

MECHANICAL ENGINEERING | PHYSICS |
PRESERVATION OF THE ARCHITECTURAL
HERITAGE | STRUCTURAL, SEISMIC
AND GEOTECHNICAL ENGINEERING |
URBAN PLANNING, DESIGN AND
POLICY | AEROSPACE ENGINEERING |
ARCHITECTURE, BUILT ENVIRONMENT
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Chair:
Prof. Luca Gaeta

DOCTORAL PROGRAM IN URBAN PLANNING, DESIGN AND POLICY

The PhD Programme in Urban Planning, Design and Policy (UPDP) aims to explore the significance and impact of contemporary urban changes and understand how these processes can be governed through planning, design, and policy-making activities. The programme pays specific attention to the transition towards new, more sustainable and equitable modes of urban development and advancements in planning practices to foster potential innovations in traditional urban studies, urban design, and policy approaches.

The integration between different fields of urban research on the one hand and between theory and practice on the other distinguishes the approach promoted by the PhD programme.

Objectives

The programme's objective is to provide PhD candidates with analytical and interpretative skills and methodologies to advance research in urban studies, spatial planning, urban design and urban policy. Students are encouraged to reflect upon traditional and innovative practices in these fields by participating in research activities concerning cities and regions in Italy and abroad, paying particular attention to international comparison.

By establishing a dialogue with the best European and International schools, this PhD programme is the place for research and innovative approaches to urban studies, spatial planning and urban design dealing, in particular, with the following themes:

- Multi-scalar regional urbanization processes: reshaping the city on a regional scale and addressing the challenges for the analytical approaches and descriptions, as well as for institutional and governance processes;
- Advances and challenges in contemporary planning theory and practice: the reshaping of citizenship, boundaries and collective action in urban areas and their effects in the urban environment;
- Urban transitions towards sustainability: strategies and tools for land and biodiversity preservation, energy conservation, and natural and technological risk prevention and mitigation;
- Social and economic changes and their effects on spatial processes:

social inequalities and urban segregation; economic specialization and diversification in a global context;

- Evaluation and management tools for the feasibility, equity and design quality of urban projects.

Contents and research training

The educational programme's main objective is to offer PhD students a challenging environment with space for international debate, research, experimentation, and innovation based on a multidisciplinary approach.

The main courses and workshops focus on the following research areas:

Urban studies: Contemporary cities worldwide face increasing challenges regarding local democracy, sustainable development, environmental resources and landscape management, social cohesion, and cultural diversity. The main issues addressed are social, economic, ecological and territorial transformations, governance problems and technological innovations. The main research topics are: forms and processes of the spatialization of social and economic inequalities; urban segregation; processes and institutions of urban governance; the spatial impact of social innovation; forms and processes of regionalization; social, economic and territorial development in local contexts.

Planning theories and practices: Urban planning is not a unitary and self-contained discipline. Planning knowledge and activities can be improved by delving into (and jointly considering) both theoretical and practical issues. First, the cultures, ethics, traditions and paradigms of planning are varied and have evolved differently according to their geographical, institutional and political context. Similarly, planning practice is multiform and can be understood from several perspectives. Studying the characteristics, the peculiar interpretations, and the effects of planning practices constitutes a second relevant research field. Thirdly, the selection and discussion of the intersections between planning and other disciplines (i.e., architecture, environmental sciences, policy studies, philosophy and others) can dramatically innovate planning theories and practices, going beyond traditional approaches and perspectives.

Design topics, forms and tools: In a scenario of changing socio-economic, environmental and territorial conditions, theoretical and technical issues for the construction of urban projects and the implementation of urban policies are being experimented with to improve the quality of life. Specific research themes are the role

and form of urban projects in leading territorial transformations; innovation in the description and representation of urban environments and landscapes; tools for the evaluation and management of urban projects and policies aimed at mastering the feasibility and equity of land development, as well as the sustainability and the design quality of the physical outcomes and strategies for land and biodiversity preservation and energy conservation.

The above-mentioned fields reflect the ongoing research at DASTU and represent a framework for future proposals. They are the backbone for PhD students' educational and research activities.

Professional and research profiles

According to its international orientation, the PhD Programme trains highly qualified researchers and professionals. It expects them to work in academic institutions, research centres, public administration and the private sector in the following fields: spatial planning, design and management of urban projects and policy, urban studies and urban governance. PhD graduates with such a profile qualify for employment by Italian and international academic institutions, public bodies and research centres, and public and private development agencies.

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LANDING. HOW THE PRESENCE OF NEWLY ARRIVED MIGRANTS CHALLENGES CITIES. A LOOK THROUGH SPACES AND PRACTICES ALONG THE CENTRAL MEDITERRANEAN ROUTE

Martina Bovo – Supervisor: Prof. Massimo Bricocoli

Tutor: Prof. Gabriele Pasqui

In recent decades, research in the field of migration and urban studies has underscored the increasing complexity of migration processes. The nonlinearity of the migration experience has then been further exacerbated by the combination of new pressures to migrate to different parts of the world, by the initiatives of reception, regulation and control towards so-called refugees and asylum seekers. Urban planning has traditionally dealt with migratory and arrival processes when they imply a form of rootedness in the territory. Often, the experience of the journey, departure, transit or arrival are defined as ‘ephemeral’ and therefore harder to grasp and deal with in the language of urban planning and policies. However, migratory processes, particularly the more recent ones in the Mediterranean, include a condition that lies between the journey and long-term settlement, that maintains the open and processual character of the journey while already implying an intense use of territory. As those who observe these experiences from the side of places point out, these uncertain presences do not imply a light use of the territory, but rather a very intense one – so much so that they change

the territories themselves, formulating new questions and needs. With the aim of putting these experiences under observation and understanding how they prompt the way the city is thought and organized, the work develops around the concept of *landing* and its spatialization. The choice of this term stems from the need to think of the experience of landing not as punctual, but as processual and open. In fact, the term landing, unlike arrival, is a combination of a verb that refers to an experience of movement, and a noun related to space. Landing thus encapsulates the openness of travel and the connection with space and its use, which are the central object of investigation in this work. With the proposal of this term, the first move of the thesis concerns the construction of a conceptual framework, which captures the attention of the recent literature on arrival processes. The first dimension that defines landing is that of temporality: against prevailing binary definitions of temporality/permanency, the landing experience lies somewhere between these two terms and remains open to both. A second dimension is that of the mobility/sedentarity nexus:

the city and urban planning disciplines are still strongly tied to an idea of sedentariness as a requirement for access to and use of urban resources and spaces. Differently, the experience of migration – among others – imposes an alternative paradigm and describes a territory that Tarrius calls ‘circulatory.’ Finally, the third dimension that builds the conceptual framework of landing is that of the plurality of populations, conditions of use and uses of space. This conceptual framework defines a starting point and proposes coordinates with which the work descends into the field for an empirical research part. The research field is defined on a double level: first, the broad context of the Mediterranean and the central route, with a closer look at northern Tunisia and southern Italy. Secondly the work develops a closer look at the city of Palermo, a crossroads of migratory flows and central to the Mediterranean route even today. Here the empirical research uses a predominantly qualitative method that combines an ethnographic posture with a spatialized gaze, putting people, practices of use and spaces under observation in everyday life. In this perspective, the fieldwork

is constructed through visits to landing spaces, interviews with the actors involved in this process – 52 institutional actors, third sector, associations, civic networks, and migrant people – and prolonged observations in some specific spaces. The fieldwork combines a view ‘from above’ with one ‘through’ (Ferraro, 1998) the city of Palermo. First, by asking who lands in Palermo and what spaces are used, a plurality of populations emerges and with them different “cities”. A closer look at the urban spaces with which people interact in the landing process brings out geographies of spaces. Finally, the empirical research dwells on three of these landing spaces: the immigration office, a public clinic, and an association space. The fine grain of this observation highlights the importance of the organizational dimension of space, in its physical and management dimensions. In the face of changing populations and ever-changing conditions of use, the ability to organize and reorganize oneself in space assumes enormous relevance in order to be able to channel and



Fig. 1 - The Mediterranean Sea, Elaboration of a Portolano

not be run over by the changes that landing processes bring to the territory. The last move of the thesis research concerns the systematization of theoretical and empirical reflections around and beyond the concept of landing. In investigating the landing experience and its spatialization, the work achieves two goals: on the one hand, it proposes a key to interpret arrival processes, that dialogues with the prevailing interpretations in the debate but also tries to overcome some of their limitations. In this sense, the choice to approach the migration experience from a perspective strongly linked to the territory and its uses is particularly relevant and novel. On the other hand, landing represents a still under-explored condition of territorial use and raises broad questions that urge urban studies and planning. First, the issue of the institutionalization of these processes, of the categories used for their governance and for the organization of the city’s spaces suggests that new definitions are needed for the practices of use and the tools of action that our



Fig. 2 - Palermo landing spaces

disciplines have. It is necessary to recognize what the demand for use of spaces is, beyond binary definitions of temporariness/permanence, but also to be aware of which actors, spaces and services can provide answers and under what conditions. Second, the observation of landing spaces brings up some interesting reflections on the relevance of some spaces as tools of urban policies and that of space more generally as a tool of social and migration policies. Emerging, as mentioned, are some geographies and characteristics of these spaces, often not considered by policies, and especially the value of an organizational dimension in responding to the presence of changing populations and uses of the city.

IN/VISIBLE CONSTELLATIONS PHOTOGRAPHY AND SPACES OF IMAGINATION IN THE SWISS ITALIAN BORDERSCAPE

Nicoletta Grillo – Supervisors: Prof. Luca Gaeta, Prof. Hilde Van Gelder

National borders in the contemporary world are subject to contradictory visibility. While they are hyper-visible in the debate within politics, the media, and academic research, the mechanisms through which they are enforced and come to act are often invisible. Specifically, internal European borders have been highly dematerialised and are often invisible on the ground, but they are not disappearing, nor becoming irrelevant. At the same time, the enduring hegemonic representation of borders as lines incorporates the limited perspective of nation-states, which tends to naturalise them. Engaging with the notion of 'borderscape' and focusing on the Swiss Italian border, this PhD research confronts the problem of borders in/visibilities. The notion of borderscape is an emerging conceptualisation from border studies that recognises borders as multiple, mobile, and multi-located ambits. Borderscapes are composed of different official and unofficial representations and imaginations, as well as of different spatial practices. To question the in/visibility of these phenomena, the study combines perspectives and methodologies from Urban Studies, Art History, Photography

Theory and Practice within the emerging multidisciplinary field of Border Studies. Through an analysis of contemporary photographic artworks – such as that of Allan Sekula, Marco Poloni, Maria Iorio and Raphaël Cuomo –, a careful study of a specific territory and field research for the making of photographs by the author, the thesis explores how contemporary photography can reveal the visible and invisible layers of borderscapes and counter their hegemonic representations. In the Swiss Italian borderscape, the research investigates specific spatial practices of crossings – that of cross-border work and migrations – and places associated with them, developing a photographic and textual travelogue. Thus, the thesis elaborates both practically and theoretically the potentialities of contemporary photography to open new spaces of imagination in borderscapes through constellations of images and words.

Thesis synopsis

First, the thesis conceptualises borders as scapes considering their dual meaning of political and scenic spaces, and the relation between power, representation, labor and environment in shaping territories. This analysis moves

from historical landscape painting to contemporary photography, from Pieter Bruegel the Elder's *The Census at Bethlehem* (1566) to Allan Sekula's *Sketch for a Geography Lesson* (1983). The second chapter introduces the history and characteristics of the Swiss Italian border, its visible existence in cartographies, and its immateriality on the ground through photographs by the author that remain as markers of the invisible. Then, it presents the spatial practices of cross-border labor and migrations as processes of performative construction of the borderscape, that allow moving beyond a linear conception of the border. The third chapter turns to Italy's southern margins, a displacement of the border dynamically linked to the north, by analysing a work by the Swiss and Italian artist Marco Poloni on Lampedusa. The work *Displacement Island* (2006) is discussed in relation to Henri Lefebvre's theory on the production of space, which considers the role of representations. The fourth chapter develops a mobile and constellation-led epistemology of the Swiss Italian borderscape, moving along cross-border work and migration trajectories. The chapter builds a logbook which starts from the story of some

women workers at a border factory in Ticino, and ends on the southern Italian margins. It interweaves a textual narrative and extracts of conversations, archival images and on-site photographs taken by the author that give an account of the borderscape multiplicity. The conclusions sum up the potentialities of contemporary photography to open spaces of imagination, starting from a firefly image, a still survived from a documentary on women's labour in Ticino which dates back to the 1920s.



Fig. 1 - A path that crosses the Swiss Italian border. 2020, Nicoletta Grillo

ENABLING IM-MOBILITIES. DISCUSSING A THEORETICAL AND OPERATIVE APPROACH TO PROMOTE REVERSIBLE IM-MOBILITIES THROUGH ACCESSIBILITY

Giovanni Lanza - Supervisors: Prof. Paola Pucci, Prof. Giovanni Vecchio

The research on mobilities has extensively focused on mobility's social and political relevance, conceptualizing it as a complex set of spatial practices and a key driver for activity participation and social inclusion. Based on this interpretation, the relative absence of spatial mobility (immobility) generated by mobility differentials existing between individuals as different propensities and possibilities to move would assume a negative value, being the possible symptom of unfair distributions of mobility-related opportunities and inducing forms of potential social exclusion and marginality. This latter interpretation suggests the existence of *constrained* forms of immobility that may be influenced by individual and contextual factors over whoever suffers from such inequality. In contrast, a state of *chosen* and *reversible* immobility could instead be proper for individuals who can access in physical proximity to the resources and activities they need for their well-being. In this perspective, limited spatial mobility would not represent a limit for inclusion and social participation, but rather a condition that can have important positive social and environmental implications for a more sustainable mobility

transition due to the reduction of the need for travel and the possible strengthening of community ties according to a localist perspective. At the same time, high mobility itself, with which specific positive values are traditionally associated in terms of social privilege, participation, and inclusion, could be conceived, in specific circumstances, as a constrained condition experienced by individuals forced to move due to the absence of accessible opportunities. Thus, the social outcomes of im-mobility practices could be ambiguous and not easily identifiable and assessed. Based on this background, the Ph.D. research develops a theoretical and operational framework to detect, measure and explore, under a planning-oriented perspective, different conditions of im-mobility expressed by individuals in their daily lives and their potential social and spatial implications while discussing their relevance for urban planning and policy. Said conditions are analyzed based on the level of physical accessibility to valuable activities and opportunities provided by living settlements and personal capabilities, thus considering physical accessibility as a qualifier of forms of constrained

and reversible mobilities and immobilities. The methodology that is proposed in the research employs a mixed-methods approach combining and integrating quantitative techniques based on traditional census-based and mobile phone digital data analysis with a qualitative approach focusing on the Piacenza Apennine territory, a low-density and poorly accessible mountain area in Northern Italy. This case study investigates the rhythms, extent, and temporalities of individual im-mobility practices in relation to the existing conditions of accessibility to services and opportunities to identify territorial and social geographies of emerging mobility differentials at different scales, first focusing on the aggregate territorial dimension (thus following a traditional planning approach) and gradually shifting the focus to the everyday experience of the individual through participant observation, microstories collection, and interviews with local inhabitants. This multiscale research approach makes it possible to explore the variety of experiences of im-mobility at the individual and community level, the ways in which these are lived, narrated, shared, and the subtle differences - not

always related to the availability and accessibility to goods and services, but still influenced by them - between constrained and reversible forms of mobility and immobility in practice. It is precisely the combination between different methodological approaches and the evaluation of their results, proposed in the conclusions, that offers relevant insights to consolidate a new and richer narrative of immobility and its implications away from simplifying views. In addition, the thesis discusses how this new perspective on immobility can produce relevant policy outcomes for prefiguring more inclusive and sustainable mobility futures.

HOW TO PROMOTE RENTAL HOUSING AFFORDABILITY IN EUROPEAN CITIES? NEW THEORETICAL GROUND FROM THE CASES OF MILAN AND VIENNA

Marco Peverini - Supervisor: Prof. Massimo Bricocoli

Co-Supervisor: Prof. Simon Güntner

Housing affordability is a concept that links the housing situation of households to their economic situation and also refers to the conditions of access to housing and to the role of housing in determining conditions of poverty or wealth. Housing affordability has been a widely researched topic and can be considered one of the traditional themes of Housing Studies. In recent times, however, we are assisting to a re-emergence of the topic mainly related to the concentration of capital and people in attractive cities and to the processes of financialization of land and housing. Concerns over an increasing affordability crisis foster interest on concrete example of good housing governance in attractive cities. The doctoral research, started from an active collaboration between the Consorzio Cooperative Lavoratori - a consortium of Milanese housing cooperatives - and the Department of Architecture and Urban Studies of Politecnico di Milano, has therefore addressed the broad question "how to promote rental housing affordability in European cities?". To do so, the thesis adopted a grounded theory

approach implemented through an interplay between theory construction and empirical research, mainly conducted through case studies. The thesis has built new theoretical ground on the theme of affordability, around its normative definition (what is housing affordability) and how to promote it in attractive and growing cities. As the thesis shows, housing provision is only one of the possible ways to make housing and cities more affordable: the affordability outcomes are rather an effect of interrelated actions that different actors put in place to control and redistribute urban land rent.

CONTEMPORARY ALPINE LANDSCAPE VS FRAGILITIES. LANDSCAPE PLANNING PERSPECTIVES FOR THE SUSTAINABLE REGENERATION OF MOUNTAIN CONTEXTS

Silvia Restelli - Supervisor: Prof. Andrea Arcidiacono

The research deals with the territorial fragilities affecting the contemporary Alpine landscape, proposing a landscape planning approach to confront fragilities and regenerate, enhance and protect the Alpine landscape features.

The Alpine landscape is understood as the product of a stratification process of anthropic activities, developed according to the different economic systems that have guided and structured the territories, and natural events and phenomena produced over time. The physical transformations involving territory and landscape are also considered as the result of changes in the relationship between the Alpine context and cities in the surrounding metropolitan areas.

The landscape is investigated in its contemporary characters through a multi-scale approach to understand the fragility phenomena affecting it. Fragilities are interpreted as constitutive or arising, composing a complex plot caused by the alteration of the local balance conditions. The research focuses on the arising fragilities that are understood as the results of climate and socio-economic changes (global phenomena) and phenomena of shrinking and abandonment or increasing and overuse (local phenomena).

The fragilities topic is explored through a case study investigated at different levels of observation to identify the physical and relational geography of the landscape fragilities. Starting from the

case study analysis results and the outcomes highlighted from collecting landscape projects, the research explores the landscape planning topic, identifying issues and tools to deal with the landscape fragilities. In this framework, the research proposes a methodological approach for landscape planning at the supra-local level, addressing qualitative objectives to preserve, protect, regenerate and enhance the landscape and overcome its fragilities.

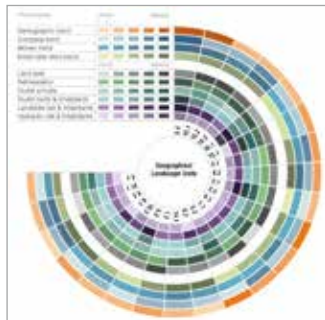


Fig. 1 - General overview of the phenomena in Alpine Geographical Landscape Units (Elaboration by the author).



Fig. 2 - Geography of the phenomena affecting the Alpine Geographical Landscape Units (Elaboration by the author).



Fig. 3 - Strategic map for the Valtellina of Tirano Geographical Landscape Unit (Elaboration by the author).