

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	Alicia Meier
Student number	5865093

Studio		
Name / Theme	Explore Lab	
Main mentor	Mieke Vink	Architecture
Second mentor	Rufus van der Ban	Building Technology
Third mentor	Inge Bobbink	Research
Argumentation of choice of the studio	<p>I chose the Explore Lab studio because it allows me to deeply engage with my personal connection to the place I grew up. It provides me the opportunity to bridge a politicized topic with journalistic research, while integrating a cultural perspective through a poetic and meaning making approach. The studio's freedom from rigid guidelines also allows me for a greater creative exploration. The openness in presentation and representation pushes me to think critically about what truly matters and how to convey it. This openness also enables me to channel my own sense of enchantment for this place, using it as my personal framework and methodology.</p> <p>Designing within a familiar context presents a unique opportunity to feel less like an outsider as an architect, offering more authentic solutions and a personal perspective.</p>	

Graduation project	
Title of the graduation project	In search of water enchantment in Mallorca: from disappearing water cultures to revived water experiences.
Goal	
Location:	Valldemossa, Mallorca, Spain
The posed problem,	Mallorca, is a well known island and tourist destination in the Mediterranean region. However, every summer Mallorca is facing the recurrent problem of water scarcity. Since the tourism boom of the 1960s, Mallorca has faced an ever-increasing demand for water, exceeding the island's natural capacity and resulting in tensions over its

	<p>allocation. While tourists, the primary source of economy, enjoy unrestricted access to water, residents, particularly in small towns in the mountain range Serra de Tramuntana, endure recurring shortages, particularly during the summer months. Despite small awareness advertisement on the issue, the government efforts focus on new and increasing water supply—through artificial water reservoirs in the mountains, desalination and shipping water from the mainland—rather than focusing on water demand management.</p> <p>Mallorca has a long history of self-sufficiency and cultural distinctiveness, shaped by its geographic isolation. Its Mediterranean climate is characterized by hot, dry summers and mild winters punctuated by irregular but intense autumn and spring rains. This seasonal imbalance in water availability has necessitated extensive water harvesting and storage systems throughout history. It has driven the island’s inhabitants to adapt, developing sophisticated waterworks rooted in Arabic engineering, including agricultural terraces and interconnected water systems, to sustain life and agriculture.</p> <p>The village of Valldemossa reflects this symbiosis, where water was once distributed with care, embodying a profound cultural and communal value. However, since discovering a new water source in the 1970s, the village has neglected cisterns and rainwater harvesting. This shift, coupled with the island’s inability to absorb heavy autumn rains after dry summers, has led to frequent coastal flooding with devastating effects. With modern technologies, people have become disconnected from their waters.</p> <p>Traditional water systems hold immense value for understanding and addressing water scarcity, while aiming a deeper reconnection with the vital resource. Yet, traditional frameworks often reduce water to a resource within the hydrological cycle, disconnected from its social, political, and cultural contexts. However, water is more than a resource on Mallorca, it is a protagonist in its history and society. The concept of the hydrosocial cycle, which embeds water within human systems, can reveal the deep interconnections between water, culture, and power structures.</p> <p>Simultaneously, water possesses a multiplicity of properties, some even beyond human comprehension or distinctly enchanting, which are of great value.</p>
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<p>research questions and</p>	<p>How can an exploration of Mallorca's hydrosocial cycle of Mallorca help us to re-value the relationship between all people (tourist and inhabitants) and their fresh water?</p> <p>Was water once enchanted?</p> <p><u>Design</u> Can water be re-enchanted nowadays?</p> <p>How can the design of a spaces give unconsciously value to water? Can an enchantment of space and material be produced?</p> <p>How can we design in a picturesque UNESCO world heritage area that has known a self-organic growth over 700 years?</p> <p>How can a space be used by both tourist and locals without making the friction (or gap) bigger?</p>
<p>design assignment in which these result.</p>	<p>The path of water is complex, flowing in multiple directions. The design challenge lies in navigating this vast scale. As such, various design interventions can be envisioned, both within the village and across different scales.</p> <p>The project imagines a system with a range of water infrastructures in the village following the ascending elevation which will help to cool down the village in summer, inform about the water levels as well as bringing people together in activities revolving around water. The biggest program envisioned will be a bath house, seasonally available during the heavy rain months, when water abundancy becomes a problem. This house also envisions to serve as a community and gathering place for the inhabitants to give the power over water back to the community.</p> <p>The goal is to re-establish a connection with water though the effects of the enchanting properties water has. I also envision enhancing traditional and new water harvesting efforts for a near and far future. These interventions could be approached through the reuse of abandoned structures, re-thinking and re-designing current structures through scenario thinking.</p> <p>The process will merge rational analysis with intuition, exploring how design interacts with water and its social and environmental contexts.</p>

Process

Method description

Research:

The research began with a field trip to Valldemossa, where I followed the water and documented my observations through a personal diary, using a non-linear storytelling approach.

The next step involved translating and presenting these findings through maps, models and a water calendar, all compiled into a visual water encyclopedia. This encyclopedia serves as the project's living dictionary, providing a foundation for design decisions to verify that the proposals remain harmonious with the environment.

These research findings, along with a detailed reproduction of the village, are a basis to understand the morphology of the place and the complex cultural practices tied to water.

Design:

The design process will be rooted in creating small water structures, starting with models that allow water to flow through them. Understanding the behavior of water and getting to know the material is essential to designing effectively.

To create spaces for water I will conduct water analyses about flows, directions and orientations. I will also study the permeability of materials, such as stone, as well as the filtration and absorption of materials ensuring that the designs respond thoughtfully to the natural and built environment. This hands-on exploration will bridge the gap between research and design, fostering an intimate connection with the material and the site.

Literature and general practical references

Practical experience:

Drawings, photographs, videos, recording from water sounds, conversation with locals and a few recordings from it.

Precedents:

Studioser – Revealing Encounters, The Valle di Muggio, Switzerland

Consequence forma architects – The Moravian Square Park Revitalising, Brno, Czech Republic

Therme Vals – Peter Zumthor , Vals, Switzerland

Parque Jardines Mediterráneos de La Hoya – Kauh Architectos, Almería, Spain

Public spaces of Automatic Mills – Šěpka architekti, Pardubice, Czech Republic

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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 programme (MSc AUBS)?

My graduation project is a continuation of my architectural career so far, combining the diverse skills as well as positionality in architecture I have developed throughout my studies. Over time, I have noticed a personal shift bridging architecture with landscape architecture, a transition that Explore Lab enables me to explore more deeply.

The project addresses environmental, social, and political topics, which are deeply significant to me. By investigating the complex relationship between water, culture, and tourism in Mallorca, I aim to make a counterstatement to the current challenges, questioning societal behaviors toward water while envisioning spatial solutions to mitigate these issues.

This approach is profoundly influenced by the electives I pursued during my master's programme, which encouraged critical engagement with drawings and representation. These courses introduced me to ficto-criticism, a method that blends fiction and critique to infuse value, meaning, and enchantment into architectural narratives. Simultaneously, they challenged me to consider design responses within the context of a changing climate, urging me to address global warming concerns through my work.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

Mallorca is a beloved tourist destination for Germans as well as Dutch people. It is therefore even more important to raise awareness among people visiting on the island's water problem.

While over 90% of those consuming water on the island are non-Catalan speakers, much of the rich history and knowledge about Mallorca's water systems remains documented exclusively in Catalan, creating a barrier to understanding. My graduation work aims to bridge this gap by visualizing the water problem and its historical context, fostering greater awareness among tourists and the broader public. By highlighting this issue, the project aspires to challenge behaviors and inspire more sustainable water practices on the island.