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	Andreas Giagkou
Student number	5490707

Studio		
Name / Theme	Explore Lab	
Main mentor	Alper Semih Alkan	Architectural design and theory
Second mentor	Jan van de Voort	Technical Building Design
Third mentor	Heidi Sohn	Architectural theory and research
Argumentation of choice of the studio	I chose to enroll for the Explore Lab graduation studio since it would allow me to address my personal research and design concerns. My personal concerns pivot along the gradual consumerization of the city's scape and the loss of its productive activities over the past 50 years. More particularly, my research raises the question of how manufacturing could be reintroduced back in the city centers and how architecs/architecture can become catalysts in this process. Explore Lab provides me the ground to develop the theoretical and practical aspects of this question and gives me the flexibility to choose the tutors, the investigation tools, the design location and a multiplicity of other parameters that are critical for the project. The application of this idea in my place of origin, Greece, was another factor leading to the choice of the specific studio.	

Graduation project	
Title of the graduation project	Reassembling the archipelago of workshops: Scenarios on recovering the production landscapes on the Euboea Island
Goal	
Location:	Euboea, Greece
The posed problem,	After the mid-20th century, the urban centers gradually started experiencing the hollowing out of their industries. The pursuit for low-cost land and cheap working hands led many industrialists to move their factories in isolated areas,

	hidden from the public. Cities turned into service providers and the vacant industrial land transformed into the ground for real estate developments and cultural production. The small producers stood incapable of corresponding to the high costs of working in the urban space. Cities lost thus their productive activities and passed into a model of mere consumerism. The society also lost its connection to the ways how the natural resources are treated, since the factory has always stood at the intersection between nature and human. However, production still runs a great part of cities' economy even in an invisible manner. Through my project I will make an effort to investigate the practical, economic, ethical and philosophical implications of bringing manufacturing back in the urban space. I will further apply my research findings in the case of Euboea, an industrial city standing at the threshold if it's deindustrialization. Instead of acknowledging the death of production on the island, the project will seek for alternative solutions of maintaining its productive quality. Through the investigation of socio-spatial, economic and material patterns, there will be an attempt to identify how autarky can rebuild Euboea's productive capacity.
research questions and sub questions	How can we redesign the affinity between the space for manufacturing and the urban space?
design assignment in which these result.	The theoretical and conceptual background which developed through the research will be practically examined in the case of Euboea, a huge island in the northeast of Athens. The island's main economic benefits are based on industrial labor, the forest industry and the sea practices. However, over the last two decades Euboea has been facing the degradation of its industrial character and the closing of its factories. A huge part of its population which was

	making its living through industrial labor, remained without jobs. The second wave of degradation came in the Summer of 2021, when wildfires burnt 150.000 hectares of forests and arable land at the north part of the island. The aforementioned incidents are framed by EU's regulation which bonuses fishermen of the Mediterranean in order to leave their profession towards mitigating excessive fishing in the sea. The regulation forces the destruction of fishermen's boats as a guaranty of the agreement. Almost half of the fleet of wooden boats, an o object of great cultural importance in Greece, have been destroyed since 1990, when the regulation came into effect. However, excessive fishing still takes place in the Aegean Sea and more specifically in the Euboean gulf, through the use of technologically advanced boats that at times become detrimental to the oceanic ecosystems. Towards providing resilience to the island but also the capability of maintaining its self-efficiency, the project will focus on bridging the gap between the industry of the sea and the forest industry through manufacturing. The proposal will develop a building program responding to the multiple necessities of boat building. Instead of focusing on the design of an isolated unit, I will identify the key urban anchors in the center of Chalkida (which is Euboea's main urban center), that could form a new assemblage of production spaces on the island. The proposal seeks thus to formulate the bases for the generation of a new material culture on the island and new systems of treating its limited resources.
[This should be formulated in such a way that the graduation project can answer these questions.	

The definition of the problem has to be significant to a clearly defined area of research and design.]

Process

Method description

The research will be based on theoretical examination of the problem in two manners: On the one hand I will develop a range of ideas responding to the main question through literature review. On the other hand, I will elaborate a concrete analysis of case studies around the globe, through which manufacturing has returned in variables forms back in the urban space. The analysis will develop in the form of drawings, diagrams and mappings that reveal the complicated socio-spatial realities of each case. In each case I will examine how these realities correspond to the city, (macro scale), to the community (meso scale) and to the individual (micro scale). The examination will be based on theories addressing the complicated structures of these three scales. For that reason, Bruno Latour's *Actor-Network* theory and Manuel de Landa's *Assemblage theory* will set a critical theoretical framework of understanding.

At the design project I reflect on the principles and ideas deriving from the examination of the case studies and the theoretical background, in order to formulate the character of the site-specific intervention. These principles inform the design program and the parameters of the site. In the case of this project, these principles could be particularly categorized as philosophical, systematic and qualitative. The philosophical ones, define the reasoning of bringing manufacturing back in the urban space and formulate a set of social sensitivities that designers and planners could embrace towards the issue. The systematic ones respond to the practicalities of manufacturing's re-urbanization, and it examines its socio-spatial possibilities in an urban level. The qualitative parameters zoom in at the building level, the machine space, and examines it's spatial, aesthetic and semiotic aspects. It develops thus, a set of design qualities or a design philosophy towards the architecture of this space. Euboea stands thus, as a testing ground for rethinking the return of manufacturing at its urban centers. The site analysis is based on the mapping of material and energy flows and procedures taking place within the local systems (extractive and non-extractive). It is also based on historical readings that inform the integration of the project in the continuity of the islands' evolution. However, a critical understanding of a place's needs, atmospheres and cultural implications demands paying a visit to the area and speaking with its people, which I planned after my P2 presentation.

Literature and general practical preference

Theories:

- Manuel de Landa: Assemblage theory
- Bruno Latour: Actor-network theory

Literature:

- Arendt, Hannah. *The human condition*. Chicago: The University of Chicago Press, 1958.
- Bruno, Latour. *Reassembling the social: An introduction to actor-network theory*. New York: Oxford University Press, 2005.
- Sennet, Richard. *The Craftsman*. Yale University Press, 2008.
- Flusser, Vilém. *The Third Rail*. 1991. http://thirdrailquarterly.org/villem-flusser-the-factory/ (accessed September 2022).
- Rappaport, Nina. *Vertical Urban Factory*. New York: Actar Publishers, 2015.

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 project explores the possibilities of designing spaces for manufacturing in ways that integrate them in urban environments. The exploration is based on the elaboration of a design proposal considering matters of social effects, spatial patterns and tectonics. It conducts research covering a range of different sales, from the territorial to the local, from the society to the individual and it examines how architectural compositions correspond to them. As a precondition to the design proposal, the research develops a theoretical background based on the examination of architectural and social theories and case studies.

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

   The issue of bringing back manufacturing at the urban space has started concerning more and more the urban planners and the designers, but also the cities' authorities. Cities lacking productive activities implies their vulnerability towards the instabilities of global markets and the loss of their resiliency. Moreover, industry 4.0 promises radical changes in regard to the role of human in the production process. Thinking of a place for manufacturing in the city might provide

directions for integrating the new technology in a way that does not replace people's creativity. Finally, the offshoring of manufacturing made the factory a typology irrelevant to the architectural practice, despite that the factories of the early 20th century were designed intentionally by architects, as symbols of a new era. The rising need for reintroduction of the factory in the city sets the factory back again in the frame of architecture. There is as opportunity to rethink both the system of production and the architecture of it in the context of the city.