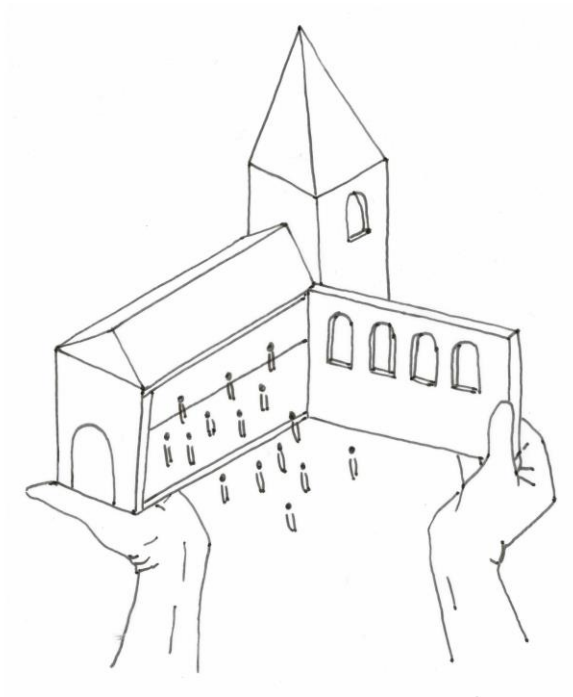


REFLECTION



REFLECTION PAPER
Heritage & Architecture
Revitalizing Heritage Winterswijk
P5

Student: Lisa Noorman
Student ID: 4781783
Student email: l.noorman@student.tudelft.nl

Tutors: Lidy Meijers - Architecture
Frank Koopman – Building Technology
Claudiu Forgaci - Delegate of the Board of Examiners

Date: 03/07/2020

Introduction

The purpose of this paper is to critically reflect upon the research and design process for the graduation studio. The graduation studio evolves around Winterswijk, located in the province of Gelderland in the Netherlands. Winterswijk is faced with decreasing population numbers and change in composition of residents. The focus of this studio is on the preservation of built monumental heritage in Winterswijk and my focus in specific is on the Jacobus church. In the mid-sixties a huge outflow of churchgoers started, which is still an ongoing process. As a result, church buildings have become vacant, which in many cases has led to demolition. The challenge is to find a new purpose for the Jacobus church when in the future it will lose its function as a church building.

In the case of this project, the aim was to open up the church to the public, while retaining the qualities and values of the church, which proved to be challenging.

1.1 Process description

Research plays a major role in the Heritage & Design studio and continues to play a major role during the design process, as it forms the starting point for the program, design concept and choices made throughout the elaboration of the design. Research and design are not two separate practices, but fundamentally connected and interdependent (de Jonge, 2018).

During the first semester of the project an extended analysis of the Jacobus church and its context was conducted. This was a joint research with other students that had chosen the church as project. The purpose of this research was to form the basis for the rest of the project, to fully understand the building in its context and to use this knowledge during the graduation studio. The main research question for the analysis was: "How has the Jacobuskerk become what it is now and why?" This research question was formulated because there are a lot of time layers visible, which is characteristic for this church. This resulted in a research report and a timeline of the history of the building.

After the research of the existing building, more research was conducted focused on finding a design topic through literature and articles. The inspiration for the design concept came from the interest in public space and the relation with church buildings. Early in the project, this research led to paintings of church interiors in the age of Rubens (around 1600) and the relation that these paintings have to public space. The church as a public space is clearly visible in these paintings as they show a lot of activity and social interaction, such as people strolling through the church and children and animals playing. From the Middle ages up to the nineteenth century, the church was the center of activity, the meeting place for the whole community. It was like a public square. In the nineteenth century the churches in the Netherlands became more closed and exclusively religious. Nowadays the church is often no longer seen as a public place, to non-religious people, but also for churchgoers.

Therefore, the following research question was formulated: "What is the relation between public space and church buildings?" My vision was to transform the church into a public space connected to its surroundings.

1.2 Research methods

During the first part of the project the research method that was primarily used was historical research. This entails fact finding, fact evaluation, fact organization and fact analysis. The joint research has been conducted through literary and archive research and analytical mapping. To structure the research, Steward Brand's shearing layers of change were used (Brand, 1994). This is a framework that is adopted by the chair of Heritage to structure an analysis of the tangible layers of a building. However, besides these tangible aspects of the building, the experience of space was also an important part of the research, as this is very specific for church buildings. Kuipers and de Jonge (2017) suggest adding a seventh layer to the shearing layers of change, the spirit of place, which includes the intangibles features of the place. The foundation of the spirit of place was laid by Christian Norberg-Schulz in his book "Genius Loci: Towards a Phenomenology of Architecture" (1996). His plea was to place more importance on the notion of place and to try and understand what the particular sight specific character of place is. Being time-bound and generated by the human senses, the spirit of place is mostly subjective and therefore difficult to capture (Noorman, 2019).

The results of this research were then translated to the cultural value matrix. This is a tool to map the values of the building in a coherent way by combining the layers of Steward Brand and Alois Riegl (Kuipers & de Jonge, 2017). By organizing the different values with text, additional images and maps the different values can be identified and categorized by its importance. The result from the research, the value matrix, the opportunities and dilemmas formed the starting point for the program, design concept and choices made throughout the elaboration of the design.

After the P1 more specific questions started to arise. While the research in P1 was very broad, on all aspects of the building, the research after P1 was focused on specific topics.

The method that was used mostly after P2, was research by design. This entails any form of research in which design is a substantial part of the research process. Through creating products in the architectural design process, new insights and knowledge come into being.

This was done through:

- Sketching different variations addressing spatial interventions and materialization. By putting different variations side-by-side, advantages and disadvantages could be compared, which makes it a helpful tool in making decisions.
- Making models, which show how a spatial intervention works on different levels of perspective, because it can be seen from a three-dimensional perspective rather than two dimensional.
- Case studies which have dealt with similar challenges or have implemented similar spatial interventions.



Image 1: sketch model of the intervention.

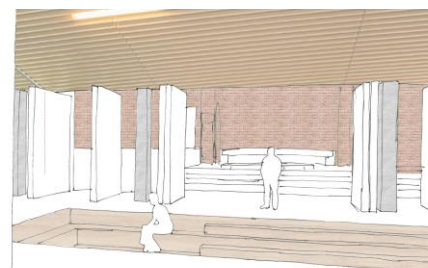


Image 2: sketch exploring materiality.

1.3 Intuitive design

After the P2 presentation the feedback was that my design process is intuitive, and the argumentation comes later. Reflecting on this feedback, I can relate to this looking back at my previous projects during my studies. Therefore, it is useful to learn how to use intuitive design in the design process.

When dealing with problems in the design process there are two ways in which a designer can react: the verbal or logical method and/or the nonverbal and intuitive one (Kheirollahi, 2012). In the design process this can be distinguished in two general areas: the subjective design process and the objective design process. Symbolic and psychological principles are more dominant in the subjective design process while practical knowledge and logical principles are more dominant in the objective design process (Kheirollahi, 2012). This does not mean that these are two separate areas that contrast and do not overlap. Both the objective and subjective process together form the overall design process.

Intuition is based on universal experiences and human truths and comes with experience in the architectural design profession. As a student being at the start of my career, there is still a lot of experience to gain which will improve the design process. Anthropologist Thomas Gladwin (Edwards, 1999, p.56) compares intuition to an example where he illustrates the contrast between two navigation systems (image 4), which in my opinion assists to clarify the difference between objective and subjective design.

Subjective designing is done through producing ideas. An idea is formed after a series of unconsciously occurring imaginations, visualizations, understandings and thinking (Kheirollahi, 2012). Once it is formed, it is identified, completed and introduced by the conscious mind. It stems from a moment of inspiration. It is then visualized through sketches, which transform into alternatives and models. These alternatives can be compared, researched and tested against the transformation principles that are composed. The project is refined until it reaches a high degree of internal coherence.

METHODS OF KNOWLEDGE	
REASON	INTUITION
FOCUSING ON ONE OBJECT(IVE)	FOCUSING
ON DIFFERENT OBJECTS	
CALCULATIVE*	DEDUCTIVE*
SECONDARY	PRIMARY
ABSTRACT	OBJECTIVE/REAL
MONITORED	FREE
SUGGESTIVE	IMAGINATIVE
ANALYTIC	RELATIVE
SERIAL	NON-SERIAL
ORDINAL*	NON-ORDINAL*
ANALYTIC	GENERAL
OBJECTIVE	SUBJECTIVE
CONTINUOUS	SYNCHRONIC

Image 3: the comparison of different modes of knowledge (Kheirollahi, 2012).

Before setting sail, the European begins with a plan that can be written in terms of directions, degrees of longitude and latitude, estimated time of arrival at separate points on the journey. Once the plan is conceived and completed, the sailor has only to carry out each step consecutively, one after another, to be assured of arriving on time at the planned destination. The sailor uses all available tools, such as a compass, a sextant, a map, etc., and if asked, can describe exactly how he got where he was going.
The European navigator uses the left-hemisphere mode.

In contrast, the native Trukese sailor starts his voyage by *imagining the position* of his destination *relative to the position* of other islands. As he sails along, he constantly adjusts his direction according to his awareness of his position *thus far*. His decisions are improvised continually by checking relative positions of landmarks, sun, wind direction, etc. He navigates with reference to where he started, where he is going, and the space between his destination and the point *where he is at the moment*. If asked how he navigates so well without instruments or a written plan, he cannot possibly put it into words. This is not because the Trukese are unaccustomed to describing things in words, but rather because the process is too complex and fluid to be put into words.
The Trukese navigator uses the right-hemisphere mode.

—J. A. Paredes and M.J. Hepburn
"The Split-Brain and the Culture-Cognition Paradox," 1976

Image 4: The ways that a European and a native Trukese sailor navigated small boats (Edwards, 1999, p.56)

Regarding the objective design process, choices are made based on practical knowledge and logical principles. The following chapter, 2.1 Position, highlights some of the decisions made on the basis of the research that was done during the P1 and the value map that resulted from the research.

Using intuition in the design process, sometimes it is hard to find the words to express why certain things in the design work. A way to do this is to use metaphors, such as light, heavy, warm, cold, hard and soft. For example, if something needs to express importance, it will often be made heavier. This can be seen in architecture, but also in other fields such as product design. To create a lecture room where people listen to one another often warm colors and soft materials are used, as warmth and softness cue empathy (Hendrix, 2013). Creating a room with a smaller scale will make it feel more sheltered. In the space in the middle of the church a lecture/reading room is made by creating a lower ceiling in the high space of the church and lowering the floor. In this way the space becomes a sheltered area in contrast to the high open space in rest of the church. Besides that, for the materiality wood is used to add a warm material next to the hard materials in the church.

2.1 Position

In heritage projects there are different ways in dealing with built monumental heritage, ranging from preservation to redesigning (parts of) a building. As the new function requires a more open appearance, several transformations will be made. The design can be considered quite radical, but still respectful towards the existing. Transformation principles have been derived from the research and the value matrix in order to support the interventions and the decisions that had to be made.

1. Preserve the valuable architectural elements such as the vaults, columns, etc. The valuable architectural elements are mainly present in the neogothic part of the church.
2. Preserve the open space and the sightlines in the church.
3. Preserve the spatial sequence of the church.
4. Use interventions to enhance the existing qualities and atmosphere of the church.

As mentioned, the research and the value assessment of the building forms the basis for decisions made during the design process. In addition, economic and technical aspects can also be decisive. In some cases, these values contradict each other. This will be illustrated through a few examples.

Big changes are made, mainly in demolishing the roof of the 1950s extension of the church and placing a new element in this space. This process is explained using three diagrams. The extension of the 1950s shows that ideas about religion changed from a great distance between the church and people to a more open attitude. In contrast to the neogothic part of the church, it is a big open space with an arch opening up the choir to the people. In the new design, this idea is continued through opening up the space to the surroundings and create a public outdoor space for everyone. Besides that, as the space doesn't have the architectural elements that are considered valuable, such as the vaults and columns in the neogothic part, it gives more

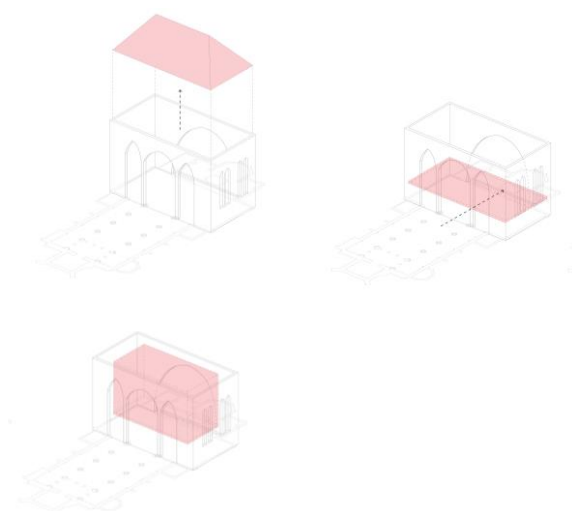


Image 5: Diagrams explaining the new element placed in the church.

opportunities for change. This resulted in the choice to fully open this space and take off the roof to create an outside public square. However, the new square shouldn't intercept the transition from the entrance to the choir and split the church space in two, as this transition and sightlines are highly valued. Therefore, the square is lifted, preserving the spatial sequence and sightlines. Lastly, because the floor was intervening with the construction of the church, in particular the neogothic columns, the walls of the outdoor space have been brought inwards. Therefore, it has become an element inside the transept of the church, so the intervention doesn't collide with the valuable elements of the church.

Another example are the brick vaults. In the design, the aim was to bring back the brick vaults which were covered by paint and plaster. The brick vaults are a valuable element of the church as they were built during the time when the architectural style changed from decorative neogothic to structural neogothic, making it one of the first churches in which a brick vault was used again after the period of decorative gothic. However, taking off the plaster would cause the brick too much damage, so technically this design solution was not possible. Besides that, it would also not be economically feasible. In this case, the technical and economic aspects contradict the cultural value.

To conclude, the values of the church are carefully considered in making choices for demolition or placing new elements. Valuable aspects are preserved and with the interventions I attempt to enhance the existing qualities and atmosphere of the church. The new design will be permanent, a new layer with its own construction placed inside and around the church. At times I found it hard to stick to the principles when having doubts about interventions. However, I have learned that determining principles and sticking to them creates a backbone for the project, which will result in a coherent and logical design.

3. Graduation Project and the Wider Context

As mentioned in the introduction, many churches in the Netherlands are getting vacant, especially in shrinking areas such as De Achterhoek. Since 2008, on average one church has to close its doors every week (van der Breggen, 2018). Therefore, revitalizing these empty churches is a relevant and important task. The research is part of the KaDEr project of the province of Gelderland and the TU Delft and could form input for other projects regarding vacant churches.

Furthermore, the graduation project is about public space in religious architecture. In a lot of places churches have played an important role in the social contact for people. As less people go to church, the church function disappears and therefore also the church community within the city or village. Loneliness is becoming an increasingly important problem because of the aging population and individualization, resulting in isolation, and the disappearance of communities such as churches. Loneliness can mainly be seen among the elderly, as 1 out of 3 elderly over the age of 75 feel slightly lonely and almost 1 out of 10 feels very lonely (CBS, 2019), but it also occurs among younger people finding it difficult to find contact. Aging areas in particular can benefit greatly from a community center where people can go to meet people. I personally see a future in transforming church buildings to public and social functions that support the community and take over the social role churches used to have.

4. Ethical Issues and Dilemmas

The repurposing of church buildings is a very sensitive topic for various reasons. There are several functions that are considered taboo to place in a church. Think of functions such as a casino, that goes

against the principles of the Church. However, a function such as a residential boulevard or a gym is also often considered inappropriate. When a Catholic church is closed, the church is officially desecrated, so it can no longer be used for church services. However, it remains an important building for the faith community and plans that are considered unworthy will most likely not be accepted. Besides that, church buildings are and will remain sacred, whether they want to or not. It remains clear that there is something significant about the building. There can be tension between the sacred aspect and the secular. In general, if no religious repurposing for the church building can be found, a social function, such as a library or community center, is preferred. When a good repurposing cannot be found, the church building will be demolished. In this project I want to respect the view on repurposing churches, therefore this contributed to the decision to make a library and community center in the church. I agree that a social function is the most fitting purpose for a church, as it continues the social aspect of church buildings.

In the Middle Ages, besides religious functions, the church building also had "on sacral" functions. In small communities, the church was the center of the activity. There were public meetings, markets, and meetings. It was the only indoor public space. However, in this day and age, it is not possible to combine a religious function with a social function, as a church has to be desecrated for a new function. Furthermore, interventions were needed to open up the building for the people, as church buildings are very closed buildings because of the original church function that required introversion. Thus, the dilemma that was dealt with during this project was how to open up the church while preserving the values and atmosphere of the church. Based on the values, it has been investigated which elements are essential for the church and where changes could be made.

Bibliography

Brand, S. (1994). *How buildings learn: What happens after they're built*. New York, USA: Viking.

Edwards, B. (1989). *Drawing on the right side of the brain*. New York, USA: J.P. Tarcher.

Groat, L., & Wang, D. (2002). *Architectural Research Methods*. New York, USA: John Wiley & Sons Inc.

Hendrix, M. (2013). *Intuition: Your Best Design Tool?* Retrieved from <https://www.archdaily.com/431201/intuition-your-best-design-tool>.

Kuipers, M., & de Jonge, W. (2017). *Designing from Heritage: Strategies for Conservation and Conversion*. Delft, the Netherlands: TU Delft Library.

Mehran, K. (2012). *The Place and Influence of Intuition in the Creativity of the Architecture Designing Process*. Tehran, Iran: Islamic Azad University.

Norberg-Schulz, C. (1996). *Genius loci: towards a phenomenology of architecture*. New York, USA: Rizzoli.

Noorman, L. (2019). *Phenomenology in Historical Research*. Delft, the Netherlands: Delft University of Technology.

De Jonge, W. (2018, October 22). *Methodology of ARchitectural Re-Use*. Class lecture, Heritage and Architecture: Methodologies of Architectural Reuse. Delft, the Netherlands: Delft University of Technology.

CBS (2020, March 27th). *Bijna 1 op de 10 Nederlanders voelt zich sterk eenzaam in 2019*. Retrieved from <https://www.cbs.nl/nl-nl/nieuws/2020/13/bijna-1-op-de-10-nederlanders-voelde-zich-sterk-eenzaam-in-2019>.