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Chair:

Prof. Alessandro Rocca

DOCTORAL PROGRAM IN ARCHITECTURAL URBAN INTERIOR DESIGN

General presentation

The Ph.D. Program in Architectural Urban Interior Design (AUID) promotes research, studies and projects focused on design processes and techniques belonging to contemporary architecture.

The Program is part of the Polimi Ph.D. School, which with several cross-disciplinary courses, develops basic knowledge about scientific research's methodological and technical questions.

The Program is embedded into the Department of Architecture and Urban Studies (Dastu), one of Italy's most important research structures. It is inserted into a well-established international network of centers of excellence.

AUID Program is a founding member of the European Network CA2RE, which schedules recurrent milestones and research activities together with the following partners: Arkitektskolen i Aarhus, Katholieke Universiteit Leuven, Technische Universitat Berlin, Universidade Lusófona Do Porto – Cofac, Hafencity Universitaet Hamburg, Norges Teknisknaturvitenskapelige Universitet Ntnu, Technische Universiteit Delft, Eaae - Aeea (European Association For Architectural Education), European League Of Institutes Of The Arts Vereniging.

The Program is run by a Head, who coordinates all activities. Then, different actors cooperate in the program development. Deputy Heads have specific assignments related to foreign relations, interior relations, departmental research. The Faculty Board has the scientific responsibility of all researchers, together with a Group of Experts, composed of professors with bold academic research experience.

A Group of Researchers actively participates in lecturing and tutoring the candidates; an international Advisory Board connects AUID with an extensive European network.

The Program welcomes both foreign and Italian students. English is the official language; the specific research subjects will be assigned to each candidate, after an agreement with the Faculty Board, within the first year of the Ph.D. activity.

Research topics

The Program studies architectural, urban and interior design in all aspects. The methodological frame is the design-driven research, where design is the cultural environment to test and produce theoretical and technical knowledge.

Every year, the Program, in respect of its general directions, focuses on specific topics to be explored theoretically and designery.

The preferential research lines are:

Emergency and crisis: experimental design related with processes of obsolescence

and decay; vulnerable, fragile, catastrophic conditions;
Grey, blue and green infrastructures: exploring and testing the new architectural perspectives in highways, railways, ports, airports, and forests, rivers, rural environment;
Post-pandemic architecture: investigate and upgrade interiors in housing, workspaces, commercial and cultural spaces.
The candidates will develop a research methodology starting from the lectures and assignments of the AUID courses and the courses of the Polimi Ph.D. School.

Studying the different formats, methods, and expressions that can shape research in architectural design, the candidates will profile their methodologies considering the selected object's specificity, the target, and the attended results.
The Program considers that design is a relevant and necessary component of any research.

Educational objectives focus on the deep understanding of a well-selected and defined topic and developing specific research containing a comprehensive overview of the scientific question and an original track and output. The candidate will acquire the skill to organize a consistent analysis of case studies, formulate a clear proposal for an original approach to a question, and elaborate innovative strategies and research methods.

Professional opportunities and job market

The Program is aimed to train highly qualified researchers and professionals who will work in academic institutions, research centers, public administration, as well as in the private sector, in the fields of architectural, urban, and interior design:

- University researchers and lecturers in the scientific fields of the Ph.D. Program;
- Researchers with an excellent scientific profile in the area of complex architectural developments and interventions of recovering and transformation;
- Independent professionals qualified in the management of highly complex design processes;
- Designers with high responsibility tasks in institutions and professional structures and leading manufacturers, engaged in traditional residential and special utilities, cultural institutions (museums, libraries, universities, schools, cultural centers), public and private services, commercial networks, accommodation, and leisure.

Research development

The main aim of all Polimi Ph.D. Programs is the development, for the candidates, of a research-oriented mindset, with expertise and skills in a specific research topic.

Ph.D. candidates are requested to develop an original

research contribution. The Ph.D. thesis must thus contribute to increasing the knowledge in the architectural design research field. Besides, it has to be coherent with the general research lines of the Ph.D. Program.

The research results are collected in the Ph.D. thesis, where the candidate's contribution is put in perspective to the research state of the art in the specific research field.
The research develops under the guidance of a supervisor, who supports the candidate in the setting-out and everyday activities related to the thesis development. The supervisor is not necessarily a member of the Faculty Board and may also belong to an institution that is not Politecnico di Milano. The supervisor can be supported by one or more co-supervisors. Further activities are encouraged during the Ph.D. path to enhance the candidate's personal skills and research expertise. Candidates must acquire the capability to present and discuss their work in the research local and global communities. Consequently, both the participation in international conferences and the publication of the research results in peer-reviewed journals are supported.

The Program encourages the candidates' research interactions with other groups in their research field, in national and international areas. Research visits of at least three months are strongly fostered, as through them, the candidates may acquire different skills to develop their research work and thesis.

The minimum duration of the Program is three years.

Objectives and framework of the teaching activities

The Ph.D. Polimi Programs and the Ph.D. Polimi School activate teaching forms of different kind and credit value, including courses, seminars, project workshops, laboratories. Teaching activities cover the fundamental research issues (problems, theories, methods), representing the founding element of the Ph.D. Program. Lessons are usually held in English, except when indicated otherwise. Structured teaching activities allow earning ECTS credits. Other activities, typically specialized and for which it is difficult to evaluate the learning and its quantification, fall within the scientific activities of which the Faculty Board takes into account in the overall evaluation. Still, they do not allow to earn ECTS.

The Ph.D. School of Politecnico di Milano proposes courses aiming to train the Ph.D. candidates in soft and transferable skills. These courses' skills and abilities are expected to help candidates across different areas of their careers to respond to the rapidly evolving needs of the global economy and society at large.

The Ph.D. School courses activated for the 2020-2021

academic year will be visible at this link: <http://www.dottorato.polimi.it/en/during-your-phd/phd-level-courses/>. At least 10 of the 30 credits (ECTS) that each candidate is required to earn shall be obtained through soft and transferable skills courses organized by the Ph.D. School.

The educational structure includes:

- Lectures, training sessions, guided tours, and seminar cycles given by Faculty and visiting professors;
- Workshops of design-driven research;
- Seminar activities and individual stages/internships particularly important for enhancing the students' curriculum;
- Individual research aided by tutors with the contribution of the entire teaching staff.

Courses and workshops are mostly situated in the first year, conceived as a preparatory training for team and individual research, and are focused on the following topics:

- 1) "Architecture Research Agenda" investigates research methodology and goals in architectural design, confronting present and past experiences developed in national and international scholars and teams, looking for different approaches, analyzing strategies and results;
- 2) "Theories and Techniques of Funded Research": how to set up research project adopting the tools requested today by the research stakeholders. The aim is to get a technical skill about how to deal with the different rules of the most important funding entities, how to weave the networking actions, identifying and collaborating with teams of other institutions.
- 3) "Architectural Research Workshop": to prepare an application elaborating in teamwork a real research project to a real call, trying to win and to start a funded research program, exploring and creating the more appropriate network, theme and strategy.
- 4) "Design-Driven Research Workshop": this course takes the candidates into the field of architectural design. The challenge is to identify a possible track of design-driven research, creating a specific and original link between the design activity and the theoretical speculation.

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THE SHAPES OF WATER. A DISCOURSE AROUND THE ARCHITECTURAL PROJECT FOR A LANDSCAPE REACTIVATION IN FUJIAN PROVINCE

Francesca Berni - Supervisors: Ilaria Valente, Ma Wenjun, Marco Bovati

Dealing the contents of this research with water is, first and foremost, a methodological choice. The thesis argues the architectural project and the notion of landscape with an oscillation between a place's specificity and the general notion of space meant as its possible design manipulations. Water constitutes a theoretical and also practical tool of argumentation of the site where the research project is located. Indeed, all Chinese cities originate from a water network. However, water still plays an even more crucial role in rural areas' space construction: its cycle includes space in its wholeness. The small village of Dongda is in Fujian province, just a few kilometers from the Pacific Ocean, and belongs to the Sancha River: this is the setting in which the research unfolds, tackling the problem of abandoning rural contexts, through six villas built during the Chinese Republic, that lies in a state of significant decay. Moreover, they result from the combination made by the local architectural syntax and the European lexicon, providing a notable case of Eastern-Western architectural hybridization. In China, the countryside's emptying to migrate towards large metropolises is a phenomenon of which the six abandoned buildings in question are intended to be singular devices of broader argumentation. Thanks to its *remote* position, the village could keep its original infrastructural net

intact. Although some parts have been added over the years, some have tampered with: their incoherent aspect helps us recognize the original coherence of the settlement. Over time, the dying out of rural practices has compromised the net that drives them and allows its recirculation. Water is implicitly involved in these issues as a thermometer of the degree of health of the context crossed. Landscape and water are inevitably linked, not only in physical terms but also in terms of their meaning and role in the formulation of possible sustainable transformations. The research starts from the significant absence of data to go back to the archetype of architecture, the origin of living, and space construction by measuring it, walking through it. On the other hand, Dongda's case adds the opportunity to shift the project's sense for the ground, starting to discuss rather a *water-ground project*. By shifting the barycenter, the founding nucleus of the connected operations is led to the writing of the void. The void is intended as a vector, a space of *possibility*. Its opposite, solid matter, determines neutral field or volume without quality, the shape of water. The relationship between container and content becomes a technical problem and a significant theoretical question that can finally keep its concrete and real presence into the becoming of space.

The vital link between water and soil will be argued as a real place of design and an instrumental place of theoretical discussion, feeding each other. Dongda Cun can therefore offer a significant contribution to developing an appropriate approach to the different forms of fragility, which are distributed in Chinese rural contexts and linked to the relationship between the forms of settlement, water networks, and infrastructure. In this sense, the architectural project can be meant as a room that goes beyond any context and shapes instruments according to the places it crosses: it is like a drop of water. The theoretical dimensions



Fig. 1 - One of the abandoned buildings in Dongda village. Reinforced concrete hexagonal turret, which hybridizes the traditional complex

of context and research surround the landscape notion: the project oscillates in this space of dialogue, and the context is equally decisive for the conduction of transformative processes. In this dialogical, transversal, and multi-instrumental conduction, research advances and builds an environment made up of a series of principles, objectives, methods, instruments, and objects in a continuous relationship. The six buildings' spatial transformation must pass through a zeroing, but the place must be accompanied, conveyed to this zeroing, removing the more and re-making space starting from water circulation. With an architectural philosophy based on the *water*



Fig. 2 - One of the abandoned buildings in Dongda village: the space of the patio damaged by incongruous elements (sink and pipes informally added)

life cycle, an urban, domestic, and landscape space project can be dealt without losing the original aims of architecture, building good and balanced conditions for dwelling. By bringing the Western perspective closer to Eastern thought, the notion of landscape is discussed again within the dialogical distance between the two contexts. The distance concerns the way of understanding the landscape and its role in space construction. *Shan shui*, "mountain(s)-water(s)," is the Eastern way to express the sense of landscape. The distance between the two worlds becomes evident



Fig. 3 - One of the abandoned buildings in Dongda village: corner solution of the internal patio, with the detail of the canal-cornice on the top that flows the water from the roof to the patio circulation system passing through the hollow reinforced concrete pillar

simply by comparing the words *paysage* and *shan shui*. The former is necessarily bound to its modern history, perspective, and subsequent visual culture. "Mountain(s)-water(s)" expresses a condition of movement and relation; it is first and foremost a process relationship between two opposites. It is not the description of an environment but of the expression of a phenomenonic space that finds its *place* in the projective, convective and expansive movement whereby the landscape and the subject constitute a *whole*. There is no separation between subject and object in the Chinese notion of heritage, and sight is not the superior sense that allows space interpretation. The subject is immersed in the landscape and is the landscape itself. The resonance between the two worlds (*shan shui-landscape*) points out a renovate philosophy to architecture and space modification in general. Hypothesis and thesis belong to the design process, and the aim is to demonstrate how the architectural project is an instrument of reading and writing, a spherical space ever available to the place. Here, the place is understood as physical and abstract space, external and internal, as perceptual space and descriptive space. Discussing the landscape, we discuss the project and the importance that this pair has in the modification of the space we live in.

COMPOSITIONAL STUDIES ON LUIGI CACCIA DOMINIONI

Veronica Ferrari - Supervisor: Luigi Spinelli

The research is a monographic study on Luigi Caccia Dominioni, which focuses on the compositional aspects of the Milanese architect's work, aims to be an original and innovative contribution within the national and international architectural literature as a first analysis of the compositive aspects.

Since his work is very vast and transversal to the different scales, from the city scale to the object scale, it is not possible to exhaust all areas in a single research. Here we mainly dealt with the urban and architectural scale, the latter also analyzes the specificity of the interior. As for the production of design, the scale of the object, the theme has been addressed only as it established a compositive relationship with its architectures as it would require entire dedicated research.

The study aims to make a new contribution, grafted on what has been written, to read the work of Caccia Dominioni as operational and useful to the work of the architects of our times. To learn about the figure of the architect in terms of compositional and not only theoretical and historical studies, through the study and interpretation of the aspects and characteristics of Milanese architecture, such as the relationship with streets and surroundings, the use of the loggia and the balcony, the use of porous and natural coloured coatings and

plasters, etc. To understand the role of Caccia Dominioni it is necessary to proceed with parallel studies and continuous comparisons between the works themselves, his way of working and the relationships he has had with clients, administrations and other professionals.

The thesis is divided into four analytical categories - "Approach", "Style", "Composition" and "Context" - which allow organizing the study. The first part, the "Approach", is dedicated to the analysis of the architect's method of work and the architect's ability to arrange buildings in the urban landscape and at the same time to confer an exclusive image. He can manage different scale, from the urban one to the scale of the object. He works in curtain road and studies the insertion in it: the urban front and the secondary one, the blindside and the continuity with the built and the urban pre-existences, the relationship between different typology and morphology such as a mixed-use between a high building and building in curtain road like the project for a commercial and residential building in Via Vanoni in Morbegno and the complex in Corso Italia in Milan.

A crucial point of this research is the definition of the "Stile di Caccia" formulated by Gio Ponti and reused by Fulvio Irace to best describe the peculiarities of the architect and his Milaneseity, which is not

easily classifiable or similar to other contemporary architects. His projects have a unique character and content because they are the result of a study dedicated to every problem.

The part of "Composition", the more innovative and interesting, analyzes and study the fixed points of his architecture and aspects such as the care of the connection between the new construction and the historical fabric and its insertion in the urban context; It creates continuity with the ancient Milanese settlement, with the Monuments, modulating its architecture accordingly. The attention to the context in which to build, in his projects he can read and assimilate the measures and proportions of historic buildings and the workings within his buildings - like the residential building in Piazza Carbonari born from the plan configuration of several overlapping



Fig. 1 - Complex for shops, offices and residences in Corso Europa, Milano, view from Piazza San Vito in Pasquiolo, photo by V. Ferrari

layers, creating a dynamic layout in elevation. In the same way, he uses traditional materials in a modern key, combined with a meticulous study of the details. The architectural language of Caccia Dominioni shows up as a heterogeneous set of meanings, with permanent elements and other variables, which form a large, but well-defined repertoire from which the architect draws specifically based on need and intuition. Within this variety, the operational methodology with which he expresses his language is very clear and coherent.

The last part, the "Context", is fundamental for the research because frame the figure of Caccia Dominioni and his design activity in the cultural context of reference and within the contemporary debate. To better understand the architect's works, we study the collaborations, the exchange of ideas received



Fig. 2 - Building in Via Nievo 28, Milano, detail of façade composition, photo by V. Ferrari

by the architect with friends and colleagues. Through a chronological and systematic study, it can be seen that the theme of reconstruction is a constant in the early part of Caccia Dominioni's career, from the Forties to the Seventies, which coincides with the architect's period of greatest productivity. He often finds himself working in historical contexts and strongly characterized by the presence of monuments and consolidated historical fabrics, or in the process of being transformed. He designs real fragments of cities, such as the project for the I.B.V.A. in Via Calatafimi, a space that also includes the residential building in Via Santa Croce built a few years later and the complex intervention of Corso Europa. Caccia Dominioni often operates in the same context, years later, as in the two examples just mentioned. Among the most



Fig. 3 - Palazzo di Prospero Visconti in Via Lanzzone, Milano, detail of the stairs, photo by V. Ferrari

interesting results of the research, which also wants to be a collection of "starting points" and inspiring themes for future studies, there is that of having partially opened the gaze of investigation on the architecture of Caccia Dominioni, and opened a new chapter of studies dedicated to architectural composition, where the historiographical studies and the previous studies form a solid basis. The conclusions of the study are open in nature, ready to support other topics, other avenues of investigation and new developments. Within the whole development of the research, the observation process goes from the general to the particular and vice versa, precisely because of the multiple faces of Caccia Dominioni's architecture: "from Phonola to the city, and back".

OPENING A LEXICON OF THE NEW SOCIAL SPACES TOWARDS BUILDING A COMMON CONCEPTUAL FRAMEWORK FOR TRANSDISCIPLINARY COLLABORATIONS

Madalina Ghibusi - Supervisor: Pierluigi Salvadeo

Starting from the premise that the practices and behaviors of people in the urban environment are producing new forms of social space, the following transdisciplinary study aims to identify and define them, in a non exhaustive and non conclusive way, in order to open an update and enrich the lexicon of urban space. In the disciplinary areas evolving around the urban living and environments of the past 20 years, both in the theoretical and applied research, there is an increased focus on discovering new ways of developing the urban life in a qualitative way. Mainly due to the accelerated growth and densification of the cities, the challenges of keeping a human scale of the urban living are becoming more complex every day. This is one of the main triggers of the new space production, which, in fact, sometimes, is more of a rediscovery of the existing physical entities through new perspectives. These perspectives come from the perceptions and experiences of people using them which seem to offer new dimensions to the spaces around them. According to the transdisciplinary research and observational studies, the society has been lately having a predilection of rather choosing the temporary and informal settings, with spontaneous usage placed in undefined public or open spaces. These fragments, with their range of variety, are being defined through a terminology that is becoming more common in the

urban research field. This terminology is based on a set of qualitative notions describing new socio-spatial constructs and their use. So, it seems that these notions incorporate both a physical and a social dimension that further generate the new social forms of the contemporary city through strategic and interventional processes.

As a synthesis of the research framework, the present situation is that an increasing number of the contemporary urban spaces aiming to facilitate socialization and human wellbeing are no longer used to the extent they were designed to and the complication is that this results in a double-sided complication: the old is abandoned therefore alternative and new spaces are adopted by citizens and transformed accordingly to their needs and pleasures. For the architecture and urban fields, this has an implication on the role that they have on building a sustainable city therefore architecture and urban design needs to rethink the methods of reading the city and responding to it through specialized solutions. This can possibly be done through transdisciplinary investigations and collaborations. A framework for these can start from a common lexicon of concepts. The benefits are both for the end users and for the specialists implied in the urban strategies. Therefore, the methodology of this research is based

on a transdisciplinary approach that can manage the complexity of the urban layers and the actors implied in such a context. What this type of approach implies, its applicability and its suitability for this research are discussed in depth in the first part of the thesis.

The study starts with a review of the recent literature dealing with the stated subjects: urban environments, human dimension, public space, user experience, wellbeing, urban regeneration, strategical interventions and sociability. This part of the literature review is organized around two main arguments: ways of studying, reading and understanding the state of the city and ways of producing social space.



Fig. 1 - People are using the historic stairs of the Cathedral as a place to sit and socialize, adapting the use of this space to their needs and appropriating it as a public space specific to the contemporary times. Photo by the author.

The second part of the study aims at framing the lexicon that starts from the assessment of the very recent form of the city, which is increasingly liquid, in a highly dynamic changing movement. This is the reason why the lexicon keeps an open dimension, in order to gain and adapt to new meanings coming from various disciplinary inputs of meaning and of applied potential. Therefore, the main purpose of this study, is to form a basic common ground as an invitation to the contemporary city, with all its constituents and influencing factors, to recognize and add to the formation of this urban lexicon. Although many of the terms can be used interchangeably depending on the context or application, there are some subtle attributes that can be explored when there is needed a demarcation between terms. The following synthesis aims to delineate the main characteristics of each notion. VOID - perceived as an empty space in relation to its counterparts (solids, fills) which is lately evaluated as equally important; it holds a neutral position; it can be both physical or symbolical; it is a raw resource; can be both physical and symbolical. LEFTOVER - characterized by interdeterminancy, uncertainty and vagueness; undefined space as a result of a previous process or action; often unlooked for and abandoned, especially on a macro level; can be determined on morphological,

ecological, social and material levels; often reappropriated through informality.

RESIDUAL - undefined space as a result of a previous process or action; synonym to leftover; it usually has a negative connotation; they welcome informal life; it includes more variables, including leftover, non-spaces and dual spaces.

IN-BETWEEN - a position or space between two entities (different, equal or opposed); can be both physical or conceptual, both a space or a research tool; it is a relational and tangential space; can be found between two similar or opposed entities, either on the same or different levels.

INTERSTITIAL - an interval between two or more different entities or states; a space for future evolutions often in a residual, leftover or inbetween two or more entities; it often hosts informality; it is more complex than in-between space; it is intriguing and more changeable due to more variabilities around it.

INTERMEDIARY - a space that mediates between two conflicts or between two states of change; it is continuously changing; a buffer space; it is a third space; can be used to integrate; it has a critical role.

FOUND - identified in relation to lost space; a rediscovered or repurposed lost space; it is characterized by immediacy and spontaneity.

LOOSE - a flexible space allowing

multiple interpretations; it is not a lost space, it is functional on other levels but it gains more uses and meanings than expected or planned; it offers a sense of freedom for appropriation and interpretations; it becomes a dynamic space that is easily adaptable.

TRANSITIONAL - an advanced state of third spaces, beyond their intermediary role that is highly focused on its transitional role; its specific role in transitions from one state to another that may be or not known or predefined and it is meant to be discovered; it has a processual state and an ever-changing nature.

If adopting a common lexicon in multi-disciplinary collaborations is accepted as a necessity, this also means that a narrowing of the terminology should be done as a step further in this ambit. This narrowing should aim at clarifying the application of these notions in each discipline, and this can be done through a multi-disciplinary collaboration research. However, this study was done from an architectural perspective and even by doing a transdisciplinary research, with case-studies and theories from outside architecture, this cannot guarantee a maximum applicability in the perspectives coming from other disciplines.

DISSONANT MEMORIES IN THE POST-SOVIET SPACE: NEWLY ESTABLISHED MUSEUMS AND POLITICAL HISTORY IN RUSSIA (1991–2016)

Maria Mikaelyan - Supervisors: Gian Luca Basso Peressut, Francesca Lanz

Remembrance and commemoration of traumatic historical past have become one of the major issues of the international museological practice over the last decades. By means of architectural and exhibition design, contemporary museums pose questions concerning history, memory, national identity, alternative perceptions of the past and the present. These questions become crucial not only for the self-consciousness and self-identification of certain sociocultural groups but of the whole nations, or even of the entire society.

The present transdisciplinary research examines the issues of dissonant memories and contentious heritage in relation to the Russian memorial museums of the past three decades. The critical methodology suggested by the author encompasses an extensive analytical study of the museums that have been established after the dissolution of the Soviet Union and are significant for the museological process of the period under review. New scenarios and tendencies of architectural and exhibition design realised in a single post-Soviet country constitute the focus of the research. Further, it poses theoretical questions concerning the impact of the national political discourse on the commemoration of difficult past, as well as a top-down instrumentalisation of architectural and exhibition design in the realm

of current Russian museological practice. After the dissolution of the USSR in 1991, fifteen newly independent countries had to face not only extensive changes in the socio-economic and political realms, but a total reconsideration of the national history, memory, and cultural heritage. Consequently, this resulted in contradictory polemics, misperceptions, and, in some cases, an ideological bias. During the last 30 years, various types of identities – from micro-identities of small social groups to national ones – were formed in the post-Soviet space requiring new forms of interpretation, transmission, and intermediation between them. A drastic overturn of the value systems, together with the lack of meaningful discursive work on the construction of collective social memory or *remediation* of difficult

histories related to the Soviet era, have brought contemporary societies of the post-Soviet countries and, in particular, of Russia to contradictory worldviews and conflicting ideologemes. In the modern Western world practice, especially during the post-WWII decades, museums should not only fulfil their traditional functions – storage of the collections and their public exhibition – but become a place for carrying out socially significant processes, such as, for example, the unification of various social groups under the aegis of multipronged cultural and educational activities. A mandatory requirement for the modern museum complex is the search for the most effective ways to influence the viewer, and the first approach to this task is constituted by architecture: architectural expression commits itself to create the immersive



Fig. 1 - Buildings of the Perm-36 Memorial Museum of the History of Political Repression and Totalitarianism. Source: M. Mikaelyan 2018.

ambience for an artefact that has been once extricated from the context it had been connected to. Thus, it gains a high level of social value. Concurrently, the contemporary museum follows an inclusive strategy towards the experience of its past. The research explores the issues of dissonant memories and contentious heritage in the post-Soviet Russian museum practice applying the case-study methodology. A comprehensive critical analysis is performed in relation to architectural and interior design, exhibition design, and dominant narrative strategies of each case study. The central research question is how national political discourse is able to impact on the evolution of the museum design practice, and how this discourse is embodied within the museum architecture and display of a single post-Soviet country. The critical selection criterion consists in



Fig. 2 - Items found at sites of the former camps and displayed at the GULAG History State Museum in Moscow. Source: M. Mikaelyan 2019.

identifying museums established *ex novo* after 1991 that feature valuable architectural and exhibition design projects. As a result, four in-depth case studies – the Perm-36 Memorial Museum of the History of Political Repression and Totalitarianism in the Perm region, the Sakharov Centre in Moscow, the GULAG History State Museum in Moscow, and the Boris Yeltsin Museum in Yekaterinburg – have been performed with the objective to highlight specific features inherent to the Russian museological state of affairs in the realm of dissonant memories and to explore the role of a museum as a political instrument in post-Soviet Russia.



Fig. 3 - 'Seven Days That Changed Russia' display at the Boris Yeltsin Museum. Source: M. Mikaelyan 2018.

DESIGN CHALLENGES IN ZHANGYANG VILLAGE, FUJIAN PROVINCE. RURAL REVITALISATION IN THE CHINESE NEW ERA

Gerardo Sempregon - Supervisors: Ilaria Valente, Ma Wenjun

In a globalizing world permeated by urban homogenization, rural habitats have been acknowledged to express several sources of societal identity. With their construction technologies, spatial features, and territorial relationships, settlements in the countryside are material narrations of local civilizations. However, the conflict between the necessities of economic development and the protection of the local assets, both environmental and cultural, puts the countryside areas in a condition of fragility. This dissertation studies the formal characters of a rural settlement situated in the Fujian Province. The goal is to investigate the spatial consequences of the ongoing socioeconomic transition and to explore the design problems emerging in such contexts. At the political level, to promote the “countryside renaissance” China is seeking a distinct approach to rural development. With the turn of the millennium, the Chinese central government started promulgating measures targeted to promote virtuous restructuring cycles in the rural areas, which culminate with the recent Five-year Strategic Plan for Rural Revitalisation (2018-2022). One of the core aspects of the imponent political program is the realisation of a “prosperous, harmonious and beautiful” nation, drastically alleviating poverty within 2020. However, the dramatic

frictions between the urban and the rural areas are far to be narrowed, remaining the main obstacle to an inclusive nationwide development. In the countryside, the transition from a planned economy to a market economy is coupling with the production of new architectural forms and spatial aggregations which are reshaping the rural territories. Rather than a linear path, Chinese ruralities are witnessing a controversial process of transformation, left to uncontrolled negotiations and rapid discontinuous courses of crisis and development. The consequences include, but are not limited to, economic backwardness, social inequality, land-use pressure, food insecurity, environmental instability and cultural loss. Against the backdrop

of a context in permanent evolution, the question of rural development imposes a profound reflection on the modalities of site modification, and the recycle of spatial resources. This study meets these themes and tries to put them in the form of design challenges. The research discusses which values, goals and means can be reconsidered by architectural and urban design to read and re-orient the ongoing phase of transition. In particular, from one side, a method to decipher important dynamics of transformation taking place in Chinese ruralities is proposed. On the other hand, the suggested modification projects, working at the different scales of design, aim to graft a logic of metabolic reactivation, according to which a punctual transformation



Fig. 1 - The rural settlement assumed as the case study by the dissertation. November 2017

can boost a broader revitalisation process. In this way, the architectural and urban design can contribute to re-negotiate the priorities expressed by a multi-disciplinary debate that is mobilising different actors and topics, among which environmental stability, economic growth and cultural diversity. The thesis considers Zhangyang Village as a paradigmatic example to explore cutting-edge methodologies at the scales of architecture and urban design. Recently, Zhangyang has applied to be enlisted as a demonstration project of rural revitalisation. As part of the SJTU-Polimi Sino-Italian research team, I observed the development process by moving across the boundaries of academic and practice contexts. Within this manuscript, the central sections host the core steps of the research. They propose a survey of the villagers’ opinion, a critical interpretation of the settlement spatial



Fig. 2 - The problematic coexistence of vernacular and modern built forms. November 2017

characters in relation to the current phase of transition, a morphological reading of the built fabric and a typological focus on the historic architecture of vernacular buildings. The proposed graphic elaborations clarify the fundamental role played by the vernacular buildings within the village, working as formal matrices of a built fabric that is gradually – but inexorably – eroding. In this way, the onfield observation set the bases for the construction of both a theoretical reflection and an experimental design, which place the challenges of architectural design in rural contexts at the centre of the multi-disciplinary debate. These challenges dot the journey through the vast - and sometimes controversial - process of revitalisation of Chinese rural territories.



Fig. 3 - Two carpenters are repairing the family temple devoted to their ancestors. December 2018

PUBLICNESS IN TRANSITION

CONTEMPORARY PUBLIC OPEN SPACES IN URBAN DESIGN-LED DEVELOPMENT BY PRIVATE SECTOR

Jingwen Shan - Supervisors: Laura Montedoro, Marco Bovati

In the last five decades, many privately owned public open spaces (POPOS) were manufactured in the urban design-led development by private sector worldwide, triggered by the introduction of Public-private-partnership (PPP) as a tool to overcome financial crisis of the state. The aftermath of this phenomenon is the transition of publicness in urban spaces. Many scholars doubt the authenticity of the publicness in POPOS, while some others saw optimistic ideology in the provision of publicly usable space by the private sector. This research is built upon the previous research regarding to the “dimension of publicness” since 1980s when Benn & Gaus proposed that publicness was a multi-dimensional concept. After that, the dimensions of publicness have been supplemented from three to about eight dimensions by a number of scholars. However, there is a lack of in-depth research into the dimension of publicness about the physical space, concerning spatial design expertise. In addition, as argued by Varna & Tiesdell, previous models of publicness were generally dedicated to disciplines theorization and left further research of users’ perceptions to be compared with. Moreover, there is a lack of international examinations and comparisons. This is mainly due to the fact that the impact of context on projects is considered so strong that the projects are disparate.

However, following the insights of Henri Lefebvre, a new generation of scholars have taken on board the idea that the whole world is becoming urbanized. As recently argued by Neil Brenner, on planetary urbanization, the city or metropolis are becoming irrelevant unit of analysis. It’s better to look at the forces of urbanization. In this research, the main force is PPP that opens to transnational developers and architects in a globalized mode. Therefore, the urban design-led development by the private sector can be a more relevant unit for analysis rather than one specific city. In order to fill the abovementioned research gaps, the thesis aimed at deepening the research of publicness in the specific dimension concerning architecture expertise, instead of a further integration of the overall dimensions; comparing the dimension of physical environment with the dimension of user perceptions; and finally, applying the reframed dimension as a tool to evaluate publicness in contemporary POPOS in the last two decades. The hypothesis was, like some indoor globalized spaces, such as airports and shopping malls, given roughly the same functional programs and the principle of efficiency, POPOS as outdoor spaces may as well share a common model that being followed globally, and in the model, while the use of the space remains open to the public,

the spatial composition is used to restrict a preferable/tolerate range of behaviors and users. In order to test the hypothesis, the research attempted to prototype a model of contemporary POPOS via a series of case studies. The investigation of four contemporary POPOS are the core of the research. They were selected from Post-2008, the year of global financial crisis which further intensified the PPP. In addition, it is crucial to understand the history of POPOS. The precedents from the mid-twentieth century were the first generation of POPOS in the Modern history. Hence, the research also investigated four background cases from prototypical POPOS in the mid-twentieth century. In order to obtain a comprehensive observation, the common ground for the selection of cases is presenting a certain architectural and environmental quality instead of self-evident inferior space, popular with and heavily used by citizens; two variations are planning policies (in terms of PPP) and spatial types. In terms of planning policies, the selected cases are from Milan and London which are representing private enterprises group, Shanghai and Dubai which are representing state-owned enterprises group, and New York which is representing unified incentive policy. For spatial types, the research categorized eight spatial types, central open space, “block-marginal”

open space, linear open space, elevated open space, sunken open space, spiral open space, arcades and though-block arcades. Correspondingly, eight cases were selected, Lower Plaza of Rockefeller Center, Lever House Courtyard, Seagram Plaza and Economist Plaza, the main cases are Piazza Gae Aulenti, Central Plaza of City Walk, Piazza Tre Torri and Greenland Binfen. The selected cases were analyzed in an inductive approach that was an assessment of physical configuration, combined with deductive approach that was an assessment of user perception (only for the main cases). For the assessment of physical configuration, the analytic aspects adopted and reframed the “physical configuration” dimension of the Star Model of Publicness by Varna & Tiesdell in 2010, which was one of the most comprehensive ones building up previous studies. The dimension consists of three indicators – centrality and connectedness, visual permeability, thresholds and gateways. The research added two more original aspects – tectonic form of the key building on the field, spatial arrangement of functions and physical facilities. The analytic method was diagramming. The results of each case were illustrated in one conceptual model of publicness that included scores of evaluations in five brunches. The further step was to merge the results within two groups

of cases – in mid-twentieth century and post 2008. For the assessment of user perception, the analytic method was metal mapping, following the work of Kevin Lynch. The first stage was collection of user reviews – about 3500 reviews per case collected from both field research and online platform. The following stages were mapping high-frequency words, restoring high-frequency words maps into metal maps, and again, the results were illustrated in a conceptual model of publicness for each case. The assessment of publicness of physical configuration showed an evident consistent evolution. The conceptual models in the two analytic time periods shared great similarities, but at the same time saw certain changes. Publicness of spatial configuration declined generally since the land transaction between governments and private sectors and kept sliding in contemporary age as project scales swell up. The assessment of perceptual publicness was quite positive. In five analytic aspects, users’ satisfactions of the POPOS were generally higher than the evaluation of the actual physical configurations. The prominent conflicts, as well as the contradiction between user perceptions and their own actions, mirrored a number of common patterns, such as visual distractions, “fast space” arrangement and “roofless mall”. Traditional

public spaces respond to a number of requirements, for instance social, economic, religious etc., for citizens, while POPOS responds to only economical intent, for consumers. The complexity of the space therefore shrinks, not only morphologically but also fundamentally. In conclusion, the hypothesis was verified to be valid – there is a model of POPOS that being followed worldwide, and in the model, while the use of the space remains open to the public, the spatial composition is used to restrict a preferable/tolerate range of behaviors and users. *Publicness is in transition* towards fragility and desolation, which is a state of crisis. The transition extends further than contemporary public open spaces in urban design-led development by private sector, but also historical ones, such as commercialization and *museumification* phenomena in ancient towns. They can be purposeful future research.