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	Erwin Huisman
Student number	5870372

Studio		
Name / Theme	Graduation studio Revitalising Heritage (Maritime)	
Main mentor	Nol Hermkens	Architectural Design
Second mentor	Thijs Bennebroek	Building Technology
Third mentor	Ivan Nevzgodin	Research
Argumentation of choice of the studio	I have chosen this studio because of the redevelopment of an existing structure. A lot of future projects will have some form of transformation, re-use or redevelopment so to learn and experiment with these aspects helps me be prepared for the future. And working maritime structure makes this studio unique and challenging.	

Graduation project	
Title of the graduation project	Redeveloping neglected maritime heritage
Goal	
Location:	Delta Shipyard / Watertower in the Waterdriehoek (Sliedrecht)
The posed problem,	The Waterdriehoek, historically shaped by centuries of maritime activities, is losing its identity. The shipyard industry is leaving the Waterdriehoek for Rotterdam, leaving maritime structures behind. These structures are in most cases neglected for decades and then destroyed during the transformation of the area. Risking the loss of cultural heritage in this region which is deeply tied to the shipyard industry.
research questions and	Main question: What architectural design strategies can be applied for reusing maritime ruins in the Waterdriehoek to preserve the cultural heritage?

	Sub questions: 1. How are shipyards typically developed? 2. How can material reuse contribute to the preservation of a shipyard's historical narrative? 3. How does the scale of a shipyard influence the approach to its transformation?
design assignment in which these result.	The goal of the design is to implement the historical evolution of the site's and its narratives. The existing structure of the Delta Shipyard will serve as the foundation for its transformation. The new program for the shipyard is a cluster of functions: restaurant/cafe, event space, watersport store and a hotel. Since the current maritime structure is insufficient to accommodate these functions, new volumes will be thoughtfully added to the existing shipyard. Once completed, the project can serve as a reference case for the sustainable redevelopment of smaller-scale shipyards.

Process

Method description

The research adopts an interdisciplinary approach, integrating analysis, documentation, and design to investigate the adaptive reuse of maritime heritage sites in the Waterdriehoek. Literature review forms the foundation, exploring historical, cultural, and architectural contexts to establish the significance and evolution of these sites. Archival research, including the study of maps, photographs, and documents, uncovers historical layers and informs the understanding of the site's development.

In the design phase, both digital and handcrafted models are employed to explore and test various design options. These models serve as a tangible tool to visually and spatially evaluate potential solutions, considering both technical and aesthetic aspects. The results of the preceding research play a crucial guiding role in this process. They provide a foundation by linking historical, cultural, and technical insights to the design decisions that need to be made. This approach ensures a design that is not only functional and future-proof but also respects the historical and spatial context of the site.

Literature and general practical references

The research will draw upon a range of literature and practical references to establish a robust foundation for understanding and addressing the challenges of reusing maritime sites. Key theoretical frameworks will include heritage conservation theories, adaptive reuse methodologies, and environmental sustainability principles. Historical studies and cultural narratives related to the Waterdriehoek will also be examined to contextualize the significance of the maritime sites within the broader heritage of river communities.

In addition, precedent studies of successful transformations of similar maritime and industrial sites will serve as practical references. These cases will provide insights into effective architectural strategies, material use, and community engagement. The combination of theoretical and practical sources ensures a comprehensive approach, balancing academic rigor with real-world applicability.

References

Auclair, E. and Fairclough, G.J. (2015), *Theory and Practice in Heritage and Sustainability: Between Past and Future*, Routledge, Taylor & Francis Group, London.

Brooker, G., & Stone, S. (2018). *Rereadings: Interior Architecture and the Design Principles of Adaptive Reuse*. London: Bloomsbury.

Hettema, J., & Egberts, L. (2019). "Designing with maritime heritage: adaptive re-use of small-scale shipyards in northwest Europe". *Journal Of Cultural Heritage Management And Sustainable Development*, Vol. 10 No. 2, pp.130–143.

Lintsen, H.W. (1993), *Geschiedenis van de techniek in Nederland. De wording van een moderne samenleving 1800-1890*, Deel IV, Walburg Pers, Zutphen.

Louw, H. (2019). *Industrial Heritage: Understanding and Preservation*. Routledge, Taylor & Francis Group, London.

Scott, F. (2008). *On Altering Architecture*. London: Routledge, Taylor & Francis Group, London.

Tweed, C. and Sutherland, M. (2007), "Built cultural heritage and sustainable urban development", *Landscape and Urban Planning*, Vol. 83 No. 1, pp. 62-69.

Webb, M. (2017). *Building Reuse: Sustainability, Preservation, and Design*. Princeton Architectural Press.

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 focuses on the architectural strategies for reusing maritime sites in the Waterdriehoek area, specifically the Delta Shipyard and Watertower, to preserve the cultural heritage in Sliedrecht. This ties into the broader studio theme of exploring adaptive reuse in historical contexts, where the aim is to design functional and meaningful spaces that integrate the history and legacy of maritime structures. As part of the MSc AUBS programme, my research fits within the Architecture (A) track. The architectural dimension of my project focuses on methods and strategies that honor the site's historical evolution and cultural significance by preserving existing structures, repurposing salvaged materials, and carefully restoring key historical elements. This directly connects to my interest in sustainable design practices and the role of architecture in preserving heritage, making it a key focus within my track's emphasis on architectural interventions in historical settings.

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

My graduation project contributes to the intersection of architectural conservation, adaptive reuse, and cultural heritage preservation. Socially, it enhances community engagement by repurposing maritime sites for public use, valuing the local identity. Professionally, it informs sustainable design practices in urban planning, offering solutions for integrating history with modernity. Scientifically, it advances research on preserving maritime heritage, exploring how physical and historical characteristics influence preservation methods.