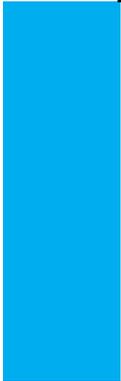


Graduation Plan

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	Dongyan Chen
Student number	5502152

Studio		
Name / Theme	Borders and Territories / Transient Liquidities along the New Silk Road II	
Main mentor	Stefano Milani Marc Schoonderbeek	Architecture/research and design
Second mentor	Pierre Jennen	Building technology
Argumentation of choice of the studio	<p>Research areas recommended by the studio are going to be investigated in background with a larger territorial scale. Usually, they are not often encountered and discussed within the contemporary architectural discourse, and not in daily life environments either. Interdisciplinary research becomes necessary. It also means that precedent research is rare. Personal fascinations on the themes concerning conceptualized spatial conditions are encouraged to execute from process-oriented experiments and exploration.</p> <p>This process is the very exercise and training that asks for comprehensible application of skills and basis accumulated before. In addition, when it's specialized to an individual project, as a student, the position about the role of architecture is constantly under thinking.</p>	

Graduation project	
Title of the graduation project	A documentation institution - Understanding the density and heterogenous elements of Tuzla Shipyards Region, Istanbul
Goal	
Location:	Istanbul, Turkey
The posed problem,	<p>On a ferry approaching the shipyard region in Istanbul, passengers cannot help holding their phone and taking pictures of the generous industrial landscape formed by gantry cranes standing close to each other.</p> <p>In 1969, Tuzla Aydinli Bay was designated for 49 years by the government to some entrepreneurs of Turkey as a "Shipyard Region". Provided significant encouragement</p>

	<p>from the government by the 1980s, the shipbuilding sector experienced a high pace of growth. In the 1990s, the private shipbuilders of Turkey started to appear as important agencies of the world ship trade because of the decentralization process of the European shipbuilding sector and lower labor costs of the Turkey shipbuilding sector. During the 2000s the sector became one of the most important production areas of Turkey.</p> <p>Nevertheless, as a result of this development in the shipbuilding industry, the shipyard region has experienced unplanned expansion within limited areas and has turned into an overload situation. More and more workshops, warehouses and facilities spring up while the area is delineated.</p> <p>The shipbuilding industry develops at a swift speed accompanied by loss of both environment and people. The decision on the site of this shipyard results in a loss of a natural lagoon. Although workers are the main work force, the stability of their job is not assured, not to mention the low payment.</p> <p>Spatial condition within and around the shipyard region can be utilized as an object to investigate the conflict between demand of shipbuilding industry development and negative effect to the natural lagoon and workers.</p>
<p>research questions and</p>	<p>To research on this heavy industry field, on one hand, constraints of what architecture can do is acknowledged and realized. On the other hand, there are people working and spending most of their time inside, in which kind of environment are they living? Also, could its production logic be translated into architectural language?</p> <p>The main research question is going to be center on: How is the organization of the shipyard region? Is there a way the position of workers is conveyed by an architectural project?</p> <p>Sub questions arise are:</p> <ol style="list-style-type: none"> 1. What is the work content and daily routine of people inside? 2. How do people and facilities cooperate to conduct the work? 3. What effect does the built environment specialized in materials and facilities have on people inside?
<p>design assignment in which these result.</p>	<p>With the aforementioned questions, spaces concerning production are the main focus of investigation. Design proposal is going to be translated from the research, which is materialized into analytical drawings and cartographic production. Project is in principle thinking on</p>

	<p>how to materialize and spatialize cartographic expression of research into physical constructs.</p> <p>The concrete research paid attention to spaces which are not only taken up by static buildings, but also vacant space activated by movement of facilities. Besides, the research area is occupied by heterogeneous elements. After looking into the site through elements separately, the design assignment aims at answering how to reorganize them in the project to possess another function and accommodate other activities instead of shipbuilding. The further goal of this project is concerned with how architecture responds to this heavy industry region. It is self-organized by private entrepreneurs. Can the project trigger the function architecture bears - manifestation, exhibition and conveying social phenomenon to the society.</p>
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Process

Method description

Mapping is employed as a start method for us to be immersed in and get familiar with the context of Istanbul. By being part of a group whose subject is infrastructure and congestion, background information on systems of infrastructure projects built and to be built in recent years, especially the Istanbul Canal, is accumulated during collective research. Through this process, the subsequent mapping is more than exercise applying graphic techniques to selectively represent the data. Spatial complexities are revealed along the proposed canal connecting the Marmara sea and Black sea.

Personal perception and information are collected about the research area from a site survey. As first-hand findings, they will be utilized through drawing to analyze and elaborate the connection between site and topic.

While drawing as a 2-dimensional image has its own limitations, physical modelling would be utilized as a way to spatialize drawing, to explore topics and distinct directions of the theoretical themes which could not or are difficult to be realized through drawing.

Reading research from researchers of other disciplines such as sociology on the shipyard region is helpful to have a comprehensible understanding of its built environment from the formation process to invisible organization structure.

Literature and general practical preference

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3. "Davidson Rafailidis, Florian Holzherr · Big Space, Little Space." Divisare. Accessed November 28, 2022. <https://divisare.com/projects/416716-davidson-rafailidis-florian-holzherr-big-space-little-space>.
4. Flusse, V. *The Shape of Things: A Philosophy of Design*. London: Reaktion, 1999. "Form and Material", p22-29.
5. Frampton, Kenneth, and Jeannet Leendertse. *Studies in Tectonic Culture the Poetics of Construction in Nineteenth and Twentieth Century Architecture*. Cambridge, Mass: The MIT Press, 1996.
6. Latour, Bruno, and Alben Yaneva. 2008. 'Give Me a Gun and I Will Make All Buildings Move': An ANT's View of Architecture'. In *Explorations in Architecture: Teaching, Design, Research*. Basel: Birkhäuser.
7. Light, Andrew, and Jonathan M. Smith. *The Aesthetics of Everyday Life*. New York: Columbia University Press, 2005. Chapter 5 "Building and the naturally unplanned"
8. Mertins, Detlef. *Modernity Unbound: Other Histories of Architectural Modernity*. London: Architectural Association, 2011. Chapter "Walter Benjamin and the tectonic unconscious: using architecture as an optical instrument", p114-139.
9. Miralles, Enric, and Benedetta Tagliabue. *Enric Miralles: Works and Projects, 1975-1995*. New York: Monacelli, 1996.
10. Tümerdem, Nazi. "The School of Site: Istanbul Walkabouts." *Journal of Public Pedagogies*, no. 4 (2019). <https://doi.org/10.15209/jpp.1190>.
11. Rossi, Aldo. *The Architecture of the City*. Cambridge, Mass: MIT Press, 2007.
12. Reiser and Umemoto. 2006. *Atlas of Novel Tectonics*. New York: Princeton Architectural Press.
13. Wigglesworth, Sarah, and Jeremy Till. *The Everyday and Architecture*. London: Academy Editions, 1998.

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)?

The investigation into environmental, territorial and urban conditions of the Dardanelles Strait-Sea of Marmara-Bosphorus Strait area starts with collective mapping. One of the topics of this map is to centralize the territory in relation to various presences of congestion and infrastructure. Shipyard also belongs to infrastructure space, where the shipbuilding industry necessarily provides support for Turkey to be an actor along the new silk road. My research area is a highly specialized industry space densified with ships and facilities for shipbuilding and maintenance. It has its own territory and a natural border with areas where the public can get close.

Having studied in B&T during Msc2 studio, topics emerged from a background of larger environmental scale and supported by physical reality push me to explore

the outskirts and epitaxy of architecture discipline but to complete an architectural project in the end. In my view, how to build up logic from research to project design, methods and approach are the essence to learn through a master programme. Although topics I work on are changed in different studios through my master track, this change helps to review the last topic from various perspectives.

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

Living in a society when things change at a rapid speed, social demands on the built environment also experience fast transformation. The research area - an active shipyard could be taken as an example to learn how to adapt to places which are still expanding and growing.

Besides, the concern for workers, a large group of people in the society will be demonstrated from the graduation work. This is conducted by research on their daily routine and the everyday environment they spend most of their time in the day.