

Reflection paper

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Revitalizing heritage, Zero waste church



Introduction

To start off the process for not only my graduation project but also my journey as an architecture student, my fascination for heritage centers around the faculty building of TU Delft Architecture. As a first-year student, you hear from many older students how Architecture has the most astonishing building on the whole campus. However, my initial encounter left me perplexed, finding it seemingly outdated and less impressive compared to some recently constructed faculties. Now, six years later, I can say without a doubt, that I fell in love with the faculty of Architecture and how I will indeed tell the next generation they should appreciate the building in all its glory.

What I try to say in the anecdote, is that it can really take some time to appropriate the complexity of heritage and how the new function is integrated. The challenges inherent in transforming an old building, while preserving its heritage values, constitute a specialized profession.

This building's allure motivated my choice to graduate in Revitalizing Heritage. Despite recognizing its beauty, I felt I had yet to master the difficulties of heritage. As I approached this graduation studio, the concept remained elusive—a fascination and skill set awaiting development. Consequently, my research question for the graduation paper emerged: "Can assessment tools for the standardization of sustainability and heritage values be applied in the design process of church transformations?"

While heritage was relatively new to me, building transformation was not. The allure of the Zero Waste Church graduation studio originated from my specialization in building transformation over the past few years. Previous projects involved converting old offices into student houses, a discipline I deem crucial for meeting upcoming challenges in the Netherlands.

For this reflection it is important to understand that this is the second reflection for graduation, because it is the second P4 presentation. Insights that were made through the P4 were crucial to the final design. Therefore, these newfound perspectives serve as the cornerstone of this reflection on the overall process.

In conclusion, the twin fascination with heritage and transformation propelled me into this graduation studio, where I anticipated continuous learning and personal growth, preparing me for the professional realm of architecture. This reflection aims to articulate the challenges faced throughout the year and elucidate how I navigated and assimilated them.

Reflection on the previous P4 presentation

Reflecting on the prior P4 presentation is a crucial aspect of my design journey, serving as a wake-up call that significantly influenced the foundational design choices of my project. In this studio, a major challenge was introduced—the incorporation of circularity, unintentionally overshadowing other design considerations. The aim of integrating circularity into the project for enhanced cohesion and sustainability became overshadowed by my tendency to base design choices solely on material reuse. While material reuse remains crucial, the design's essence should derive from the function and inherent qualities of the building and its surroundings. Striving to make circularity the guiding principle resulted in a tunnel vision, causing me to overlook elements crucial to embodying the project. Foremost the significance of societal and physical surroundings and the relation between the old and the new.

Revisiting Voorschoten's character became imperative for the church's transformation, requiring an urbanistic approach. The church's strategic location revealed an opportunity for reintegration. Currently detached, the church could serve to reconnect Voorschoten's center with the surrounding green. Recognizing the need to consider the surroundings as a whole, a holistic approach emerged as a necessity for the successful reintegration of the vacant church. This led to focus points to base that are significant in the redesign of the church.

- Emphasize the green characteristics of Voorschoten in the design approach
- Emphasize the small-town ambience of Voorschoten in the design approach

Functional analysis reinforced the church's historical role as a community building, leading to the proposal of a multifunctional art center surrounded by social dwellings. A pivotal aspect emerged—the courtyard or "het Hofje" in Dutch—connecting the church, community dwelling, green park, and town center on an urban scale. Returning to the circularity approach, I acknowledged its role as a tool for materialization rather than a guiding design principle. Keeping Voorschoten's green character in mind, I sought to merge key elements into the design's materialization, resulting in the use of locally reclaimed wood. This choice aimed not only to utilize the wood from the church and town but also to enhance the overall design and sustainability of the church transformation. Upscaling and employing reclaimed wood established a synergy between the old and the new, contributing to sustainable and functional enhancements in the church's transformation. Summarized in physical interventions:

- The creation of the art center to regain the communal function
- The creation of "het hofje" with an urbanistic approach to resemble the characteristic of Voorschoten
- The use of reclaimed wood in the materialization to honor the green history of Voorschoten, as well as being beneficial to the circular approach

In conclusion, the reflection on the prior P4 presentation urged me to comprehend the unique qualities the church and its site possess, facilitating a rearrangement of design priorities. Ultimately, the design aims to embody and replicate the characteristics of Voorschoten, fostering the reintegration of the surroundings and reactivating the church's communal function.

Relation project and studio

The interplay between the graduation project and the master track in Architecture, focusing on "Revitalizing Heritage, Zero Waste Church," unveils a distinctive design challenge at the intersection of heritage and sustainability, specifically circularity. Although all master tracks share a focus on design, the nuanced emphasis on heritage values and the imperative of sustainable and functional improvement make this studio uniquely challenging.

The integration of "Zero Waste" into the graduation project adds a layer of complexity. The studio allows for diverse interpretations of "Zero Waste," fostering creativity but introducing challenges. Each circular design choice prompts an examination of whether the circular approach justifies the associated challenges. As said, for me especially, this was a hard skill to master, resulting in bottlenecks in my design process.

Contrary to the past five years where sustainability was an afterthought, this studio embeds circularity and sustainability from the project's inception. It prompts students to consider the implications of every design decision, fostering integrated design thinking. A closer look at the studio's approach reveals how it shifts the design process towards a more holistic and thoughtful consideration of sustainability.

Research Methods and Approach

Throughout the design process, three main approaches guided the methodology. Embody and replicate the characteristics of Voorschoten. Reintegrate with the surroundings and connect. and the functional approach to reactivate the community function of the church. These methods operated concurrently, shaping the final design.

The value assessment of heritage elements involved understanding tangible and intangible aspects through stakeholder perspectives. This underscored the challenge of creating a design that resonated with diverse viewpoints. The adaptive reuse of a vacant church, guided by conversations with the municipality and the developer, added practical dimensions to the project.

Circularity and sustainability, were facilitated through workshops and lectures, providing a framework for integrating sustainable practices. An inventory of materials from the case study identified opportunities for utilizing old materials in innovative ways.

These approaches, woven into the design process, were complemented by smaller research initiatives. One such initiative, detailed in a research paper, seamlessly contributed to the final graduation design.

Relationship between Research and Design

In this studio, my research aimed to find out if standardization of values can provide insights useful for the design process of a transformed church. Initially, I thought heritage valuation seemed a bit subjective sometimes, prompting my quest for a deeper understanding of how values influence design.

This interest led to an exploration of heritage assessment tools, which seek to standardize values into a tangible system. With a focus on sustainable conservation and a circular approach, the research questioned, "Can assessment tools for the standardization of sustainability and heritage values be applied in the design process of church transformations?" By deep diving in the theoretical framework of these tools, as well as their intended use, I found myself more aware of qualities and boundaries that I could set up for my design process.

Personally, the tools fostered careful consideration of design decisions, identifying opportunities such as the open layout, building composition, and durable techniques. This for example formed one design strategy: to create a functional design using only necessary interventions, preserving and repurposing building elements.

The conclusion drawn from this research is clear: redirect existing building elements to meet future needs. This influence is evident in decisions made during the design process, starting with defining the function. Aligned with the initial motivation, the focus was on standardizing values and creating a feasible, realistic design. Interviews with the developer and municipality highlighted the conflicting interests of stakeholders, leading to a focus on new dwellings and transforming the church into a community center.

To conclude, the research did help in shaping some of the design decisions that I made. However, at first, I tried to create a fully standardized system that could be applied to all church transformations. However, in hindsight, this is of course impossible and should have never been the goal. Providing meaningful insights in my own design process and learning what indicators are essential in a design, brought me closer to embracing design choices.

Relationship between the graduation project and the wider social, professional and scientific framework.

The significance of this graduation research extends to the broader context and ethical implications. The larger picture involves the challenges and opportunities inherent in transforming churches in the Netherlands, specifically focusing on sustainable conservation. While existing literature delves into sustainability and heritage, the transformation of churches introduces additional complexities.

Interviews with stakeholders revealed the profound historic sentiments associated with public churches. This emphasizes the need for a design approach that focuses on the wider social context of churches. In the case study, both stakeholder interests and research on sustainable conservation form the backbone and argumentation for this graduation design. To assess the relevance of the graduation and personal growth, two questions must be addressed:

"Did I use my research for my design or did my design control the outcome of my research?" The research on standardization aided in understanding the values during the design process. However, inherent bias in qualitative research and the influence of assessment tools and personal design ambition affected the paper's outcome. Despite bias, the research fulfilled its purpose of providing a better understanding of crucial factors in church transformations.

"Should I have done differently, with the newly gained knowledge?" The research on sustainable conservation value assessment involved trial and error, presenting challenges in steering the research and reaching the right conclusion. Despite insecurities in the design process, the comparative research resulted in instruments that enriched the final design.

Final personal reflection

Looking at the process in hindsight, there is one thing I would change. This is the research subject of the research paper. At the start, I focused on the use of assessment tools, and during the year I felt lost more than once, trying to get the right conclusions of this research. During this period of designing, there were many times, that smaller, way more relevant questions occurred that I wanted to answer. Had I started designing parallel to defining my research subject, I would have hopefully created a more graspable detailed subject to research.

However, the design, as well as the workshops throughout the studio, did make me design in a, for me new, circular perspective. With the goal of this studio being “Zero waste church”, I felt that I tried to comprehend and apply this extensively. Not only using circularity because I must, but this subject as my own, and using it compulsory to my final design.