

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	Juulia Jääskeläinen
Student number	5402514

Studio		
Name / Theme	Borders and Territories	
Main mentor	Filip Geerts Stefano Milani	Architecture
Second mentor	Mauro Parravicini	Building engineering
Argumentation of choice of the studio	My fascination to learn more about the megascale of infrastructure and its effect even on a scale of a small building, made me choose Borders and Territories. Even though in my previous studies I had not worked on such a big scale, I wanted to challenge myself and take this chance to again learn a new approach to architecture.	

Graduation project	
Title of the graduation project	Revitalizing the peri-urban zone of Trieste, Italy
Goal	
Location:	Trieste, Italy
The posed problem, research questions and design assignment in which these result.	[Problem Statement] [Research Question] [Design Assignment]
<p>Problem statement:</p> <p>The peri-urban zone of Trieste can be identified as a transition zone between the city and the Karst hinterland. The zone is located on hillsides surrounding the city and has a lower housing density compared to the city. It is a liminal space between two distinct areas of the city and due to its difficult accessibility, it seems to be only an area in between. However, the peri-urban has unexplored potential in terms of land management, private housing, recreation, and transportation infrastructure. The three main research questions of the thesis follow:</p> <p>RQ1: How to maintain the eroding landscape? The hills and the natural landscape pose the question of how to maintain the landscape. The hills are a subject of erosion and landslides. Traditionally the hillsides had <i>pastinis</i>, terraced landscapes for cultivation, which worked also as a land</p>	

management system. Today they are a labor-intensive cultivation method that is hardly profitable and thus practiced only on a small scale. This has led to the abandonment of the *pastinis* and questioning on how the landscape should now be managed. Can *pastinis* be anymore utilized in modern-day land management? What spatial qualities do the different land management options offer? How the land management challenges should be addressed at the level of architectural design?

RQ2: How peri-urban living can enable alternative lifestyles?

The hillsides with their valleys, nature as well as a view overlooking the city, offer a great living environment with a reasonable distance from the city. The lower plot prices can allow people to get houses better fitting for them than in the city and help to pursue their idea of an ideal lifestyle. I am interested in how this can be further supported on a scale of architecture? What does flexible design mean in the peri-urban environment? What potentials bigger private greenspaces offer for architectural experiences when compared to the city?

RQ3: How improving the accessibility can feed the formation of recreational peri-urban?

Besides the people already living in this environment, I am interested in how could we make this area more accessible for the residents of the city. The area beyond the hills, the Karst region, is known as the weekend destination for people who live in the city. But the proximity of the peri-urban has the potential to be a daily destination with beautiful tracks, views and nature. The area of interest has an old tram line, that cuts through the peri-urban hillsides and connects the city with a village Opacina located on top of the hills. By restoring the tram connection, the area in between could be also well accessible. This leads to the question of where should the tram stops be located in the peri-urban zone? What is an attractive tram stop? How could the tram line make the recreational nature areas more accessible and attractive destinations?

Design assignment

1. Master plan: urban plan that would address the recreational potential of the peri-urban zone and the transportation infrastructure. The recreational nature infrastructure should be connected to the transportation system.
2. Nature destination Follie: As a part of the master plan, structures acting as hiking destinations are placed to nature. Their goal is to act as attraction points and their form should support the idea of integrating the peri-urban as an everyday destination for the locals.
3. Tram stop: As a part of restoring the tram connection, an example tram stop is designed. It works together with the hiking infrastructure and thus should be attractive as well as easily accessible.
4. Private housing: Related to RQ2, the private house addresses the qualities of living in the peri-urban. The design has a strong connection to its surroundings and represents what living in the Trieste's peri-urban zone can be like. The main challenge is to create flexibility within the house, that can facilitate different socio-demographic groups and different lifestyles.

5. Land management principle: As a part of all the design assignments the land erosion is to be addressed in a cohesive principle. This will take a stand in referring to the old and new methods of land management principles. The assessment besides efficiency is done also in terms of architecture, spatial experience and landscape preservation.

All in all, the design is a master plan that would revitalize the area, address the current problems of the area as well as introduce small example interventions creating a greater system.

Process

Method description

The urban analysis is done through collective city mappings and explored further on smaller individual mappings on the area of interest. Theoretical and historical research on the site conditions is approached through academic literature, mappings, governmental data sources, historical sources as well as a site visit. A theoretical framework for the project is established with a theory essay *Peri-urban: landscape of alternative opportunities*, which expresses own stance on the design project and relevance on a city and global scale. The *modi operandi* model workshop introduces first takes on bridging the theoretical research and the design. Besides the models, speculative drawings are done to introduce first ideas on design approach, scale and atmosphere. After P2, the design assignment is approached with further sketching, designing and experimentation. Design variants are to be created to gain further elaboration to test different principles and ideas. The different parts of the overall master plan are evaluated in relation to each other to test the functionality of the interventions as parts of the bigger system.

Literature and general practical preference

AMO, Rem Koolhaas. (2020). *Countryside, a report*. Köln: TASCHEN GmbH.

François Cusin, H. L. (2016). *La question périurbaine*. Revue française de sociologie Vol. 57

Mauro, G. (2013). *Cultivated Lands within Urban Area: Cultural Heritage Dying out or New Environment Chance for the Town? The Case of Trieste (Northeastern Italy)*. In S. B. Giuseppe Borruso, Geographic Information Analysis for Sustainable Development and Economic Planning: New Technologies (pp. 143 - 157). Hershey PA: Information Science Reference

Mauro, G. (2011). *Agricultural terraced landscapes in the Province of Trieste (Northeastern Italy)*.

Marot, S., & Architectural Association (Great Britain). (2003). *Sub-urbanism and the art of memory*. London: Architectural Association.

Morgan, R. P. C. and R. J. Rickson. (1995). *Slope Stabilization and Erosion Control, a Bioengineering Approach*. London: E & FN Spon.

Williams, Paul W. and International Society of Soil Science. (1993). *Karst Terrains : Environmental Changes and Human Impact*. Cremlingen, W. Germany: Catena Verlag.

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 topic addresses peri-urban zone outside of the city. In Trieste, Italy, the peri-urban is an important area for the city as a whole. It holds remains of the vernacular building heritage as well as old cultivation methods. However, due to the urbanization and modernization of agriculture, peri-urban has lost a lot of its significance. In the studio Borders and Territories, topics such as national and cultural identity have been discussed and I have found these themes related to the peri-urban. The zone is between the Italian city and Slavic Karst hinterland, making it an interesting area in between, a territory that is a bit of both but also a border between the two. The peri-urban is an important part of the city as well as its identity. Without attention to this area, it can end up being a zone for random developments without greater interest. I believe that to be an architect and professional of the built environment, we must see the landscapes as a continuum from cities to the countryside. Without our interest outside cities, we can end up losing essential parts of our cultural landscapes.

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

My goal is to extend on the studies done on areas outside of cities and provide alternative perspectives on the potential of these landscapes besides the city-centered ones. The architecture realm is very bothered by the conditions of the cities but the same interest in the countryside and peri-urban, seem to be lacking.