

# Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



## Graduation Plan: All tracks

Personal information	
Name	Marije de Ruijter
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Studio		
Name / Theme	Adapting 20 <sup>th</sup> Century Heritage: New Heritage	
Main mentor	Nicholas Clarke	Heritage and Design
Second mentor	Lidwine Spoormans	Heritage and Design
	Ger Warriès	Architectural Engineering and Technology
Argumentation of choice of the studio	<p>The choice for this studio is based on two of my fascinations, being dwelling and transformation.</p> <p>People form a close personal connection with their dwellings, as they spent most of their time there. I am particularly interested in designing with the focus on residents, and their wishes.</p> <p>Buildings change over time, based on the needs of its users. I am interested in the relation between the transformation and the use of the building and how to adapt the building to relate to the current and future use.</p> <p>This studio combines dwelling and transformation, and therefore offers a great learning opportunity in these topics.</p>	

Graduation project	
Title of the graduation project	Readjusting Hoptille
Goal	
Location:	Hoptille, Amsterdam
The posed problem	<p>In the Netherlands there is currently a need for more housing, with a national shortage of about 300.000 dwellings. This is not the first time that such a shortage is present in the Netherlands, following the second world war there was a housing shortage as well. To reduce that shortage, expansion projects were built, which resulted in about 30 percent of the current housing market consisting of housing built between 1965 and 1985.</p> <p>These buildings are becoming outdated and need renovation. Such as the Hoptille midrise building in Amsterdam, which deals with social problems, including crime and lack of social interaction, and technical problems, such as leakages and mold. This resulted in the building being renovated within a few years of completion, and again ten years later. However, the building still does not fulfill the users' wishes and will have to be adapted again. In the future, as the users' wishes change, the building will have to adapt yet again.</p>

	<p>At the moment, Hoptille is considered for demolition, because of the present problems. However, by demolishing the building any values, such as historical value, that are associated to the building will be lost. In today's society, the priority is focused on economic and political values, while other present values are overlooked, including values the users associate to the buildings. Furthermore, ecological value is often overlooked, as demolition will result in the embodied energy of the building being lost. Adapting the building instead of demolishing it, and creating more possibilities for adaptations in the future, could solve the present problems while preserving the building's values. Therefore, creating an opportunity to add to and improve the current housing stock.</p>
<p>Research questions</p>	<p>Main question: How can apartment buildings be transformed to become adaptable to the users wishes?</p> <p>Sub questions:</p> <ul style="list-style-type: none"> <li>- How much does the building's design align with the current users' needs?</li> <li>- How can the building become adaptable to future needs and wishes?</li> <li>- How to preserve the values currently associated to the building?</li> </ul>
<p>Design assignment</p>	<p>The aim of the project is to redesign the mid-rise building in Hoptille, adding to and improving the current housing stock in a sustainable way.</p> <p>In this redesign two topics, change through time and cultural values, will be combined and applied to the building. In order to create a more adaptable building, which will allow for users to change the building to their wishes, as well as preserving the current values.</p>

<p><b>Process</b></p>
<p><b>Method description</b></p>
<p>Several methods will be used to research the two main topics, the user's values and change over time.</p> <p>Ethnography To gain more knowledge about the users' perspective ethnographical research will be done. This will partly consist of interviews with users of the building. The residents will be asked a set of questions, to try and determine the values they associate to the building.</p>

Simultaneous to the interviews, the method of mapping, both behavioural and physical traces mapping, will be used to research the use of the building. Behavioural mapping consists of recording the actions of people using a certain area. Physical traces mapping refers to recording traces of activity, such as litter or erosion.

#### Building Analysis

In order to understand the original designer's perspective, the building itself will be analysed. Moreover, the different stages the building went through will be analysed, to understand how the building has already changed through time.

Furthermore, several case-studies, with a focus on adaptability, will be analysed to explore some possibilities of adaptability and flexibility.

#### Research by Design

For research by design two design methods, prototype and scenario design, will be combined.

Prototype design consists of an iterative process of designing, testing, and re-designing. During each round of testing the design is evaluated, so that during the next round of designing the design can be altered and improved.

Scenario design refers to creating multiple designs for one project simultaneously. The consequences of each design are then evaluated and compared to each other. By doing so the design that suits the project requirements best can be chosen

These two methods will be combined, to create an iterative process of experimenting and evaluating based on set requirements. Multiple strategies are created based on separate focus points. After evaluation, one of these strategies is chosen or multiple strategies are combined to continue with in the design process.

#### **Literature and general practical preference**

This project relates to the way people use buildings changes over time and the values people relate to buildings. At the moment there is already literature about these two topics. For the first topic this includes 'How buildings learn' by S. Brand on the and 'People and Plans' by H.J. Gans, both on the mismatch between a design and the wishes of the user. While Brand proposes to create buildings which can adapt over time to allow changes in use, Gans proposes the concept of the 'effective environment' to bring the designer's values closer to the user's values.

The second topic is discussed in 'Re-Architecture' by A.R. Pereira Roders and 'Heritage-based design' by P. Meurs, both mention the conflict between separate values and how they can change over time. Pereira Roders further focuses on the need to shift the focus to environmental values. Meurs discusses three pairs of often conflicting values which have to be balanced for each project.

Furthermore, some architecture project with a focus on adaptability will be studied, these include:

- Solids, by housing cooperation Stadgenoot
- Nest LivingHome Toolkit, by Brooks + Scarpa
- Résidence pour chercheurs, by Lacaton & Vassal

## **Reflection**

This studio focuses on the transformation of dwellings built in the 1980s, with a further focus on the preserving the values attributed to these buildings. By designing adaptable dwellings, the buildings can be preserved with minimal intervention needed in the future, preserving the values. In researching this topic, one building is used as starting point the mid-rise building in Hoptille, with a focus on the functional, spatial, and social aspects on building scale. However, a broader look at the surroundings as well as a more detailed look at the structure is needed to substantiate the design.

### **Social relevance**

The adaption of housing built in the 80's offers an opportunity in regard to the current housing shortage. By creating a design to adapt these houses instead of demolishing them and creating new buildings, the embodied energy of these buildings is preserved, improving the quality of the housing in a sustainable way.

Simultaneously these buildings can hold a lot of value for its users. Demolishing buildings, instead of letting the buildings change over time, will remove those values. The design strategy used to preserve these values can be applied to similar projects, improving the overall housing stock.

### **Academic relevance**

The combination between the cultural values and the way buildings change over time is not yet researched, even though research about the topics separately is available. Researching how these topics relate and add to each other, will therefor add to the existing knowledge.

This research also contributes to research into 80's architecture. Since these buildings are relatively young, not a lot of research exist on the values attributed to the buildings. By doing so, the project will offer insight in usable methods for researching values attached to the built environment and how to design with these values in mind, to preserve these values or even to emphasize them.

