

# GRADUATION PLAN

Master of Science Architecture, Urbanism & Building Sciences



# Graduation Plan

## Author

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## Tutors

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## Graduation Studio

Architecture & Dwelling - AR3AD100 - Advanced Housing Design

Theme - Ecology of Inclusion | Building Resources

I am personally attracted by smaller scale architecture in a rural setting, when I saw the presentation for the studio and the context of the design project in the polder of Midden-Defland I was immediatly sold. Beyond the environment, dwelling design is also the direction of architecture I want to work in later, so I saw this studio as an essential preparation.

## Date

19 January 2024

# Graduation Project

## Title:

Hospitable Movement - A movable and demountable hospice that is guided by the closed-circles of life and the future Dutch polder landscape

## Location:

Vlaardingen, The Netherlands (Polder of Midden-Delfland)

## Problem:

In the space between now and 2100 the Dutch polders will change in their presence and landuse. At the moment complex pumping systems to keep our feet dry are needed, resulting in the soil sinking and expelling greenhouse gas emotions. To prevent this, the traditional grasslands will be gradually flooded, and become uninhabitable for people and unusable for our current way of agriculture. Before the wetlands take on the new ways of agriculture, such as reed, cattail, and elephantgrass, the land is unused in the process.

## Research Question:

What building and target groups are suitable for impermanent housing solutions in the Dutch Polder?

## Design Assignment:

The design of a hospice, that can be assembled and disassembled to be moved to various unused spaces in peat polders.

# Process

## Method Description:

In order to answer the research question the research is divided into multiple booklets, each with one or more research methods

## Literature review:

The literature review will primarily be used to create an understanding of certain topics, which will then be further researched using the other methodologies. This method suits the purpose of laying down a good foundation of knowledge that can be built upon in further stadiums of the design.

## Case Studies:

To gain specific knowledge on the target groups and demountability case study research will be carried out. This research will be input for the design of technical details, building schemes, or the project brief.

## Survey:

To gain insight into simple building methodologies an interview or survey will be held, questioning carpenters and work planners of a contractor about which methods they recommend to use for building with novices under the supervision of a professional.

## Quantifying demountability:

To underpin a final decision on the building methodology the demountability of that structure should be compared, to find the most suitable solution for making simple, circular, and demountable structures. This is done through measuring and quantifying the demountability with the demountability index.

## Scale Models:

By using scale models the demountability can be tested in a real-world scenario, replicating detailed elements on scale. It also directs the maker into thinking more about the order of assembly and make-ability.

## Literature and References

On this list a sum-up of all literature references used thus far is given per research booklet.

### 01 - photo report

no references used, just self-made photo's with descriptive text.

### 02 - site analysis

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### 04 - people & program

William D. Browning, Catherine Ryan, and Joseph Clancy, "14 Patterns of Biophilic Design: Improving Health and Well-Being in the Built Environment," *Terrapin Bright Green*, January 1, 2014.

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The Irish Hospital Foundation, *Design & Dignity Guidelines: For Physical Environments of Hospitals Supporting End-of-Life Care* (Dublin, Ireland: Hospice friendly Hospitals Programme, 2008), <https://www.hospicefriendlyhospitals.net>.

Stephen Verderber and Ben J. Refuerzo, *Innovations in Hospice Architecture*, Taylor & Francis eBooks, 1st Edition (London, United Kingdom of Great Britain and Northern Ireland: Taylor & Francis, 2006), <https://doi.org/10.4324/9780203358597>.

### 05 - Demountability

DGBC, "Circulariteit in de Praktijk Losmaakbaarheid: Whitepaper," *Dutch Green Building Council* (Den Haag, Netherlands: Dutch Green Building Council, October 2021), <https://www.dgbc.nl/publicaties/circulariteit-in-de-praktijk-losmaakbaarheid-46>.

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chapter 05 is to be expanded in futher research towards P3

### 06 - Self-build / Survey research

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## 07 - Prototype research

No literature yet, will be expanded in the period up to P3

# Reflection

## Relations

The main relation with the studio and the design project is the dwelling aspect the building accompanies with it. Patients of the hospice, as well as close by families are housed in dwellings designed for the project. Furthermore an important theme for the design studio is living with water, which is one of the main problematic in this research / design project. Another theme in the design studio is working with resources, this is found back in the demountability aspect of the building. It enables us to learn how resources that go into a building would not be disregarded but reused on a completely different site. This also joins the research gap in the self-build real, in which professionals are interviews on their view on self-building asking them for advice. Often professional and especially practical advice by carpenters is ignored or not even received by architects, this is something the master track and even the master program can learn of.

## Relevance

With the increasing aging of the population of the Netherlands and the declining birthrates of new Bourne, the pressure on the healthcare system will increase. This can lead to the decline of the care that is given to someone, especially in their last phase of their lives. For a hospice professionals are not needed, since they are ran completely by volunteers, this system can have a big impact on the pressure on the healthcare by relieving pressure on the palliative care facilities.

Besides the healthcare aspect, we as inhabitants of the Netherlands, need to learn how to deal with the new types of polder landscapes. This requires us the drop our defensive approach to water management, which is clearly shown in the flexible housing concept of the design project.

