to contributing the debate on the urban metabolism of Brussels, the metabolic perspective seems reversed when compared to that used in the Regional Circular Economy Programme and the quantitative insights are totally ignored.

## CONCLUSION

In the paper, we looked at the most relevant studies on the Brussels’ urban metabolism, focusing on how the interrelation between design and ecology has been operated on a case-by-case basis. Both, the attempts of the ecological studies to influence the organization of the urban arrangements, and the effort since recently produced by urban planning and design to integrate a more ecological perspective are promising signals. However, the results show that still little knowledge has been transferred from ecology in urban design and practice and vice versa. On the one hand, in the pioneering studies of the ‘70s, man and nature, political and environmental issues were equally present in the description of the production and reproduction trajectories of Brussels but actual design was not contemplated [Tab. 1]. Later, Brussels’ metabolic studies have taken a much more technical turn. The industrial ecology perspective has taken over and design has been narrowed to the quantitative characterization of flows and stocks. On the one hand, despite the rising interest in the subject of urban metabolism, until now, in Brussels, design and planning practice seems to have little drawn from the substantial heritage of the Brussels School. Although the urban studies recognize ‘nature’ as a key element for the ‘urban’, there is still much to do especially in engaging a more critical perspective on the ways urban space and biophysical processes are mutually produced.

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27 Duvigneaud, *Les Sites Semi-Naturels de L'écosystème Bruxelles : Interpénétration de L'environnement Physique et de L'environnement Sémiotique*.

28 Reyner Banham, *Los Angeles : The Architecture of Four Ecologies.*, Penguin Books, 1973.

29 See for instance Bernardo Secchi, “A New Urban Question 3: When, Why and How Some Fundamental Metaphors Were Used,” in *Metaphors in Architecture and Urbanism: An Introduction*, Transcript Verlag (A. Gerber & B. Patterson, 2013), 123–32.

Urban design and ecology can capitalize from the significant deposit of knowledge regarding the Brussels’ urban metabolism. However, it seems clear that, first of all a further understanding about what is ecology is still needed. This forces to take a decision whether nature remains a fundamental external component of our societies – as it is the case of industrial ecology - or it is simply integral part of it – as claimed by political ecology<sup>30</sup>. Secondly, the key role of the planning and urban design discipline for the organization of the city and its circulatory dynamics has to be practically acknowledge<sup>31</sup>. Finally, more tools and design procedures have to be explored that allow working out socio-natural patterns of urban development.

TIME	AUTHOR/STUDY	FOCUS	APPROACH TO THE CITY
1977	Duvigneaud and Denaeyer-De Smet / L'écosystème Urbain Bruxellois	The Brussels’ urban ecosystem	The city as a subject
1983	Billen et al. / L'écosystème Belgique. Essai d'écologie industrielle	The Belgian industrial ecology	The industrial chain as a subject
2015	Ecores sprl, ICEDD, BATir (ULB) / Métabolisme de la Région de Bruxelles-Capitale	The Brussels Capital Region urban metabolism	The city as an object
2016	Vlaams Bouwmeester / Metropolitan Landscapes	The Brussels’ metropolitan landscapes	The urban as a subject open to interpretation

TABLE 1 Year, name, focus and approach of the main studies on the Brussels’ urban metabolism.

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### Disclosure Statement

No potential conflict of interest was reported by the author.

### Notes on contributor(s)

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30 David Wachsmuth, “Three Ecologies: Urban Metabolism and the Society-Nature Opposition,” *The Sociological Quarterly* 53, no. 4 (September 1, 2012): 506–23, doi:10.1111/j.1533-8525.2012.01247.x.

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# GENEALOGIES OF THE DISCOURSE ON THE CITTÀ DIFFUSA: FROM MORPHOLOGY TO METABOLISM

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This paper discusses a few studies that have been accumulated during the last few decades on the città diffusa (diffused city) in Italy, recognizing different seasons and phases characterized by key-words, paradigms of research and prevailing territorial representations that guided theoretical interpretations as well operative interventions. The hypothesis is that it is possible to follow a continuous link to ecological and environmental issues embedded in the main discourses on dispersal settlements.

The expression città diffusa was consolidated in the late 80s, in order to describe the polycentric network of small and medium-sized cities that characterized wide areas of the Italian urban structure. Such a form of urbanization did not meet the traditional distinctions between city and country, centre and periphery, industry and agriculture. And even if the expression was not entirely new, it gained a different meaning in the context of the Venetian school of urbanism. As a result of this analysis, these territories gained a new legitimation and became the object of a strong interest.

The initial part of this paper will focus on the studies on città diffusa before città diffusa was coined, following the main Italian research on metropolitan areas: starting from the late 60s, the works on dispersal urban assets were deeply rooted in a tradition of socio-economic approach to territorial analysis. In particular Veneto became a focus-area where to investigate the relationship between industrial districts and diffused settlement, the role of the family and of single-family houses and hangars in the economy of small and medium enterprises.

The core part of the paper will argue that the majority of the studies on the città diffusa since 1990 have been revolving around three main lines of research, three main thematic nodes:

- Patterns: the debate on the morphogenetic role of urban structures in repetition and its capacity of spatial reconfiguration assumed a specific place in the studies on dispersal settlements inaugurating a new season of on-field-research, rediscovering the strength of the thick description in understanding on-going transformations;
- Minimal rationalities: the close-look at the role of individual choices in collectively shaping the territory;
- Environment: aspects of the ecological risk, in recognizing the impact of hydraulic hazard, land consumption, energy wasteful and mobility inefficiency in turning the territory into a fragile environment.

Patterns, minimal rationalities and environment represent four keywords (and paradigms of research) that guided and shaped the debate on Italy's polycentric network of small and medium-sized cities. Moving from morphology to metabolism, the paper aims at outlining a sort of genealogy of ecological issues within the main discourse on the città diffusa since 1980s. It will look at some specific territories (mostly located in different parts of Northern Italy) and will analyse some books, reports of research and photographic campaigns, with a specific focus on Veneto Region and on research groups that contributed in working on it as a laboratory.

## **Keywords**

urban sprawl, città diffusa, morphology, urban metabolism



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# RETRACING THE EVOLUTION OF FOOD PLANNING TO IMAGINE A RESILIENT FOOD SYSTEM

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Today the division between city and country is becoming increasingly more indefinite and it is not possible anymore to consider the rural landscape apart from the urban one. Observing food system dynamics can be a very useful tool to survey territorial dysfunctions and spatial transformations in their complexity. From the places of production, to the ones of consumption it involves built spaces and infrastructures; it is a complex system of dynamics that changes the surrounding environment in each phase of the chain. In the evolution of European urban design and planning we can recognize several experiences in which food had a role in the formulation of new cities' visions, during the Twentieth Century. These experiences arose from very different premises and brought very different results, both from the theoretical and the practical points of view; but all of them, in different ways, can teach us something in terms of integrating food and productive dynamics inside the urban system. The paper will describe last century experiences from the food system point of view, to understand how those stories anticipated some ideas related to urban metabolism and some approaches towards a more efficient and resilient territory.

#### **Keywords**

food system, food planning, urban design

#### **How to Cite**

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## INTRODUCTION

In 2000, two American planners, Potukuchi and Kaufman, in their article “The Food System: A stranger to planning field”, highlight the absence of food issues inside the field of planning, both at theoretical and at the professional level<sup>1</sup>. One of the main reasons, say the planners, is the historical contraposition between urban and rural environment. This strong separation, physically defined through centuries, is not visible anymore, in the contemporary territories: the limit between the two contexts has almost disappeared today and we should consider the territory as a complex environment in which human activities and settlements, built up and open spaces, natural and anthropic landscapes coexist. In this sense the food issue is crucial in new planning approaches: food is something vital for communities, it crosses the entire territory, it has to be considered as a system that should be planned with the territory itself. Since the article was published, the issue of food arises inside planning and urban design debate, driving the development of a new approach in the field: Food Planning is today a defined theory and it inspires researchers and designers in finding new ways to experiment strategies to plan the food system<sup>2</sup>.

This milestone has to be seen inside a wider context that finds its roots in the urban planning field itself - such as the theory of Urban Metabolism - but also in other disciplines such as ecology and sociology, as demonstrated by the appropriation of the term “resilience”. The Urban Metabolism theory, emerged in the Sixties and defined in the Seventies by engineers and ecologists, indicates cities as “a parasitic ecosystem in which materials and energy flow through urban space”, as Odum says, and that depend on external resources to maintain their functioning<sup>3</sup>. One of the main material flows is food, that is not only a goods flow, but it also involves resources, open spaces, buildings, actors and policies, emerging as a complex system between production and consumption<sup>4</sup>. The concept of Resilience is intended in urban design as a combination between ecology and psychology definition. In ecology the term identifies “the ability of an ecosystem to respond to a perturbation or disturbance by resisting damage and recovering quickly”<sup>5</sup>; in social sciences it means an individual’s ability to properly react to a traumatic event reconstructing a state of equilibrium, as described by the American Psychological Association<sup>6</sup>. In urban design and planning the term usually identifies a territory or a city that is planned and developed in order to adapt its conditions to further transformations and possible events that could threaten the system (climate changes, environmental catastrophes, social and economic transformations, etc.)<sup>7</sup>. In terms of food flows this perspective can represent a new approach to face problems related to the existing Food System: inequities in food access between industrialized and developing countries; global food supply chains, expensive in terms of costs and energy consumption; unfair global markets and producers’ dependence from governments subsidies; pollution of air, water and soil due to intensive agro-food production; risks coming from the changing climate patterns.

In order to understand the growth of the Food Planning approach in the academic debate, we can look back to historical experiences that offer interesting references to these themes. The first fifty years of the Twentieth Century, in fact, are crossed by visions and projects that consider new ways to see the dualism between city and country, and that imagine a more holistic and integrated approach to plan human settlements, considering the self-sufficiency of territories as a necessary skill to face economic and social contemporary transformations. This paper aims at describing some crucial experiences, in Europe and North-America, that offer an example of how to approach the food issue in an experimental more than a theoretical way. The first part analyses projects from the beginning of the century until the 1930s and refers to a socio-cultural origin; the second part looks at more political and economic experiences, in the period between the two world wars. Then, some conclusions will be assumed, originated by the comparison between these references and the existing situation.

## 1900-1935: FROM THE INDUSTRIAL REVOLUTION TO THE NEW DEAL

The Nineteenth Century sees the growth of new socio-economic ideologies such as Liberalism and Marxism, it is the century of the Industrial Revolution, and of the impulse toward the technologic progress, as documented by Giordani<sup>8</sup>. The first thirty years of the Twentieth Century are characterised by the consolidation of the Industrial Revolution consequences in terms of social and economic transformation, as well as in terms of environmental conditions of the industrialised cities. At the beginning of the Twentieth Century the city is seen as a dense, congested, polluted and unequal environment in which human conditions are unsustainable. It is in this context that grows a new stream of utopic literature, moved, as Giordani says<sup>9</sup>, by two main necessities: on the one side the politic-economic-social need, characterised by idealistic programmes counteracting the real social injustice; on the other side the technical-design need, generated from a formal interest to experiment and project visions. In these years several experiences arose in Europe, especially in the Anglo-Saxons area, generating a movement that will influence European and American theories until the 1930s. A number of “ideal cities” are proposed, not only described in an theoretical way, but also designed in their physical dimensions and economic impact. Firstly the Garden City of Ebenezer Howard will be presented from the point of view of food production and relation between town and country, and its heritage in the British and American new towns of the late Twenties. Secondly a focus on the peculiar story of Frank Lloyd Wright’s Broadacre City will describe the importance of low density and small scale for an efficient food system.

Ebenezer Howard’s Garden City is an expression, as Mumford argues<sup>10</sup>, of the influence of contemporary thinkers such as Spence, George and Koprotkin, who in different ways declare the necessity of an integration between town and country in order to equilibrate economic and social dynamics. At the beginning of the Twentieth Century, in fact, two aspects of the same question have to be faced: on the one side “the overgrowth and over-congestion of the metropolis”; on the other side “the impoverishment of the countryside, dismissed by city growth”<sup>11</sup>. The Garden City combines small towns with public services and a farmland belt to limit city expansion and to integrate urban activities with food production. The idea moves from two necessities. First, to integrate urban and rural systems in design and planning, because until that moment regional planning has been separated from city development, as mentioned by Mumford<sup>12</sup>. Second, to vitalize both urban life, through the access to open and healthy green spaces, and rural life, giving intellectual and cultural improvement. The new settlements have to guarantee transport infrastructure as well as green networks; a green belt is imagined as a peri-urban ring for dairy farms between town and large farms. As presented in “Garden Cities of To-morrow”<sup>13</sup>, the agricultural estate is based on a small scale markets network, supported by local producers, avoiding intermediates and speculators, in a vision that seems to anticipate the actual interest for local farmers’ markets inside cities. As declared by Howard himself<sup>14</sup>, the advantages of local markets are equal for producers and consumers, that live close by and share common facilities. Moreover, the small distance makes the association not only healthful, but also economic: goods go from the field to the town, waste produced in the town can fertilize the land, in a mutual advantage by closing cycles, a pioneer perspective, if we think that we have to wait until the 1960s to see the development of the Urban Metabolism theory. Some applications of this idea, as Letchworth and Welwyn garden cities, face the difficulty of converting a theoretical project into reality; in fact they do not apply fully Howard’s directions; anyway, the low density approach shows how such distribution could be more economic than crowding houses, as demonstrated by Unwin<sup>15</sup>, co-planner of Letchworth Garden City (1904). In this case, the green belt works exactly as expected by Howard: it limits town expansion and offers a pleasant productive landscape, in which factory workers and their families can integrate family economy and take advantage of the healthy natural open space. Ten years after, Clarence Stein, American architect co-founder of the Regional Plan Association of America, introduces those first experiences in the United States, elaborating, with colleague Henry Wright, an American version of the Garden City<sup>16</sup>. After the 1929 crisis, inside the new town programme of the New Deal’s Resettlement Administration, Stein and the economist Rexford Tugwell designed and realized the city of Greenbelt, in Maryland, characterised by a belt of forest and farmland, and a shopping centre with a food store. The importance of the small scale, again, is the key to creating communities and guaranteeing a certain self-sufficiency<sup>17</sup>.

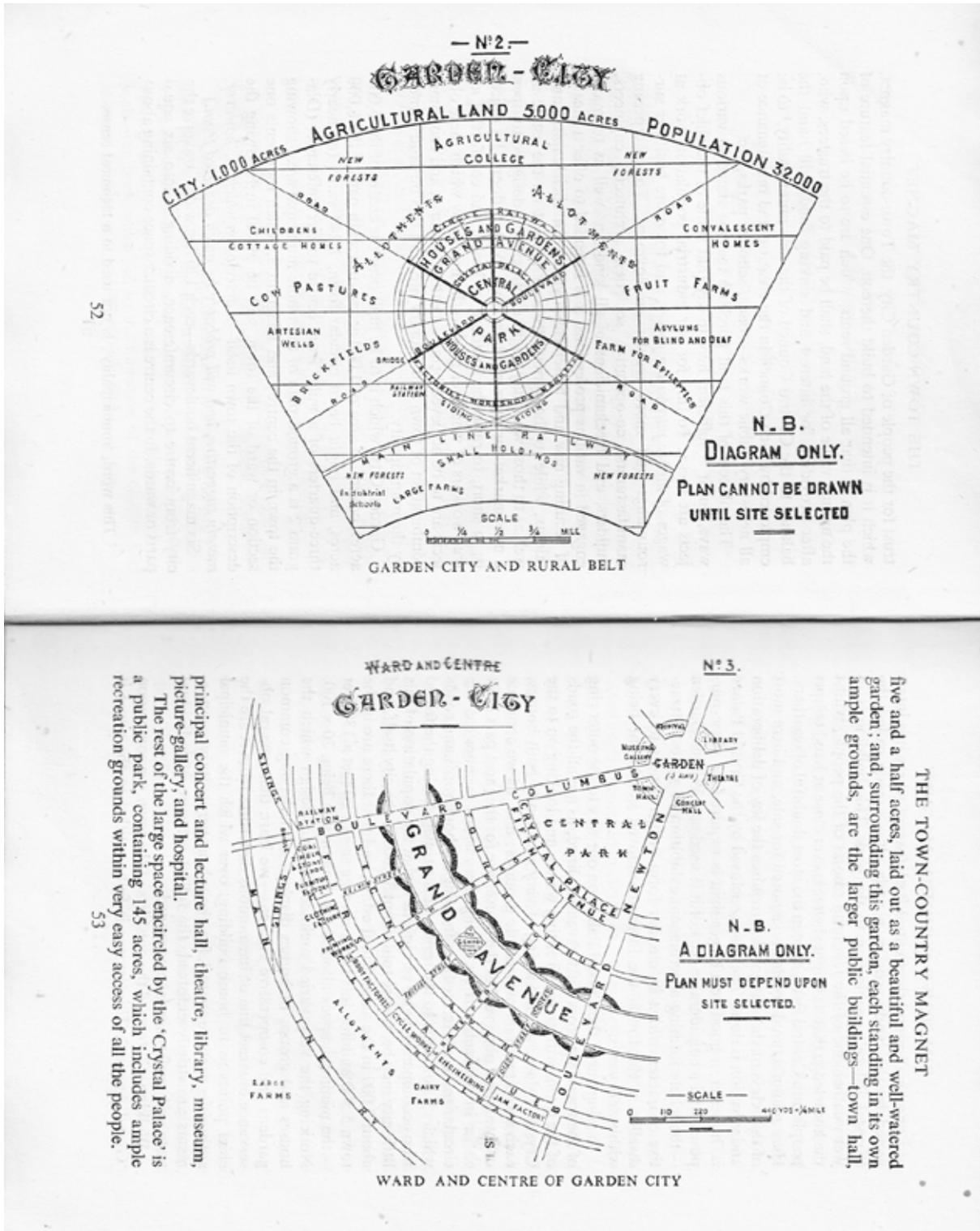


FIGURE 1 Garden City, 1902. In the diagrams small holdings farmland allotments, assigned to factory workers, are located between the town railway circle and the main railway line, that defines the limit of open large farms.



FIGURE 2 Plan of Letchworth Garden City, 1904. In the map are clearly visible the greenbelt and limit of town area. Industries are located just inside urban tissue, while the greenbelt, constituted by woods and farmlands, is a public facility for workers' houses.

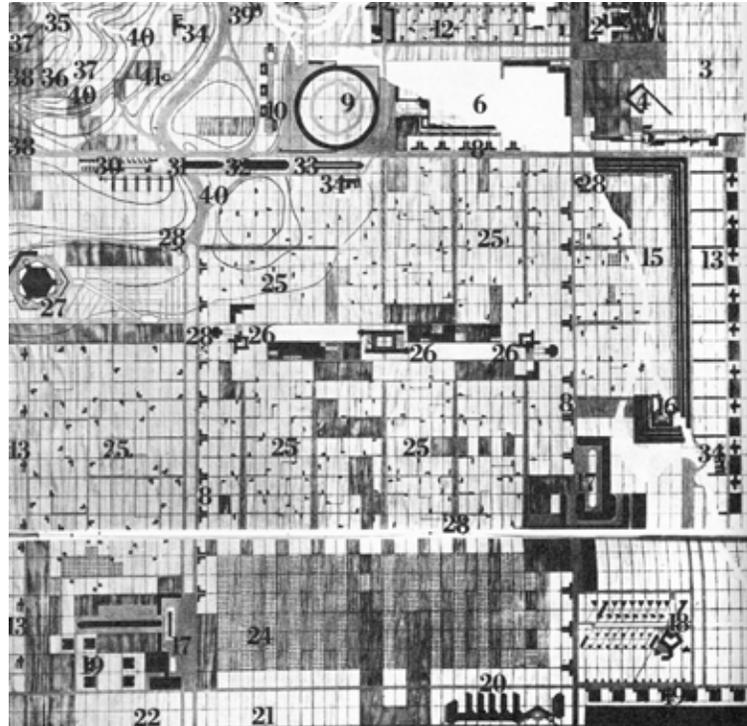


FIGURE 3 Broadacre City plan, 1935. The surface is two square-miles, corresponding to 520 hectares. Elements related to food system: 12. Small industries; 13. Small farms; 17. shopping centre; 23. Main road; 24. Vineyards and orchards; 25. Houses; 30. Research centre for science and agriculture; 31. Arboretum; 37. Water storage.

The origins of Frank Lloyd Wright's Broadacre City project are recognizable first of all in Jefferson's idea of autocracy but, as highlighted by Giorgio Ciucci<sup>18</sup>, an important influence in the ideal city formulation is Thoreau's theory of "no government" that comes from the combination of autarchy idealism and Civil Disobedience propaganda. Wright, through his idea, promotes an anarchic individualism and aspires at the re-discovering of man's nature. Broadacre, as analysed by Ciucci, is an utopic solution to the problem related to late rural development in relation to the industrial one<sup>19</sup>. For contemporary experiences, such as the New Deal or the back-to-the-land movement, the problems of rural economy are related to its reconstruction inside a more general economic renovation. In Wright's mind, on the contrary, the main question is to recreate a sort of pre-bourgeoisie equilibrium, through the mythic power and dignity of agriculture<sup>20</sup>. The main objective is to give back quality to men, that was lost in the city; to reach this objective the only way is through the small scale and the decentralization of services; as Twombly correctly argues, "Broadacre is a scheme for decentralised America"<sup>21</sup>. The programme is directly related to Ford hypothesis: one acre to each family and the rural work integrated to the work in small factories. This de-urbanization of life, as described by Meyer Shapiro in his review of Wright's "The Living City"<sup>22</sup>, is a fusion between town and country in order to find out the human integrity of the middle-class. This integrity should oppose the specialization, as promoted by Koprotkin theory<sup>23</sup>. The scheme of Broadacre includes a permanent agriculture for self-sufficiency combined with time-reduced work in the factory, as argued by Shapiro<sup>24</sup>. Looking closer at the Broadacre City food system, Wright imagines fresh food commodities every time and goods in the markets located in order to make the access efficient<sup>25</sup>. The system is based on two scales of production: small farms for factory workers that can contribute to family economy and collaborate to the supply of small markets along infrastructure; wider farms with medium properties that are the base structure of city food system. This combination, in Wright's opinion<sup>26</sup>, can offer a great variety of products to the citizen-consumer, and guarantee subsistence to small workers-farmers.



FIGURE 4 Broadacre City perspective. Strong infrastructures cross the countryside, cars and helicopters enrich this “rural scene”, showing a different way to use space and territory.



FIGURE 5 Reclaimed territory of Agro Pontino Romano, 1927. The coastal area in the south of Rome, where the environment was occupied by wetlands and unhealthy lowlands, is reclaimed and divided into small allotments to be assigned to veterans and their families. Main new towns, such as Littoria, Pontinia, Sabaudia, are visible, constellated by smaller communal centres.

The main advantage is the shortening of food supply chain, reversing the traditional dependence of countryside from the city, and equilibrating the powers between the two contexts. Moreover, in Wright’s vision<sup>27</sup>, the city market is also planned to integrate small farms’ products: the harvesting is sold before it has been cultivated, thanks to an integration between large and small markets, in order to reduce transport and decentralise selling points along the main infrastructures. This system recalls to us the perspective of farmer’s markets and short food supply chains which have recently arisen in western countries: Wright himself uses the slogan “from the farm to the family” as a pay-off for direct distribution<sup>28</sup>. Broadacre City was not realized, but the heritage left by this project shows that it was not just an utopic vision, but rather a concrete programme that considers the city as a system of urban and rural dynamics moved by flows that should be planned together with spaces and buildings. Another example that anticipates future theories on Urban Metabolism.

## 1920-1940: SELF-SUFFICIENCY PROGRAMMES BETWEEN THE TWO WORLD WARS

Looking at the period between the First and Second world wars, we can find other programmes, with very different origins than the above mentioned, but not less visionary. These cases, in the majority European, have to be observed in the context of war economies and involve not only cultural movements or single designers, but, rather, they are promoted and actuated by governments and public administrations<sup>29</sup>. The post-war context in Europe, in fact, is characterised by the need for a reconstruction of nations, cities and economies, but also by the awareness that, in case of another conflict, each government has to think about the safety and autonomy of its own nation. Autonomy in terms of self-sufficient economy and production of energy, but also, safety in terms of food access and supply<sup>30</sup>. Between the Twenties and 1945 two experiences are representative of this awareness: the experiment of autocracy in Italy, and the plan to join food autonomy in Switzerland. These two cases are the most radical in the European panorama, even if they do not reach fully their original objectives; anyway they represent a precise intent and a strong communitarian policy that obtains, at least, to strength social cohesion.

In Italy, in the late Twenties, starts the experiences of “città nuove”<sup>31</sup>, promoted by the fascist regime and related to the land reclamation campaign, developed between 1925 and 1935. Two main reasons stay at the origin of this campaign: on the one hand the necessity of decreasing the dependence from external import, according to

Mussolini vision of autocracy; on the other hand the need to obtain new cultivable land for veterans, according to the directions of the “Opera Nazionale a favore dei Combattenti” (National Association for Veterans), born in 1917<sup>32</sup>. A lot of men and young persons, in fact, once the war finished, come back to Italy as unemployed. Those who had farms or cultivated lands before the war, often found their property occupied by those who have not gone to fight: the need for new available land is urgent. As well as the agrarian reform of 1920, the reclamation campaign started with the intent to promote rural life as the best way to express the fascist citizen behaviour, in opposition to city urban life, contaminated by Marxist theories<sup>33</sup>. In Mussolini’s view, in fact, the idea of “the land to the farmers” is a specific piece of politic propaganda, as well as a response to Italian veterans coming back from the war. Nevertheless, it is also a specific economic programme, as the dictator is aware of the need to improve agriculture as the main economic resource of Italy<sup>34</sup>. The programme consists on the wide reclamation of areas in Tuscany and swamplands in Lazio, such as Agro Romano and Paludi Pontine, in the south of Rome. Big interventions, such as channels and ditches dug by men, lowlands filled and dried with low technical tools, recovery of unhealthy areas, make these territories inhabitable and fertile. Once the land has been reclaimed, the second phase of the agenda is implemented: the construction of some main urban centres, such as the towns of Littoria, Pontinia, Sabaudia, Aprilia, is planned by regime urbanists on the principle of the ideal fascist city. These new urban settlements, based on country life, are never called “cities” but rather as “communal rural centres”, as support structure to the allotment, that is the minimum unity of production<sup>35</sup>. The allotments are intended as mono-familiar properties with a single house, while in the main centres and in the small agglomerations, public services to the food market are planned, realizing a rural network with local markets and distribution. Some historians talk about “ruralism” in opposition to urbanism; in fact, the regime’s formula is to “ruralize the city, urbanize the country”<sup>36</sup>. Therefore, once again the ambition is to fuse city with countryside, in order to make society and life more equilibrate and “healthy”. Even if the self-sufficiency wasn’t rich, the programme was capable of obtaining social consensus, as well as new available lands.

The story of Plan Wahlen in Switzerland has some common points with the Italian case, but the objectives and the results were quite different. Between the two world wars the Government realized the need to protect Confederation in case of a new war. The main objective was to reduce the dependence from imports, especially of foreign food supply. At the end of the First World War, in fact, Switzerland’s food supply coming from abroad was about 50% of the national supply<sup>37</sup>. In 1929, the Government produced a new law in order to promote the transformation of green public areas, not occupied by parks, into cultivable lands; with this first law several new urban and territorial plans, such as the Plan of Winterthur, started to include a new category of green open spaces: farmland (*grünflächen*, in German). At that moment the national geo-political condition of Switzerland and the risk of trade sanctions, pushed the Government to act a specific plan: in 1935 the agronomist and politician Friedrich Traugott Wahlen started the redaction of a plan to make the agro-food system autonomous. The so called “Plan Wahlen” is seen as the beginning of a new agro-politics and, first of all, as a long term strategy<sup>38</sup>. The plan was welcomed by both farmers and entrepreneurs: farmers saw the plan as a back-to-the-land manifesto, while entrepreneurs understood the choice as a key towards a war economy. In 1940 the Plan was actualized with specific regulations such as: reduction of livestock; expected increase of agriculture productive surfaces from 180.000 hectares to 500.000 hectares; cultivation of fallow areas, parks and public green areas<sup>39</sup>. During wartime, Switzerland did not need fruit or vegetable rationing; the objective to reach the food autonomy was far from successful: the national food production arrived just at 59% of total need<sup>40</sup>. Anyway other good results were obtained. Firstly a general consensus to national policies, and a strong social cohesion to face difficulties related to the war; secondly, the rising of a national sense of independence in the European context, in relation to the choice of neutrality, important to the cohesion of Confederation; thirdly, the coherence, directed at national level, between planning tools in different cantons, that permits to build the base for a long term project. Today the most important heritage of Plan Wahlen is the existing normative. A new law, in fact, preserves national food security in the short term (six month), but technicians are investigating in order to design new planning tools facing long term food systems. In general, the story of Plan Wahlen is today increasingly more promoted and told, in order to increase the awareness of people around food issue.

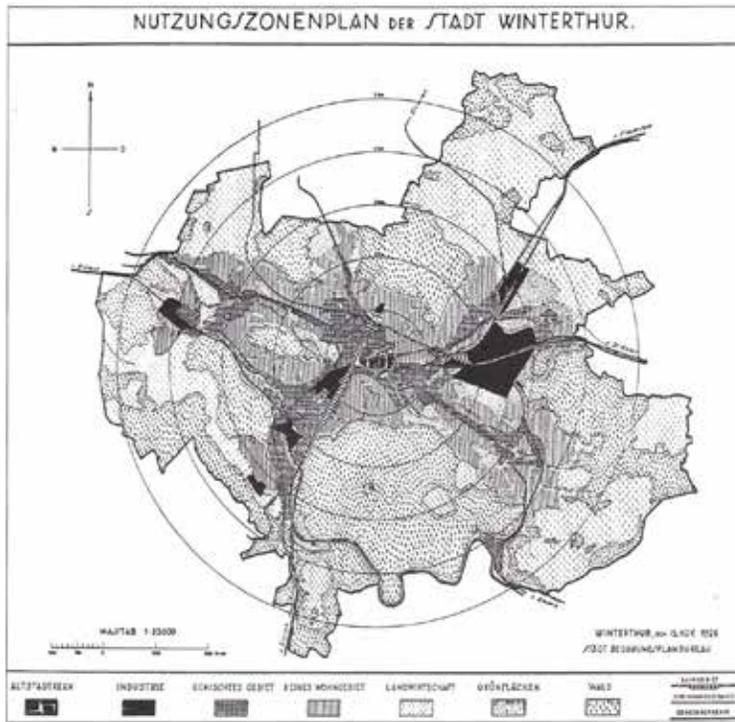


FIGURE 6 Plan de Zones de Winterthur, 1926. It is the first plan in Switzerland in which the area before named as “residual communal territory” becomes “grünflächen”, that means “farmland”.

## CONCLUSIONS

The experiences described, with their different objectives, reasons and results, have a common ground where they share aims and part of their strategies. Food systems and food production are, at different scales, investigated in the complex system of territorial dynamics and transformations. In general, the limit of these approaches is revealed by the homogeneity of disposals and application on wide areas: territories are not enough considered in their specificity or as that complex system of spaces and dynamics they are. However these experiences show interesting intuitions in relation to the food planning approach of our days. Firstly the idea of decentralization and the interest for the small scale, strategic in terms of territorial control and management, and in relation to local/national food market. Secondly the territorial asset imagined by designers and politicians: mixed in terms of land use, multifunctional from the point of view of human activities, efficient for the use of residual spaces. Moreover, the different purposes of these visions are inspiring for the planners of our times: food autonomy of territories, or, at least, a system less dependent on external sources; integration of different economies at the family scale, very useful in periods of economic and environmental crisis; a more efficient use of public green spaces, in terms of cost and management; a way to improve social cohesion and territorial identity. To conclude, it is finally possible to reflect on these experiences in terms of resilience, both economic and ecologic. The integration of food production with other economies, in fact, is an opportunity for families to guarantee family food supply or, if the scale is adequate, even becoming a secondary financial resource. At the national scale, decentralization can reduce food import; the increase of local production, even if it is not competitive in the global market, can become necessary in case of emergency (loss of harvesting, prices fluctuation, market instability, etc.). On the other side, in terms of ecology, the possible configuration of a mixed, multifunctional and combined territory, is a good way to improve territorial resilience and biodiversity: if the production is more integrated and/or organic, rather than conventional, it can preserve environmental quality, reducing soil and water pollution; if the supply

chain is shortened, it can reduce CO<sub>2</sub> emissions coming from transportation and distribution; if the territory is well drained and maintained in terms of water supply, it can prevent hydraulic risk and control the growth of permeable patches. These stories offer the opportunity to reflect on the role of food issues inside urban planning in the course of history, but also how we see it today, because food, food production and food supply are always following man history and territories development.

### Disclosure Statement

No potential conflict of interest was reported by the author.

### Notes on contributor

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- Figure 4: *La città vivente*. Original drawing by Frank Lloyd Wright. From the Italian edition (Torino: Einaudi, 1966). 161.
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# Continuities and Discontinuities in Urban Planning: The Impact of Shifting Ideologies

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Chair: Cor Wagenaar



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# THE APPLICATION OF SPONGE CITY CONCEPT IN REDUCING URBAN HEAT ISLAND EFFECT

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With the process of urbanization continuously pushing, it has brought comfort and convenience for humanity's life but city-building activities also has changed the nature and status of components of the urban natural environment which had a great impact on ecosystem, the densely, advanced man-made urban space made environmental crisis emerge in an endless stream. The character of urban underlying surface changes has a significant effect on the hydrological characteristics of a city. The water crisis, over the past decade, such as water resource shortage, water pollution, urban waterlogging, groundwater level drawdown and so on happened frequently in several big cities in China. These water problems test the construction achievements of urbanization of China. Based on the actual circumstances of China's hydrologic situation, authorities concerned formulated a range of solutions, Sponge City, as the latest generation of urban planning concept, is different from the traditional idea of city construction which mainly focuses on transforming the nature, it starts with the target to address the shortage of urban water resources and urban waterlogging problems, complies with nature, and realizes the natural accumulation, natural penetration and natural purification of rainwater in cities. The Chinese government considered the urban development history, the rule of urban morphological evolution and the problems occurred during this process synthetically, combined with China's specific national conditions to put forward the ecological and sustainable urban planning and development strategy. To implement the concept in urban planning, construction and renewal activities, coordinate the contradiction between urban construction and environmental resources, minimize the impact of construction activities on ecosystem. With the promulgation of 16 pilot projects of sponge city construction, to construct sponge city will become the goal and construction guidelines of urban planning in the future. According to the cities' conditions to set building goal and specific targets, strengthen urban planning and construction management, give full play to self-adjustment ability of buildings, roads, greening and river systems and covert the stormwater management concept from drainage to storage, realize the harmonic existence between human being and nature. The construction of Sponge City is to use "sponge substance" to recover the self-healing capacity of cities, which gives cities favorable "resilience" in adapting to the environmental changes, deal with natural disasters caused by rainfall and other aspects. However, the "sponge substance" not only enhances the stormwater management capacity of cities but also can reduce urban heat island effect, improve urban microclimate quality and receive a good ecological effects and environmental benefits. The paper combined Sponge City concept with the mechanism of urban heat island effect, using computer software to simulate the effect of some "sponge substance" in reducing urban heat island, to provide some reference and recommendations for reducing urban heat island effect and give suggestion for urban construction and renovation activities in the future.

## Keywords

Sponge City, UHI, green roof, resilience



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# THE CONCEPT OF GREEN ARCHIPELAGO: REVISIT AND REINTERPRETATION IN VIEW OF WORK UNITS RENEWAL IN CONTEMPORARY CHINESE CITIES

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Although urbanisation in China is still vast in scale and fast in speed, the evidence of economic and social transition has become visible. With the decline of some resource cities, the shrinking process that American and European cities went through 30 years ago is witnessed by China in the near future. Regions formed by fast urban sprawl, especially large-scale industrial land is more likely to suffer from decay. To prepare for the New Normal, new strategies are needed. This work is mainly concerned with revisit and reinterpretation of the concept “green archipelago” proposed by O.M. Ungers in 1977. Unlike most of others at that time, Ungers conceived shrinking cities as opportunities rather than a negative problem. In this way, the blueprint of green archipelago could be taken as one possible model of resilient urban strategies during economic and social transition. Although the main focus of Ungers is on architecture form, “green archipelago” is also of great cultural and social significance. In the seemingly radical manifesto, Ungers attempts to handle the relationship between historical center and fragmented sea of metropolis by means of differentiation, and propose the possibility of combining pieces into collectivity. Although different researchers have made deep investigations on Ungers and his theory, in this paper, the concept will be discussed in historical context and reinterpreted in view of urban renewal of Chinese work units (danwei). In addition to important historical factors as well as projects relating to the formation of the theory divergence between green archipelago and urban restoration during the time of Berlin reconstruction are also investigated. Based on that, the unique of Ungers’ concept could be revealed: In shrinking cities, identities could still be built through partially manipulation and intervention of forms. In the final part, the renewal of manufacturing danwei, which represents urban form during planned economy in China, are investigated based on their characteristics and challenges in response to economical and social transition. To conclude, I argue that there are still possible compatibilities between the blueprint by Ungers and Chinese urban reality.

## Keywords

Green Archipelago, O.M. Ungers, Danwei, Renewal, Identity



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# THE BUDAPEST OF TOMORROW: 1930-1960. CONTINUITIES AND DISCONTINUITIES IN PLANNERS' THINKING ABOUT THE CITY THROUGHOUT THE PERIODS OF WAR, RECONSTRUCTION AND SOCIALISM

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This paper explores the process of the preparation of the first General Master Plan (GMP) of Budapest, which was approved in 1960. Preliminary work to create this plan had been initiated at the beginning of the 1930s. This planning process offers us the possibility to explore the resilience of planners' thinking and concepts: how did they try to adapt their plans to radical changes in the social and political environment, the ideological and cultural climate from the interwar authoritarian regime through the short post-war democracy to Stalinist dictatorship and early destalinization? How did they try to interpret war damage, post-war reconstruction and the elimination of private ownership of urban land as an increased opportunity for planning a modern and well-functioning city? How did they try to adjust their plans and concepts to the requirements of Soviet planning principles at the beginning of the 1950s? How did they experience the formally greater role of planning in the emerging "socialist planned economy"? Did the GMP really function as a blueprint for urban development? The paper ends with some conclusions relating to the position of city planning in the socialist planned economy.

#### **Keywords**

Budapest, comprehensive planning, General Master Plan (GMP), Modernism, WWII, post-war reconstruction, Soviet planning, socialism, spatial expansion, urban form, zoning

#### **How to Cite**

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## INTRODUCTION

The creation of Budapest as an unified municipality and the capital city of Hungary took place in 1873 with the unification of three cities: Buda and Óbuda on the right side and Pest on the left side of the River Danube. The character of the urban landscape is determined by the effect of the two riversides with sharply different topographical features: the hilly Buda side and the flat land of Pest. Buda was the traditional royal seat and the headquarters of the government, but the dynamic forces of modern urban development concentrated on the left riverside. At the time of the unification 76% of the population lived there, and at the turn of the century already 83%. From the unification era onwards we can witness the beginning of comprehensive city planning. The framework of development of the urban fabric was laid by the "general regulation plans" of Pest (1872) and Buda (1876) for decades. These were the typical regulation plans of the 19<sup>th</sup> century, concentrating on laying out the street and building lines, the squares and the plots for public buildings and utilities. From this time the planning authorities reacted to the new phenomena of city growth by continuous ad-hoc adjustments of the regulation plans.

Around the unification period the boundary of the densely built urban area was near the future Great Ring Boulevard (Nagykörút) the creation of which was decided in 1871. The line of the boulevard followed an ancient dried-up arm of the Danube, because it was deep enough for the future main sewer. This Ring Boulevard connected the different sectors of Pest. Another completely new thoroughfare created by modern planning was the radial promenade connecting the Inner City with the City Park (Radialstraße, today Andrásy Street). The basis of the general regulation plan of Pest was a spatial structure determined by the radial and ring arterial roads.

Until World War I the driving force of the growth of housing stock was big business investing in tenements. This resulted in the covering of a compact urban area with multi-storey tenements, but this process was never completed. This compactly-built area was surrounded by a zone of large elements of the city's technical and social infrastructure (public parks, hospitals, railway lines and stations, industrial establishments etc.). Between this zone and the administrative border of the municipality remained enormous unbuilt areas, while an industrial-suburban belt erupted beyond the borders. The overriding idea of municipal policy and official planning was the avoidance of extensive sprawl, pleading the costs of infrastructure as the reason. Building regulations blocked the emergence of garden suburbs in the green areas within the city border.<sup>1</sup>

## THE CITY DEVELOPMENT PROGRAMME, 1940

The development of Budapest seemed to be at a cross-roads again around 1930, and required a new general conceptual framework just like in the 1870s.

The Municipal Assembly charged a special committee, headed by Ferenc Harrer, with the elaboration of a City Development Programme (CDP) in 1932. The committee accomplished this task by 1940, when the CDP was adopted by the Municipal Assembly as the basis of the future General Master Plan (GMP).

A very important challenge which made the necessity of a new CDP apparent, was the change in the nature of city growth after World War I. The building of multi-storey tenements was not a lucrative investment for big business any more. Neither did the political and social conditions of mass housing by public investment or public subsidy come into being in interwar Hungary – as it did in a number of countries in Western and Central Europe.<sup>2</sup> The most frequent form of building of new flats in Budapest during the 1920s was to construct cheap family houses or two- or three-storey houses with a few flats on cheap plots in the outskirts. This didn't mean the creation of planned and regulated garden suburbs, but led to scattered and uncoordinated low-quality developments. The building and planning authorities just allowed the process without any effective guidance.



FIGURE 1 The built area of Budapest in 1932. (The neighbouring municipalities are indicated in blue).

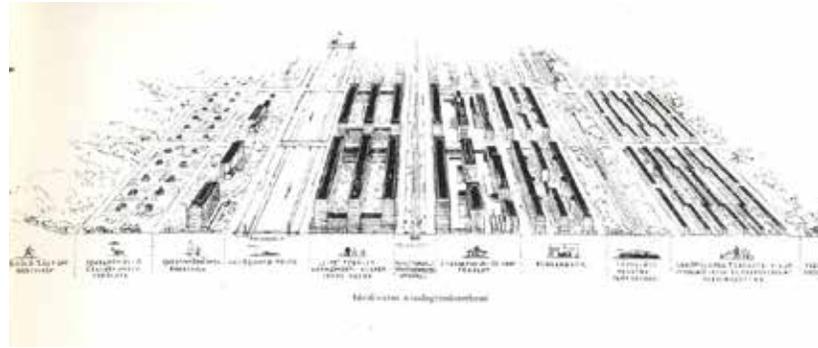


FIGURE 2 A vision about "Ribbon-Budapest", 1946

At the same time a decline in the population of the densely built inner parts of the city began, while there was no renewal of these parts. The interpretation of these phenomena was a contentious issue: do they foreshadow the main future tendencies in city development or just reflect the transitional circumstances of the hard times after the World War and the two revolutions and counter-revolution of the post-war years? May one regard these phenomena as parallels to the processes described in Western cities: the functional transition of city centres and suburbanization?

The ideas of the modernist planning movement penetrated the country. The Hungarian section of CIAM (Congrès Internationaux d'Architecture Moderne) was active from the end of the 1920s. In the political and intellectual environment of the conservative-authoritarian Horthy-regime this could only be an oppositionist position with no chance of influencing official planning and without having the chance to carry out large-scale projects until the second half of the 1930s. However even mainstream planning thought was unable to ignore completely the basic ideas of modernist planning and the experience of the first German modern housing estates.

The most basic question which had to be answered in the course of elaborating the CDP was, to what extent the horizontal sprawl of the city might be allowed or encouraged? Or instead of that should the more intensive exploitation of the already built area – even with high building – be encouraged? The basic situation was that approximately two-thirds of the population (1 million people altogether) occupied approximately one-sixth of the municipal territory, situated around the centres of Buda and Pest and meeting at the Danube, while the other one-third lived sparsely in the other five-sixths, and half a million people lived beyond the borders in the neighbouring municipalities.<sup>3</sup>

The CDP adopted in 1940 did not contain any radical proposals for restructuring, and regarded the existing city structure as something which basically couldn't be changed. It took the position that the built area had already expanded too much in relation to the expected growth of the population. This being so, neither further compression, nor further expansion would be desirable. The CDP restricted the area available for future building vigorously (excluding 42% of the municipal territory), and strictly allotted the area dedicated for multi-storey compact building within that – mostly adjusted to the existing situation. It proposed arranging the housing area in concentric zones with different levels of building intensity decreasing outwards, and opposing any peripheral centres or radial extensions of the compact city along the main roads. Building height in the city centre was limited to six storeys (ground floor + 5) and the circum-building of the individual plots firmly opposed. Outside the existing multi-storey tenement zones proposed, the Programme allowed four storeys maximum in perimeter blocks. The zones for garden suburbs and family houses were intended to be restricted to the areas which had been already connected to the system of public utilities. Considering it as a whole, the CDP envisaged

a monocentric compact city, but proposed less dense types of building even for the inner belt, instead of more intensive exploitation and rising upwards. As a concession to political exigencies, it avoided dealing with the problem of the agglomeration.

What sorts of driving forces were assumed to facilitate desirable urban renewal? As it has already been mentioned, the political conditions for large-scale public investment in the housing sector were lacking. The authors of the CDP had reliance on private initiatives in view. They regarded regulation to be the role of the municipality in this process, but argued for tax reliefs, preferential credits and in some cases active initiatives through plot-restructuring by the authorities as complementary devices to facilitate the renewal of the inner city.<sup>4</sup>

## THE GENERAL MASTER PLAN, 1948

During World War II Budapest lived through one of the most desperate and devastating sieges of big cities between December 1944 – February 1945. In the short-lived democracy after the war the adherents of socially committed modernist-functionalist planning got into key positions. The revision of the City Development Programme and the preparation of the General Master Plan for Budapest was directed by József Fischer, one of the leading figures of the Hungarian Section of CIAM, who was politically a social democrat. One of his closest co-workers in this task was Ferenc Harrer, the former president of the committee which had designed the first City Development Programme in the 1930s. A sort of balance of continuous and discontinuous elements was guaranteed even by the composition of the personnel in the planners' community.<sup>5</sup>

They felt that the catastrophe of the war had cleared away the obstacles which had prevented the "new architecture" from fulfilling its potential to shape the built environment and society. The obsolete and inhuman housing stock fell into ruins, and the social-political system, in which the rights of the property owners enjoyed priority over public interest, collapsed. They regarded the old CDP as the product of a period, „which had been void of the perspective of development, that's why the Programme relied on the given situation with much obligatory opportunism". The revised plan has to do justice to "the ideal requirements of modern city architecture as perfectly as possible".<sup>6</sup>

A basic idea of the modernist canon was the spatial separation of the main city functions – dwelling, work, relaxation, traffic – in dedicated linear zones. The vision of the "ribbon city" fascinated many modernist planners. In the case of Budapest it seemed to be plausible because the River Danube offers itself as the main axis of a ribbon structure. The ideal ribbon city seemed to be achievable by stretching the existing functional zones alongside the river and giving them a clear profile. (In Pest: the city centre, the commercial and industrial zone, the zone with tenements, the zone of long-distance traffic, the outer dwelling belt; in Buda: the zone with health-resort and spa, the belt of villas and family houses, the belt for recreation.)<sup>7</sup>

The "ribbon development" alongside the Danube became an official standpoint after 1945 but the the revised CDP and the GMP didn't adopt it in such an idealised form. As the planning process dealt more and more with details, it became apparent that the complete neglecting of the existing structure was not a realistic approach. The GMP envisaged rather the elongation of the existing zones in a north-south direction.

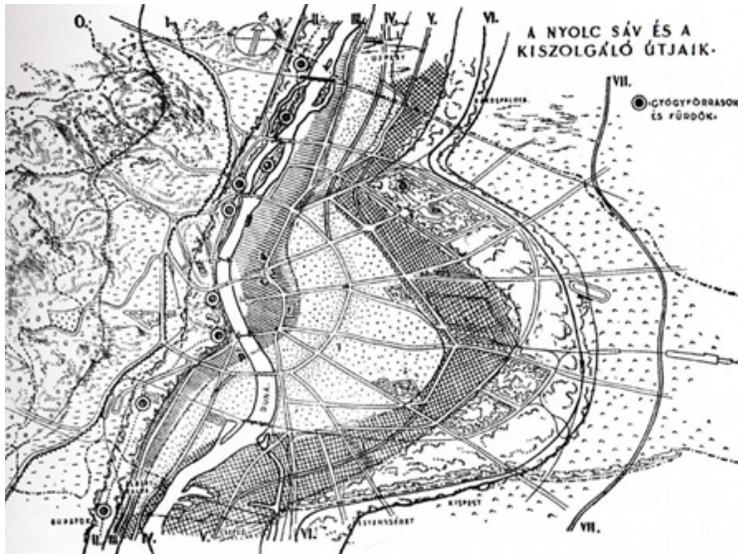


FIGURE 3 László Acsay–György Masirevich: Plan of Budapest as a ribbon-city, 1945



FIGURE 4 Plan of the Board of Public Works for the structure of settlements and zones of dense and dispersed building in Great-Budapest and its city-region, 1945

Another leading idea in the rebuilding of European cities after World War II was the cessation of the expansion of the stone desert, making cities greener and more dispersed by distributing the population in wider parts of the city regions, building new towns and satellite settlements.<sup>8</sup> The General Master Plan, which had been completed by 1948,<sup>9</sup> already covered also the neighbouring municipalities, which means most of the territory which became "Great-Budapest" in 1949. Instead of the former vision of a monocentric compact city, the GMP envisaged a policentric structure. The area which had already been built compactly, was handled as the closed "main centre" of a wide and dispersed urban region, which had to be demarcated by a deep ring of green belt stretching continuously from the Danube to the Danube, which had to be shaped by the extension of the big public parks and cemetery areas.

The exterior areas outside this green belt should have been characterized by a garden city landscape with the domination of ribbon- and point blocks according to the functionalist concept of architecture. These garden city areas would have been clustered around some external centres (to be shaped mainly from the existing town and village centres) where the most widespread building height would have been no more than 3-4 storeys. If the GMP of 1948 had been developed fully and ideally, the total population of Great-Budapest would have been 3 million people, one-third of whom would have lived in family-house districts, another one-third in row-houses and in houses with a few flats in green belts, while only one-fifth of the population would have lived in the compact city center.

In the wider region encircling Great-Budapest the plan envisaged a zone dominated by intensive agricultural production, which could satisfy the demands of the local population for employment and high-quality urban services on site. Mass commuting to Budapest from this zone should have been obviated.

## THE GENERAL MASTER PLAN 1950-1955

When the GMP was finished in 1948, it was already not in accordance with the developments of political transformation. The authors based the plan on the assumption that Hungary would be part of an open and prosperous Central Europe, and private property would remain dominant, though the intervention of the public sphere would broaden radically. The meltdown of the Social Democratic Party into the Communist Party in June 1948 was the opening of the emergence of a Stalinist dictatorship under the rule of Mátyás Rákosi. The administrative unification of Budapest and the neighbouring towns and villages – which had already been taken into account in the GMP as parts of Great-Budapest – was carried out in December of 1949. The GMP was definitely rejected in January of 1950 as an “apolitical, place- and time-independent plan” which had no motivating force for the masses. The creation of a new plan was prescribed following the Soviet planning doctrine. The institution responsible was the new Capital City Planning Institution, which was a chain-link in the new network of state planning offices, and it was subordinate to the City Council. Spatial planning became the servant of the voluntaristic development policy of the command economy. For the adoption of the plan the approval of the Politburo, the highest party organ, was necessary. The Politburo had discussions about it in 1951 and 1952 but the final version was finished in 1955 never having reached this high level.<sup>10</sup>

The elaboration of the new GMP was directed by Gábor Preisich, under whose lead the previous GMP had been finished in 1948. Ferenc Harrer also continued to play an important role as a member of the Executive Committee of the City Council. Ernő Heim, who had been the notary of the committee elaborating the CDP in the 1930s, was now one of the most important planners of the Capital City Planning Institution, responsible for the habitation and housing concept. A sort of balance between continuous and discontinuous elements was guaranteed on personal level, even this time. The adaptation of the Soviet planners’ thinking was probably eased by the fact, that some elements of the well-known “new architecture” – e.g. the spatial division of basic urban functions, hierarchical street-networks, a comprehensive system of green areas – were built into the Soviet planning doctrine.<sup>11</sup>

The guiding motive of the new plan was the effort to achieve a socialist city as a monumental composition of art – which was regarded as the peak of architecture in the Soviet Union. The planning process can be divided into two phases: before and after Stalin’s death and the following changes in politics in 1953. In the first phase a monumental main square around Stalin Square (today Erzsébet tér) was envisaged as the focal point of the comprehensive monumental city-composition. In sharp contrast with the GMP of 1948, a closed urban fabric was planned, the skeleton of which would have been the connection of the “main centrum” with industrial peripheral centres, which were regarded as the citadels of the working class, through monumental radial avenues. The characteristic building height of the main centre would have been 5-9 storeys, in the outer centres and radial avenues 3-4 storeys. The problem of the Moscow-style tower blocs was highly debated. The majority of planners couldn’t imagine them in the city centre, even not within the Great Ring Boulevard, rather – if necessary – at some bridgeheads of the Danube or accentuated points of the radial avenues.<sup>12</sup>

The idea of “ribbon city” and the adjustment of the development in a north-to-south direction alongside the Danube was definitely refused by the Politburo in November 1951.<sup>13</sup> (The motive for the decision was most probably the the pattern of the Moscow Master Plan of 1935, which aimed at the grand-scale development of the historically evolved circular-radial structure.<sup>14</sup> Rákosi and his highest co-leaders spent important periods of their emigrant lives in Stalin’s Moscow.) So it was a clear political decision by the dismissal of the suggestions of the planners. Even so, the conclusion can be drawn from the sources that the planners themselves didn’t already feel the rejection of the “ribbon city concept” as a great disadvantage. As the planning process dealt more and more with the high-definition spatial details, it became increasingly clear, that the ribbon concept can be gracefully presented in drawings, but it contradicts sharply to the existing structure and traffic network of Budapest.<sup>15</sup>

In the second phase of the preparation of GMP (1953–1955) the planners abandoned the idea of a monumental central main square and any basic restructuring of the inner city, but they still planned a closed urban landscape with the clear architectural accentuation of the core and peripheral centres and their connection through the network of radial and circular main roads. The vision of the GMP of 1948 of a dispersed city embedded in the city-region remained unadopted, furthermore it was declared that large zones of the recently unified Great-Budapest could not be developed into a real urban environment. In the first half of the 1950s financial resources were extremely scarce not only for the development but even for the basic functioning of the city. The housing conditions, the infrastructure and public services deteriorated, while the political requirement was to build a socialist city landscape as rapidly as possible, with new housing facilities and spectacular ensembles expressing the idea of socialism in the cityscape. All this induced a spatial concentration of the resources, which is why the municipal government tried to limit the territory destined for urban development. The GMP of 1948 had proposed to annex extensive rural areas to Budapest, taking into account their function and development potentials within the vision of a dispersed city with spacious garden-city areas. The plans of the early 1950s, thinking of the city as a closed architectural composition, were unable to integrate most of the annexed villages.<sup>16</sup> According to the draft GMP of 1955<sup>17</sup> these settlements should have remained peripheral agricultural and recreation areas, clearly separated from the highly urbanized area and without the necessity of a well-developed urban infrastructure.

Although the plan broke with the earlier conceptions in fundamental aspects, it also maintained some basic intentions. One such a continuous element was that the expectable and desirable growth of population didn't make the extension of the built habitation area necessary and reasonable. The renewal of the inner city should aim at a lower density, while in the outer parts those areas which were already built up or at least connected to the network of traffic and public utilities should be placed in order and augmented.

## THE GENERAL MASTER PLAN OF 1960

The acute housing shortage was one of the city's most burning problems during the Rákosi-era and – despite the massive state investment from 1954, then from 1960 onwards – it remained a critical issue until the fall of state socialism. The new leadership after the 1956 revolution headed by János Kádár regarded the cessation of the housing shortage within a reasonable time as a political priority, conceiving this as a crucial tool to improve the acceptedness of the regime by the working class. They launched a house-building plan for 15 years in 1960. It became clear that the mass building of housing estates would be the most important factor in forming the city for a long period.<sup>18</sup> The new housing estates required traffic and public utilities, and the decision on their allocation had to be synchronized with the development plans of the economy. This ensured a new level of significance for the GMP for Budapest. While the senior political leadership of the Rákosi-era hadn't wanted to create restrictions for political-economic decisions through such a plan and it had always refused to accept it, now it seemed to be an imperative necessity for the Kádár-regime to create a solid framework for the economical and effective allocation of the enormous investments. The leadership headed by Kádár didn't want to see grandiose monuments and spectacular ensembles expressing the idea of socialism first of all, but a well-functioning city with enough flats and full of satisfied workers, and a well-arranged modern urban environment which demonstrated the competitiveness of the country with the West.

That was the background which made it possible for the revised GMP to be finally approved by the Politburo, and then made a legally binding document by a resolution of the Council of Ministers in 1960.<sup>19</sup> So Budapest had a valid General Master Plan for the first time after a 30 years struggle for the planners in the different political regimes. Ferenc Harrer proposed and hailed this acceptance at the joint session of the Executive Committees of the Budapest Committee of the Hungarian Socialist Workers' Party and the Executive Committee of the City Council, as the crowning of thirty years of work.<sup>20</sup>

The major innovation of the final version, in comparison with the draft plan of 1955 was, that it also embraced agglomeration and reckoned with the role of the wider region. The planners revived the approach, that the old densely inhabited urban area, built mainly until World War I, would "become something like the inner city of the whole Budapest-region, similarly how the proper old Inner City had been the centre of the long-ago Budapest".<sup>21</sup> In this way the new plan abandoned the aspiration of the city as a closed architectural composition – so characteristic of planning at the beginning of the 1950s – and took up the line given up after the creation of administrative Great-Budapest. The title of the document was even modified to "The General Master Plan of Budapest and its environs".<sup>22</sup> This change was partly motivated by the contradictory task of allocating massive new housing investment while maintaining the standpoint which rejected the large-scale expansion of the built area. The housing investment concept of the GMP was based on three pillars. The first idea was the exploitation of the still unbuilt sections within or adjoining the built area; the second was the renewal of the inner city; the third was the establishing of „dormitory towns” outside the municipal border.

The new towns which the plan proposed to build in the environs and the region of Budapest should have represented two basic types. To the first type belonged eight "dormitory towns" which were planned as investments on green field sites near the city border beside the main traffic roads through which the workplaces in Budapest would have been easily accessible. The optimal population number of these towns was thought to be 15,000 people. They were conceived clearly as transborder housing estates for commuting. They were regarded as necessary, because the plan included the wide zone between the already built-up area and the city border as a protective belt, where the green area for agricultural and recreational use should have been maintained. The transborder new towns should have been the embodiments of a vision of a new way of life, which would offer the combination of work in the big city with habitation in a picturesque green landscape on big, economic housing estates, as an alternative to urban sprawl.

The second type of new town should have been developed from existing settlements located 30–40 km distant from the city. The main function of these "satellite towns" would have been to hold up the immigration to Budapest and its nearby agglomeration. In order to succeed, these satellite towns needed their own economic basis to offer workplaces as alternatives to move into, or to commute to Budapest. This economic basis was planned to be established partly by the relocation of industrial factories from the city. The optimal population of a satellite town was thought to be 30,000.

The planners took into account the experiences of West-European, as well as Soviet satellite towns established after World War II in the course of working out this concept. Notwithstanding all this remained just paper work; in vain had it been corroborated by the governmental resolution which approved the GMP. The Kádár-regime maintained a command economy even in the 1960s, but the voluntaristic decisions of the high political level already gave space to the bargaining of the different players for resources. The planned establishment of new towns around Budapest, and the relocation of industry, would have required such a level of concentration of the developmental resources to the agglomeration of Budapest, which lacked the support of strong pressure groups. The plan of "dormitory towns" was officially dismissed in the course of the revision of the GMP in 1970.<sup>23</sup>



FIGURE 5 The planned new "dormitory towns" near the border of Budapest, 1960

## CONCLUSION: SOME REMARKS ON THE POSITION OF CITY PLANNING IN THE SOCIALIST PLANNED ECONOMY

The fall of the vision of new towns was not the only reason why the city developed diverging sharply from the approved GMP. What's more, the real development contradicted some basic requirements which the planners maintained quite consistently in the course of planning over three decades, manouevring through radical changes in the social and political environment, the ideological and cultural climate from the interwar authoritarian regime throughout the short post-war democracy to the Stalinist dictatorship and early destalinization.

Some of the consistent standpoints were, that the massive expansion of the built-up area over the already evolved frontiers should be prohibited; the height and density of building have to decrease from the core towards the peripheries; even in the centres of the outer industrial districts were envisaged a characteristic height of not more than 4-5 storeys. In sharp contradiction to all this, large housing estates of 11-storey panel construction were established in the centres of numerous outer districts, and even on exterior green-field sites which should not have been used for mass habitation at all according to the GMP approved in 1960. As mentioned earlier, the original housing investment concept of the GMP was based on three pillars. The first was the exploitation of the still unbuilt sections within or adjoining the built-up area, but these possibilities were exhausted until the beginning of the 1970s. Neither the new towns came into being, nor the renewal of the inner city produced large-scale results. As the political priority laid for city development was the struggle against housing shortage and the quantity of flat construction, the investments followed the path of least resistance: peripheral green field sites and the "rehabilitation by bulldozer" of the outer district centres which had been declared "obsolete".

Another constant guideline for the planners' thinking was that the unplanned sprawl of the agglomeration settlements should be prohibited, and their compactness and separatedness should be maintained. They explored the possible solutions which could have obviated the uncoordinated evolution of a chaotic commuter belt offering a low quality of living. But the real development processes of the agglomeration were characterized precisely by these features.

Taking into account these facts, we can't even conclude, that the GMP was just an ideal piece of paperwork as a whole, because the investments and developments followed its guidelines in some important aspects, e. g. regarding the network of sub-centres or elements of traffic and public utility networks.<sup>24</sup> Notwithstanding the fact that the GMP was endorsed by the highest decision-making organs of the one-party state, it couldn't become an effective regulation tool for the allocation of all new developments as the planners hoped, but the players involved in the developmental processes were able to select the elements of it which were appropriate for their intentions.

The GMP of 1960 and its antecedents were typical examples of "blueprint planning". They were the representations of the idealized urban fabric of Budapest in the imagined distant future, and the planners regarded the main function of the GMP to be the securing of the spatial framework for this envisaged objective. These plans didn't really reckon with the possibility of radical changes in conditions, demands and societal requirements. Although the plans trended towards the adaptation of the most advanced technologies, the planners' thinking remained markedly attached to the horizon of the present. One highlighted aspect of that was the tenacious industry-centrism. Although the planners urged the containment of the growth of industry within Budapest and relocation of the factories, they built their plans on the assumption that industrial production and the world of factories would remain the most decisive component of life in the future city. The tendency of terciarization and its impacts on society were lacking from the horizon of planning during the preparation of the GMP.

### Disclosure Statement

No potential conflict of interest was reported by the author.

### Notes on contributor

András Sipos graduated from Eötvös Lorand University, Budapest in history and archival studies. He got his PhD degree with a thesis "Municipal politics and city government in Budapest 1890–1914" in 1997 at the same university. He has worked for Budapest City Archives since 1988. His field of research embraces the urban history of 19–20th centuries, municipal politics, planning and social conflicts. His monograph "Várospolitika és városigazgatás Budapesten [Municipal politics and city government in Budapest] 1890–1914" was published in 1996; "A jövő Budapestje 1930–1960. Városfejlesztési programok és rendezési tervek [The future Budapest 1930–1960, City development programmes and master plans]" was published in 2011.

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# THE IMPACT OF SHIFTING POLITICAL IDEOLOGIES: CONTINUITIES, DISCONTINUITIES IN URBAN IMAGERY OF TEHRAN SHAPED IN ABBASABAD HILLS

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National leaders have long used capital cities to document and reflect their political ideas and power by projecting a positive image of their city. In Iran, Despite the political transformation from the westernising regime of second king of Pahlavi (1941-1979) to the Islamic republic (1979 to present), the consecutive governments consistently used their political power and strategies to control the imagery of their capital city and its reception in both national and international contexts as a means of accruing their international pride. 'Abbasabad' district in Tehran, situated at geographical heart of the city stands as an example of a place for national power statements, offering a source of civic pride and social cohesion for the capital of Iran before and after the 1979 revolution. Because of symbolical and geographical significance of this urban landscape, its cultural urban development was a popular governmental strategy for gaining the global capital status. At the end of World War II, the Shah of Iran announced a series of reforms with the intention of modernising and transforming the country into a global power and as part and reflection of that process, the Shah initiated a number of urban projects in the capital city e.g. the development of 'Abbasabad'. At this period, the policies in 'Abbasabad' urban design were mostly upon the ideals of creating an influential expression of the power of the kingdom of Iran in international contexts by shaping a monumental urban imagery for the capital, as a large-scale urban square, a lively modern city centre, serving governmental actions, building high qualified residential complexes to combine the new city centre to the whole growing city of that time. Continuously, After the 1979 Revolution, Iran underwent important political shifts that translated into the need of novel urban imageries and new visions of urban representation of Tehran based on Islamic governmental policies. The new government used the same area, 'Abbasabad', to fulfil its political goals through cultural urban developments. Likewise the last period, new policies mostly tended to create a visual imagery as a monumental place for the pride of the capital, a new city centre with traditional archetypical elements, providing enough space for governmental offices; Most diverse attitudes were regarding cultural religious genuineness of Islamic Iran, creating spaces for Islamic ceremonies and training religious habits. The 'Abbasabad' worked as "cultural presentation" of the ideas of power that helped to communicate the message of Iran's political status, to the international contexts and beyond. It stands as an example for continuities and ruptures of the efforts and strategies of Iranian's governments to develop the 'Abbasabad' urban plans, goals, functions, in the process of shaping Tehran's imageries, civic memories and its global city status. Exploring the process of the extensive political and ideological shifts and their different expressions in opposing design languages for the development of 'Abbasabad' from 1968 to present, this paper shows that the socio-cultural, political purposes of the governments which aimed at shaping a strong urban imagery and gaining global city status remained the same.

## **Keywords**

Urban Imagery, Urban identity, Political Ideologies, Continuities and discontinuities, resilience, Tehran, Abbasabad



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# Urban Planning Theories

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Chair: *Michiel Dehaene*



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# SOCIOLOGICAL URBANISM – JEAN REMY AND THE SOCIO-SPATIAL CRITIQUE OF URBAN PLANNING

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Sociological Urbanism. Jean Remy and the socio-spatial critique of urban planning.

Looking at the relationship between social theory and planning in the second half of the twentieth century, one could argue that the dominant relation has been one of planning critique. Time and again, scholars show the symbolic violence of planning, the vested interests and deeply entrenched power relations, the repressive and 'dark side' of planning, its reduction of the diversity and inherent richness of everyday life in the city. In this position, we see the continuation of a historical critique of modern planning, first articulated in the 1960s and 70s, that contrasts the planned city with the un-planned, the artifice of the regulated and controlled city on the one hand with the authenticity of everyday life on the other hand.

This paper looks at the work of the Belgian sociologist Jean Remy, tracing in it the intellectual position of a sociological urbanist for whom the scholarly interpretation of the city goes hand in hand with direct engagement in the transformation of the city (Stanek 2011). The core of this position is based on the particular interpretation of the role of space within the construction of society in general, and within the process of urbanization in particular. Remy seeks to 'flesh out to what extent space and spatial compositions provide a specific and irreducible place of explanation' in the study of the city (Remy & Voyé, 1981, 11). Space is treated as 'an explaining factor', yet never in isolation but as part and parcel of the context of social transaction. With this qualified answer Remy seeks to avoid the pitfalls inherent to a physical determinist approach as well as philosophical idealist interpretations. In the course of the development of his oeuvre, Remy would make the critique of spatial determinism the intellectual engine of an urban theory which places the non-coincidence of configuration, management and use of space at the center, and interprets it as the core of the social construction of the meaning of urban space.

The paper looks at three important chapters in Remy's empirical work dating between 1962 and 1985: a regional study for Charleroi, the planning of Louvain-la-Neuve, a preparatory study for the redevelopment of the petite ceinture in Brussels. These chapters mark an itinerary which starts with the highly abstract conceptualization of the city as the spatial milieu in which positive externality is being accumulated and develops into a complex reflection on the city as an emergent phenomenon. Throughout this itinerary Remy never glorifies the city as the product of self-organization neither does he dismiss planning. His work is permeated by the sharp awareness that without any form of spatial plan(ning), society lacks the context in which the positive externality – associated with city-ness – can be accumulated and develop as a positive milieu effect. Hence, Remy crafted a position distinct from the stark ideological critique of urbanism as formulated by Castells, equally distinct, however, from the critique of alienation produced by Lefebvre and others.

## **Keywords**

Jean Remy, Urban Theory, Social Critique of Planning, Spatial Determinism



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# EXPLAINING THE URBAN RESILIENCE CRITERIA FOR IRANIAN CITIES BASED ON URBAN PLANNING PRINCIPLES OF SCHOOL OF ISFAHAN (THE SAFAVID NEW CITY OF ISFAHAN)

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One of the most recent branches of knowledge which relates to the sustainability paradigm is urban resilience field of study. While sustainable development paradigm itself is included of different goals such as social, economic and environmental ones, the resilience is the main operational and implementation idea in sustainability. The Safavid dynasty which was founded in 16th ac. was one of the most significant and innovative ruling dynasties of Persia and is considered as the beginning of modern Persian history. They provided a holy platform for promotion of philosophic, spiritual and operational lessons which led them to creation of newschool in art and culture called "Isfahan school". The new city of Isfahan which was created in total harmony with the old one is considered as the most evident consequent of this tradition. The Safavid created the utopia according to the Unity in diversity thought which is a concept of "unity without uniformity and diversity without fragmentation". They literally applied their utopian ideas in their cities which now a days can be recognized in their urban physical settings especially their one of a kind urban spaces. The city of Isfahan were designed and executed by Shaykh Bahai who focused the program on two key features of Shah Abbas's master plan: the Chahar Bagh avenue and Naqsh-e-Jahan square. These two elements created the backbone of city. In addition to the organized physical plan, other economic, social and cultural factors helped the city to be sustainable and due to the fact that physical aspect of the Safavid new city along with some socio-economic features are still recognizable, therefore it's considered a resilient city.

With regards to the fact that the vision of sustainable development is to maintain global environment and to increase the quality of life by local strategies for current and future generations. Therefore, studying historical urban planning experiences and local vernacular lesson can lead us to a better plan and strategies in order to solve the most unexpected environmental issues. Based upon what discussed above, the main goal of this paper is to assess and recognize the Isfahan urban planning school principals. In order to provide a context based framework for planning and designing the Iranian resilient city, resulted vernacular criteria of Isfahan school will be compared with the factors investigated in urban resilience studies in recent global discussions. In order to achieve the main goal, by using descriptive-analytical method, some case studies will be chosen and studied through different stages and by using various data gathering methods including field and document based studies. The results show that the main factors of durability and most importantly resilience if the Safavid new city of Isfahan is cultural and socio-economic factors which were also crucial in making a sustainable physical setting.

## Keywords

urban resilience, School of Isfahan, Context – based urban planning, Vernacular criteria of urban resilience



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# RESEARCH ON THE APPLICATION OF SPACE SYNTAX TO URBAN RECONSTRUCTION BASED ON SELF-ORGANIZATION THEORY

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In this paper, based on the urban self-organization theory, the main purpose is to use the space syntax as an analyzing tool to calculate and compare the space configuration in the process of urban reconstruction, and to apply it to the reconstruction plans of the urban and regional, thus finding the enlightenment of urban and regional reconstruction.

As a systematic theory rose in the 1960s, the self-organization theory mainly study the formation and development mechanism of complex organizational system, including the living system and social system. It has been known that the city itself is a very complex system with self-organization function, its spatial configuration is forming spontaneously by the force coming from differences of resource distributing in countless space units. In this case, the professor Bill Hillier put forward the theory of space syntax. Based on the urban space network, it illuminates the space configuration that reflects the object and human intuition experience.

On the foundation of demonstrating the universality of urban self-organization principle, the article choose several cities and towns in Sichuan and near the Three Gorges as samples to validate the applicability of space syntax for reconstruction. And then carried on the comparison between the predicting outcomes of space syntax theory and the space configuration in the real reconstruction from three aspects: the integration of space, the accessibility of street network and the integration of vision. It proved that the space syntax is a quantitative tool converts the subjective spatial feelings to objective data. For this reason we are able to find the feasible references for contemporary city reconstruction after having a comprehensive understanding of the composition and formation of self-organized urban space configuration.

A destructed city needs mass rebuilding and reconstruction as disaster is a mutation for the space configuration and the original system cannot operate spontaneously. And the key point for resilience is to rebuild or even optimize the original space configuration over the ruins. The space syntax help us explore the internal order of the urban space development, make full use of the urban space in the reconstruction process without disrupting the natural movement. It offers a diagrammatize method to explain the instantaneous spatial structure as a whole. So the designers can have an intuitive understanding of the spatial potential evolvement trend. Besides, it provides powerful logic basis for the rebuilding and reconstruction of the city system and makes the construction process more rational. By this, the new structure will integrate with the environment, adjust and pull the development of surrounding areas and even the urban space system. Therefore, space syntax can not only retain the original internal order of the society to the greatest extent, also make new elements and the original system coexist harmoniously and promote the post-disaster resilience of the city.

## Keywords

space syntax, self-organization, space configuration, city reconstruction, application



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# CENTRING SPACE: THE POSSIBILITY OF PLANNING IN URBAN COMMUNITY (SHEQU) CONSTRUCTION IN SHANGHAI

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China's post-economic reform industrialization, mass-migration and accelerated urbanisation has had an impact on cities that is unprecedented in scale and in speed. Either expressed by expansion patterns of industrial-driven peripheries, planned new towns or high-densification of city centres, urbanisation is defined by a profound transformation of urban space and prior socio-spatial orders<sup>1</sup>. Largely impacted is the basic socio-spatial unit of the city - the urban community (xiaoqu or shequ) - often destroyed and relocated, and which have been the homes of people and traditionally the organisers of social relations in China<sup>2</sup>. Communities are *centred spaces* - as centring is the making of space into a place<sup>3</sup>. China aims to build a new society, based on the neighbourhood unit, that can be more autonomous, responsible, and essentially more stable<sup>4</sup>. In a context where both society and space are on the move - how can planning assist *centring space* thus creating communities? This paper is a qualitative study that explored the history of a long-established community case in the inner centre of Shanghai - showcasing the present pressures of urban renewal and realities of spatial decay, overcrowdedness and relocation uncertainty. It argues for the importance of socio-spatial permanence, which requires the action of planning collaborating with community managers that is presently fragmented and lacking both diagnosis and communication.

## **Keywords**

urbanisation, urban community, space and place, Shanghai

## **How to Cite**

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## INTRODUCTION: CHINA'S POST-ECONOMIC REFORM AND ACCELERATED URBANISATION

“Before being design, the urban form is intent: i.e. political vision or strategy”<sup>5</sup>

Cities are spatial expressions of our societies, and most importantly of our political economies<sup>6</sup>. Space matters and the materialisation of urban form is not arbitrary, and constitutes a significant interface between political economy and urban design<sup>7</sup>. Hence, the design of urban space is the design of the society. Urban space is a powerful tool for states for social and economic development – and in China, urbanisation is a key driver of present and future growth recognising that infrastructures, jobs, people, and income are concentrated in systems of globally, nationally and regionally interconnected city regions, which futures are subject to constant dynamic change<sup>8</sup>. Thus, China’s urbanisation progressively rises - yet, it faces many challenges like environmental degradation, agricultural land consumption, and population’s dislocation and spatial erasure, particularly in inner-city centres where large urban renewal has been occurring<sup>9</sup>. Historically, post-reform urbanisation is defined by three stages: firstly, the urbanisation led by rural industrialisation (1978-1987); secondly, urbanisation led by land reform (1988-2000); and thirdly, urbanisation led by the service industry (2001 to present)<sup>10</sup>; and these stages vary according to region<sup>11</sup>. In Shanghai, urbanisation is defined by spatial expansion and peripheral industrial development in the 20<sup>th</sup> century and recently by a poly-centric and multi-layered urban structure guided by the Shanghai Master Plan (1999-2020) aiming to promote service industry and advanced manufacturing<sup>12</sup>. It is known as the ‘1966’ master plan that designs a new urban structure based on ‘one city centre, nine new towns and sixty-six central villages’.

China’s modernisation project and political economy is based on a reterritorialisation project – i.e. a new nation-state that redesigns cultural and political territories in the name of global economic competitiveness<sup>14</sup>, which is based on the concept of ‘administrative economic areas’<sup>15</sup>. This reterritorialisation infers a prior deterritorialisation<sup>16</sup>. In anthropology, this concept means the loss of territory and of cultural identity that breaks with the link between state territoriality and society<sup>17</sup>. It implies the redesign of the society and the traditional organiser of social relations in China - the communities<sup>18</sup>. The Chinese state is fostering urban community construction through governance reforms (though a contradictory process within)<sup>19</sup>, so previous 12<sup>th</sup> Five-Year Plan put community building on the forefront of its priorities<sup>20</sup>, and 13<sup>th</sup> Five Year Plan is moderating the pace of urban growth, setting a new type of urbanisation and enforcing a ‘people-oriented development’: “from now on, it will be mostly about the quality, efficiency and benefits of growth, rather than its speed”<sup>21</sup>. Until now, the production of space served an economic project and less attention was placed on planning and urbanisation – as drives of spatial change – impacting the communities and the reconfiguring of social space. China aims to build a new society, based on the neighbourhood unit, that can be more autonomous, responsible, and essentially more stable. For Shanghai, the communities are being redesigned into a new scale and identity, the one of “a modern metropolis and a global economic, financial, trading and shipping centre by 2020”<sup>22</sup> and a “Highland of Talent”<sup>23</sup>.

## CENTRED COMMUNITIES - SPACE, PLACE AND URBAN CHANGE IN CHINA

Presently, Chinese cities observe a constant interplay between an increasingly unfixed physical dimension (demolition and expansion) and public sphere (relocation and migration). In this era of flow and instability, individuals need “a strong sense of belonging to anchor themselves in civil society and to identify with and accept the legitimacy of their political institutions”<sup>24</sup>; and this sense of community or group belonging depends on what significant characteristics are shared in a given place and time<sup>25</sup>. Places are “centres of meaning for individuals and these can span from the home to the neighbourhood, to the city and region, and to the level of the sovereign state”<sup>26</sup> and “the symbolic value of the built environment can linger for long periods, as a memory that is reinterpreted in the cultural and political idiom of the age, continually reproduced to fit evolving circumstances of the time”<sup>27</sup>.



FIGURE 1 The two faces of China's urbanisation13 (2012).

So, space becomes place by creating meaning – i.e. *centring*<sup>28</sup>. Centres are also connected to the notion of home and homeland, and people who believe they are at the centre “claim, implicitly, the ineluctable worth of their location”<sup>29</sup>. Thus, *centred* urban communities can play a leading role in setting a stable society in China. For that task urban space matters, in its physical dimension, as meanings lie under the apparent superficial expression of urban form<sup>30</sup>. Space has a multi-dimensional responsibility in spatializing communities (and territory), in contextualising and providing for identification amid people and their places<sup>31</sup>. This notion of rooted place has been challenged by Doreen Massey that argues for a new concept that is open and hybrid – as place is understood as a product of interconnected flows and of routes instead of roots<sup>32</sup>. It challenges the idea of place as a centre of meaning or rooted identity<sup>33</sup> as modernity faces constant mobility. Yet, if place is “an organised world of meaning” then it requires a static concept as if places would be in constant change then it would be impossible to develop any sense of place<sup>34</sup>. Yi-Fu Tuan linked the notion of space to movement and of place to pauses in the movement<sup>35</sup>.

China's urban transformation is questionable in sustaining local qualities, sense of place and identity. Old communities are disappearing and new ones are being formed. This dynamic is a spatial constant and pauses are hardly present in Chinese cities. Place loss is impacting communities' stability - which are linked to a particular set of social relations (community and family structure) and urban form. Thus, feelings of discontent and powerlessness - as “we have no choice”<sup>36</sup> - are transversal to the communities enquired<sup>37</sup>. Socio-spatial relations are not being sustained in the long term and public trust is declining as residents don't feel urbanisation is operating on their benefit. By and large, communities' *decentring* will impact social stability and political identification, since it is based on local and national identity affections<sup>38</sup> hence threatening the success of China's ambition for a sustained social and economic development.

PERIODS	ANCIENT PERIOD	MODERN PERIOD			CONTEMPORARY PERIOD			
Years	7th century-1842	1842-1911	1911-1927	1927-1949	1949-1978	1978-1987	1987-1999	1999-now
<b>Political context</b>	Imperial rule	Qing Dynasty and foreign governance	Warlords and foreign governance	Kuomintang and foreign governance	Planned economy	Reform	Market-oriented	
<b>Urbanisation waves</b>	—	—	—	—	(19% urbanization)	Rural industrialisation	Land reform	Service industry
<b>Administrative areas</b>	<b>1</b>	<b>2</b>		<b>3</b>	<b>4</b>	<b>5</b>		
<b>Plans</b>	—	—	—	—	Shanghai Master Plan 1959	Shanghai Comprehensive Master Plan 1986	Shanghai Master Plan 1999-2020	
<b>Duolun Rd in Hongkou district</b>	—	possible founding ca.1893-1900 Previously called Darroch Rd	1927 map 	1932 map 	1948 map 	2006 map (see Fig. 4) 		

FIGURE 2 Table showing the periodisation of urbanisation, political context, administrative boundaries, Shanghai plans; and three maps showing the transformation of Duolun Rd in Hongkou district<sup>45</sup>. Map on the left: shows the limits of the foreign concessions across time; map on the right: shows the transformation of administrative boundaries of Shanghai (from 1 to 5)<sup>46</sup>; and location of Duolun Rd - DL.

## A NOTE ON THE METHODOLOGICAL AND WIDER RESEARCH FRAMEWORK

This paper is based on the completed EU-FP7 URBACHINA research project at LSE that looked at sustainable urbanisation in China, which revealed that community construction is defined by a complex relation between planning, governance and the civil society<sup>39</sup>. The research explored a total of 20 urban communities (Shanghai, Chongqing, Kunming and Huangshan) from which 5 were conducted by the author (Shanghai and Kunming). Cases selected were low-income neighbourhoods<sup>40</sup>, old and new communities located at the inner-city centre and periphery respectively so a better understanding of the urban renewal and expansion processes are understood. The field work was conducted for eight months, four months in each city – two months in each community. However, this paper explores the case of Inner-Shanghai – the history of Duolun Rd – as an example of a long-established (‘centred’) community that was formed around the 1900s. Methods combine spatial analysis by mapping the transformation of the community in the history of planning and urbanisation in Shanghai, and an ethnographic approach (on-site observations, semi-structured interviews of 40 residents, planners and plan-makers).

## A BRIEF HISTORY OF PLANNING AND URBAN DEVELOPMENT IN SHANGHAI

Urban development in Shanghai can be divided into three main eras: firstly, the pre-modern era (from the 7th century to 1842) led by imperial rule; secondly, the modern era (1842-1949), when foreigner powers settled in parts of Shanghai; and finally, the contemporary era (from 1949 onwards) under the government of the Chinese Communist Party (CCP)<sup>41</sup>. The contemporary period was directed by three main masterplans: i.e. the 1959 Shanghai Master Plan, the Shanghai Comprehensive Master Plan 1986 and the present 1999-2020 Shanghai Master Plan. The city development follows a poly-centric system that incorporates new towns and creates a new metropolitan area with inter-connected urban centres, and on the micro-level – through district and detailed plans<sup>42</sup>. The case study - Duolun Rd - is part of Hongkou district plan and Sichuanbei Rd Shequ detail plan. Hongkou district covers an area of 23.48 Km<sup>2</sup>, and is the densest district in Shanghai - 36 299 person/sq.km - with

a registered population of 852.300.00 (from which 196.200.00 are floating population)<sup>43</sup>. Primary planning goals aim to reduce population density and the construction of “Three Zones, Two Valleys and Two New Housing Estates”, which include the North Bund Shipping and Financial Service Cluster Zone, and the commercial and cultural streets in North Sichuan Road. The district is branded as “cultural Hongkou” and the home of “Shanghai-style culture”<sup>44</sup>.

## THE INNER-CITY CENTRE IN SHANGHAI: THE CASE OF DUOLUN ROAD IN HONGKOU DISTRICT

Shanghai is one of the most dynamic cities in the world, which makes it a difficult case to understand, plan and manage. The city is the result of centuries of encounter and exchange, and of destruction and rebuilt, thus its history is rich and diverse - still visible in people and in places. Yet, the aim for becoming an international financial centre in response to global economic competition has led to large urban renewal projects in the inner-centre and urban expansion led by the peripheral industrial development and the creation of the new towns<sup>47</sup>. For the purpose of this paper, this is translated into the large destruction of old urban structures in the city centre and the resettlement of long-established communities (mostly low-income) into peripheral new towns. Moreover, Shanghai Municipal Government aims to attract the “new talents” so developing the city’s talent pool has been prioritised. Therefore, the pressure of urban renewal and the creation of a “new city image” is exemplified in the case of Duolun Rd.

On the other hand, rising migrant influx and the mitigation of inequality and low-income households’ necessity to decent housing<sup>48</sup> has led to severe housing shortage and the need for more public housing construction usually located in the periphery and new towns<sup>49</sup> (e.g. Songjiang district receives ca. 25% of the resettled population). Based on the wider study evidence, relocation has not been effective in Shanghai, neither in terms of community construction (satisfying governance aims) nor in fulfilling planning goals of population redistribution and inner-city demographic decompression<sup>50</sup>. Large scale demolition of old communities in the inner-city centre and resettlement in the peripheries is leading to population substitution, not redistribution; and the lack of job opportunities for working-age population forces them to return to the inner-city centre<sup>51</sup> further aggravating the population density problem. Thus, in solving a problem – the city is creating another. Shanghai’s ambition for becoming a global metropolis is creating many challenges for low-income communities and traditional lifestyles.

## DUOLUN ROAD: “A STREET OF FAMOUS CULTURAL PERSONS”

Duolun Road is an old (and historical) community dated from the 1900s located in the middle of Shanghai’s Hongkou District and within the Shanyinlu Historic and Cultural Conservation Area, Sichuanbeilu *Jiedao* (sub-district) (Fig. 3). It is a case of public rent housing, and a clear example of Shanghai’s inner-city density and severe spatial decay due to lack of maintenance. It covers about 23.4 hectares and holds a number of important historic and cultural heritage places within the community, particularly dating from the early 1900s, which have significant meaning to Shanghai. The significance of Duolun Road is based in the history of China’s modern literature as authors such as Lu Xun and the “The Alliance of Left-wing Authors” such as Ding Lin and Rou Shi lived in the area. So, in 1998 the People’s Government of Hongkou District decided to reconstruct Duolun Road into “a street of famous cultural persons” and the area was object of an urban renewal project that has been partially completed. According to the plan and the rule “rebuild it as original”, the cultural and historical characteristics of old Shanghai were to be represented in this street by becoming “an open museum of Shanghai-fashion Buildings”. Duolun Road is seen as an epitome of the city’s spatial history thus a valuable case study, which is reflected in a Shanghainese saying: “Shanghai, a city of hundred years, can be seen in Duolun, a little street”. That being said, residents were unanimous in rejecting this new image stating that: it is “fake”, “for tourists”, “just face work”, “beautiful, but meaningless” and has “nothing to do with them”; while they have no identification with the new image, they are nonetheless proud of the history of the place.



FIGURE 3 Aerial view of Duolun Rd in Hongkou district: Liulin, Yong'an and Duolun xiaoqu(s) (2006).

## LIULIN, YONG'AN AND DUOLUN XIAOQU(S)

Meanwhile, and coexisting alongside with “Duolun famous cultural street” the community is in fact defined by three distinct sub-communities, which have very different spatial patterns and are administered by different *Juweihuis* (i.e. residents’ committees): Duolun, Yong’an and Liulin *xiaoqu*s (i.e. small communities), and together with Duolun Road they constitute the ‘Duolun Rd community’. Each *xiaoqu* is further defined by different sub-groups organised by specific spatial sub-units, which some of them are traditional Shanghai *lilong*: e.g. *shikumen* and new-style *lilong* (Fig. 4.0, 6.0). Liulin *xiaoqu* has two of these sub-units dating from the 1910s; Yong’an *xiaoqu* contains a large group of *shikumen* and a “new-style *lilong*” that was built ca. 1925 (registered as heritage in 2005), and Duolun *xiaoqu* has a small nucleon of both. Overall, Duolun Rd is organic in essence, and the remaining fabric is rather informal as houses were built by residents themselves without a planned structure around 1920s and the 1930-40s (amid Sino Japanese war). The overall community is a public rent housing (owned and managed by the state) primarily composed by poor and low-income residents and households pay in average ¥50 per month for a room with shared kitchen and toilet. Housing conditions are extremely deteriorated, overcrowded and often reaching dangerous levels of lack of hygiene and unsafe infrastructure like gas and electricity (Fig. 5.0). There are two main axes that correspond to vibrant commercial streets: i.e. informal vegetable market and the new commercial “street of famous cultural persons”, which are the main connectors within the *xiaoqu*s and the wider city structure. The vegetable market is actively used by the residents on a daily basis and Duolun Rd is essentially used by tourists. The *xiaoqu*s are internally defined by narrow alleys that are lively with people and little shops. The open spaces in the sub-units function as semi-private areas: e.g. in Liulin’s *lilong* these spaces are very well used for daily life needs and leisure like eating, cooking, washing and drying clothes, gardening, resting and reading, and some of the green areas are used to plant vegetables for personal consume. In short, Liulin, Yong’an and Duolun *xiaoqu*s have their own socio-spatial dynamics, from which the *lilong* are particularly successful typologies for fostering social exchange. However, they operate in a rather isolated manner as social interaction occurs in the central vegetable market street where activities take place among all the residents.



FIGURE 4 Map on the left: Duolun Road in 1930s; map on the right: Liulin, Yong'an and Duolun xiaoqus administrative boundaries (in red), the non-heritage lilong in dark grey and heritage buildings in light grey.

Liulin, Yong'an and Duolun xiaoqus are spatially diverse, but socially they are relatively homogeneous as most of the local residents are low income working-class, retired and senior<sup>52</sup>. It was difficult to interview local residents of working age as explained by the elderly: “my children do not live here anymore; they are in better places with better housing conditions. The ones that can have moved out, only the old stay and the migrants”<sup>53</sup>. Migrants account for a large portion of the community - ca. 40%, which sub-let from local residents at inflated prices: e.g. a room that costs ¥50 is rented to a migrant for ¥1000<sup>54</sup> or more. This is confirmed by the Juweihui thus showing a subversion of the public housing system and its social purpose, mutually consented. For example, Liulin's social structure is composed ca. 57% of retired, low-income elderly local residents and ca. 43% employed, low/middle-income young migrants, which coexist but don't really mix; and Yong'an and Duolun are similar. According to residents and a Juweihui member: “this area was supposed to be relocated many years ago (ca. 2003) and the relocation plan and development right was bought by a private company. However, this plan has been suspended for several years because the company has financial problems. Therefore, residents did nothing but to wait for the resettlement during these years. During this time, many residents came to the Juweihui to complain for the poor housing conditions. We went to Jiedao office and then the problem was given up to district government. However, the requirement of improving residents' living condition was rejected owing to the reason that this area is supposed to be resettled. Finally, several residents decided to go directly to the Shanghai municipal government, which is called “Shang fang”<sup>55</sup> in China”. So officers from the municipal government came here and made the decision to approve the repairs”<sup>56</sup> on the shared spaces (kitchen and toilet), which were finalised in 2012.



FIGURE 5 Collage of Duolun Road spatial decay and crowdedness (e.g. a kitchen and migrants' shared room).

For the Juweihui, the recurrent problem is the lack of financial means – for managing the communities and for major repair or relocation<sup>57</sup>. The neighbourhood is very old and repairs should have been done every 10 years, which did not happen because there were no funds - and “nothing will change unless the financial problems remain unsolved. There’s even no message from developers and the residents here are all quite worried about that”<sup>58</sup>. The community situation is ambiguous as they are not entitled to major repairs nor resettlement, being able to sustain a minimum living standard with the small repairs. Moreover, officials have noted that managing the community is becoming harder since “residents’ component structure is becoming too complex”<sup>59</sup>. And this causes a managing problem since “controlling is getting difficult” and Juweihui is burdened with tasks which “are not supposed to be our responsibility”<sup>60</sup>. Regarding communication with planners (or plan-makers) Sichuanbeilu Jiedao (sub-district office) has confirmed that “we have nearly no connection with the planning bureau at the Qu (district) since we deal with the daily lives of the residents and not planning. Our work is about the social welfare”<sup>61</sup>.

Planners do confirm this situation, which some (on their own initiative) try to overcome: “generally, the bureau does not have the chance to hear the voices from the citizens, but I know the problems”<sup>62</sup>. Observe that, public participation was reinforced in the 2008 planning act but in practice citizens’ involvement is still small and communities are not diagnosed prior to the plan-making process or after implementation. Planning primary source are census and large population numbers<sup>63</sup>, which are collected every ten years, thus highly deceptive due to the fast change of urban population. This is particularly problematic for Hongkou’s goals of reducing population density. Planners have stressed that the main problem of the district is indeed the rising demography – “the district has nearly 200.000.00 over population in relation to the predictions of the plan”<sup>64</sup> leading to the aggravation of housing and public goods shortages, and lack of jobs. Planning is struggling to solve these problems and according to planners – “we lack resources”<sup>65</sup> and numbers are hard to predict. Therefore, this problem of diagnosis could be reduced by the collaboration and formal sharing of data between community managers and planning bureaux.

By and large, local residents are happy to live in Duolun and the sense of belonging is strong and placed<sup>66</sup>: “I like this place and don’t want to move. I love this kind of old architecture. I have a sense of belonging here”<sup>67</sup>. In the sub-communities, residents’ main relations are within the immediate neighbours: “I belong here, yes! I know all my neighbours – they help me”<sup>68</sup>; “I like it here because I am friends with my neighbours - my friends are all here”. Yet, these happen to be localised not only due to the long-term living but as many residents originated from the same work unit (*danwei*) and went to the same schools. In some cases, belonging was very strong due to previous ownership – “my grandparents bought this house with 10 golden bars!”<sup>69</sup>, or “my parents moved here in 1946 and they bought this house with golden bars”<sup>70</sup> – so houses were often lived by three or more generations. In contrast, migrants have no sense of belonging to Duolun, which is linked to their original home. They expressed satisfaction with the neighbourhood since it is very “convenient” but think locals do not really integrate them: “they smile and

are nice, but we do not really communicate”<sup>71</sup>. Also, local residents feel increasingly disconnected due to the rising influx of migrants: “I have lived here for about 40 years, but recently I find that I hardly know anybody except my family members. I know nothing about my neighbourhood now! Residents move in and move out in a very high frequency and neighbours always change”.

Duolun’s fast social change is disruptive for the community, but even more problematic are the spatial conditions as these are severely deteriorated and overcrowded. Kitchen and toilets are communal and administered by the residents so often is “a mess” or “extremely dirty”<sup>72</sup> (Fig. 5.0). Migrants are continuously blamed for disturbance and conflicts occur: “there are too many migrants! We endure a fast change of neighbours, and then we have a terrible environment – so dirty!”<sup>73</sup>. The extreme shortage and housing decline led residents wishing to be relocated: “I belong to this xiaogu, yes. I do. Our identity is old and traditional and I feel safe here. This place is more important to me than my place of birth as I have lived here for many years. But I want to move, I want to live in a better house – here we don’t have private toilet, and that is not good. I think some of my neighbours will come with me as we prefer the quality of the house so we will have to adapt”. Other types of narratives are found in local residents as the relocation into the periphery will bring other concerns: “I dislike the conditions here so I want to move. But I still want to live in the centre! So if the government wants me to move I will not sign the contract”<sup>74</sup>. For most (particularly the old), the fundamental problem of resettling will be access to public facilities like hospitals and vegetable markets, and green spaces to exercise; additionally, many pointed out that socialisation with previous neighbours will be hard unless they choose the same residential resettlement. Yet, the ultimate concern will be to have their children and grand-children nearby. Local residents are very aware that working age family members will have to commute long distance to their jobs: e.g. Songjiang is ca. 1,5 hrs. away by underground. Thus, many choose to move back to the city and rent affordable rooms somewhere. In short, Duolun Rd case shows that not only the community is being fragmented, but the very basis of society – the family unit.

## CONCLUSIONS

Duolun case provides a narrative of failure of both planning and governance structures<sup>75</sup>, and a narrative of success on how to build community in China. For a long time Duolun Rd delivered the necessary spatial quality and stability – i.e. “moments of pause”<sup>76</sup> – that was able to design a rooted community with a strong sense of belonging: i.e. ‘centred’. It was able to accommodate several generations through nearly a century, and particularly the *lilong* continue to provide the everyday life spaces for communal interactions thus strengthening relations. Thus, urban space has a critical role in community building and in providing for identification amid people and their places<sup>77</sup>.

Contemporary Shanghai observes a fast social change and flow of people as much as a spatial erasure and expansion: thus, both people and space are in a state of unrest. If China aims to build community, then it must change the path and pace of urbanisation. Urban planning can have a role in this intent by calling action on the importance of socio-spatial permanence – for the old communities and the new (to be). Moreover, securing long-term endurance will require a robust diagnosis – timely and contextual – of the communities and the understanding of both social and spatial structures. Planning is based on outdated demographic data thus lacking accurate diagnosis, and governance structures cannot respond effectively to residents’ maintenance needs and overall management. Both failures, called for civic action that petitioned directly to the municipal govern (the *shang fang*). Diagnosis, communication and contextualisation (social and spatial) are primary grounds for planning and governing cities and subsequently the society and economy. Thus, the support of formal collaboration and communication channels between governance and planning structures is fundamental as these are inter-dependent. In conclusion, the paper argues for the importance of socio-spatial permanence, which requires the action of planning collaboration with community managers that is fragmented, and lacking diagnosis and communication.

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## Disclosure Statement

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- Figure 6 - Collage of Duolun Road showing the coexistence of two images and realities: i.e. the "street of famous cultural persons" where 'to be wed' people take photos daily (up) and the everyday life in one of the lilong in Liulin xiaogu (down).

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### V.07 P.162 Paula Morais

CENTRING SPACE: THE POSSIBILITY OF PLANNING IN URBAN COMMUNITY (SHEQU) CONSTRUCTION IN SHANGHAI THROUGHOUT THE PERIODS OF WAR, RECONSTRUCTION AND SOCIALISM

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## Image Sources

Figure 1: Source: photo taken by the author

Figure 2: Source: He 2015, 104; Shanghai Urban Planning and Design Institute, *The Shanghai Urban Planning Evolution* (2007). 14.

Figure 3: Source: College of Architecture and Urban Planning (CAUP) at Tongji University 2006

Figure 4: Source: College of Architecture and Urban Planning (CAUP) at Tongji University 2006

Figure 5: Source: photos taken by the author

Figure 6: Source: photos taken by the author



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# INSTITUTIONALISING DESIGN EXCELLENCE IN CENTRAL SYDNEY 1988-2000

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High-quality architectural and urban design are now widely regarded as key contributors to the competitive advantage of global cities. Sydney, Australia is no exception. Since 2000 'design excellence' has become a central mantra applied to improve design quality. Focusing on the jurisdiction of Sydney City Council, this paper identifies an assemblage of three threads from which design excellence (and in particular mandatory competitive design processes) emerged as a planning objective in the late 20<sup>th</sup> century. Deep into the post-war period, local government planning processes were still enmeshed in a statutory land use planning system based on a traditional town and country planning paradigm. From the late 1980s these processes were challenged by newer understandings of the 'design dividend' rewarding competitive global cities within an emerging neo-liberal rubric. From 2000 Sydney CBD's touchstone of design excellence has required all major developments on privately-owned sites to undergo a competitive design process. This mandatory step in development approval procedures is unique for an Australian local authority if not globally. By unpacking the evolution of this modern competitive design-injected planning process, we gain better historic insights into localised governance responses and their consequences in the context of the neo-liberal global city.

## Keywords

design excellence, design competitions, City of Sydney

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## INTRODUCTION

High-quality design is now widely regarded as a key contributor to the competitive advantage of global cities. During the last quarter of the 20<sup>th</sup> century, different cities responded in various ways to the challenges and opportunities presented by globalisation, but with familiar themes in many jurisdictions centred on urban renewal, sustainability, infrastructure provision, enhancing the public realm, cutting red tape in planning processes, and urban design. ‘Design excellence’ in the urban context became established as one guiding philosophy in Europe and North America through the 1980s.<sup>1</sup> By the late 1980s and early 1990s, design excellence provisions were finding their way into various city policy documents.<sup>2</sup>

The experience of the City of Sydney, Australia records some parallels to this global narrative. While its awakening to the importance of quality design and linking it to the planning system was slow and incremental, by the turn of this century an ideology of ‘design excellence’ had taken hold and has helped steer the formal development approval system to the present day. The crucial innovation introduced through formal amendments to the City’s statutory Local Environmental Plan and guiding Development Control Plan in 2000 was mandating competitive design processes with the aim of securing high-quality design outcomes. While a broader receptiveness to quality design of the public realm had been established by this time, the novelty in the design excellence provisions was their application to both public and private projects.

Punter<sup>3</sup> has intensively documented an evolution in central Sydney from ‘laissez faire’ through ‘discretionary’ to ‘regulatory’ implementation of local planning controls. He identified five periods from the mid-1940s to explain the development of planning and design protocols leading up to the post-2000 pursuit of design excellence.<sup>4</sup> Our paper canvasses similar ground but concentrates on the institutionalisation of competitive design processes. In so doing we range more widely in acknowledging driving and contextual forces as well as focus more explicitly on the genesis of the Council’s competitive policy, seeking to reconstruct the cultures of design and governance in the lead-up to the institutionalization of new reforms. We deconstruct a complex environment to identify three main converging threads from which design excellence emerged as a planning objective: namely, a more enlightened climate encouraging quality design, powerful exemplars of traditional architectural and precinct-based competitions in leveraging good design outcomes, and the incremental overhauling of the City’s planning arrangements and philosophy by a more progressive civic leadership. The paper draws on secondary sources (including policy documents, Council minutes, professional body publications, and media articles), as well as interviews with key protagonists who have directly observed and/or helped shape the design discourse in central Sydney during the past 30 years.

Our starting point of 1988 is somewhat arbitrary but is intended to capture the wider awareness of city design that coincided with celebrations of the bicentennial of European settlement in that year; thereafter a more formal and coordinated engagement with design issues and quality emerged. The later years of the 20<sup>th</sup> century represent a transformative period for the City of Sydney in quantitative and qualitative terms. In a reversal of a decades-long declining trend, the population of central Sydney grew significantly from only about 7,000 in 1991 to nearly 26,000 in 2000 (an average annual growth of 15%).<sup>5</sup> From 1991 to 2001, there was a 28% growth in total floor space, 27% growth in employment and 12% growth in number of business establishments.<sup>6</sup> The latter half of this period was also a time of renewed investment; in 1995 only 5% of the City Council’s budget was dedicated to capital works; this figure had grown to 62%<sup>7</sup> for a total spend of \$115m in 1998-99.<sup>8</sup> The deregulation of the Australian dollar in 1983 was an important macro-economic catalyst which lay behind this surge in economic activity and its triggering of a more internationalised urban economy. From the 1980s central Sydney thus began to be decisively transformed from a traditional 9-5 CBD into a dynamic mixed-use precinct with a rising global profile. It was fast becoming ‘the destination rather than the departure point’ with ‘an emerging pride ... prompting a wider examination of the look and feel of the city’.<sup>9</sup>

## A MORE ENLIGHTENED CLIMATE VALUING DESIGN

The first element we identify as contributing to the emergence of design excellence as a key principle of Central Sydney planning was a more enlightened cultural climate which increasingly encouraged quality urban design through investment, advocacy, discussion and critique. This cultural shift involved all levels of government, as well as professional and academic groups.

At the national level, there were both financial and research investments made in improving the state of Australian cities. In terms of the former, the Federal Government committed \$816m in funding through the Building Better Cities program for urban development projects to be distributed amongst the states during 1991-1996.<sup>10</sup> While better design was not a primary program objective, it emerged as an important dimension of many funded projects through their focus on exploring greater choices of housing style and rehabilitating degraded brownfield sites, and through the partnerships forged between planners and architects, the public and the private sector. The 1993-94 Urban Design Taskforce launched by then-Prime Minister Paul Keating was a crucial early example of the evolving climate around urban design and design excellence. The Taskforce examined 'ways in which the day-to-day working, residential and recreational environment of Australians might be enhanced by more thoughtful attention to urban design'.<sup>11</sup> The Taskforce comprised prominent architects, planners, councillors, public servants, and academics from across Australia. Its final report concluded that with 'a high level of concern about the quality of Australia's urban areas', fundamental changes were necessary to advance urban design.<sup>12</sup> Wide-ranging recommendations included a national review of urban design, design-oriented strategic plans for city centres, improvements in design-based education and training, and a national prize for urban design. The report tacitly employed the concept of design excellence, though it was not defined at this time; rather, the Taskforce identified a role for the Federal Government to 'lead in identifying by example, demonstration and analysis what constitutes excellence in urban design'.<sup>13</sup> Also of note was its endorsement of design competitions based mainly on European experience in delivering a raft of positive outcomes including economic benefits, new and innovative thinking, post-professional education, creating opportunities for early career designers and greater public awareness.

The State Government of New South Wales was also increasingly implicated in urban design matters from the 1960s through the controversial attempt to redevelop the historic Rocks precinct in the city and onto the celebration of the bicentenary of European settlement in 1988. This latter celebration's showpiece was the transformation of Darling Harbour from maritime industrial and railway precinct into an archetypal waterfront revitalisation quarter. Featuring a James Rouse-styled festival marketplace, museums, and convention and exhibition centres, it received several architectural and design awards, but continues to evolve and be redeveloped in tune with changing times and tastes. There were also complementary public realm investments in 1988 in Macquarie Street, a major parliamentary and state government precinct, and Circular Quay, the historic maritime gateway to the city and site of the first European colonisation of Australia.<sup>14</sup>

Extending this supportive cultural milieu into the 1990s was the successful bid and preparation for the 2000 Sydney Olympic Games, effectively a joint venture between the federal and state governments, and the private sector. Here was a classic 'hallmark' event secured with the express purpose of positively projecting both Australia and Sydney to a global audience (and especially prospective investors and tourists) of millions.<sup>15</sup> The successful environmental remediation of a large site on the Parramatta River in the middle-ring suburb of Homebush commencing less than a decade after the Brundtland Commission's landmark report helped sell the benefits of sustainable development. The development of a cluster of new venues at what became Sydney Olympic Park also generated a remarkable slate of opportunities for leading and up-and-coming architects that conveyed natural synergies between globalism, quality architecture, and sustainable design.<sup>16</sup>

Around the country, built environment professionals and community groups engaged increasingly in causes and controversies surrounding good urban design, architecture and conservation practice from the 1960s. In Sydney the Civic Design Society played a vital role in brokering public discussion about issues of urban regeneration, heritage conservation, reclaiming streets from motor vehicles, and bicycle transport into the early 1980s.<sup>17</sup> By then there were many more environmental and heritage bodies competing for the ear of government and the wider community. In design circles, establishment of the Architecture and Design Panel of the Australia Council in 1980 signified a national interest in pursuit of design excellence across architectural, interior, industrial and civic design. Another body, the Urban Design Forum, has proven an effective advocacy and information network since formation in Melbourne in 1986.<sup>18</sup> The traditional professional institutes became more interested in city design and urbanism. The pages of the journal of the NSW Chapter of the Royal Australian Institute of Architects (RAIA, later AIA), *Architecture Bulletin*, capture an emergent interest in urban design from the late 1980s. The Institute's growing role as a commentator on public planning and policy culminated in the 1998 decision to develop an urban design policy.<sup>19</sup> Sydney University also initiated one of the first tertiary degrees in urban design in the late 1980s.

Hence, during the 1980s and 1990s urban design in particular became an important consideration at every level of government and also for non-government institutions. For some observers, design had become a 'fetish' that was compromising the traditional redistributive goals of planning.<sup>20</sup> But more than aesthetics was at stake, and driven by international, national and local initiatives and events, design discourse and debate lifted appreciably through the 1990s and became embedded in advancing sustainable development. Despite much of this unfolding outside the immediate jurisdiction of the Sydney City Council, there would be important policy implications for Central Sydney.

## GROWING PRACTICE OF DESIGN COMPETITIONS

Competitions 'in all their various forms, are a very useful way to investigate alternative approaches and new possibilities in architecture and design.'<sup>21</sup> Here was a second major historical thread to point the way forward. In Sydney, the tradition of competitions for major public buildings stretches back to the early nineteenth century.<sup>22</sup> In the fifty years following the First World War, there were some two dozen noteworthy competitions for public and private projects. The most famous of these was for the Sydney Opera House (1956-57). Thereafter to 1980, although a time of considerable private commercial investment in Central Sydney, little of this was delivered via competitive processes. In the early to mid-1980s, design competitions picked up again, often in the form of 'ideas competitions' and frequently driven by the RAIA. The RAIA's ideas competitions involved key locations such as Circular Quay and its Overseas Passenger Terminal (both organised in 1983), the Capitol Theatre (1985), Taylor Square (1987) and Railway Square (1988). Given that design competitions were historically the cultural and professional domain of architects, it should not be surprising that the peak professional body was a driving force.

The 1990s saw a relative explosion of competitions. The RAIA continued its involvement, sponsoring competitions for Woolloomooloo and its Finger Wharf (1991) and Circular Quay (1995). Inner-city councils became involved. There were several council-run competitions for swimming pools – two at North Sydney Pool in 1995 and 1997. South Sydney Council ran a 'visions' competition for the Green Square urban renewal zone in 1995-97. Although competitions were usually organised by the RAIA and local government bodies, other entities were also involved from time to time. For example, the Olympic organising committee ran competitions in 1991 for the velodrome and athlete's village to include in the bid documentation and the Museum of Contemporary Art also ran two competitions for an expansion of its facilities.

While rarer, there were also private sector design competitions from the late 1980s that anticipate the Council mandated processes after 2000. An early example was the competition for the First Government House site in 1989, which ultimately yielded the Governor Phillip Tower and the Museum of Sydney. Nearly a decade later

(1997-98), a competition by private developer Meriton oversaw one of the first major developments at the ACI site in Green Square. Meriton again showed its interest in 2000 with the competitions to finally fill in Sydney's "most famous hole in the ground" at its World Square site.<sup>23</sup> The City Council reportedly insisted on a design competition in this case given the sensitivity and scale of the site.<sup>24</sup>

Two observations can be made of trends in the 1980s-90s. First, as the movement towards using ideas or design competitions for key public and private projects gained in popularity, and particularly in central Sydney, more architects were given the chance to compete. Sydney's architectural fraternity gained more experience with the process both inside and outside the RAlA. Second, some recurrent issues began to emerge. There were cancelled competitions and scrapped winning designs along with missed opportunities that could have been delivered through competitive processes. There was dissatisfaction amongst architects with these failures, as well as perceptions of low-quality entries to some competitions and perceived breaches of rules and ethics by competition organisers. The upshot was not to scrap competitions, but rather to insist on better organisation and terms of reference.

Despite the leap forward driven in part by *ad hoc* competitive projects, this period was not exempt from mediocre and look-alike architecture. On the one hand, there were rumblings largely kept from public gaze that the design of major central city office buildings was still largely the domain of a relatively select group of big architectural firms ensconced in comfortable working relationships with developers with a consequent brake on genuine innovation. On the other hand, there emerged a more public critique of the standard of design with residential development (especially multi-unit dwellings) an area of particular concern. Regis Towers, for instance, was recognised as a defective and potentially illegal example of overbuilt and poor-quality CBD housing.<sup>25</sup> Sparked in part by investigative journalism into the matter and a parliamentary inquiry, a state-wide policy setting standards for multi-unit dwellings was established in 2002. This policy (SEPP65) was just one of an array of plans and policies that emerged from this *fin-de-siecle* period to advance quality design.

## EVOLVING PLANNING AND DESIGN REGULATION BY THE SYDNEY CITY COUNCIL

From the 1970s statutory and strategic planning initiatives sought to give the Sydney City Council greater control and discretion over urban development in the CBD, but these dual legal and visionary strands were not effectively aligned until the mid-1990s. By that time the notion of design excellence was established and set to be operationalised, although the primary drivers remained local issues such as enhancing design innovation, diversifying architectural commissions, promoting mixed land uses, and creating a 24/7 city life, rather than advancing the cause of global competitiveness *per se*.

In the 1970s, local government planning processes in Sydney's CBD were still enmeshed in a post-war statutory land use planning system predicated on a traditional town and country planning-based zoning scheme ill-equipped to respond to the nuances and opportunities of innovative design. In 1971 the State Government perversely gazetted (made legal) a longstanding draft planning scheme just ahead of the Council's long awaited new strategic plan, meaning that for some years thereafter there was a lack of alignment between policy and implementation. The State Government's new *Environmental Planning and Assessment Act 1979* emerged as the outcome of an animated debate and consultation centred on widening the definition of 'environment' and introducing a stronger social focus through more transparent and workable opportunities for public participation. As alluded to above, this created the platform for consolidated statutory and allied development control plans, but these did not emerge in the City until 1993.

That delay can be partly attributed to tensions between the State Government and the City Council. In 1987, these led to the State dismissing the elected Council and installing Commissioners for two years. In the interim the State passed the City of Sydney Act 1988 which created a new Central Sydney Planning Committee (CSPC) composed of representatives nominated by Local and State Government, though the State held a majority. Members were required to have relevant experience in areas such as architecture, urban design, building, and heritage. Key plan-making powers for major development were given to the CSPC.

Genuine strategic planning had languished through the 1950s and 1960s until the City's first strategic plan in 1971 introduced a then-revolutionary approach in its attention to urban design, heritage, environmental considerations, people's experience of the city, and economic development.<sup>26</sup> This plan moved through several iterations until replaced by the CSPC's *Central Sydney Strategy* 1988. This *Strategy* was an important advance in the bicentennial year. It introduced a precinct-based planning vision, and 22 core urban design principles that provided guidance for a decade.<sup>27</sup> It got rid of pedestrian improvement bonuses first introduced as part of the 1971 plan, due to the latter's 'failure to achieve acceptable building forms and public amenities'.<sup>28</sup> Unfortunately, the statutory planning underpinning the *Strategy* had not kept pace so a commercial building boom in the late 1980s lacked strong guidance with regards to urban design. In 1991 a revised strategic plan - *Sydney 2030* - and its associated statutory plans were exhibited. This attempt was panned for its overemphasis on the past, a bird's-eye approach, and neglect of public domain and lived experience of the city.<sup>29</sup> A special review panel described the plans as 'bewildering ... inconsistent ... wordy and repetitive'<sup>30</sup> and it was only heavily-amended plans finally given state government approval in 1993.

From this point, design quality began to be articulated as a coherent principal objective for the City as a new governance regime became established. A new City Council under Independent Lord Mayor Frank Sartor was elected in late 1991. Its *Living City* strategy (released in 1994 and accompanied by a transport strategy *Accessible City* in 1995) channelled many of the broader influences discussed earlier to advance a decisive shift towards a diversified vision of the city centre. Cited by the Urban Design Taskforce as an excellent example of contemporary planning for good urban design<sup>31</sup>, *Living City* envisioned a 24-hour city, promoted residential uses in the CBD and favoured the public realm through approaches like traffic calming, lighting, accessibility, and other streetscape improvements. The 'Sydney Spaces' program funded in part by Olympic money<sup>32</sup> coordinated investment in a diverse set of public realm projects involving numerous private urban designers, architects and landscape architects.<sup>33</sup> Significantly, the City of Sydney also initiated its own design ideas competitions for several hotspots including Circular Quay (1991), Ultimo/Pymont (1994) and the Town Hall precinct (2000).

The statutory planning documents associated with *Living City* were exhibited in 1995, received more warmly than previous attempts, and gazetted in 1996. With strategic and statutory plans now affirmed and aligned, refinements and supporting policies began to take shape. One introducing amenity standards for residential and serviced apartment developments, a second formulating a floor space transfer scheme to preserve heritage-listed buildings, and a third to provide site-specific controls for a major, city block-sized commercial redevelopment all exemplify the more sophisticated and urban design-driven approach to Sydney's centre. *Local Environmental Plan Amendment #8 - Urban Form and Design* in 1998 introduced design excellence as a fundamental principle. In 2000, when a consolidated amendment to all development controls was gazetted, the principle was finally enshrined in statute, along with requirements for competitive processes for major private developments in the city centre.

Exactly how the Design Excellence provisions were specifically drafted in 2000 is unclear. The culture of reform and commitment to urbanism established by Sartor and his independent professional colleagues was clearly conducive to innovative thinking. Punter directly credits Sartor, contending he wrote the competitive requirements mainly to address localised issues in the CBD like monopolistic design, insufficient expertise within

Council, and a lack of success on design grounds in court cases.<sup>34</sup> Sartor's exposure to design approaches in world cities in his role as a civic figurehead of Sydney's Olympic movement, the positive outcomes of *ad hoc* competitions in the 1990s and the more enlightened appreciation of the 'design dividend' by this time would also have given him confidence that the provisions would be accepted by the private sector.

## CONCLUSION

Sydney City's current Local Environmental Plan (2012) maintains the commitment 'to deliver the highest standard of architectural, urban and landscape design'. The definition of 'Design Excellence' for large-scale developments encompasses a long list of considerations including land use mix, treatment of heritage and streetscape constraints, environmental impacts, and contribution to the public domain. 'Design Excellence' can be attained in different ways but the default protocol is a formal expert adjudication of alternative proposals prior to a detailed development application being submitted. Projects deemed to have attained excellence can be awarded significant floorspace or height bonuses.<sup>35</sup>

Our understanding of the origins of this policy in 2000 highlights three major narratives which interacted and reinforced each other: a wider predisposition to the significance of design quality debates, the pre-history of design competitions presenting a suitable methodology, and the evolution towards sound governance and progressive thinking within the City Council. The introduction of 'Design Excellence' as a statutory concept was well-timed for Sydney to go about the business of becoming a global city during the 2000s. The fact that the requirements were made of both public and private development is particularly noteworthy, as Sydney is possibly the only city in the world that systematically requires competitive design processes of private projects.

'Design Excellence' might be seen as an additional regulatory requirement that belied the neo-liberal turn to fast-track, developer-friendly planning since the 1980s. But in other ways this was an initiative in tune with the times.<sup>36</sup> It embraced the ideology of competition as a means to securing the best outcomes. The linking of architectural and urban design to better investment returns through prospective development bonuses statutorily embedded in planning processes is definitely market-empathetic. And it has sought to make Sydney more competitive generally through higher standards of sustainable, innovative and contextual design. While concerns have been expressed as to the cost, time and transparency of the competitive design policy in practice, the stronger consensus is of a successful, innovative policy that has been critical in changing the cultures of both planning and major commercial development in Sydney.<sup>37</sup>

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No potential conflict of interest was reported by the authors.

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# The Question of Resilience as Urban Strategy

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Chair: Ana Peric



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# A STUDY ON THE “SUPER-FLAT URBANISM” IN JAPAN

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Introduced by “super-flat” concept from Japanese artist Takashi Murakami, this article researches on “super-flat urbanism” in Japan. First of all, this article tries to clarify and summarize the two main characteristics of “super-flat urbanism”: 1. fragmentation of the observed urban scene composed by a large number of electronic display screens and a common pursuit of virtual equality in the information world behind those tablet screens. 2. By undermining the hierarchy between “internal” and “external”, fragmenting itself and eliminating frontality, buildings, the most important element of composing a city, erases its sense of being.

Then, this paper analyzes the appearance of “super-flat urbanism” in the historical context and its impetus and representation in modern society, emphasizing several interpretations: 1. the permanent mental trauma caused by turbulent political and social environment in its history: Japan’s failure in the Second World War; occupation and reconciliation by America, the emergence of endless student movements and the resources crisis in 1960s; 2. the long-term material loss brought by frequent natural disasters and geographical conditions. This two facts result in a collapse of “strong” and “eternal” in Japanese faith. The appearance of a large number of “light white”, “floating” and “temporary” buildings which “weaken itself” is the feedback from the urban planners and architects towards their surrounding “fragile” world, and is their response and answers towards the relationship between man and man, man and society, man and nature; 3. the inheritance from traditional orient aesthetics which is different from the west, has gradually formed a kind of contemporary “Japanese style” aesthetics that inclines to flat, responsibility-dispersive and implicit in expression; 4. the introspection, revolt and escape against their strict class society, coupled with the popularity of information and technology, has also led to the pursuit of a kind of ambiguous virtual equality in Japanese contemporary society.

In a word, this article interprets that origins from historical context and geographic conditions, along with the gradually-developed aesthetics and the impetus of modern information society and consumer society, urban scenes in Japan expresses fragments with virtual equality hidden behind, and a deliberately-weakened position of a single building, to consciously or unconsciously reflect their historical trauma and attitudes towards contemporary society, and finally forming the unique “super-flat urbanism”.

## Keywords

super-flat urbanism, fragmentation, historical context, modern impetus



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# THE NON-COMPLETE AS A RESILIENT URBAN VISIONARY METHODOLOGY

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Cities are entangled with many inherent conflicts, paradoxes, and ways of becoming. Cities form and reform, grow and decay, generate enormous success with equally substantial failures. Those failures, whether natural or man-made, compel cities for constant maintenance and renewal, yesterday's solutions become today's problems. This dual counter process taking place in cities requires a mood of thinking that reflect and engage it on equal terms. A mood that does not necessarily views decay as a problem or growth as success, but one that treats this constant process as natural. The paper presents the concept of the Non-Complete, and explores it as a thinking tool able to engage the dual process of growth and decay of the urban context. It evaluates it through two distinct examples, and concludes in an attempt to summarize its qualities and future possibilities.

The concept of Non-Complete offers a polar attitude toward the Complete. The Complete, is understood, as the authority, which is agreed, finite and stable; and the Non-Complete as adopting a more resilient attitude: ambiguous, infinite, and contradictory. Reality, rather paradoxically, suggests partiality and discontinuity of space, experience and conciseness. The Non-Complete does not attempt to imitate nature or to create new stability, but rather, to produce a condition of permanent change, that opposes the search for completion, stability, and unity. The Non-Complete is partial, unformed, open-ended, inconclusive, and can be interpreted in opposing ways. The Non-Complete does not focus on success, solution or achievement; it is a resilient attitude that views reality in a skeptic and poetic way. This proposition is evident in the claim by German philosopher Theodor Adorno that the true authenticity of an object or creation is measured by its ability to resist completion or classical closure.

The paper elucidates the conceptual framework of the Non-Complete through interpretation of two examples. Exploring them as opposition to prevailing theoretical and methodological concepts. First example is the life-long urban project by Constant titled 'New-Babylon'. This project explores visually the concepts developed by the SI group during the 60's of the 20th century. Second example is the visionary drawings of Lebbeus Woods. The drawings are a venture into his concept of An-architecture which understands cities urban condition as a constant pendulum movement between catastrophe and regrowth. Both of these designers developed their ideas as reaction to reality and to contemporary planning and urban design prevailing ideas. They attempted to counter those ideas as an act of resistance. To criticize them by showing that although unfeasible yet they offer a potential capacity for resilience and ability to reconcile reality's conflicting conditions. Both works are theoretical and historical, and are interpreted as Non-Complete moods of thinking. The paper concludes in evaluating the works as resilient mood of thinking and their potential as contemporary urban visionary tool.

## **Keywords**

visionary architecture, non-complete architecture, resilient thinking, urban planning



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# THE EVOLUTION OF PLANNING THOUGHT IN SERBIA: CAN PLANNING BE 'RESILIENT' TO THE TRANSITIONAL CHALLENGES?

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In recent decades, new approaches, instruments and tools have been developed and implemented all around the globe. However, their implementation varies depending on a certain societal setting. Hence, the research aims at identifying the elements important for making the planning 'resilient' throughout transitional periods. To illustrate this, the case study of Serbia – a state that has undergone the turbulent transformations in terms of its political, socio-economic and, consequently, planning system and practices, is presented. After elucidating a general research framework, including both the planning system and planning culture factors, a brief historical overview of the planning evolution in Serbia is provided for: the communist period (until 1989), post-communist phase (until 2000), and contemporary period (until present). In order to achieve analytical coherence, all the evolution stages are observed through the lens of its context (prevailing ideology, state system), planning practice (and products of planning), and planning process, i.e. methodological approach). The contemporary planning modus in Serbia is illustrated with a distinct example of the Belgrade Waterfront project, thus elucidating the contradictory interests and manifold influences of market, political, community and professional demands. The paper ends with the crucial factors for improving 'planning resilience' within transitional systems.

#### **Keywords**

planning, post-communist regime, transition, evolutionary resilience, Serbia

#### **How to Cite**

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## INTRODUCTION

The concept of internationality and, more recently, transnationality is gaining popularity in many planning relevant issues. It is the consequence of globalisation efforts, i.e. a tendency towards a more efficient global network society<sup>1</sup>. This also affects the ‘transnational flow of planning ideas and practices’, as Healey puts it. More precisely, we come to the notion of planning thought evolution, i.e. the ways planning ideas and practices flow from one place to another and the challenges of their implementation in certain histories and geographies<sup>2</sup>. According to Healey, there is a higher chance that newly promoted ideas (by global authorities) will continuously evolve in a sustainable way if they are probed more deeply rather than just accepted as appropriate (by domestic/local actors). This is where the concept of resilience comes to the fore.

Resilience in planning is always linked to the questions of values, power, justice and fairness<sup>3</sup>, as Davoudi highlights it, or, in a word, to a certain context or system, be it a planning, social or political system. Hence, we can assume resilience is high within stable systems – focused on the notions of order and certainty, and is relatively low under suppressive circumstances. However, Davoudi argues that ‘evolutionary resilience’, i.e. seeking opportunities out of crises<sup>4</sup> is of particular interest for the planning field. More precisely, according to the Stockholm-based Resilience Alliance<sup>5</sup>, this type of resilience addresses the structure and functions of a system, following it through various phases: exploitation of growth, conservation, release or creative destruction, and reorganisation. In contrast to the previously mentioned interdependence between a stable society and high resilience, according to the concept of evolutionary resilience, mature systems are faced with reduced resilience, i.e. such systems are vulnerable to disturbances. Furthermore, having in mind that difficult circumstances (political and social) can produce innovative policies and processes, the resilience can be high in uncertain times with a considerable transformative potential<sup>6</sup>. As this paper illustrates a society affected by a number of transitional challenges, the focus of elaboration will be on the evolutionary resilience.

What does taking the concept of resilience into account mean for professional planning? What are desirable planners’ activities? Which way does the planning community benefit from engaging with the concept of resilience? Here we need to draw attention to the following: in recent years, there has been a growing tendency to consider the concept of planning culture – steering styles, norms, values, belief systems, visions and frames of the actors involved in the planning process<sup>7</sup>, and not only planning systems – the institutional, legal and regulative framework of planning policies. Nevertheless, such a ‘soft infrastructure’<sup>8</sup> highlighting the differences among stakeholders and their interests in a rapidly changing world certainly reflects socio-economic and political dimensions of spatial planning. In other words, planning activities are deeply influenced by systemic factors (governance and market) framed by political institutions<sup>9</sup>. Having this in mind, I refer to planning as a “co-evolving relation between place development and governance processes”, whereas the planners, “having several identities and loyalties, [are] tied up into social relations and cultures of all kinds, [...] performing ‘planning tasks’ in a formal government system”<sup>10</sup>. According to Friedmann, the planning tasks are directed towards achieving ‘the good city’, i.e. they include, among others, “social justice, civic empowerment, and community and human flourishing”<sup>11</sup>.

Here is important to link the concepts of resilience and professional planning. If planners are understood as executors of progressive and socially justified activities, how does professional planning contribute to improved resilience for local places? Put another way: if effective resilience describes planners using institutions to anticipate and cope intelligently with uncertainty, the key question is if and how the planning addresses the challenge of the public or common good. One way of measuring this can be through identifying the extent to which public interest was preserved in a certain planning process. Combining attention to public goods with resilience is seen as a tool for observing the change in planning thought.



FIGURE 1 The result of ad hoc decisions on spatial planning issues.



FIGURE 2 Mass housing in New Belgrade: An artefact of the communist approach to spatial planning.

The empirical case study serving as a ground for implementing the previously described tool is Serbia. After decades of system transformation, Serbia is still faced with transitional challenges: After the Second World War, Serbia had its specific political and economic system – a ‘softer’ form of communism than experienced in other countries behind the ‘Iron Curtain’<sup>12</sup>; the shift towards a market-oriented democratic society in the 1990s also had a unique flavour<sup>13</sup>, and currently, the neo-liberal paradigm is producing negative effects due to a lack of an institutional system capable of coping with new challenges. This is particularly obvious in the domain of spatial development. Hence, the paper elucidates how professional planning in Serbia responded to major changes to political institutions responsible for providing public goods. The result of this response is the resilience or non-resilience of public good provision for a place.

The paper is structured as follows. After a brief explanation of the main concepts used in the paper (resilience, professional planning, and the linkage resilience–public goods), I start the paper with a story of an urban governance experience in Serbia, as a distinctive example of how contemporary planning practice responds to the previously described notion of resilience. In order to explain how the current planning practice happened, the case study of professional planning in Serbia is analysed through various historical phases. Namely, the features of the planning process in relation to the more general social system, as well as their influence on planning practice are observed through the communist period, the post-communist phase, and the contemporary period. The conclusion highlights the factors that affect strengthening the planning resilience of a highly challenging society.

## **BELGRADE WATERFRONT: A CONTEMPORARY EXAMPLE OF RESILIENT URBAN GOVERNANCE IN SERBIA?**

According to the discourse of current political power structures, the Belgrade Waterfront project (Figure 1) is the ‘best practice’ example of recent urban development in Serbia. Contrary to this, the professional perspective on this topic is quite the opposite – it is a drastic case of usurpation of both the formal planning procedures and the professional expertise in the creation of planning solutions<sup>14</sup>. Keeping the two truly antagonistic approaches in mind, it is clear that the Belgrade Waterfront project provides a prolific research field.

Three years after initiating the idea on the Belgrade Waterfront project (during the political campaign of then-largest opposition party), the cornerstone for the 90-hectare land on the river bank was set in October 2015, thus marking the beginning of the 30-year development period. In fact, it is a brownfield regeneration project for the redevelopment of the most exclusive land in the central city area of Belgrade. Moreover, due to its position (close to the confluence of two rivers and in the vicinity of the historical city core), the site redevelopment is not only of city, but also of regional and even national importance. The site is recognised as such in all the previous Belgrade master plans starting from the 1920s<sup>15</sup>. However, the current project lacks resilience in three important ways.

The following lines briefly describe how the project responds to system demands, cultural changes to planning approach and local planning professionals' expectations, as the major three groups of factors that affect the formulation of planning ideas and practical planning outcomes.

**Systemic factors.** Systemic factors are different – from political forces to economic incentives. As in all other post-socialist countries, Serbia is faced with the decentralisation of power, also reflected in the decentralisation of responsibilities in the domain of spatial planning, on one hand, and the adaptation to the neo-liberal paradigm on the other. Firstly, the Belgrade Waterfront project clearly shows that spatial planning power decentralisation in Serbia is not real: although the city authorities should have the major role in defining the priorities for further development of the riverfront area, their role is marginalised; in fact, when it comes to the mega-projects, the tight cooperation between the city and national governance – in the way that all decisions made at the national level are simply imposed on the local/city level – appears as a necessary condition for any further spatially relevant action; finally, the illusion that the city mayor's voice is heard when debating about the future project lies in the fact that both the city mayor and the prime minister belong to the same political party.

Secondly, although the success of the economic system's transition within the ex-central economy-driven post-communist states can be debated, the Belgrade Waterfront is an example of a strong glorification of the neo-liberal principles without taking into account the public interest demand. More precisely, all negotiations during the preparation of the agreement with the foreign investor were subordinate to the developer's requests, while the national interests were masked under the veil of new workplaces and the assignment of the construction work to Serbian subcontractors. Concretely, according to the agreement between Eagle Hills (a company from the United Arab Emirates; UAE) and the national government of Serbia, the state is obliged to remove the old railway tracks (currently at the site since this is the broader area of railway station still in use), invest in constructing the new railway station, provide all the infrastructural equipment to and on the site and even lease the land to the UAE investor for 99 years. Unfortunately, this is a paradigm of the current spatial planning approach in Serbia: ad hoc solutions are today the only way of attracting investments for large redevelopment projects. Such neglect of planning produces the absence of long-term strategic visions of spatial development, which is recognised as one of main features of 'resilient planning'<sup>16</sup>.

**Cultural factors.** The evolution of planning thought appears not only as a result of a political regimes' transformation, but also through the (dis)continuity of "social relations, cultural practices and built environment"<sup>17</sup>. Cultural factors highlight the concepts of 'path-dependency', the behaviour of spatial planning actors and the ideas and discourses affecting their actions<sup>18</sup>. However, the concept of 'path-dependency' is disregarded in the case of the Belgrade Waterfront, particularly when it comes to the role of planners. In contrast to the former planning professionals who were acting in concert with the authorities, highly appreciated multidisciplinary in the planning process and were recognised as the bearers of public interest, planners of today are completely side-lined for public interest lost its privileged position as the 'higher' reason that cannot be brought into the question<sup>19</sup>. More precisely, planners cannot cope effectively with the private interest requests expressed in the Belgrade Waterfront project because their expertise did not evolve through time: they do not know how to swim in the whirlpool of multiple interests, i.e. they did not adapt to the pluralistic society and still try to keep their exclusive position.

The global shift of the planning paradigm addressed the raising awareness of the stakeholders' collaboration in creating the spatial development policies. Nevertheless, in the case of the Belgrade Waterfront project, strategic decisions were made at the political level (with the key role of prime minister!), hence, avoiding any kind of a public debate with a range of interested parties. The professional planners' society was completely ignored by the political power structures: on the one hand, as explained above, they were advocates of public interest, but what is worse, they never showed any understanding of a contemporary society's demands and the need of adjusting their own profile to it. Persistent adherence to the outdated position made them players without power in a stakeholder

arena, thus easily disregarded by the powerful political structures. The civil sector, i.e. several non-governmental organisations, also raised its voice pointing to the irregularity of the legal basis of the Belgrade Waterfront project, thus trying to address the broader public audience. They were underlining the importance of safeguarding public interest and compliance with planning and construction legislation<sup>20</sup>. However, the exclusion of the planning profession and the public in such an important project is a clear sign of an elementary ignorance of democratic decision-making.

**'Local' factors.** The previous paragraphs tackled the issues of planners' relationship to other stakeholders. However, here I want to draw attention to the professional expertise – their skills and knowledge needed when dealing with complex spatial problems. According to the premises of collaborative planning, planners are equal participants in the planning process – they need to be sure of their own expert knowledge, be aware of the experiential/everyday knowledge and skills immanent to other stakeholders<sup>21</sup>, and most importantly, be acquainted with the context where they operate, in terms of its socio-political and economic features. Only by recognising and respecting the pluralistic society with multiple interests, are planners capable of constant capacity-building, conducting socially justified activities and, thus, producing sustainable spatial solutions as the main goals of 'resilient planning'<sup>22</sup>. All the previous features of professional planning are brought into the question in the case of Belgrade Waterfront. Briefly put, Serbian planning professionals place their expertise only on their technical knowledge (of producing the plans), without taking into account 1) the planning process itself (and hence the need to use the skills of facilitation, mediation, and negotiation while communicating with other interested parties), on the one hand, and 2) a broader social context in which the stakeholders' collaboration should take place on the other. The clear example of the Serbian expertise position was the complaint of the National Association of Architects when its president stressed the unfair exclusion of experts in the project<sup>23</sup>: the comment was mainly on the quality and design of the project, and not on the strategic decision-making procedure that caused such a design. In this way, the experts confirmed that they only reckon on their own technical experience with no understanding that a strategic decision-making process in spatial planning should include knowledge and skills from other disciplines, as well<sup>24</sup>.

Hence, instead of a collaborative process, a highly non-transparent planning process coloured the Belgrade Waterfront case. This case illustrates an investment that defies all the premises of strategic decision-making directed towards sustainable spatial solutions<sup>25</sup>. However, the national government was determined to succeed in an investment that caused so many irregularities in the planning procedure. The peak was reached when the construction work started based on the Plan for the Area of Specific Use, which is, according to the planning law, used only for non-urban areas of particular importance (flooding areas, coal seams, etc.). The Urban Planning Institute – UPI (the urban planning office of the City of Belgrade) due its tight relationship with the current regime, participated as the only expert body in creating the new plan. The UPI professionals incorporated a minimum of technical knowledge into the project, however, with no possibility of being involved in the strategic deliberations<sup>26</sup>. Moreover, the step of public insight into the suggested solution (prescribed by the law as a part of communist legacy) was skipped during the planning process. In fact, since there is no highly developed democratic system with its own institutions, there is no transparency of planning procedures either. Put another way: planning was transformed into an instrument of the ruling political party.

## THE EVOLUTION OF PLANNING THOUGHT: THE CASE STUDY OF SERBIA

We agree that evolutionary processes happen in different ways within various settings, however, it is interesting to observe the flow of planning ideas and their effect on the built environment in a challenging social and spatial context. Keeping the previous section on contemporary urban governance process in mind, Serbia seems to be a particularly intriguing example for elucidating the evolution of planning thought. During the post-Second World War period, due to its political regime – based on so-called ‘self-governance’, where the ‘workers’ community’ had a strong role in political decision-making despite the centralised power seen in the national government, and economic system – whereas the industry sector was public, i.e. the state was its owner, although the small enterprises (organised as the artisan firms) were privately managed, former Yugoslavia differed from the other communist countries in Europe. Moreover, the shift towards the market-oriented pluralist society, which happened soon after the fall of the Berlin Wall in all of communist Europe of that time, was postponed in former Yugoslavia. More precisely, the ex-Yugoslavia was faced with a civil war on its territory, the secession of its republics that had constituted a federal state, and the nationalistic tendencies followed by dictatorships, consequently. In other words, just after the year 2000, the Federation of Serbia and Montenegro, started to develop a new social and economic system. Finally, after a 2006 referendum in Montenegro, Serbia entered a new chapter in its history as the legal successor of the Yugoslav heritage, however, on a territory the same size as it was a hundred years ago.

**A brief overview of three periods relevant for the newer history of Serbian spatial planning is presented in the next sections. More precisely, the communist period (after the Second World War to 1989), the post-communist phase (from 1989 to 2000), and a contemporary period (2000 until the present) are described using the same analytical tools. With the aim of achieving analytical coherence, all the evolutionary phases are observed through three parameters: 1) context (prevailing ideology, state system), 2) planning practice (and the products of planning)<sup>27</sup>, and 3) planning process (methodological approach).**

### STATE COMMUNISM: AFTER THE SECOND WORLD WAR TO 1989

The end of the Second World War forms one of the greatest milestones in the political, social and economic system of Serbia, i.e. Yugoslavia. Briefly put, the Yugoslav constitutional monarchy was replaced by the communist regime, while the liberal market economy shifted towards a centralised planned economy. In the period when collective interests gained power, spatial resources (except rural plots not larger than 10 hectares) were announced to be state property. From a spatial planning perspective, it was the start of the ‘golden era’ of Yugoslav spatial development: in 1948, a completely new town (known as New Belgrade) started to grow into the administrative, cultural and housing centre of the entire Yugoslavia.

Observed through ideological lenses, the first years of the new state were strongly linked to the Soviet political ideology. The main planning act (the Master Urban Planning Regulation brought in 1950) clearly stated that spatial planning instruments should support the socio-economic development plans (famous as five-year development plans)<sup>28</sup>. However, this act was the result of a broad consultation of the Western European planning legislation. Hence, despite the tendency to build new legislation according to communist principles, the Yugoslav legal framework was actually based on Western models in combination with a Yugoslav self-governance model<sup>29</sup>. During the 1970s, the semi-market economic system continued to be reinforced, while the political system started with its decentralisation. Such circumstances created a great environment for strengthening the position of planning expertise. In fact, local professionals were motivated to develop a new spatial planning agenda and to devote all their efforts to integrating physical planning into a socio-economic planning system, thus paving the way for integrated and comprehensive planning<sup>30</sup>.

In terms of spatial planning practice (and planning artefacts), the previous tendencies were practically expressed through constructing entirely new complexes of various kinds: from trade fair complexes, across cultural benchmarks, transportation nodes and infrastructure, to the new administrative complexes that were used to represent the strength of a federal state. However, the greatest achievement in this period was the mass provision of affordable housing as a symbol of implementing the social approach to spatial planning (Figure 2). Nevertheless, the concept of a local community (in Serbian *mesna zajednica*), i.e. the self-managed neighbourhood with all relevant facilities, which was the core of new housing areas, was borrowed from Western experiences<sup>31</sup>.

The nature of the planning process was in the beginning focused on the notion of interdisciplinarity. More precisely, all kinds of various planning documents (from republic regional plans to land-use plans) were prepared in a multidisciplinary environment, composed of architects, geographers, economics, sociologists, traffic engineers, etc., who paved the way for the newly recognised profession of ‘urban and regional planner’ or ‘physical planner’<sup>32</sup>. The result of such interdisciplinary collaboration was a so-called ‘integrated’ planning, with the aim of putting together all relevant sectors when dealing with spatial issues<sup>33</sup>. Later on, during the 1970s and 1980s, together with understanding planning as a social practice, the decision-making process included not only experts, but also representatives of local politics and, more importantly, the civil sector. Hence, another great achievement of the communist planning approach in Yugoslavia was introducing the instrument of public participation. More precisely, the citizens’ involvement during the planning process was prescribed by the planning act and it was regularly performed in the planning practice. Some authors even note that the principle of ‘cross-acceptance’ was used in Yugoslavia before it was implemented in Western countries<sup>34</sup>. Nevertheless, it should be stressed that all kinds of associations and organisations (these being professional or composed of civil sector representatives) were controlled by strongly hierarchical political structures. That meant that hardly any decision could be made without the previous consent of the communist party. However, it seems that achieving public interest was one of the main goals of social planning and that all actors involved had a high level of responsibility and skills in doing their specific tasks under given circumstances, thus jointly contributing to spatial development.

## DEVOLUTION: POST-COMMUNIST PHASE (1989-2000)

The second turning point that deeply affected not only the social and economic system of Yugoslavia, but also of other Eastern European countries, was the fall of the Berlin Wall. Other states were faced with fast transformation of the political system into a pluralist democracy, while the economic system change was directed towards the liberal, i.e. market-based economy. However, Yugoslavia additionally suffered from the disintegration of its territory, accompanied by civil wars and nationalistic tendencies in all the newly formed states. Under such circumstances, it was difficult for Yugoslavia to keep pace with the transformations happening in other European states with a communist legacy.

Generally speaking, the 1990s were the period of greatest regression in recent Serbian history in terms of its political, social and, thus, spatial degradation. The state was faced with the need of transforming its economy and institutions, however, politics took precedence over all the attempts to do it in a civilised manner<sup>35</sup>. The main achievement of Yugoslav political organisation in past decades, which was based on the substantially decentralised system (hence also marking the largest distinction in comparison with other communist states), was totally diminished through the authoritarian political regime experienced throughout the entire last decade of the 20<sup>th</sup> century. These politics had negative consequences on the position of planning expertise, too. Contrary to the prestigious ‘image’ the planners had succeeded in making in previous decades, during the 1990s, all their proposals, scenarios and spatial visions were confronted with the strong and decisive role of national government, i.e. the responsible ministries.



FIGURE 3 Kaludjerica: The largest illegal settlement in Europe at the outskirts of Belgrade.

The effects of such politics on spatial planning practice were numerous. In order to achieve social stability, shaken by the high unemployment rate and the lowest gross national product ever, the governance let the citizens buy the apartments they had been living in for years, thus turning housing into private property. On the other side, due to the slow administrative procedures and a growing number of refugees from other former Yugoslav states affected by the war, illegal construction flourished until the mid-1990s<sup>36</sup>. More precisely, completely new housing areas grew up in the Belgrade periphery (Figure 3), but there were also a lot of illegal construction even in central city areas. This was the greatest disruption with the communist legacy of well-planned housing settlements based on modernist approach.

Due to the social and economic changes, the methodological approach to planning was transformed, too. Firstly, integrated planning – widely used in a communist regime, was hindered due to the re-centralisation process. In practical terms, it meant that regional issues were not addressed systematically and the cooperation with neighbouring countries related to border-area problems was missing<sup>37</sup>. Although horizontal collaboration, i.e. the collaboration among the experts of various kinds on the same governance level still tried to somehow exist against the context of political dictatorship, the vertical cooperation (among local authorities, regional agencies and national ministries) reached its lowest degree. In other words, the key spatial planning documents were the products of a ‘top-down’ planning approach. The second important characteristic of social planning experienced in previous decades – citizens’ participation in the planning process – was tremendously endangered, since the land development process had become almost exclusively driven by private investment. Of course, the private investors gained the confirmation for possible development from the highest governance level<sup>38</sup>. Hence, the feedback between governance and the private sector strongly diminished the role of the expert community and citizens, as well<sup>39</sup>.



FIGURE 4 Contemporary planning practice in Belgrade: built environment.

## STASIS: A CONTEMPORARY PHASE (2000-PRESENT)

The third milestone in the recent history of Serbia was at the end of 2000, when the authoritarian regime was replaced by the democratically elected government, hence opening the era of pluralist political culture, one that was forbidden in Serbia for more than half a century. This was followed by the re-decentralisation of political and administrative power to the local level<sup>40</sup>. However, such a transformation is considered a 'proto-democracy'<sup>41</sup>. Namely, in terms of economic orientation, the tendency for implementing the principles of the neo-liberal paradigm have never been stronger, which, together with a lack of institutional capacity, makes Serbia a transitional society even in the second decade of the 21<sup>st</sup> century.

The market-oriented economic approach found 'fertile ground' for its further development in the new century owing to the strong relationships between politicians and private investors in past decades. The tight collaboration between the domestic tycoons (who got wealthy in last century thanks to previous monopolistic regime) and the highest government levels was particularly experienced in the first years after 2000. More precisely, according to the Privatisation Law (brought in 2004), the state (social) enterprises were allowed to be bought by private consortia. Thus, the private bodies became the owners of the building, but still not the land on which it was situated. However, the conversion of the land into private property was done in 2009, according to the new Planning and Construction Law<sup>42</sup>. Nevertheless, the new Serbian government (elected in 2012), consisted of representatives of a strong political opposition that had resisted for twelve years, and stopped the practice of collaboration with tycoons. However, they turned to foreign investors. In other words, all the principles of fuzzy collaboration stay the same, only the partners are from abroad.

Although we can assume, from the previously explained initiatives by private investors, that brownfield regeneration was booming in Belgrade in recent years, it is still not the case. The only example of such a development is the new housing settlement in a broader centre of Belgrade, occupying the area of an abandoned military complex of the ex-Yugoslav army. Except for this, all other urban developments have been occurring within the New Belgrade area, thus constantly changing its specific modernist spatial pattern. These are mainly housing blocks and large shopping malls (financed and owned by domestic tycoons) (Figure 4).

Finally, a contemporary planning practice is also faced with a number of mega-projects for some of the most exclusive city areas (Belgrade Port, Belgrade Shipyard, Beko complex, Marina Dorcol) (Figure 5). For these projects, some of the most prominent architects and urban designers were invited to submit a proposal. Although under the veil of star-architecture, these proposals certainly glorified the neo-liberal principles, thus making it impossible to differentiate some parts of Belgrade from those in Hong Kong or Singapore. It seems that the economic crisis prevented the city of Belgrade from further self-destruction.



FIGURE 5 Contemporary planning practice in Belgrade: projects.

As previously mentioned, a ‘proto-democracy’ is a context that still does not recognise the legitimacy of a plurality of interests. Hence, the professional planning remains much the same as in the socialist time – based on expertise rooted in the comprehensive planning model with no respect for the open market demands<sup>43</sup>, on the one hand, or to the need for a strategic decision-making process on the other. According to the comprehensive planning model, planners’ activities are directed towards achieving public interest in close cooperation with the governing structures. Nevertheless, in a transitional society moving towards a market-based economic system, planners are left unable to understand the complexity of the altered socio-economic framework<sup>44</sup>. In other words, they lack knowledge from the humanities, instead of reckoning only on purely technical disciplines and engineering skills. On the other side, modern planners need to accept that they do not have a monopolistic position in setting the development priorities anymore. On the contrary, they must be aware that other stakeholders (being those from the private civil sector) also have legitimate interests to be achieved through mutual cooperation. Put another way: the skills immanent to the collaborative planning model are absolutely necessary for the planners to properly deal with complex contemporary spatial problems. Only in this way can planners overcome their current position as the ‘passive observers’ of implementing decisions that are made elsewhere. Since the existence of the planning profession has been brought into question by a recent urban development project, it’s high time for planners to learn new strategies that could allow them to consider issues thoroughly and react appropriately<sup>45</sup>.

## CONCLUDING REMARKS

Keeping the various understandings of ‘the shift in the planning paradigm’ in mind, we can agree that Serbia (ex- Yugoslavia) experienced the shift in terms of a revolution, contrary to evolution of planning. Looking back at different periods, it seems that any new chapter in Serbian history runs down all the inventions made in the period immediately preceding the current one. Thus, all the positive aspects created in a highly controlled context of a communist political regime, such as integrated planning and public participation, were absolutely neglected by the centralised politics in the last decade of the 20<sup>th</sup> century. Nowadays, despite the tendency of Serbia to become a full European Union member, and contrary to the nationalist tendencies that emerged in the 1990s, there is still not enough knowledge, skills, and responsibility within the transitional institutional apparatus. Experts’ voices are not strong enough to be heard in a fuzzy governance system. Table 1 summarizes the main parameters relevant for observing the evolution of planning through various stages of Serbian development.

Briefly put, in order for Serbia to try to make its planning as resilient as possible to numerous challenges, it should mainly focus on: 1) improving the stakeholders’ collaboration (well-practiced even in communist times), 2) strengthening the position of planning expertise, in terms of keeping expert knowledge, which derives from the communist era, but also combining it with skills of negotiation, mediation and facilitation during the planning process, which will make them more relevant ‘players’ in a highly competitive planning environment, and 3) institutional capacity-building at the level of local governance, which is possible due to the currently decentralised administrative system, hence, trying to create innovative initiatives that will further introduce a ‘bottom-up’ planning approach, one that is strongly missing in Serbia today.

PERIOD	CONTEXT	PLANNING PRACTICE	PLANNING PROCESS
<b>Communism</b>	Politically decentralised system Semi-market economy Self-governance	Physical planning - Large infrastructural projects - Mass housing	Strategic planning – Integrated planning – Public participation – Interdisciplinarity
<b>Post-communism</b>	Civil war Centralised system, autocracy Lack of investments	Illegal construction Politically-driven plans	‘Top-down’ approach Absence of strategic planning Domestic private interests
<b>Contemporary</b>	Market-oriented pluralist society Re-decentralisation of administrative levels Feedback between national government and foreign private investors	Redevelopment projects Housing Commercial activities	Foreign private interests Non-transparent procedures Lack of public participation Lack of expert skills and knowledge Planning subject to politics

TABLE 1 Evolution of planning in Serbia

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## Disclosure Statement

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## Notes on contributor

Dr. Ana Perić, architect and urban planner, is engaged in lecturing and research activities at ETH Zurich. Her research interests include urban research methodology, transnational cooperation, collaboration in the planning process, and brownfield regeneration. As an active participant in international research project teams, she published two books and a number of scientific papers. She is a member of several academic and professional organisations, including AESOP YA and ISOCARP. She has given the lectures at academic institutions of Serbia and Switzerland and has been a member of the supervising committee in numerous theses at doctoral and master level.

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- 13 Zorica Nedovic-Budic and Branko Cavric, “Waves of planning: A framework for studying the evolution of planning systems and empirical insights from Serbia and Montenegro,” *Planning Perspectives* 21 (2006), 401.
- 14 For an overview of a broader day-to-day discourse on the topic of the Belgrade Waterfront project conducted from the daily press in the period 2012–2014, see: Marija Maruna, “Can Planning Solutions Be Evaluated without Insight into the Process of their Creation?,” in *Proceedings of the REAL CORP 2015 Conference “Plan Together–Right Now–Overall”*, eds. Manfred Schrenk, Vasily Popovich, Peter Zeile, Pietro Elisei and Clemens Beyer (Ghent, Belgium, May, 15–18, 2015). (Vienna: REAL CORP, 2015).

- 15 The area occupied by the Belgrade Waterfront project is popularly known as the Sava Amphitheatre, the zone which has been the core of Belgrade urban planning for almost a century. The area was first recognised as a space of a particular importance for the urban development of the entire city back in the 1923 Master Plan. Two decades later, the idea of using the potential of the Sava Amphitheatre together with designing the Terazije Terrace was implemented in the 1950 Belgrade Master Plan. In 1972, the ideas on how to develop this area appeared as a part of the study incorporated in the Master Plan. Mainly based on this plan, it was possible to organise an international competition in 1986, and several years later a national architectural competition under the motto "Third Millennium". Even during the period of the greatest crisis of the Yugoslav society throughout the 1990s, the concept known as "Europolis" concerning the future development of the Sava Amphitheatre was promoted as a part of political election campaign (1995). However, only the 2003 Master Plan allocated the specific facilities (mainly commercial, i.e. appropriate to the city centre) to the area of Sava Amphitheatre. For the detailed elaboration of each mentioned document and/or initiative, see: Aleksandra Djukic and Aleksandra Stupar, "Globalizing the Belgrade Waterfront: Mega-projects for a Sustainable Development?," in *Proceedings of the 50th ISOCARP Congress "Urban Transformations: Cities and Water"*, ed. Amos Brandeis (Gdynia, Poland, September 23–26, 2014). (Hague: ISOCARP, 2014).
- 16 Davoudi, "On Resilience", 5.
- 17 Nedovic-Budic and Cavric, "Waves of planning", 397.
- 18 These concepts are rooted in the various forms of the new institutionalism approach, particularly, historical and sociological institutionalism (see: James G. March and Johan P. Olsen, "The New Institutionalism: Organizational Factors in Political Life," *American Political Science Review* 78 (1984)) and discursive institutionalism (see: Vivien Ann Schmidt, "Discursive Institutionalism: The Explanatory Power of Ideas and Discourse," *Annual Review of Political Science* 11 (2008), 304).
- 19 Miodrag Vujosevic and Ksenija Petovar, "Javni interes i strategije aktera u urbanističkom i prostornom planiranju," *Sociologija i prostor* 190 (2006).
- 20 Maruna, "Can Planning Solutions Be Evaluated without Insight into the Process of their Creation?," 131.
- 21 Yvonne Rydin, "Re-Examining the Role of Knowledge within Planning Theory," *Planning Theory* 6 (2007), 60.
- 22 Davoudi, "On Resilience", 5.
- 23 In order to avoid possible confusion, it is interesting to explain the relation between architects and urban planners in Serbia: most of the urban planning professionals come from the Faculty of Architecture, University of Belgrade or similar technical faculties of the other Serbian universities.
- 24 Maruna, "Can Planning Solutions Be Evaluated without Insight into the Process of their Creation?," 129.
- 25 Such an assessment was formulated also by international urban planning bodies (e.g. INURA – International Network for Urban Research and Action) who tried to reach a broader audience by its *Open letter to the people of Belgrade* ([www.inura.org](http://www.inura.org))
- 26 Maruna, "Can Planning Solutions Be Evaluated without Insight into the Process of their Creation?," 131.
- 27 Due to the length of this paper, the distinctive planning practice examples of each period will be explained for the case of Belgrade.
- 28 Ante Marinovic-Uzelac, *Teorija namjene površina u urbanizmu* [Land Use Theory in Urbanism] (Zagreb: Tehnicka knjiga, 1989).
- 29 Nedovic-Budic and Cavric, "Waves of planning", 411.
- 30 *Ibid*, 411.
- 31 The local community in New Belgrade was based on the concept of neighbourhood units by Clarence Perry. It was employed in various institutional and social settings, however, it was broadly accepted in communist Yugoslavia due to respecting the community ideology, so familiar with the social Yugoslav planning.
- 32 Nedovic-Budic and Cavric, "Waves of planning", 412.
- 33 *Ibid*, 412.
- 34 Vujosevic, "Collapse of strategic thinking"; Nedovic-Budic and Cavric, "Waves of planning".
- 35 Zorica Nedovic-Budic, Slavka Zekovic and Miodrag Vujosevic, "Land Privatization and Management in Serbia – Policy in Limbo," *Journal of Architectural and Planning Research* 29 (2012), 307; Vujosevic, "Collapse of strategic thinking".
- 36 Vujosevic, "Collapse of strategic thinking".
- 37 Nedovic-Budic and Cavric, "Waves of planning", 413.
- 38 Slavka Zekovic, Miodrag Vujosevic and Tamara Maricic, "Spatial regularization, planning instruments and urban land market in a post-socialist society: The case of Belgrade," *Habitat International* 48 (2015), 66–67; Miodrag Vujosevic, Slavka Zekovic and Tamara Maricic, "Post-socialist transition in Serbia and its unsustainable path," *European Planning Studies* 20 (2012), 1710; Vujosevic, "Collapse of strategic thinking".
- 39 Ana Peric, "Institutional cooperation in the brownfield regeneration process: Experiences from Central and Eastern European countries," *European Spatial Research and Policy* 23 (2016), forthcoming.
- 40 Nedovic-Budic and Cavric, "Waves of planning", 414.
- 41 Vujosevic, "Collapse of strategic thinking".
- 42 According to this law, the right to use the building was transformed into the right of owning the building, but also the land on which the building was placed. In one word, the developers who bought the objects automatically became the owners of the land too, without having to pay any recompense for it. Moreover, the plots bought by the private sector were situated in the most exclusive areas of Belgrade – river waterfronts, central city areas, historical sites, etc. It was clear that investors were not willing to continue with the previous land use (city port, industrial complex), but rather invest in more profitable uses such as residential and office complexes. Briefly put: transition, along with all the practical problems described above, created a completely 'distorted image' on how to treat private interests and how to recognise investors and developers as legitimate stakeholders in the planning process. For more information, see: Ana Perić and Marija Maruna, "Predstavnicí društvene akcije u procesu regeneracije priobalja – slučaj braunfield lokacije 'Luka Beograd' [The Representatives of Social Action in Waterfront Regeneration – the Case of the Brownfield Site 'Belgrade Port']," *Sociologija i prostor*, 192 (2012), 61–88.
- 43 Miodrag Vujosevic and Zorica Nedovic-Budic, "Planning and societal context – The case of Belgrade, Serbia," in *The urban mosaic of post-socialist Europe: space, institutions and policy*, eds. Sasha Tsenkova, and Zorica Nedovic-Budic. (Heilderberg: Springer, 2006).
- 44 Maruna, "Can Planning Solutions Be Evaluated without Insight into the Process of their Creation?," 122.
- 45 *Ibid*, 132.

**V.07 P.192 Ana Perić**

THE EVOLUTION OF PLANNING THOUGHT IN SERBIA: CAN PLANNING BE 'RESILIENT' TO THE TRANSITIONAL CHALLENGES?  
THROUGHOUT THE PERIODS OF WAR, RECONSTRUCTION AND SOCIALISM

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Figure 1: [www.belgradewaterfront.com](http://www.belgradewaterfront.com)

Figure 2: Prokopljevic, Jelena. "Do not throw concrete blocks! Social and Public Housing in New Belgrade and their Representations in Popular Culture." *fusion Journal* 6 (2015).

Figure 3: [www.beodom.com](http://www.beodom.com)

Figure 4: [www.helivideo.rs](http://www.helivideo.rs); [www.gradnja.rs](http://www.gradnja.rs)

Figure 5: [www.lukabeograd.com](http://www.lukabeograd.com); [www.blog.b92.net](http://www.blog.b92.net); [www.static.dezeen.com](http://www.static.dezeen.com)



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# BRASÍLIA: FROM URBAN DESIGN TO ZONING

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**Sidney Vieira Carvalho**

University of São Paulo

This paper presents the first results of research on the transformations in Brasilia's contemporary urban landscape, a city that has become the third largest Brazilian urban space, after Sao Paulo (country's economic center) and Rio de Janeiro (Brazil's previous capital). Using methods developed at the University of São Paulo, the transformation of the urban landscape is analysed, mainly focusing on the changes in the Government's methods of intervention in the landscape. In this sense, the abandonment of precise urban design guidelines and the adoption of actions that prioritize urban planning techniques, mainly the zoning, are emphasized. To this end, two paradigmatic examples are highlighted - the Plano Piloto and Aguas Claras - two neighbourhoods characterized by these two approaches. In the paper's context, the Pilot Plan, designed by urban planner Lucio Costa and with several of its buildings designed by architect Oscar Niemeyer, is presented as an example of urban design strategies, both by the built environment uniformity, and by the rules for its expansion and transformation. On the other hand, Aguas Claras, a neighbourhood built mainly in the XXI century, consolidates planning instruments, which highlights the urban land's importance (the lot's size and location) to determine the urban form.

**Keywords**

Urban design, Zoning, Urban form, Contemporary metropolis, Modernist urban planning



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# Planning Approaches and Processes

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Chair: *Hamed Khosravi*



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# THE ASSESSMENT OF SOCIAL RESILIENCE FACTORS IN HISTORIC NEIGHBORHOODS OF TEHRAN (CASE STUDY: HISTORIC CENTER OF TEHRAN METROPOLITAN AREA: REGION NO.12 OF TEHRAN MUNICIPALITY)

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Sustainability principle which was first emerged as a theory in environmental sector; it has become the most controversial topic of discussion since 1980s. As the main goal of development schemes and plans both in micro and macro scale, sustainability and related issues especially sustainable urban studies has find their path into the developing scientific fields. Assessing the urban settlements sustainability is one of the recent fields of interest which attracted many scholars in order to solve many environmental-related difficulties. In fact, this happened because of the recent demand for a sustainable urban physical setting which has turned into one of the most challenging factors leading the direction of urban development in the twenty first century.

Flexibility or in other words the ability to adapt and change is considered as one of the most important features of sustainable development, which relates to the theory of resilience. This is a new concept that has proved its importance in many recent studies including dissertation and scientific papers on urban planning and urban design issues. The degree to which cities are resilient against different disasters is considered as a key role in crisis and deterioration of cities as well as their development and prosperity. Social resilience might be regarded as one of the most important aspects of social sustainability paradigm. This type of resilience is recognized as one of the dimension of sustainable development which has a great effect on maintaining and promoting social capital, the power of social interactions (both formal and informal types), resident's sense of belonging to their neighborhood and etc. Based on the above explanation, this paper will focus on the social dimension of resilience. The main goal of this study is to extract the appropriate social indexes by studying related literature and examine the obtained indexes in the historic center of Tehran (region no. 12 of Tehran metropolitan area) which regarding social aspects including social background, historic heritage, presence of an invaluable social and cultural capital and etc., is considered as one of the most valuable parts of the city of Tehran. Unfortunately in the past three decades most of its historic fabric has turned into deteriorated area and which instigated the previous residents of the site to migrate to other neighborhoods and consequently the quality of life has decreased dramatically. In other words, the heterogeneity of social community has emerged and the social values have diminished in this process. In order to analyze the cause and effects of changes and recognizing the features of historic center of Tehran, regarding social resilience approach, descriptive-analytical and comparative method were applied. Through using primary data which can be achieved through field survey and based on individual approaches, also by using principle component analysis method, social resilience factors were extracted and used to compare different neighborhoods of region no.12 of Tehran city.

## **Keywords**

social resilience, historic neighborhoods, social values, principle component analysis, Tehran city



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# URBAN GENTRIFICATION AND CHALLENGES OF REHABILITATION OF THE HISTORICAL CENTER OF ALEPPO POST-WAR: TOWARDS A BALANCED SOCIOECONOMIC ROLE

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**Bashar Swaid | Hadya Salkini | Laura Greco | Roberta Lucente**

*University of Calabria*

During the escalating war, various critical transformations aggressively hit Aleppo, the greatest metropolitan city in the Eastern Mediterranean part. Even before this war, since the last decade of the 20th century, various series of socioeconomic and urban pressures had affected the Historical Centre of Aleppo (HCA), in order to reallocate the role of this centre as housing and working place. These pressures allowed the policy makers and investors to start their systematic approach of exploiting, reusing and rebuilding the most significant architecture and urban places in the historical context, unfortunately, this approach happened under the guise of “Rehabilitation the old city of Aleppo” project. Therefore, a serious contradict has been created between the “policy makers & Investors” and the “Inhabitants” represented in the Top-down approach implementations, for tackling and handling the problems in the old city of Aleppo. The research adopted three consecutive phases for developing a systematic framework to re balance the pivotal socioeconomic role as leader of the rehabilitation project in the HCA post-war.

- 1) Analysing the last urban interventions motivations and their applied approaches in the rehabilitation project.
- 2) Highlighting these intervention impacts on the socioeconomic life in the HCA.
- 3) Evaluating how much extent the implemented approaches have contributed in urban gentrification manifestations.

## **Keywords**

Urban Gentrification, Socioeconomic Transformations, Rehabilitation Approach



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# THE ROLE OF AN URBAN REHABILITATION ON IMPROVING THE SPATIAL QUALITY LEVEL

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*Selcuk University*

Today, it is observed that traditional shopping districts which usually constitute the identity, personality of cities and sustain the 'memory of place' have started to lose their former importance, functions, and morphological features. They generally become uncared and neglected areas because of the shopping center flow. Providing the sustainability of traditional shopping districts which reflect their spatial character, quality and experience from the historical perspective is rather important for preserving the collective memory and identity. In this point, this study aimed to investigate whether 'increasing the quality of space approach' plays a key role to solve the problems of traditional shopping districts or not. According to this aim, a comparative analysis was conducted in the context of the study.

The traditional Konya Shopping District, which was chosen as a sample area, had similar problems which were indicated above. For solving these kinds of problems, revitalizing and regaining this area, an urban rehabilitation project was applied by local authority in 2012. Before this date, in 2010, a total of 255 questionnaire applications were made to identify the quality level of the sample area in terms of users' perspective in the context of a doctorate dissertation. After this, a post occupancy evaluation method was used to test the success of the rehabilitation project, and to see whether the quality level of the area increased or not from the users' perspective in 2015. For the comparisons, the same questionnaires and analysis techniques (one sample T test analysis) were used in 2015.

In conclusion, after the comparisons, it was seen that the Traditional Konya Shopping District has still a strong spatial satisfaction level and cultural identity from the users' point of view. The rehabilitation project of the area had a strong effect when compared by visual and aesthetic quality levels. Conversely, it still lacks in social and functional quality levels. This study highlights that if we overcome these deficiencies regarding social and functional quality aspects, the Traditional Konya Shopping District will be used more and regains its former importance.

## **Keywords**

Urban space quality, Urban space quality indicators, Traditional shopping districts, Post occupancy evaluation technique, Konya



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# INFORMAL SETTLEMENTS IN IRAN: THE PATH OF THE RIGHT TO THE CITY

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Tarbiat Modares University

Metropolitan authorities across the globe are encountering problems related to population growth and in-migration that transcend their current planning and development capacities. Similarly, the fast pace of urbanization and rural-urban migrations has led to the formation and expansion of informal settlements in Iran since the 1950s. It is argued that the unofficial and/or illegal nature of informal settlements often hampers involvement of their residents in local political processes. Consequently, this exacerbates their vulnerability and social exclusion which may result in urban inequalities and inequities.

One of the concepts that helps to define the rights of informal settlers and improve their living standard is known as “the right to the city”, which was proposed by the French philosopher Henri Lefebvre in the late 1960s. He considered the city to be a social structure and believed that all city dwellers, formal and informal, have a right when it comes to the city in which they live. According to Lefebvre’s viewpoint, the right to the city is far more than just an individual’s liberty to access urban resources. Indeed, it also includes empowerment and involvement of all local citizens in solving the physical, social, and economic problems of their city. Promoting the rights of urban informal settlers contributes to reinforcing their inclusion in, and access to, what a city is supposed to offer to its residents and hence it would enhance their resilience against marginalisation and displacement.

This paper aims to study the evolution of Iran’s urban planning approaches and experiences in informal settlements throughout recent history, with a particular emphasis on the concept of the right to the city. In this historical research, the content analysis is applied to evaluate relevant legislations and other documents in terms of different aspects of the right to the city. Findings show that Iran’s informal settlements have seen a wide scope of different planning approaches and policies from “being neglected” and “forced relocation and removal” to “enabling and upgrading”. Prior to the 2004 enactment of the national strategy document entitled “Enabling and Regularising Informal Settlements”, Iran’s urban programmes had paid no or very little attention to the concept of the right to the city. Since then, the involvement of informal settlers in community development plans has been considered as a crucial process. However, it seems that, in order to further strengthen the right to the city in Iran, there is a need for more effective measures so as to put residents of informal settlements at the heart of urban development programmes.

## Keywords

Informal Settlements, the Right to the City, Enabling, Upgrading



# Topical Conversations



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# Round Tables

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# GETTING PUBLISHED

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**David Goldfield<sup>1</sup> | Michael Hebbert<sup>2</sup> | Robert Lewis<sup>3</sup>**

- 1 *UNC Charlotte*
- 2 *University College London*
- 3 *University of Toronto*

The purpose of the workshop is to inform attendees how to publish a scholarly article in each of our journals. Each of us will take ten minutes to explain the mission of our journal, the editorial review process, the mechanics of “revise and resubmit,” and, most important, how to tailor the manuscript to suit the editorial criteria of the particular journal. We then open the floor for questions, and this portion of the workshop is often the most rewarding for the attendees. This is especially so for our junior colleagues and graduate students. It is surprising to us how little tutelage graduate students and junior faculty have had from their advisers in developing a scholarly article for publication. These workshops have been very well attended in the past, and we feel that word has gotten out that this is a worthwhile “nuts and bolts” session to attend.



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# CROSSING BOUNDARIES – TRANSCULTURAL PRACTICES IN URBAN PLANNING

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**Tom Avermaete<sup>1</sup> | David Massey**

<sup>1</sup> TU Delft, Head of chair of Methods and Analysis

This roundtable is based on a recent theme issue of OASE. Architectural Journal entitled ‘Crossing Boundaries. Transcultural Practices in Urban Planning.’ It takes as its point of departure the cross-cultural conditions in which architects, urban designers and landscape architects work. It focuses in particular on urban planners working in a condition of displacement – in other words in relation to cultures, far away or nearby, that are not their own. The goal of the round table is to discuss, first, what the effects of the transcultural modus operandi are for the instruments and roles of the urban planner and, second, what particular challenges the study of these cross-cultural practices poses to historiography.



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# CONNECTIONS, OVERLAPS AND DIFFERENCES IN PLANNING AND URBAN HISTORY

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**Richard Harris**<sup>1</sup> | **Helen Meller**<sup>2</sup> | **Shane Ewen**<sup>3</sup> | **David Goldfield**<sup>4</sup> | **Paul Meurs**<sup>5</sup> | **Carola Hein**<sup>6</sup>

1 McMaster University

2 University of Nottingham

3 Leeds Beckett University

4 UNC Charlotte

5 TU Delft and SteenhuisMeurs

6 TU Delft

The histories of cities and of planning are closely intertwined. To live in cities our actions must be regulated so as not to impinge too much on the lives of others. We regulate ourselves, and there are unwritten social norms, but increasingly urban life has come to be governed by the state. One of the state's most important urban functions has been the power to guide land use, which includes new developments and also the preservation of buildings and environments that are threatened but especially valued. Despite, or perhaps because of their close interconnection, the relationship between urban and planning history has often been left implicit and unclear. The recent publication of Shane Ewen's *What is Urban History?*, the first modern book-length survey, offers an opportunity to re-consider not only the nature of the field but also its connections, overlap, and differences with the cognate fields of planning history and heritage studies. This roundtable session, sponsored by the Urban History Association, will take this book as the point of departure for a wide-ranging debate.



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# ENCOUNTERS BETWEEN URBAN PLANNING IN THE PAST AND PRESENT

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**Jeffrey Diefendorf<sup>1</sup> | Carola Hein<sup>2</sup> | Robin Bachin<sup>3</sup> | Michael Hebbert<sup>4</sup> | Rosemary Wakeman<sup>5</sup>**

- 1 University of New Hampshire
- 2 TU Delft, Head of the chair of History
- 3 University of Miami
- 4 Bartlett School of Planning, University College, London
- 5 Fordham University

This roundtable brings together scholars in various fields to talk about methodological and pedagogical issues, such as how present-day city officials and citizens should try to learn from similar experiences in cities in the past. They are all noteworthy scholars, and they encourage students to use history as an element in pursuing civic and community engagement in current urban affairs.



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# PORT CULTURES

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**Carola Hein<sup>1</sup> | Paul van de Laar<sup>2</sup>**

- 1 *TU Delft, Head of the chair of History*
- 2 *Erasmus University Rotterdam*

Linking to the exhibition in Museum Rotterdam, this roundtable explores the petroleumscapes of the Randstad. Here, the physical flows of oil, from transportation to storage, refining and resale, intersect with financial and administrative installations, continuing a pattern that corporate and public players have established over the last 150 years. Much of the oil brought to Rotterdam and refined there, only passes through, but the region has also experienced the advent of the gasoline-fueled automobile and the ensuing massive transformation of the landscape just like any other industrialized country, a transformation accompanied and promoted by a range of publications from oil companies, such as road maps and brochures that advertise the use of cars in the context of the Netherlands.



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# URBAN AND HERITAGE PLANNING AND USE OF OPEN SOFTWARE

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**Antoni S Folkers**

*AAMatters, the Netherlands*

The Round table will focus on the use of open source software(s) such as OpenStreetMap and Wikipedia in the Ng'ambo Tuitakayao project, including Historic Urban Landscape mapping and drafting of the Local Area Plan for parts of the Zanzibar Town. OSM and Wikipedia are widely accessible and affordable tools which applied in urban and heritage planning can lead to a greater transparency of governmental processes and encourage a more integrated top-down and bottom-up data collection. Furthermore, their application in planning processes may also lead to a greater community engagement and encourage citizens to involve more actively in local planning and heritage processes. The methodology applied in the mapping, data transfer and outcomes of the process will be discussed in the round table. The NGT team was approached by the World Bank and Ramani Huria project team from Dar es Salaam, Tanzania in October 2015 to collaborate on the process of data collection (Ramani Huria is a community-based mapping project training university students and local community members to create highly accurate maps of the city using OpenStreetMap). Following a number of meetings and training sessions the decision was taken to adopt the methodology supported by the World Bank. The collected data was transferred to OSM using JOSM which is one of the OpenStreetMap map-editors. Additionally, several Wikipedia pages had to be updated or launched in order to explain new categories introduced in the process of NGT mapping. Participatory mapping is a significant way of engaging local community during the process. However, sharing the collected data with the community after the concluded process often remains more problematic. The outcomes of surveys and cultural mappings such as the one carried out by NGT often take form or technical reports, maps and/or academic papers which in terms of their content, but also as a media of sharing knowledge, remain largely inaccessible to the wider public. Applying OSM and Wikipedia in the process offers therefore a new way of countering the prevailing tendency mentioned above at the same time as they still allow for the production of more conventional outcomes of such projects. The interactive nature of OSM and Wikipedia, allows for continuous update and expansion of knowledge about respective places. Data presented in OSM is immediately accessible to a broader public. Hence, the risk of the collected data becoming outdated, as it might happen in the case of more conventional ways of data sharing, before it reaches a wider public, is limited. The data is also accessible for peer review straightaway which may have a positive bearing on securing the quality of collected data. OSM and Wikipedia are low cost and technically advanced softwares which allow for a wide circulation of collected data at the same time as they can serve as tools in planning exercises in a more conventional way. In the context of urban planning in Africa they also provide a means through which the corpus of knowledge about African cities can be continuously expanded with the help of professionals as well as local communities.



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# PORT CULTURES

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**Carola Hein<sup>1</sup> | Paul van de Laar<sup>2</sup> | Dirk Schubert<sup>3</sup>**

- 1 *TU Delft, Head of the chair of History*
- 2 *Erasmus University Rotterdam*
- 3 *HCU Hamburg*

This roundtable proposes an investigation into port cities culture, a shared collective local mind-set, long-standing and on-going, that supports port development, specific to each city, but in its essence similar to that of the whole group of port cities. This atmosphere of support for port development among urban elites, workers, and citizens has traditionally evolved as part of the intimate interconnection of port and city; this culture is inscribed in planning practices, governance, and cultural productions. It is connected to historic maritime structures and traditions, and it facilitates local acceptance and promotion of large-scale changes in and around the port, even those that might conflict with the values and lifestyle of some populations. At times, it actually celebrates results of destruction and rebuilding, interpreting them as a particular capacity to overcome adversity and to engage in transformation. With UNESCO selection of Hamburg's warehouse and office district as a world heritage site in 2015, locals accepted, even supported and praised, urban redevelopment including the displacement of citizens. Heritage is the expression of local cultures and it is a consistent theme both in the professional and the academic conferences. A topic yet to be explored is how increasing migration and (super)-diverse populations will interact with existing traditions. Decisions on what to preserve and what to keep and who to bring into the neighbourhood are part of planning decisions.



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# PLANNING HISTORY HANDBOOK

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**Carola Hein**

*TU Delft, Head of Chair of History*

This roundtable brings together a number of participants in the forthcoming Handbook of Planning History (ed .Carola Hein) offers a comprehensive interdisciplinary overview of planning history since its emergence in the late 19th century, investigating the history of the discipline, its core writings, key people, institutions, vehicles, education, and practice. Combining theoretical, methodological, historical, comparative and global approaches to planning history, the Handbook provides an unprecedented synthetic approach to planning history. By discussing theories, methodologies and scales, examining select places and typologies, and studying key texts and themes in planning, the Handbook of Planning History explores the state of the discipline, its achievements and shortcomings and future challenges.

