

# 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](mailto: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	Sjimmie de Jong	
Student number	4882946	
Studio		
Name / Theme	AR3AH115 Graduation Studio Revitalizing Heritage, Zero Waste Church	
Main mentor	Catherine M.N. Visser	Design
Second mentor	Mo J. Smit	Building technology
Third mentor	Wido J. Quist	Research
Argumentation of choice of the studio	<p>I have chosen this studio because of its focus on the redevelopment and preservation of churches. My personal interest in this topic was sparked by my childhood, I grew up in the small city of Edam, which is filled with listed buildings, also quite a number of churches. These churches, this heritage colours the city and gives it a distinct identity.</p> <p>The decline of the church in the Netherlands and the increasing number of empty or underutilized churches in the country presents a danger for these buildings, such as deterioration which leads to demolition or transformations into homes or other private functions, how many can still enjoy the quality of these buildings from inside. But it also presents a unique opportunity for redevelopment and preservation. With the current trend to densify cities and the challenge to build 1 million homes by 2030, conversion of these religious heritage buildings into housing is a relevant and pressing issue. By taking part in this studio, I aim to address this challenge by finding creative and sustainable solutions for the redevelopment of these unique and characterful buildings, which often form the centre of towns, cities and neighbourhoods. I hope that these buildings can be preserved and protected for future generations to enjoy.</p>	

<b>Graduation project</b>	
Title of the graduation project	Duality in Valuation.
<b>Goal</b>	
Location:	De Hoeksteen. Van Ostadestraat 268-270, Henrick de Keijserstraat 9, Amsterdam
The posed problem,	<p>The previous shortly touched upon decline of the church in the Netherlands has been caused by a variety of factors, including changing societal values and demographics. A decline in religiosity and an increase in secularization have led to a decrease in church attendance and membership. Additionally, the Church's role as an institution has been changing and the church has been losing its social relevance. These changes have resulted in a decrease in the need for traditional church buildings, leading to the decline of the church in the Netherlands.</p> <p>This decline of the church in the Netherlands has led to a significant number of unused and underutilized church buildings. Which has resulted in several negative effects, including financial strain on communities, deterioration of the buildings, and a loss of cultural and historical heritage due to demolition. The housing crisis in the Netherlands has further highlighted the need for sustainable and creative solutions for the reuse of these buildings. Transforming these structures into residential or mixed-use spaces can not only address the housing shortage, but also preserve the cultural and historical significance of the buildings while promoting sustainable development. The adaptive reuse of religious buildings can contribute to the creation of vibrant and sustainable neighbourhoods.<sup>1</sup></p> <p>The problems mentioned above are general for the studio or religious heritage. The chosen case study, "de Hoeksteen," is located in the Amsterdam neighbourhood of de Pijp, presents an additional unique set of problems.</p> <p>The building is a rare post-war structuralist church, one of only two in this style in the Netherlands. the church</p>

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<sup>1</sup> Monika Göttler & Matthias Ripp, Community Involvement in Heritage Management Guidebook. (Regensburg: Stadt Regensburg, 2017)

	<p>was designed to be multi-functional, much like the ancient Roman basilicas.<sup>2</sup> However, the building was only briefly used by the original parish and has had multiple religious uses and societal functions over the years. Despite its unique architectural style, the building has received criticism for its aesthetic features and layout. The Diocese of Haarlem-Amsterdam, the current owner, wants to sell the building to a developer. The Diocese challenged the building's protected status in the highest court of the Netherlands, arguing that the monument status makes redevelopment impossible or too expensive and thus makes it impossible to sell. However, in their efforts to overturn the listing, the Diocese failed to argue that the heritage status was unjustified. Despite the municipality's persistent defence of the building, only its existence was saved, and a needed renovation/redevelopment still seems far away.</p> <p>The building has several technical shortcomings that limit its use, such as leaks, poor insulation, and poor sound insulation, as well as design flaws which have prevented the building from realizing its potential as a multi-functional space or even just as a church. Currently, the building is being used temporarily by a Spanish community: casa migrante, but its current state does not seem ideal to suit their needs. The large multi-functional halls have been filled with makeshift classrooms, voting booths, or used as storage spaces. And the low garden rooms are used for all activities such as dancing workshops, movie displays and other activities. Their use of the building does not connect to the spatial qualities the building possess. Furthermore, it seems that the local community prefers demolition over conservation, indicating a difference in perspective between expert evaluations by the Commission for Spatial Quality (CRK) and the opinions of the local community and current and past users.</p>
research questions and	<p>This cleft in valuation stems from having differing opinions on the preservation or redevelopment of a building. This can be due to a variety of factors, including the expert community's focus on preserving cultural and historical heritage, while the user/local community may prioritize practical considerations such as the building's condition and suitability for their needs.</p>

<sup>2</sup> "Basilica", Stilus, accessed on 30 October 2022, <https://www.stilus.nl/oudheid/wdo/ROME/GEWOON/BASILICA.html>.

	<p>this cleft can lead to tension and conflict between the expert community and the user/local community. In the case of listed buildings, the expert community may advocate for preservation, while the user/local community may prioritize redevelopment to address practical concerns such as housing shortages or building defects.</p> <p>However, there are also chances for this kind of development. Adaptive reuse can be a valuable tool to address housing challenges while preserving cultural and historical heritage. Additionally, involving user/local community in the decision-making process can help bridge the gap between expert and user/local community valuations.</p> <p>This difference in valuation, with experts seeking to fully preserve the building and the local community not seeing the harm in its demolition, inspired my research question:</p> <p>How can the duality between the expert valuation and the valuation of the local community and its user(s) be a vector for the transformation of de Hoeksteen?</p> <p>This is research into sustainable development from a social participatory angle, it ties into the UN development goals by striving to protect and strengthen this object of heritage,<sup>3</sup> this studio challenges students to find zero waste solutions to the challenges presented by a chosen case study. The research or of the building (ABC analysis) will also focus on materials and building elements, this together with knowledge from the books upcycling: reuse as a design principle in architecture;<sup>4</sup> and Umbaukultur,<sup>5</sup> should be a basis for design variations tested by the stakeholders and should inform the final design.</p> <p>To structure the research properly, and to be able to find a satisfiable answer to the research question the paper will be divide into sub questions. During the various "steps" of the research there will also be design iterations</p>
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<sup>3</sup> UN. Transforming our world: the 2030 agenda for sustainable development. (n.d.)

<sup>4</sup> Daniel Stockhammer. Upcycling: Reuse as a Design Principle in Architecture. (Zurich: Triest Verlag, 2020)

<sup>5</sup> Christophe Grafe & Tim Rieniets, Umbaukultur. (Dortmund: Verlag Kettler, 2020).

	<p>which will be based on and tested by the stakeholders mentioned in the research question: expert, user &amp; local community.</p> <p>The sub questions are:</p> <p>How does the municipality value the building, and what informed this valuation?</p> <p>How do the current (and past) users value the building?</p> <p>How does the neighbourhood value the building?</p> <p>How does this translate into program and how can this be translated into scenarios?</p> <p>How do the stakeholders value these scenarios?</p> <p>How does this inform the final design?</p> <p>Followed by conclusions and reflection.</p>
<p>design assignment in which this result.</p>	<p>De Hoeksteen is a building divided in three sections, the main building which is L-shaped and consists of a ground floor which is low but has an open glass façade facing the garden and the first floor which is used to be the church the first floor can be subdivided into 4 rooms each with their own entrance making it highly flexible. On both ends of the L shape are dwellings, on the long side a structure of 5 floors which follows the system by which the main section of building was build, on the short end dwellings have been housed in a structure that fills residual space. The design assignment will cover the entire complex. At first the building will be analyzed, much of this has already been done. Secondly the building will be valuated, these valuations will form the basis of a program and ultimately three design variations or scenarios. These preliminary designs will be tested by the stakeholders which forms a feedback loop for further improvement of the design.</p> <p>The goal is a redesign that considers the valuations of various stakeholders, leading to a building that functions well, is cherished by and which activates the local community, while preserving the architectural values of the building. The design should consider the spatial qualities and make use of them and improve this where needed.</p>

## **Process**

### **Method description**

In order to do this research, multiple methodologies will be used. It will start by doing research into the building, its technical aspects, design aspirations, how it was used, what worked and what not. This will be carried out by doing archival research at HNI and by doing interviews with the current user and the diocese. This is the ABC analysis referred to earlier.

### **Valuations**

The next part will be getting the building valued by different stakeholders.

#### **Expert**

For the municipality (expert stakeholder) this is more geared towards archival research, interviews will be used in the value coding stage so that there's already a line of communication for to test the design variants later. Their wishes for the building are clear,<sup>6</sup> and because of the earlier mentioned court case regarding the protected status there is an extensive description of the building available.

The expert stakeholder's valuation will be largely dependent on the official documents that lead to the protected statement of the building. This because it is in a sense the legal backbone for its listing, and forms in the eye of the owner the problem for redevelopment. In order to form the feedback loop and get additional information an interview with someone from the heritage body of Amsterdam would be ideal. To this end some contact has already been made and the municipality seems to be cooperative.

#### **User**

The Users of the building are from personal experience friendly and easy to get in touch with, my only reservation is their mastery of either Dutch or English in the case of interviews or surveys since they are as mentioned earlier a Spanish community. In the worst case there would be a need to find someone to help translate to and from Spanish.

#### **Local community**

For the local community input is dependent on the willingness to partake. This is hard to estimate, but earlier experience gained from the course architectural ethnography gave some insight to make it easier and more appealing for people to partake, for instance doing an activity like cleaning the street while asking people if they'd like to partake or handing out a small reward like a snake seen also during political campaigns.

<sup>6</sup> "Uitspraak 201401001/1/A2", Raad van State, Accessed on 14 October 2022, <https://www.raadvanstate.nl/@98256/201401001-1-a2/>.

To assess the valuation of the users and the local community I aim to use surveys, this way the answers are more easily compared, and a higher volume of interviewees can be achieved, which should lead to a more accurate overall valuation. It is, however, important to avoid biased surveys.

### **Scenarios and Testing**

These valuations form the input for three scenarios (research for design). These prototypes will in rerun be tested by doing surveys and interviews with the previous consulted stakeholders. The expert opinion will likely form a foundation for all these variations befitting the studio heritage and architecture, since their valuation is mostly geared towards preservation of the building and its unique qualities.

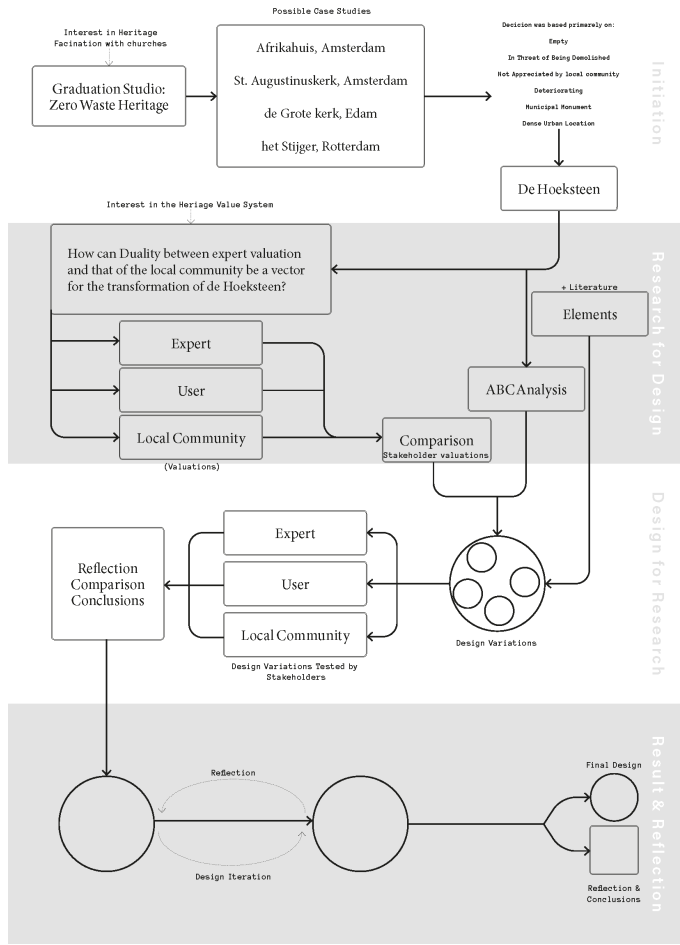
Once these variations are finished, they will be presented to the stakeholders questioned earlier. In the case of the user and the local community it might however not be able to ask the exact same group of people. This final feedback will then inform the final design iterations. Feedback on the design and the design process will give insight to what extent the duality of the expert valuation and the valuation of the local community can be a vector for sustainable transformation.

A problem that needs to be dealt with when making these design variants is that each group of stakeholders will most likely choose the design that most reflects their wishes/ values. Thus, not reaching more insight than the initial valuation phase. The two most polarizing options (demolishment or complete renovation without changes) will always be most pleasing to one group and most dissatisfactory to another, finding multiple variations around the middle of these two, while also being distinctively different to inform the final design in different ways is important in this phase.

As mentioned earlier the expert valuation focuses on preserving cultural and historical heritage, while the user/local community may prioritize practical considerations such as the building's condition and suitability for their needs. Another interesting difference is that between user and the local residents: the user is happy with the building, even though it has shortcomings and they do not use the building optimally in a spatial sense, the local community seems to base their valuation mostly on the appearance of the building, and the fact that they have never been inside. An interesting topic while working on the scenarios might be delving into mixed-use or public buildings that function "well" but are not necessarily praised for their aesthetic.



The above process is illustrated in the following diagram:



## **Literature and general practical preference**

### **Regarding the Case study, the architect and religious heritage:**

Reinstra, Albert & Strolenberg, Frank. Kerkgebouwen: 88 inspirerende voorbeelden van nieuw gebruik – van appartement tot zorgcomplex, 1st Ed. Wageningen: uitgeverij blauwdruk, 2020.

Steenhuis, Marinke. Joop van Stigt, Architect: Werken vanuit een flexibele structuur 1960 – 1985, 1st Ed. Amsterdam: Stichting Dogon onderwijs, 2014.

Strauven, Francis. Aldo van Eyck: The Shape of Relativity, Amsterdam: Architectura & Natura, 1998.

Strauven, Francis. Aldo van Eyck – Shaping the New Reality from the In-between to the Aesthetics of Number, 2007.

Van Heuvel, Wim J. Structuralisme in de Nederlandse Architectuur, Rotterdam: Uitgeverij010, 1992.

Teyssot, G. (2008). Aldo van Eyck's Threshold: The Story of an Idea. *Anyone Corporation*, 11, 33–48. <http://www.jstor.org/stable/41765182>

### **Regarding valuation and Heritage:**

Kuipers, Marieke & de Jonge, Wessel. Designing from heritage: strategies for conservation and conversion, Delft: TU Delft, 2017.

Roders, Ana P. Heritage and Values: Introduction to key concepts.

Spoormans, Lidwine & Ana P. Roders, Methods in assessing the values of architecture in residential neighbourhoods," *International journal of Building pathology and adaptation*, 39, no. 3, 2021: <http://dx.doi.org/10.1108/IJBPA-10-2019-0095>

### **Regarding participation/ stakeholder involvement:**

Göttler, Monika & Matthias Ripp, Community Involvement in Heritage Management Guidebook. Regensburg: Stadt Regensburg, 2017.

Habermas, Jurgen. The structural transformation of the public sphere, Massachusetts: MIT press, 1991.

Habermas, Jurgen. The Theory of Communicative action vol 1. Boston: Beacon press, 1984.

Habermas, Jurgen. The Theory of Communicative action vol 2. Boston: Beacon press, 1987.

Huybrechts, Liesbeth (ed.). Participation is risky: approaches to joint creative processes, Amsterdam: Valiz, 2014.

World Heritage Centre. The Operational Guidelines for the implementation of the heritage convention, Paris: UNESCO WHX, 2021.

## Regarding circularity and sustainability:

Stockhammer, Daniel. *Upcycling: Reuse as a Design Principle in Architecture*, Zurich: Triest Verlag, 2020.

Grafe, Christophe & Tim Rieniets, *Umbaukultur*. Dortmund: Verlag Kettler, 2020.

UN. *Transforming our world: the 2030 agenda for sustainable development*. n.d.

## 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.

Research on the transformation of listed buildings is highly relevant in today's society, in the Netherlands is a pressing need for sustainable housing solutions. Listed buildings, are those that have been designated as historically or culturally significant. These buildings often hold significant value for local communities and their preservation is essential to maintaining the cultural identity of a place.

However, the transformation of listed buildings can be a challenging task, as it requires balancing the expert valuation of the building with the preferences and needs of the local community. This can lead to a cleft between experts and the community, with experts valuing the historical and architectural significance of the building, while the community may value the building for its social and cultural significance. This topic becomes more important as many heritage organisations encourage participation with local communities.

Furthermore, the housing crisis in the Netherlands has increased the pressure to find sustainable solutions for housing. This has led to a growing interest in the transformation of listed buildings into housing, as these buildings often have a strong architectural and cultural significance and can provide an attractive and sustainable housing solution. This research tries to add to this, by investigating the transformation of de Hoeksteen, working towards 1M homes.

To bridge the gap between expert valuation and community preferences, research on the transformation of listed buildings should take into account the needs and perspectives of the local community. This includes involving the community in the decision-making process, as well as considering the social, cultural, and economic impacts of the transformation.

Overall, research on the transformation of listed buildings is highly relevant, as it addresses the need for sustainable housing solutions while also preserving the cultural heritage of a place. The importance of involving the community in the decision-making process and considering the social, cultural, and economic impacts of the transformation should also be taken into account.