

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	David de Vries
Student number	5686571
Studio	
Name / Theme	Dwelling – Advanced Housing
Main mentor	Olv Klijn
Second mentor	Ruurd Kuijlenburg
Argumentation of choice of the studio	In The Netherlands, we face a big housing crisis right now with the biggest shortage of homes since 1945. Architects are also dealing with problems of making affordable houses in a sustainable way to solve the crisis permanently. Most of the studios don't touch on housing in The Netherlands, but Advanced Housing does. Combined with the fact that the introduction seemed very interesting with the challenging setting in a polder that is also transformed in a sustainable way, this made me choose the Advanced Housing studio. My goal is to design innovative, affordable and sustainable housing for an audience that needs housing the most in The Netherlands. These are also topics I'd like to work on after my graduation.
Graduation project	
Title of the graduation project	The past matters <i>Creating innovative, sustainable and affordable housing in the Dutch Polder</i>
Goal	
Location:	De Zweth, Midden Delfland
The posed problem,	My research includes two problems: sustainability and affordability. In The Netherlands we currently have almost 4 million one person households, but hardly any affordable dwellings for these people are built. Secondly: the building sector is changing rapidly, with more and more focus on sustainability. The weird thing is, nowadays architects often don't look at the local place where

	<p>a new building will be built and rely heavily on technology, creating sustainability issues that were not there if we looked better at the local circumstances a building is built. This research & design aims to look at the past to solve these big problems, rooted in traditional & vernacular architecture from different regions to create a sustainable and affordable building for one person households in the challenging location of Midden Delfland.</p>
research questions and	<p>'In what way can architects learn from architecture in the past to create sustainable & affordable houses in Midden Delfland?'</p>
design assignment in which these result.	<p>The design assignment will therefore be to create a dwelling complex focusing on affordable one person households in a forest/swamp area in Midden Delfland, where lessons from the past as far back as the Medieval times will be used and translated to the future to solve issues many contemporary buildings struggle with. <i>"Traditions allow us to recognize the lessons of history, enrich our lives and offer our inheritance to the future. Local, regional and national traditions provide the opportunity for communities to retain their individuality with the advance of globalization"</i> (Drijver, 2022)</p>
<p>Process</p>	
<p>Method description</p> <p>-The most important method is a <i>Comparative analysis</i>, where various sub themes like programatisation, composition and scenario planning, will be examined using architectural case studies from the past, focusing on northern Europe between 1200 and 1900, touching on modern interpretation of them as well.</p> <p>-The second main method is a <i>Literature review</i>, where findings of traditional architecture are backed up by literature, previous studies and stats to see whether they can be translated and used in contemporary architecture, focusing on the chosen location in Midden Delfland.</p> <p>-The third main method is <i>Research by design</i>, combining the two earlier research methods directly into a design by experimentation and seeing how the found data can be used in a new building, creating an affordable, sustainable and -often overlooked- pleasant building, rooted in design solutions from centuries ago.</p>	

Literature and general practical references

For the researched I worked/work with different frameworks:

Architectural epistemology, vernacular architecture as a tool for contemporary housing and Zero at the meter housing

The used literature list is too long to completely write down, but some key literature used was:

-Adam, R. (2020) *Time for Architecture: On Modernity, Memory and Time in Architecture and Urban Design*

-Anjomshoa, M., Anjomshoa, A. (2018) *A contemplation on the Traditional architecture of Hot-dry Climate with Emphasize on the Interaction between Living Satisfaction and Affordability*

-Emekci, S. (2023) *Return to the Basics: Vernacular Architecture as a Tool to Address Climate Change*

-Kandachar, P. (2014) *Materials and Social Sustainability*

-Vartanian, O. (2015) *Architectural design and the brain: Effects of ceiling height and perceived enclosure on beauty judgments and approach-avoidance decisions*

-Supic, P. (2020) *Vernacular architecture: A lesson of the past for the future*

Reflection

The relation between my master program and graduation topic about creating sustainable and affordable housing are linked to the studio topic 'living with water' since it both touches on future developments that ensure a bright future for The Netherlands. The choose of location for the studio is set in a hypothetical situation where the land becomes much wetter, a realistic situating for The Netherlands in the future where we also struggle with a housing shortage and where we as architects should build dwellings in the future. The studio topic makes the graduation project more linked to the future and also gives challenges we currently do not think of.

Since housing shortage, living with a wet environment and building in a sustainable way are very acute and future issues architects have to deal with, my graduation work is realistic and with the insight of looking back at the past to solve these problems it also works as sort of a handbook for architects to work with. Since the studio also touches on themes as social inclusion, material usage and gender equity the graduation work tackles on current and future problems in different ways.