

# REFLECTION PAPER

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## **INTRODUCTION**

This document is a reflection on my graduation year doing the master of Architecture and studio; Revitalizing Heritage. The chosen project was the St. Barbarachurch situated in Culemborg, Netherlands. This is a catholic church and was once visited by many Catholics, in recent years however fewer people came to the ceremony's and the building is most of the time not being used. This has come so far that the board has decided to leave Culemborg and to find a new function for the church building or demolish it. An opportunity for me to make a design proposal for this church to attract people to the church again and making it a new hotspot in the city while respecting the values of the church.

## **MOTIVATION**

I have chosen the Graduation studio; Revitalizing Heritage: Zero waste church, that is part of the Heritage and architecture chair. This is because I have always had a fascination for old (monumental) buildings, how different they are from the contemporary architecture. Especially the level of detail and craftsmanship inspires me in these buildings. In recent years many of these churches are used less because of the secularization which leads to these old buildings come without a function and are in danger of being demolished. This seems to me a great challenge to transform them. Some of these buildings have existed for a long time and many people have an emotional or other form of connection with them. As an architect you should respect these social connections in a redesigning process. It is a different design approach than when designing new buildings, you truly have to get to know the existing building and examine what is valuable about it.

The Studio is part of the Heritage and Architecture chair, it focuses on the process of transforming existing churches, to give them a new function. And while this is already a complex task, the extra complexity comes from the aspiration that we leave no waste when redesigning the building. This is in line with the overall goal to go towards a circular economy where we create circular material flows and leave no waste.

## **RELATION PROJECT WITH THE MASTER TRACK & PROGRAMME**

My research topic was about maintaining the spatial quality of neo gothic churches when making interventions for a redesign. In my case the St. Barbara Church in Culemborg. Before doing the redesign, it is important to know the history of the church and research what is valuable about it. The building is a municipal monument and it has been and still is a very important building for many people. A lot of them came here daily to attend services and pray. The fact that this church was built in 1886 because the old church was too small does show the importance of the building. The appearance of the building and its location also shows this great importance. Located in the center of town on the marketplace, it rises far above all other buildings. By building this church, the Catholics wanted to be able to be proud of their faith again and therefore the church was built in the style of the glory days of the Catholic Church; the Gothic style. Especially on the front of the building there was no sacrifice of adornment.

The many natural stone bands and decorations make the church look important. Even in the interior you can see the good relationship of many people with the church, the many statues and stained glass windows were donations from churchgoers. Although the number of churchgoers has decreased, the church remains a special appearance and many people in the area have a connection with it, after all, it is an important object that tells the history of the city and the people who live there. The task to make a plan to transform a building that has so much meaning for a lot of people is an honorable task that should be done carefully, with respect to the historical architecture and on the other hand with respect to the future of our planet. That is to say by reusing materials as much as possible and use materials that have a positive affect on our environment. These are relevant topics present day and relate to the learning goals that belong to the master track of architecture. And the master programme; The MSc Architecture, Urbanism and Building Sciences

## **RELATIONSHIP BETWEEN RESEARCH AND DESIGN**

As mentioned above, the church I chose was the St. Barbara Church in Culemborg, which I visited two times together with 2 classmates, Bas and Adriaan to make pictures and observe the building. This was followed by an analysis and making a value statement of the building. This was determined by found documents such as descriptions, newspaper articles, parish journals and a conversation with the sexton of the church. While visiting the church, the special interior of the church really appealed to me. There was a spatial quality that was very unique and that I wanted to preserve if a redesign was to be made for it. This was the reason why my research is about the effects of different types of interventions on spatial quality in neo gothic churches. Therefore my research question was; What are the effects of the most typical spatial interventions used to repurpose Neo-Gothic churches in the Netherlands on the spatial quality and characteristic architectural interior elements of the church? This question was partially answered through a literature review as well as through case studies. The literature review began with an examination of the concept; spatial quality. However, this turned out to be a complicated concept with many definitions and interpretations. In the end, it was decided to focus only on the experience of space and what this experience consists of. The explicit definition of the concept was not necessary for me but I did need the attributes that constitute the concept of spatial quality of neo gothic churches. These attributes were collected from multiple literature sources which led to a list of multiple concepts to look at when analyzing. Consequently, 7 different spatial solutions were derived from the 2011 document; Een toekomst voor kerken, where several spatial solutions were described on how to deal with the space in and around a church. Based on these solutions, 9 case studies were selected that correspond to one or two of the spatial solutions. Finally, the effects of the interventions on the spatial quality of these cases were analyzed. This resulted in a table describing the extent to which the given attribute was affected. This table can be used in the designing process when making decisions about the spatial layout of the design. When designing I tried out multiple spatial arrangements that were also researched, like adding floors and walls within the space. One of the things that stood out in the results was that the spatial solution; use of ancillary spaces affected the existing spatial quality the least. This is one reason why I applied this design strategy in my redesign of St. Barbara Church. I liked this solution because the nave remained open and the side aisles were given a function. I also applied the spatial solution; vertical split in my church. This scored average in the research because, for one, the length of the space is

affected. However, because the functions I had chosen for my redesign; a hotel, event space and restaurant had to be fitted into the building. Some form of extra intervention had to be made. I also tested a horizontal split by adding a floor in the church. In the end I went with the vertical split so the full height of the nave remained visible as well as the rib vaults, arches and the light from above. Only the length of the church was now made shorter by the added wall that divides the church in two. By making windows in the wall you can still see that the church is continuing behind it. There were also findings that led me to not use certain spatial arrangements, for example the research revealed that the solution; fill, affected the spatial quality the most, so this strategy was avoided in my design. Next to this research I did a small study in a couple of the selected churches on the design attitude of the architect, where I looked at how the new additions were designed compared to the existing. This showed me multiple ways to create a relation between old and new. Often there was made a contrast or a continuation of certain aspects like color, material or rhythm. This inspired me to do the same in my design. For example the columns of my new addition on the back of the church has a same form of rhythm than the pennants within the existing church. However, to create a contrast and to see what is new the addition is made in wood. In the end, the results of my research clearly led to making important design decisions regarding the layout of the space.

## **RESEARCH METHOD AND APPROACH IN RELATION TO THE GRADUATION STUDIO**

The basis of the research was formed by the ABC analyses. Here we analyzed in groups the chosen project on a historical, contextual, situational, architectural and structural level. This was done by analyzing the drawings of the church and photos that we made from the sight visit. But also looking into the history of the church and renovations. We made a value statement as well out of derived documents. However, we could not find many documents that go really into detail about the renovations and values within the church, which was a pity. Still the information we got led to quite a complete analyses and valuation.

The choice of functions for the transformation were mostly made by looking what Culemborg had in terms of function and what it may would like to have to attract some people again to the center. The function of a hotel and event space were not available in the area yet. I also examined other transformation projects of churches and what kind of functions could fit into a church. The chosen functions were a really good combination together as well which led to the final decision. In hindsight I could have done some more research on what the city of Culemborg really needs and what the people want.

In de overall design process, I mostly based my argumentation to preserve certain elements on the value assessment we made and the spatial organization was based mostly on the research I did. For the style of the design I wanted to create some form of continuation as well as a contrast to see what is old and what is new. This also came forward in my study on the design attitude of the architect. The materials, climate design and construction method that were used were all a result of desk research. Main requirements being: circular and bio based materials that could be dismantled and also trying to make the building as energy efficient as possible. What would be an option in future design assignments is to involve the people of Culemborg more in the design process with for instance interviews. Now all choices are made by me and the information I got. It would be interesting to know more about what the people

of Culemborg would have wanted and what they considered valuable about the church. In conclusion, multiple factors have eventually led to the final design. There are of course several approaches possible and this is one of the results. However that is always the case in design processes where there has to be created a balance between various aspects with multiple considerations.

## **WIDER SOCIAL AND ACADEMIC RELEVANCE AND TRANSFERABILITY**

The research conducted shows the effects of different spatial solutions in church interiors. The results offered insights into the design brief to give the St. Barbara Church a new function. These insights mainly concerned the spatial composition and fitting a new program into the existing church. The research shows multiple example transformation projects and examines if the spatial quality is affected much or not. Just as the research provided me with insights, it can provide and inform others (especially designers) about the various effects these spatial solutions cause. It is especially useful in similar design tasks such as the repurposing of (neo gothic) churches, but it can also offer insights in transformations of other types of buildings. All types of churches have some similarities in spatial layout etc. On top of that, the repurposing of churches is an important topic in the coming years. There are roughly 7000 churches currently in the Netherlands and about 2 per week are becoming vacant. These churches do almost always have a certain value to the people around it. This means these types of design assignments are relevant and may become even more important. The results of this research can lead to more successful transformation projects because the spatial quality is an important aspect within the new design as well as the other values of these types of buildings. If this is taken into account early on within the design process, the new design can add much more value while still respecting the existing building. Furthermore, at the beginning of the semester an ABC analysis was performed for the St. Barbarakerk, this method of analyses can also be used by others when analyzing other existing buildings where a value statement is needed. The end result of the redesign of the St. Barbarakerk in Culemborg is unique to this project and can not just be copied to a different place, however it can be seen as a great example of how existing churches can be transformed and can also function as a source of inspiration.