

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

| Personal information | |
|----------------------|-------------------|
| Name | Hristiyana Mirova |
| Student number | 5844444 |

| Studio | | |
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| Name / Theme | Architectural Design Crossovers/ Urban commons in Madrid | |
| Design mentor | Ir. J. P. M. van Lierop | Architecture and Design |
| Research mentor | Ir. J. A. Kuijper | Architecture design Research and Theory |
| Building Technology mentor | Ir. arch. G. Karvelas | Architectural Engineering and Technology |
| Argumentation of choice of the studio | The chosen studio considers a multidisciplinary approach to both design and research. I believe it is very valuable that in the structure of the course we have the opportunity to conduct multimodal research, which would help us build up our design framework. Not having a pre-selected building program for the design allows us to become aware of the challenges the city/area is facing and its necessities and propose a solution. Additionally, this includes the freedom to follow our passion and interests and develop a design that really represents us as future architects. | |

| Graduation project | |
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| Title of the graduation project | Liminal waters: Discovering the productive liminality and metamorphic capacity of spaces in transition |
| Goal | |
| Location: | Madrid, Spain |
| The posed problem, | A city is continuously evolving. It expands, reshapes, and reconfigures itself based on certain conditions that trigger a chain of transformative reactions . One example of this is population growth, which is prevalent in many leading metropolitan cities in Europe, including Madrid. The demand for expansion of the city's territory leads to development outside of the central areas. This dictates the need for reconfiguration of the city network and better connection between the city's old and new urban cores. |

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| | <p>During this urban development process, certain areas tend to be overlooked, underdeveloped, or not fully integrated into the urban fabric. These areas create gaps or interruptions in the urban flow. As a result, some parts of the city flourish, other become "dead cells" due to neglect. Their liminal nature expressed in the state of transition makes them potential nodes for regeneration and spatial recreation. Focusing on their revitalization would help achieve a more balanced development process but also would be the key to reach a city's full functional capacity.</p> <p>Each of these in-between or leftover spaces exists within a unique cultural, environmental, and historical context, shaped by the interplay of various factors that define their 'genius loci.' The interaction between elements such as water, memory, soil, presence or absence of human activity hides an undiscovered potential for the place's transformation and architecture could be the catalyst.</p> <p>Water is one of the ever-changing elements deeply rooted in the history and culture of Madrid. However, the changing climate conditions have lead to long periods of very high temperatures, scars precipitation and thus drought in many areas throughout the country. The relationship between the city, the water and the people is damaged.</p> <p>Here lies the potential to use the regenerative and healing power of water to reactivate the underdeveloped spaces, improve the resident's quality of life, redefine the existing spatial interruptions but also reestablish the connection between the city and its waters.</p> |
| <p>research questions and</p> | <p>What if architecture could be used as a framing device to unleash the power of 'genius loci' and thus trigger a process of space meta/morpho/genesis? How could the presence/absence of water be used as a regenerative element for spatial and functional recreation?</p> |
| <p>design assignment in which these result.</p> | <p>The design would be a site-specific intervention that aims to address the environmental challenges and consequences of climate change that the city of Madrid is currently facing. The focus would be on water as a pivotal element of change, transformation, regeneration, and healing.</p> <p>The river Manzanares would be taken as the main symbol of the city's relation to water. The design aims to restore the connection between the river and the citizens by reimagining</p> |

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| | <p>the Manzanares river as a central character in the city's landscape. It will demonstrate the significance of water and the river as a water body in the shared cultural and historical heritage.</p> <p>The vision includes developing a hybrid program including elements of education, wellbeing that enhances the spatial, social, and ecological conditions of an underdeveloped area along the river while raising awareness of water scarcity and promoting efficient water management.</p> <p>The project intends to investigate water's potential as a calming, healing and revitalizing force for both the site and the community. A key goal is to rekindle the relationship between the river and the city's inhabitants, encouraging respect for the river as part of the urban identity. The architectural design will enhance existing actor-network relations on the specific site and propose a new spatial organization, elevating the role of water in the urban landscape. By addressing the liminal phases of transition in a building's life the approach aligns with the concepts of sustainability, material circularity and resource efficiency.</p> <p>This adaptive approach aims to foster a strong connection between the city, its people, and the natural environment.</p> |
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Process

Method description

The methodological framework consists of two parts: an on-site and off-site investigation.

It is starting with a literature review, which helps define the main theoretical concepts that would be addressed throughout the project. The relationship between the research and design would be established through the construction of diagrams and mind maps. Historical analysis and archival materials would help familiarize with the city 'history, its development, and changes throughout the years, and they would be presented in cartographic maps and matrixes. Selective mapping would help to rule out occurring interruptions in the current network of Madrid and overlooked spaces and relations between existing structures. Thus, locations for potential interventions would be chosen. Actor-network systematic diagram will be used to describe the relations of the present forces of the site and sketches to visualize their 'genius loci.'

Furthermore, photographic analysis would be one of the main methods to catalogue the site's features. Sketching on site would be used to translate and visualise the existing atmosphere and main elements presenting the space's character. Interesting spatial and visual relations

could be found and analysed by making section drawings as a visual representation of elevation changes and evaluating the potential redevelopment of the terrain.

Literature and general practical references

[Literature]

What Ever Happened to Urbanism - Rem Koolhaas, 1994

The rites of passage - Van Gennep, A. (1960)

Space and anti-space : the fabric of place, city and architecture - Peterson, S., & Littenberg, B. (2020)

The Life of Lines - Ingold, T. (2015)

URBAN VOIDS AS A RESOURCE FOR THE DESIGN OF CONTEMPORARY PUBLIC SPACES - Giovanni, A. (2018)

Architecture of the jumping universe : a polemic, how complexity science is changing architecture and culture - Jencks, C. (1998).

The Production of Space- Lefebvre, H. (1974).

Morphogenesis and realist meta-theory. (2014)

Hybrid Morphologies- Infrastructure, Architecture, Landscape - Angelil M_Klingmann A. (1999)

Metamorphism : material change in architecture - Ákos Moravánszky. (2018).

Genius Loci - Norberg-Schulz, C. (1980).

Words and buildings : a vocabulary of modern architecture - Forty, A. (2000).

The new Blackwell companion to social theory - Turner, B. S. (2009)

Betwixt and Between: The Liminal Period in Rites de Passage - Turner, V. W., (n.d.)

Genius loci as a meta-concept - Vecco, M. (2019)

Architektur und Raum : Gestaltungskonzepte im 20. Jahrhundert = Architecture and space : design concepts in the 20th century - Egon Schirmbeck, Boettger, T., & Hanke, C. (2011).

[Additional]

Research and documents provided by Community of Madrid

Regional Archive of the Community of Madrid -

<https://www.esmadrid.com/en/tourist-information/archivo-regional-comunidad-madrid>

On site investigation of preselected case studies

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master program (MSc AUBS)?
2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

1. I am a firm believer that good architectural design could be obtained by balancing and handle with attention both the theoretical concept and the technical elaboration, the conceptual and the functional. Therefore, I have been trying to achieve this balance throughout my studies by following courses offering development in both aspects. During my Bachelor program I had the opportunity to get familiar with a more technical and systematic way of designing. This is why during my Master's and also during my Exchange program I focused on combining the more conceptual (Msc1 Methods of Analysis) and more technical (Msc2 Extreme) aspects of architecture. I believe the topic of my graduation studio follows that approach.
2. In a world where everything is rapidly changing, improving our adaptation strategies is essential. Addressing the ongoing climate changes but also the economic and environmental challenges that are following as a result is of utmost importance. A method of analysing, redefining the potential of overlooked sites and strengthening their connection to the existing urban situation could be applied not only in Madrid but many other cities facing similar problems.

Moreover, a renewed focus on designing with and nurturing natural elements, such as water, could bridge the growing gap between people and nature – a gap that is expanding in many urban areas due to the swift processes of urbanization. Achieving balance between the natural and built environment and improving the production and consumption flows would bring us one step closer to the design of a resilient and future proof city.