

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	Frederica Bouwstra
Student number	5721091

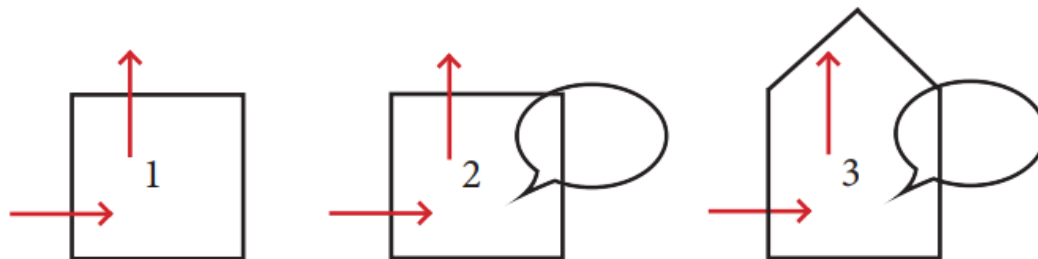
Studio		
Name / Theme	Maratime heritage	
Main mentor	A.W. Hermkens	[Academic field involved]
Second mentor	T.P. Bennebroek	[Academic field involved]
Third mentor	M.T.A. van Thoor	
Argumentation of choice of the studio	<p>I have always been interested in heritage, especially the contrast between historical buildings and new additions. In this case, however, the maratime aspect and specific location particularly attracted my interest.</p> <p>The often rugged and large scale architecture of maratime heritage are fascinating as well as the nature of the river landscape. Growing up in Vianen, in the corner of the Waterdriehoek, I have great associations with the riverside area. And with sailing as a hobby also with the waterfront and maratime activities.</p> <p>I choose the location of Sliedrecht because of the design assignment of a museum. Since I have not designed a museum yet, it is a great opportunity and challenge to do something completely different. Besides museum design, the area has many interesting aspects to delve into. How to construct near dikes and riverside, history and dredging for example</p>	

Graduation project	
Title of the graduation project	The troughline
Goal	
Location:	Baggermuseum Sliedrecht
The posed problem,	The current exhibits of the dredging museum are housed in the monument of the former dwelling of Volkers.

	<p>the museum is an unique museum of it's kind. It distinguishes itself from other maritime museums by it's specific collection of mainly shipmodels, telling the story of dredging. The topic is broad, more broad than the current collection and more broad than what fits inside of the current building. It is therefore the museum's wish to expand and attract more visitors. In the renewed museum, different stories of dredging can be told through the exhibitions. To achieve this, solid research is necessary to understand the principles of interior circulation design and how to implement them.</p>
<p>research questions and</p>	<p>The main question is :</p> <ul style="list-style-type: none"> •How can interior circulation design support the story of the museum?' <p>To answer this question, subquestions have been formulated:</p> <ul style="list-style-type: none"> • What interior circulation routes exist? • What is the influence of circulation design on the exhibition? • How does the interior circulation design apply on the Dredging museum?
<p>design assignment in which these result.</p>	<p>The knowledge from the research is implemented in a case study of the existing museum. Exploring the design in combination with the exhibits clarifies how the current museum experience functions, what is missing and what are the potentials.</p> <p>From the case study, adjustments to the current route in the building can be made and substantiated.</p> <p>The assignment for the renovated museum is designing the interior circulation of the museum and the layout of the exhibition spaces that matches with the exhibition story.</p>
<p>[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.]</p>	
<p>Process</p>	
<p>Method description</p>	

Different circulation types in museums are explained and then explored and compared to the floorplans of the dredgingmuseum and casestudies. The goal of the research is to understand different layouts of circulation types in museums and their influence on the exhibition. The outcomes are summarized in a framework which can be applied on case study, under which the design task of the dredgingmuseum.

The research is summarized in 3 steps: (see research diagram underneath)
The next steps are



Explaining circulation types > Exploring circulation types on the story on the experience > Reviewing circulation types on a case study

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|----------|---|
| Step 1 | Explaining the circulation types |
| Method: | theoretical research on interior circulation design |
| Goal: | framework of circulation types |
| Step 2 | Exploring the circulation types |
| Method: | theoretical research on circulation design, museum experience and exhibition story |
| Goal: | framework of circulation types and their characteristics, pros, cons and influence |
| Step 3 | Reviewing the circulation types |
| Methods: | case study analysis & visitors surveys |
| Goal: | Assessment of circulation and the influence on the story and experience on Baggermuseum |

Literature and general practical references

The frame of reference is a framework of organizational and circulation principles and their characteristics. The framework of circulation types is based on Ching (2014) organization of spaces and configuration of paths, and secondly the classification of Naredi-Rainer and Schnell, museum space layout.

Literature list used for the research paper:

Bagnara, S., Tartaglia, R., Albolino, S., Alexander, T., & Fujita, Y. (z.d.). The Environmental Contribution to Wayfinding in Museums: Enhancement and Usage by Controlling Flows and Paths: Volume VIII: Proceedings of the 20th Congress of the International Ergonomics Association

Black, G. (2005). *Engaging Museum (Developing Museums for Visitors Involvement)*. New York, Routledge

Ching, F. D. K., & Ching, F. (2014). *Architecture (4th Edition)*. Wiley

Cohen, U., & McMurtry, R. (1985) "Museums and Children: A Design Guide", Center for Architecture and Urban Planning Research, Milwaukee, USA

Elottol, R. M. A., & Bahauddin, A. (2011). A competitive study on the interior environment and the interior circulation design of Malaysian museums and elderly satisfaction. *Journal of Sustainable Development*, 4(3). <https://doi.org/10.5539/jsd.v4n3p223>

Falk, J. H., & Dierking, L. D. (2016). *The museum experience revisited*. In Routledge eBooks. <https://doi.org/10.4324/9781315417851>

Filová, N., Rollová, L., & Čerešňová, Z. (2022). Route options in inclusive museums: case studies from Central Europe. *Architecture Papers of the Faculty of Architecture and Design STU*, 27(1), 12–24. <https://doi.org/10.2478/alfa-2022-000>

Hartstra, T. (z.d.). How can routing support the story of a museum. *INSIDE*.

Kossmann, H., Mulder, S., & den Oudsten, F. (2012). *De narratieve ruimte*. 01

Macleod, S., Hanks, L. H., & Hale, J. (2012). *Museum making: Narratives, Architectures, Exhibitions*. Routledge.

McMurtry, C. (z.d.). *Museum and children, a design guide*.

Saleh, O. (2020). *Interpreting the Spatial Organization of Adaptive Reuse Museums Considering Crowds Issue in Circulation Routes*.

Tzortzi, K. (2007). *MUSEUM BUILDING DESIGN AND EXHIBITION LAYOUT*. space syntax. <http://www.spacesyntaxistanbul.itu.edu.tr/papers%5Clongpapers%5C072%20-%20Tzortzi.pdf>

Tzortzi, K. (2015). *Museum Space: Where architecture meets museology*. <http://ci.nii.ac.jp/ncid/BB19272674>

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)?

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

1. The studio maritime heritage has different locations, I choose for the topic of the dredging museum in Sliedrecht. With the monuments, dike ribbon, former shipyard and history of dredging it has a significant portion of (maritime) heritage. The graduation project 'the throughline' is relevant for the topic since the interior circulation is one of the most important aspects to consider for a museum design. The topic is highly related to the architecture master since interior circulation is part of any architectural building.

2. The aim of the research is to create a summarized framework of circulation types with characteristics, potentials and risks which can be applied on any museum or building in particular and is therefore useful in a larger context.