# GRADUATION REFLECTION PAPER

# **Transformation of the Baudartius Complex**

MSc Architecture, Urbanism & Building Sciences Graduation reflection paper Track Architecture & Heritage Studio Zutphen Delft University of Technology

# My My Ngo

4525930 m.m.ngo@student.tudelft.nl

May 2018

1<sup>st</sup> supervisor: Alexander de Ridder
2<sup>nd</sup> supervisor: Bas Gremmen
3<sup>rd</sup> supervisor: Nicholas Clarke
External examiner: Wilem Korthals Altes

# **1** Introduction

Zutphen, one of the oldest city in the Netherlands that started as a Germanic settlement, then a trading city and now a medium-sized city is currently dealing with vacancy, dejuvenation and an aging population. Vacancy, though not as high as other cities in the Netherlands, affects neighborhoods next to the old city center. The city center 'has it all' meanwhile the neighborhoods act as access roads to it. Densification of the city center can be expected (Bolink & De Stentor, 2017). The main focus of the heritage studio is the neighbourhood Nieuwstad where opportunities lie to improve its current connection to the old city center and the urban situation with an architectural intervention. From a personal perspective, dealing with heritage buildings is the future task for architecture students. How to understand heritage with an extensive analysis in urban, architecture and building technology scale levels, to assess them, to create new time layer with my architectural language are challenges that I want to learn which is also the main reason why I chose for this graduation studio.

The graduation project is about the Baudartius complex which is currently a high school. Due to the growth of students and lack of space, they plan to move out which will result in a vacant building. The assignment for this project is to fill in another function and to introduce own interventions. The primary focus of this paper will be my design process in where I write about my design decisions and their underlying argumentation. During my graduation phase, I struggled the most with how I made decisions and the structure of my concept/story. Consciously making decisions and reflecting them is significant for personal development as a designer. However, as an intuitive designer, this is where I may lack the most but also learned the most from my tutoring sessions and conversations with my fellow students during my last master year.

This reflection paper answers questions such as [1] what the relationship between research and my design is? [2] What is the relationship between the graduation project, studio topic, my master track and programme? And last but not least [3] How do I assess the value of my way of working (approach and used methods)? These questions are divided into chapters which will be also extended through diagrams and sketches.



Figure 1: General view the Baudartius Complex - source: Erfgoed Werkplaats http://www.erfgoedwerkplaats.nl/2017/12/21/studenten-tu-delft-in-zutphen/dsc00056\_resize/

# 2 Research and Design

### 2.1 Decisions in the Design process

Everyone makes decisions throughout the day. Sometimes these are big decisions and sometimes small. In architectural design processes, decisions are not explicitly documented but are implicitly reflected in the buildings that architects design. Richard Foqué, a Belgian architect, and professor of architecture makes a difference between rational and intuitive thinking. Rationalism is opposed to intuition, in which intuition belongs to the artistic and rationalism of science and logic. Furthermore, intuition is often described as non-academic and non-scientific, while intuition is a non-systematic form of knowledge. The rational thinking, on the other hand, is based on research and own experiences in which the subconscious and the conscious play a role. (Foqué, 2010)

The reason why I wrote about intuitive and rational thinking is due to how this distinction is closely related to the process of my research and design. After the urban and building analysis and concluding, we had the freedom to think about a function that could fit in the Baudartius complex. The analysis was made by a team of four people, and we concluded that opportunities lied in the building surroundings to connect missing links between the city center and the outer areas. This opportunity turned in my design process into a starting point. However, from that point onwards my designs were more intuitive orientated in which volume language played an important role to achieve the composition that I wanted. The how and why was missing in my decision. For a long time, I didn't change the composition and focused on other aspects such as roof shapes, facade materials, and floor plans. I was somehow stuck in my design process, and when I reviewed my whole plan again. I had to step back to my first starting point. I realized that my starting point was too vague or not clear enough. By reviewing the analysis again, I changed the starting point to gain more clarity. How can I design the surroundings that respond to the building and vice versa? '

In general, my design process is divided into different phases:



Figure 2: Starting point from P1 to P2

P1 - Phase 1: Rational thinking. Initiation and preparation are essential. To goal is to become familiar with the problem. The relevant elements in the surroundings are mapped. The recognized problem was the visible border (fences) between the building and the surroundings. The starting point was to make the Baudartius a transition zone to connect the city to the outer areas (such as the lake and the park) instead of acting as a border of Nieuwstad.





Figure 3: Concept P2

Figure 4: Concept P3

P2 & P3 - Phase 2: Intuitive thinking. The problem is tucked away, and the solutions are recognized. To make a connection I came up with different volumes(and scales) that are directed to the park and Nieuwstad. After P3 – Instead of a 'dead' end, a passage to the courtyard and then to the park is realised.



Figure 5: Concept P4

P4 Phase 3: Reinforcement. By intuitively and rationally thinking is worked out, verified, tested and applied.

#### Figure 6: fig.3 to fig.5 into 3d models



### 2.2 Cultural value matrix

In the heritage studio, it is significant to understand the history of the building. For that reason, finding the essence which explains the characteristics and its identity is an inevitable task to proceed with designing. Therefore, a tool to assess the existing is used. The cultural value matrix is a diagram that defines the most and least valuable elements of the existing building and site. After filling the matrix as a group, we defined obligations, opportunities and dilemmas.

In the project assignment, students were able to choose between six different buildings. I choose the Baudartius building due to its existing qualities, its flexibility to change and future opportunities in the surroundings.

The Baudartius building, designed by a Dutch architect Jan Rothuizen, is a Protestant – Christian school erected in 1951. The school is named after a preacher and a Calvinistic theologist in Zutphen, Willem Baudartius, who had a significant influence on the spiritual deployment in the Reformation. The building consists of building volumes which were constructed in different periods. Initially, the school building was designed in two main wings with its primary structure consisting of corridors and classrooms.

After a small research about how an additional function could contribute to the improvisation of Nieuwstad and the Baudartius complex, a 'new' function was defined: a film & music entertainment centre. The ambition of this function was to stimulate the film culture development in Zutphen.

It includes a film education center, film halls, jazz music club, live performance restaurants and a pop hall. In the research of the program it is concluded that it is possible to fit these spaces but big interventions have to be taken to make it work and functional. In my personal assessment, I valued the original building from 1951 the highest in aesthetics and history. One significant quality of the building is its growth where different time layers were visible in the building additions. However, I valued the additions medium, low and even disturbing due to its aesthetics, obscurity in layout & spaces, and their poor connections to each other. Not only led this to a conflict of values but also dilemmas between valued elements and design interventions. Research, where analyzing and reviewing possibilities comes into the picture helped me to make decisions.

One particular dilemma or conflict in my process was to position the movie halls in the existing building. I tried to keep the most of the existing parts as well as adding volumes to create halls that could accommodate 50+ people.



Figure 7: P1-P2 The existing and the addition

Phase 1: Box in box construction the outer layer is the addition. When dealing with circulation and logical layout, more problems came. Problems such as difficult joins between the existing roof and floor slabs.



Figure 9: P3 Keeping half

Phase 3: Only use half of the existing construction to create space where it is needed. To keep the contour and the facades of the existing. The main What I reason of this intervention was the most experience between the existing and the additional volume



Figure 8: P2 Removal of the roof

Phase 2: Removing the existing roof structure and putting a floor slab on top – this solves the latter problem, but added other problems like usage of spaces their connections.



Figure 10: New structure

Phase 4: In the end, I made the choice the demolish building parts in order to create value for the usage of the new addition as well for the existing. After each phase I tried to solve the previous problem but after solving, more problems were added. Their connection didn't go well concerning spatial structure and

learned from this process was to let go of my design concepts and to step back. In my mind, I felt that my vision or ideas could express well in the building but after experimenting I realised it was not good at all. Questions such as 'do I really need it? why? And do I add value? Or am I reducing it?' helped me to make a decision.

The relationship between Baudartius, the studio topic, architecture track and heritage programme

### 2 Graduation theme

The studio topic is about heritage in Zutphen in which the focus is on the neighborhood Nieuwstad. Nieuwstad has remarkable historical elements that are part of Zutphens DNA. However, after the WO II, the reconstruction era affected Nieuwstad negatively: the connection between the city center and Nieuwstad diminished. The main common between the buildings that were optional for the studio is how they each have a potential relationship with the surroundings: green & Nieuwstad city. How new connections can be made to revitalize Nieuwstad and thus improvement of the life quality in the city. This also relates how architecture can influence the behavior of the city and so the people. That architecture adds new time layers and affects the identity of the building is what makes architecture interesting. In overall, everything is closely related.

### 3 Methodology

As a master student from the chair Heritage & Architecture at TU Delft, we deal with several methods of approaching the existing built environment. Methods such as historical analysis and culture value assessment play a significant part in understanding historical buildings. In this graduation studio, the first kind of research that we did is an observation by visiting the area where the project is located. The focus was on the city in large scale in which the first impressions and remarks are valuable. In the first quarter, the research was about the city Zutphen. It resulted in problem and opportunities mapping. After the analysis, I searched for an approach that could help me with designing an intervention. Every project, especially heritage buildings, have it owns identity and depending on the intervention, the approach can be very different. First, I had to find out which approach would benefit from my design. By doing some exploring, making models, sketches, 2d puzzling I realized that working with 3D model helped me. Due to different functions in my program, it was difficult for me to design in 2d or physic model making. It was also the first time that I designed in a 3d program instead of sketching (how I worked before). Before I only made 3d models after knowing what my design was and now it is reversed.

## **4** Conclusions

Research and design are activities that play an essential role in the architectural education. By researching you have the first 'why'. After designing I went back to research to think back again why I made this design decision. The most important steps of my argumentations were namely 'stepping back' to my research and starting points, abstracting to simple diagrams to show the essence or to structure my story and experimenting with possibilities. Researching was an unavoidable step that had to be taken during my whole design process. However, improvements can be made in not only my design but also my research. Such as the placement of my terrace in the courtyard. Due to the big volume (the film halls) placed next to the terrace, there is going to be a shadow in the evening. Another improvement can be made in the circulation of my floorplan layout. The different functions in my intervention are

connected by the traffic space that goes through the building. However, not all functions, for example, the toilets, the wardrobe or the storage rooms are not placed efficiently which will result in an inefficient routing.

# References

Bolink, J., & De Stentor. (2017, 13 maart). Zutphen wordt grijzer en krimpt. Geraadpleegd op 21 mei 2018, van <u>https://www.destentor.nl/zutphen/zutphen-wordt-grijzer-en-krimpt~a07d9203/</u>

Foqué, R. (2010). Creative thinking. In Building Knowledge in Architecture (pp. 38-40). Brussel: Asp / Vubpress / Upa.

Foqué, R. (2010). The divorce of Art and Science. In Building Knowledge in Architecture (Vol. 4.1, p. 27). Brussel: A.