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:

Studio	
Name / Theme	Borders & Territories: Transient Liquidities along the New Silk Road II
Main mentor	Filip Geerts	Architecture
Second mentor	Gilbert Koskamp	Architectural Engineering
Argumentation of choice of the studio	Personally it has always been my main goal to graduate from the TU Delft with a diverse portfolio of experiences, and as rounded out as a designer as I can be. As I've had a lot of practical experience the past few years (looking both at BSc / MSc projects, as well as my participation in the Solar Decathlon Europe team SUM), the time felt right to choose a studio that focusses more on the theoretical aspects of the design process. Borders & Territories especially seemed like the perfect fit, as the topic of contemporary border conditions, particularly on a larger scale, have always been of interest to me. The unexpected and underexplored potentials of a city like Istanbul seemed to be teeming with possibilities in terms of (research) topics, as well as diverse social structures.

Graduation project	
Title of the graduation project	Into the gecekondu: structuring and supporting Istanbul's rapid expansion
Goal	
Location:	Sultangazi, Istanbul, Turkey This location has been selected as it's an interesting location that has a lot of history in regard to the development of gecekondus. Coincidentally, this is also one of the borders of Istanbul where active further development and building of gecekondus is still taking place. Sultangazi was primarily a rural area until the mid-20th century, when the city of Istanbul experienced rapid population growth and urbanization. During this time, many residents of rural areas moved to the city in search

	of better economic opportunities, and Sultangazi saw a significant increase in population. The district became a major center for industry and manufacturing, and many factories were built in the area. However, as the city continued to grow, Sultangazi struggled to keep up with the demand for housing and infrastructure. Today, the district is known for its high population density and low-income neighborhoods, but it also has a growing number of urban renewal projects. Together with the dammed-off lake to the north, which will slowly dry up over the years providing even more land to develop, this makes for a fascinating starting point in the research and design process.
The posed problem,	Suppression of social structures in self-formed gecekondu settlements These gecekondu settlements are typically formed by individuals or families who have migrated to cities in search of better economic opportunities, but are unable to afford formal housing. As a result, they construct makeshift homes on undeveloped land, often with limited access to basic services such as water, electricity, and sanitation. This type of development often leads to strong social bonds within these communities, although this bond largely disappears through the different stages of development, and eventual redevelopment tends to lead to more anonymity in the larger urban structure. The goal is to investigate how to best support the development of strong and resilient social structures in informal settlements, through architectural interventions, in order to improve the lives of residents and contribute to the overall well-being of the city.
research questions and	"What are the different manifestations of gecekondu settlements?" Researching the different manifestations of gecekondu settlements is crucial for several reasons. Firstly, understanding the diversity of gecekondu settlements is important for developing effective interventions to improve the living conditions of residents. Different generations of settlements may have different needs and challenges, and a one-size-fits-all approach is unlikely to be successful. Additionally, studying the different manifestations of gecekondu settlements can provide valuable insights into the social, economic, and political factors that contribute to their formation and development.

	To be able to study these different manifestations, two sub-questions are proposed: 1. "How can the different types of gecekondu be classified?" 2. "What are the favorable and unfavorable conditions of the different types of gecekondu?" Further explanation of how these (sub-) questions will be answered will follow in the 'Method description' section.
design assignment in which these result.	"What architectural interventions can help to further develop the gecekondus, while also keeping their inherent characteristics intact?" The objective of this design assignment is to explore architectural interventions that can help to improve the living conditions in the four generations of gecekondu settlements, while also preserving their inherent characteristics. The goal is to create a design proposal for parts of Sultangazi that addresses the specific needs of the community, and enhances the overall livability of the area.

The above-mentioned design proposal should be based on the principles of sustainable development and should consider the environmental and cultural context of the area.
Among the final products should be a reflection on to what degree these interventions help in the development of the gecekondu, as well as on whether the inherent characteristics are kept intact or not.

Process
Method description

Throughout the entire graduation project different manners and methods of research will be used to optimize the collection and processing of information. The initial focus is to gather information on the different typologies of the gecekondu, after which this information will be used in the design of a series of interventions in the landscape. These interventions will hopefully aid to further develop the gecekondus, while also keeping their characteristics intact.

The graduation project will focus on two main questions:
1. "What are the different manifestations of gecekondu settlements?"
2. "What architectural interventions can help to further develop the gecekondus, while also keeping their inherent characteristics intact?"

To answer the first question, a two-stepped method of research will be used, further dividing this question into two:

1. "How can the different types of gecekondu be classified?"
2. "What are the favorable and unfavorable conditions of the different types of gecekondu?"

To be able to answer the first question, literature research will be done on the topic of gecekondus, focusing on their genesis, further development, and categorization. Information will first be collected regarding the development of slums in general, before focusing on the specifics of the gecekondu.

After this the second question will be answered through mappings of different elements of the distinct typologies of the gecekondus. This will focus on diverse aspects such as, for example, materials, urban development, and influence of actors.

In answering the second question a simultaneous process will be started of both researching and designing architectural interventions. These interventions will be digitized and thoroughly recorded for future reference.

Literature and general practical preference

Literature:
- Baslevent, C., & Dayoglu, M. (2005). The Effect of Squatter Housing on Income Distribution in Urban Turkey. *Urban Studies*, *42*(1), 31–45. https://doi.org/10.1080/0042098042000309685
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- Drakis-Smith, D. W. (1976). Slums and Squatters in Ankara: Case Studies in Four Areas of the City. *Town Planning Review*, *47*(3), 225. https://doi.org/10.3828/tpr.47.3.r066q45561956553
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- Göksu, A. F. (1991). Organizing squatters in Turkey: The case of Zafertepe. *Ekistics*, *58*, 50–54.
- Schoenherr, S. E. (2008, October 7). *The Digital Revolution*. https://web.archive.org/web/20081007132355/http://history.sandiego.edu/gen/recording/digital.html
- Schwab, K. (2016). *The Fourth Industrial Revolution*. World Economic Forum.
- Stokes, C. J. (1962). A Theory of Slums. *Land Economics*, *38*(3), 187–197. https://doi.org/10.2307/3144581
- UN-Habitat. (2014). Land Readjustment Experiences in Turkey: Urban Legal Case Studies (Volume 3). In *UN-Habitat* (HS/001/15E). https://unhabitat.org/sites/default/files/download-manager-files/Turkey%20Land%20Readjustment%20Final.pdf

- UN-Habitat. (2016). Urbanization and Development: Emerging Futures: World Cities Report 2016. In *UN-Habitat* (HS/038/16E). https://unhabitat.org/world-cities-report-2016
- Uzun, B., Çete, M., & Palancıoğlu, H. M. (2010). Legalizing and upgrading illegal settlements in Turkey. *Habitat International*, *34*(2), 204–209. https://doi.org/10.1016/j.habitatint.2009.09.004
- Verma, G. D. (2002). *Slumming India: A Chronicle of Slums and Their Saviours*. Penguin Books.
- Yasa, İ. (2018). The Turkish gecekondu family. *Ekistics*, *36*(213), 129–131.

General practical preference:
- Board member of SUM, Solar Decathlon Europe team; https://www.delftsolardecathlon.com/
- Internship at Groosman Architecten

Reflection

Relation:
The studio largely focusses on the topic of the New Silk Road, and all of its accompanying challenges. Since the New Silk Road is a vast infrastructure project that aims to connect Asia, Europe, and Africa, it is likely to lead to increased urbanization and growth of informal settlements in the regions along the route, as well as the reshaping of these regions. Understanding the dynamics of these informal settlements, and developing strategies for improving living conditions while preserving local identity is an important challenge for architects working in these regions along the New Silk Road.
Besides the New Silk Road being an enormous infrastructural project, it's also one of major cultural, economic, and societal influence. As such, it is crucial to ensure that any development is done in a way that is sustainable and equitable for all.

Societal relevance:
This graduation addresses the need to improve living conditions in informal settlements, while also preserving the cultural and social identity of the communities living there. The question of how to improve the living conditions in these settlements while also respecting the cultural and social identity of the residents is a complex one. It requires a holistic approach that takes into account not only physical infrastructure and services, but also the social, economic, and cultural context of the community.
Addressing this research question could have a significant impact on the lives of people living in informal settlements, by improving their living conditions and promoting sustainable development. It could also serve as a model for addressing similar challenges in other cities and countries. Furthermore, it also requires a delicate balance between the preservation of cultural heritage and the need for modernization and improvement of living conditions.

Professional and scientific relevance:

From a professional perspective, this graduation addresses the need for architects to develop strategies for improving living conditions in informal settlements, while also preserving the cultural and social identity of the communities living there. This is an important challenge that architects and urban planners are now, more than ever, going to encounter, as most cities need to largely be redeveloped or transformed to become more sustainable as soon as possible. This topic also showcases more of what the SUM team would call the 'trias of sustainability', foregoing the traditional meaning of sustainability for a more inclusive one where the focus is on economical, ecological, and social sustainability. The trias is something that largely typifies personal work as a designer, and something that will definitely be of great importance throughout a further career.

From a scientific perspective, the research question addresses the need to understand the complex dynamics of informal settlements, and to develop evidence-based interventions that can improve living conditions while preserving cultural and social identity.

Additionally, the research question also highlights the need for sustainable development, which is a key issue in architecture. This research can also contribute to the understanding of these issues and the elaboration of solutions that can benefit not only informal settlements but also formal housing systems.

Overall, addressing this research question has the potential to advance the knowledge and practice of architecture and urban planning, and to contribute to the development of more equitable and sustainable cities.