

Reflection Paper

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Introduction

This reflection paper is part of my graduation master thesis within the track of Architecture, Urbanism & Building Sciences. Aim of this reflection is to give an overview of the research approach and the preliminary design and communicate the most significant aspects related to the chosen methodology and design strategies, that have been followed throughout the graduation project. The reflection consists of four subjects. First, I will address the relationship between research and design. Thereafter I will refer to the societal and scientific relevance of the graduation project. Following that, I will reflect on the relationship between the theme of the graduation studio and the chosen subject. Finally, I will describe the chosen methodological approach.

Nowadays, transformation and reuse of sites and buildings, especially of those with cultural significance, is one of the main themes in architecture and, thus, many architectural assignments deal with heritage related tasks. In the studio of Heritage & Architecture the focus lies on such tasks, while great emphasis is given on the research and analysis of different scale levels; from urban level to culture, history, architecture and building technology. Consequently, research and analysis of the history of the site and its buildings is integral part of the graduation studio; trying to grasp the tangible and intangible values and interpreting them forms the basis of the design assignment and the concept of transformation.

The graduation studio is called 'Zutphen - Sustainable City' and started with a 5 days workshop in Zutphen. During this week, we learned about the history of the city and its development through time, gathered information on different scale levels and exchanged our first ideas about the challenges and opportunities found within the city, specifically in the area of Nieuwstad, which was the focus area of the studio. Main goal of this workshop was to grasp the identity of the city and sense its tangible and intangible values, keeping always in mind that final goal of the project is to transform Zutphen into a sustainable, well-functioning city.

The site which we would focus our research and analysis on, was decided by each student separately. As far as I am concerned, I chose to continue my research on the area of Klein Vaticaan and the ensemble of schools. My choice was based on the challenges and opportunities found in the site and its surroundings, as well as my interest in the typology and morphology of the existing buildings.

Back at the university we started the analysis in groups, trying to unravel the character and values of the site and its surroundings. The findings of the analysis formed the basis of my design brief and influenced my design choices. Based on these findings, I became interested in the social and communal values of Klein Vaticaan, which currently cannot be clearly sensed or experienced. Therefore, my design strategy was focused on bringing back the communal spirit of the area and creating a coherent spatial design, where people from different generations would come together and interact, creating a liveable and attractive ensemble.

Except for the communal character, the gradual development of Klein Vaticaan influenced its morphological configuration as well. Among others, the gradual shift of the historical borders and the introduction of free-standing structures, which consequently formed the new borders, altered the density of the urban fabric, resulting into a non-intended floating urban space, which is problematic and doesn't seem to be part of the city. By using the findings of the analysis and the historical values of the site, the task was to reinterpret the urban fabric and integrate it in a sustainable solution that is going to connect with the city and create coherence in a larger scale.

In addition to that, a sustainable solution had to be found for the transformation of the schools of the ensemble, whose operation due to current spatial and functional demands is called into question. In regard to this aspect, the answer to the problem was again based on the findings of the analysis and the values that the buildings hold. Being Waldorf schools, whose emphasis lies on the anthroposophy, the imagination in learning and the social and artistic development of the student, these schools could be reinterpreted, as regards their typology and program, and, thus, could form the new liveable environment, where social interaction and learning from each others skills and knowledge is the focal point. This new school typology, where the school is not merely an educational, but also a cultural space that allows collaboration and interaction between the community members, could result into a sustainable solution, which could safeguard the buildings' future and benefit the whole city. Hence, Zutphen, which already has an important educational history, could make a difference.

Based on the aforementioned, I formulated the following research question:

“How can the historical, spiritual and social values of Klein Vaticaan, which mainly define its identity, be interpreted and translated into a coherent spatial design, that is going to connect the site with its context, resulting into a sustainable and liveable communal area for multiple generations?”

However, answering my main research question would not be feasible without taking the following sub-questions into consideration:

“Looking backwards to the historical urban act: is that a solid basis for reasoning and a right direction for the future development of Klein Vaticaan?”

“What kind of configuration can bring back the spirit of the place and make people feel part of a larger community?”

“How can the typology of courtyard, which is part of Zutphen’s identity, be used as a tool in order to create coherence in a larger scale?”

“How can the principles of Waldorf education, which is part of the schools’ educational history, be used as components of the transformation framework?”

The relationship between research and design

When it comes to architecture and urban planning making the right decisions, that would lead to a successful and sustainable solution, is a complex procedure which derives from the interrelation between the architectural research and the design approach. Experimenting and exploring different opportunities and scenarios within various disciplinary fields, is part of the process and highlights the significance of the research-methodological awareness. Consequently, architect's challenge is to be able to make wise and conscious choices as regards the tools that are implemented during research, since these tools have a great impact on the interpretation and translation of the social and spatial dilemmas and, thus, influence the individual design approach.

In the field of Heritage & Architecture, which focuses on the preservation and transformation of sites and buildings, an appropriate balance between the old and the new layers is fundamental. Within this framework, the research focuses on defining the architectural and technical aspects of the given context, in combination with the cultural values that are considered significant aspects of its historical and cultural identity.

The research by design conducted within this graduation studio is a process that reflects precedents and intentions, as regards the issues and values that can be addressed. Therefore, the various steps of research such as information gathering, value assessment, problem statement, formulation of research question, definition of design assignment, etc., were used as a basis for the formulation of my own research strategy, regarding both research and design methodology, and influenced the design approach and notion of my project. In other words, the research created the framework of my position and formed the arguments for the design.

The research focused on different scales, from city scale to the site and the buildings of the ensemble. When it comes to the former, goal of the research was to understand the bigger picture, namely the surroundings and their characteristics and values. Understanding the history of the city and its transformation through time was vital for taking a position towards themes such as borders, densification, enclosure. One of the most important findings of this part of the research, was the interpretation of the typology and morphology of the urban blocks and their evolution. Taking this into account, I was able to draw conclusions and develop an urban strategy, which focuses on the redesign of the blocks. The typology of the courtyard, which is integral part of the historical building blocks of Zutphen, played a pivotal role in the configuration of the new urban fabric. As a result, the morphology of the new blocks refers back to the "hofjes", with the built part arranged around an open core, which works as a connection, movement and interaction space. The subject of the courtyard remained important during the entire design process and influenced my strategy not only on urban but also on site and building scale.

On site and building scale, the research focused on the buildings, their alteration through time and the cultural values that they hold. This part of the research helped me understand the strengths and opportunities of the historical buildings, as well as evaluate the parts of the ensemble that are less valuable and thus could be removed. The cultural value matrix, which was formed as a tool for evaluating the different scales and aspects of the buildings, was used as the basis of my transformation framework and defined most of my design decisions; every design step was thoroughly thought of and tested with the CV matrix. As the design progressed some of the cultural values changed in terms of their hierarchy. Consequently, some features, such as St. Anna's historical double door entrance, which I initially valued higher, play a less important role in the final design proposal.

As aforementioned, the subject of the courtyard played a key role in both my urban and site design strategy. On site level it was important part of the architectural concept, the experience of the block and the routing and structure of my intervention. It is the element that brings together the old and the new, creates enclosure and transitions. As a result, the space is experienced through a crossing of different enclosures and spatial sequences and contributes to an interesting juxtaposition of indoor, outdoor and semi-outdoor spaces. Furthermore, the communal use of the courtyard makes reference to the historical communal spirit of the area, which I found as one of the most valuable and worth-highlighting aspects of the site and its history.



Figure 1: Redesign of the urban blocks based on the courtyard typology (own diagram)

Another essential part of the research was the search for a suitable function. The history of the buildings and their use served as a starting point, since from the very first moment I was inspired by the artistic atmosphere of the interiors and the traces of usage left by the students' creations. Moreover, the educational background of the schools, being based on the Waldorf principles and its emphasis on the artistic expression and social capacities of the students, intrigued me and made me think of creating a new Waldorf school typology, which on the one hand stimulates the creativity and imagination in learning and on the other hand has an integrated communal component, that encourages the social interaction, the exchange of ideas and knowledge and enlivens the togetherness feeling. Besides, the idea of incorporating the crafts in education led to the addition of an extra function, which acts as a connecting link. This new function is a small Crafts centre, which educates ambitious young people. The Crafts centre is an autonomous school, that supports and complements the artistic curriculum of the Waldorf school. Thus, the Craft students act like mentors for the pupils: pupils spend time in the craft workshops and Craft students come into the school as mentors of project-based learning. The Waldorf school and the Crafts centre are housed in independent buildings and are linked by the connecting structures and the courtyard, that provide additional space for creation and interaction. Outside school hours both schools are open to the community, offering workshops such as carpentry and ceramics. In this way the school is not merely a school but a place where education, craftsmanship and community meet, leading to a vibrant environment. Reference projects and case studies were analysed in order to get a clear view about how this new type would be feasible and effective. Through the trial and error method I tried to implement those findings in my design.

The materialisation of the new buildings of the ensemble was also based on the research on the historical buildings. My position since the beginning was towards a coherent new ensemble, which is characterised by balance and a common language between the old and the new. As a result, the new skin and interior surfaces were based on a thorough understanding of the existing buildings. The scale of the historical facades, the facade openings and their proportions, the materiality, the bonding of the masonry, the "lambrisering", the artistic atmosphere of the interiors and the colour palette, all served as an inspiration for the new layers. The result is a new skin, that in my opinion fits with the context, creating a coherent urban facade.

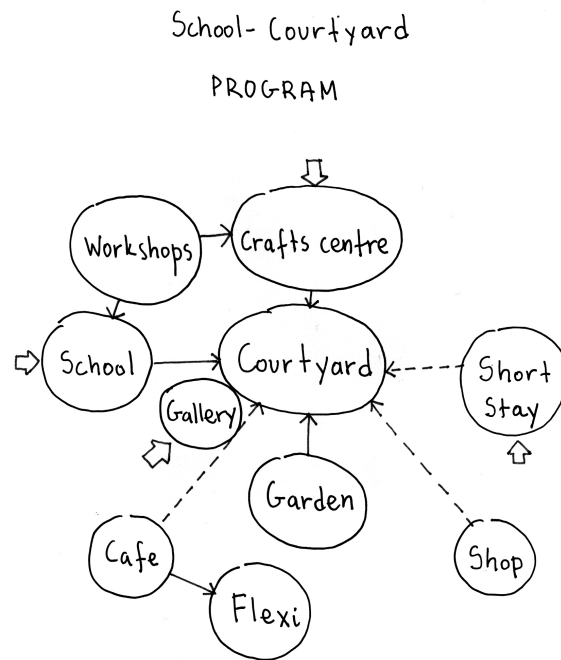


Figure 2: Program of the block (own diagram)

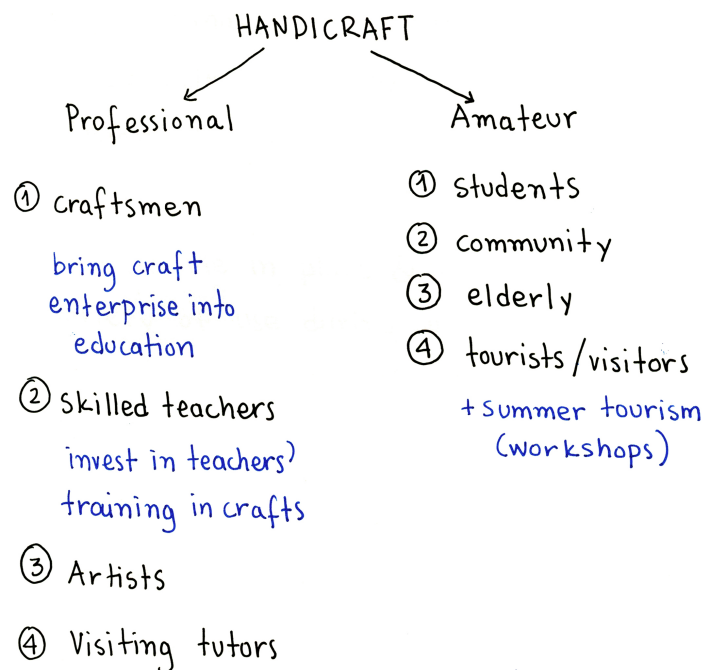


Figure 3: Target groups (own diagram)

The relationship between the graduation project and the wider social and scientific framework

Societal relevance

One of the key features of my design strategy, both on urban and site level, was to 'bring to the surface' the communal and social values of Klein Vaticaan. As a result, my design choices were based on the idea of reintroducing the 'togetherness' and 'sharing spirit' on both urban and building scale. My design proposal is about a fresh and sustainable way of looking at social interaction possibilities within the historic buildings and their surroundings.

On urban scale, every building block was redesigned by taking two standpoints into account. On one hand the design aimed to restore the coherence and human scale of the urban fabric and on the other hand every block was reprogrammed in such a way that maximum flexibility - in terms of the usage of space in time - and social interaction could be achieved. Consequently, the current lifeless atmosphere of schools during evening and weekend, is replaced by the new life given to the buildings, which offer new attractions and activities to the whole community. At the same time energy can be saved on a wider level, due to the circular way of buildings' operation. This new mindset and circular way of thinking and operating can be an important problem-solving aspect of the current design approaches and can lead to successful and sustainable strategies. By mixing functions and target groups a new community is created, in which people are more involved in each others lives and can benefit from each others knowledge, skills or experience. The result would be a liveable, humane and attractive urban life, in which different age groups partake. Besides, by reintroducing the human scale into the city people feel more comfortable and safe while walking or cycling. As Danish architect Jahn Gehl stated: *"At this point sustainability comes foreword, as it is related to many aspects of daily life. A design that invites people to walk and cycle more is a sustainable design, that contributes to a better quality of life and promotes more healthy life styles. Moreover, a city where a lot of children and old people are outside, enjoying the urban life, is a city with a good quality for its people"*¹.

On buildings' scale, the strong architectural identity of the ensemble's buildings, as well as their historical, spiritual, and communal values, made their preservation imperative. In addition, the history of use, which is intensively embedded in the interior atmosphere (wall-paintings and mosaics created by the students in the course of time), and the educational history of the buildings, being based on the Waldorf education and anthroposophy principle, influenced the choice of the new program and the design concept. Therefore, reinventing the Waldorf school typology and promoting the social interaction and the 'learning through making' principle of Waldorf education were two of the main features of the new concept. In addition to that, searching for a new use which would complement and, at the same time, give a new substance-essence to the Waldorf school led to the choice of the Crafts centre. This decision was also supported by the Education manifesto, which was launched by the British Crafts Council and emphasises the importance of integrating Arts & Crafts into schools. These two functions, namely the reinterpreted Waldorf school and the Crafts centre frame the communal courtyard, which is the heart of the ensemble and aims to act as an inspirational, educational, recreational and communal space, where different target groups, from students and skilled teachers to craftsmen, artists, young ambitious or elderly people, etc. would interact, learn from each other and revitalise the social spirit of place.

The idea of creating a communal courtyard in the heart of the ensemble was based on the analysis and reflects the historical and social context. The courtyard typology is part of Zutphen's identity and, consequently, redesigning the block in such a way brings back and refers to the social aspect of the specific typology of the historical building blocks. All in all, the new communal courtyard, created in the heart of Klein Vaticaan and connected to the larger urban context, is going to bring back the feeling of 'togetherness', promoting the 'learning through making' principle of Waldorf education and the interaction between multiple generations and target groups. The result is an attractive, liveable and thus sustainable area, that improves the prospect of Klein Vaticaan as a current unattractive, miss-functioning and isolated from the city life complex.

¹ ArchDaily, 2017

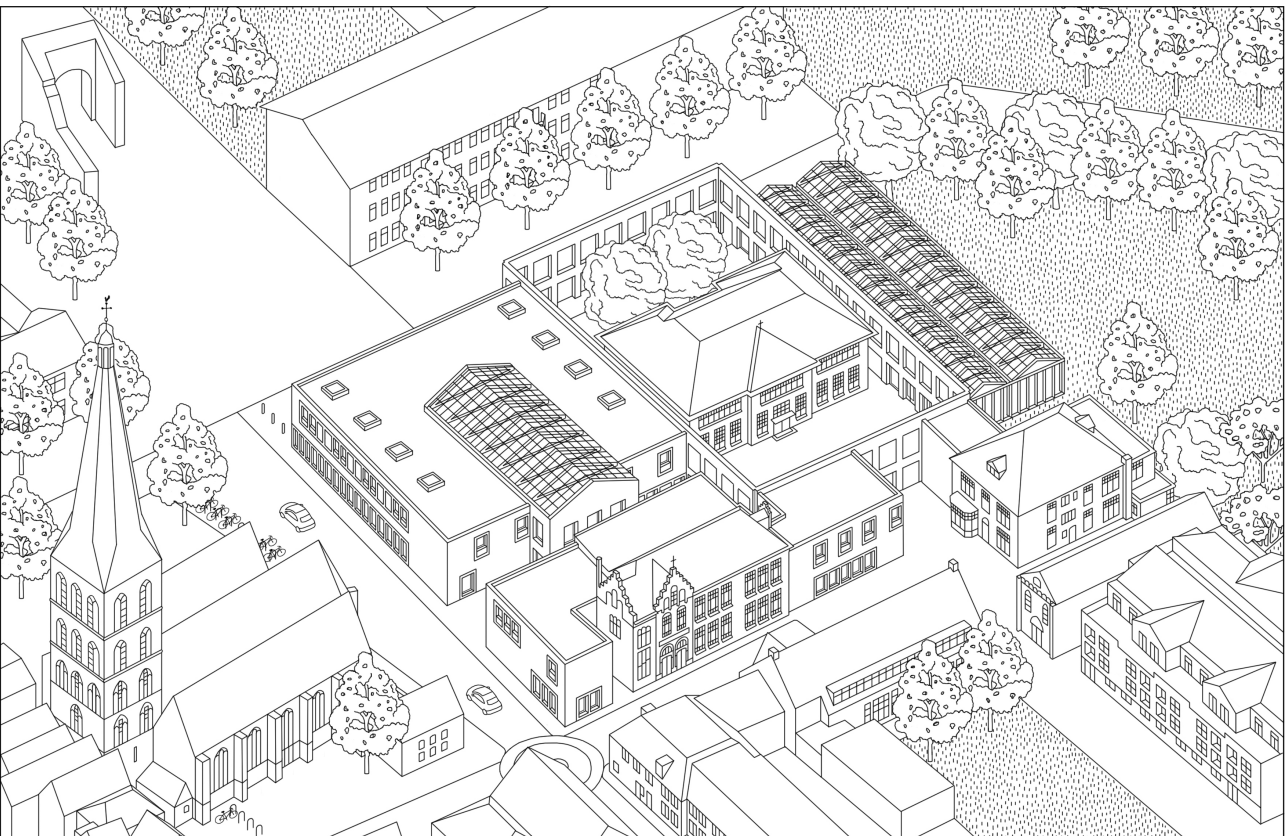
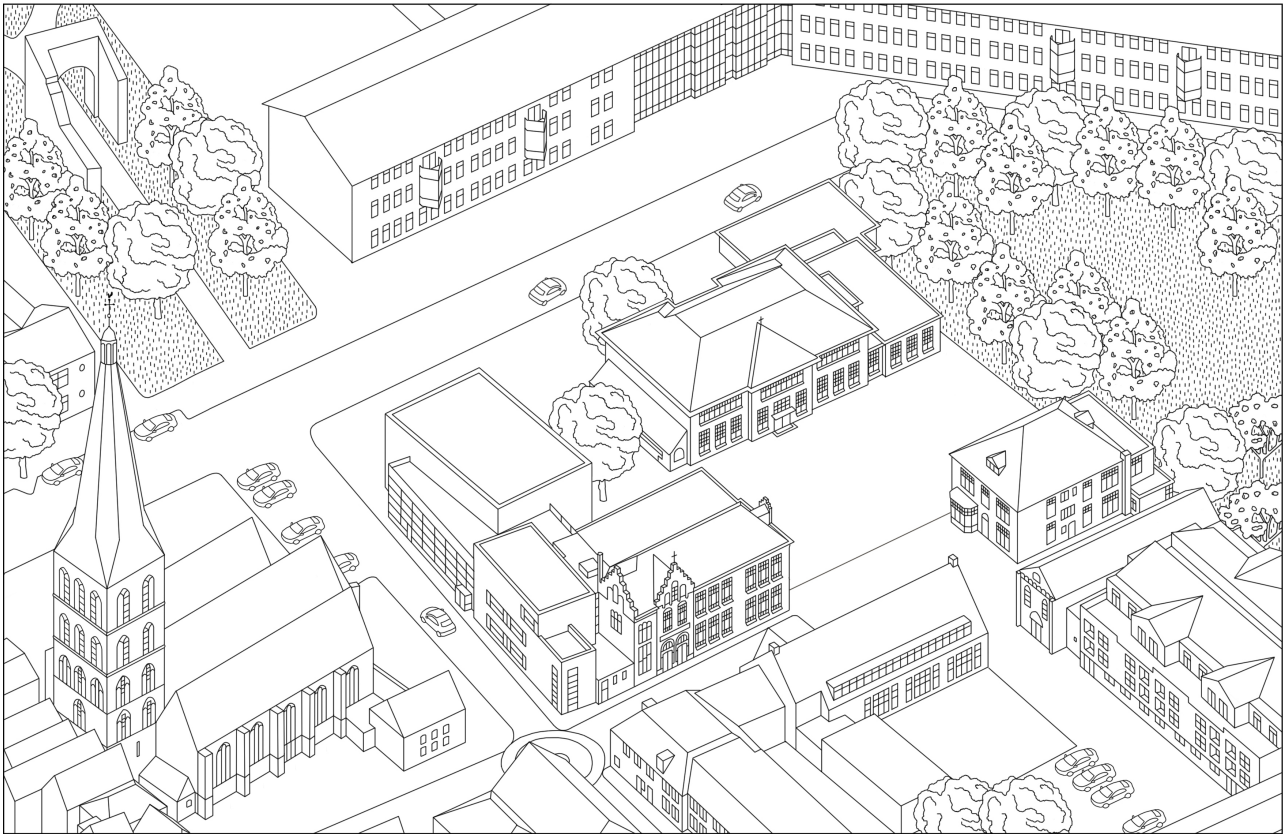


Figure 4: Klein Vaticaans ensemble before and after intervention

Scientific relevance

The graduation studio is linked to a larger scientific project (KaDEr Gelderland), whose focus lies on two different but strongly interrelated sectors: Heritage & Architecture and Climate Design & Sustainability. Thus, aim of the studio and the individual student projects is to contribute, through research, analysis and design, to the wider framework of studies and offer design proposals and strategies, that lead to the sustainable development of the historical city.

As in the case of Zutphen, many historical cities all around the world have undergone transformations over the past centuries, which are related to cultural, economic and political developments. The regenerated and redeveloped urban fabric, the permanence and transformation of spatial order and functions, often result into problematic areas, which don't seem to be part of the city; on the contrary, they are neglected and disconnected from the core. Consequently, revitalising such areas, making them part of the larger context and promoting an attractive urban life are the main scientific goals of the graduation project and aim to ensure that cities like Zutphen transform into sustainable, well-functioning cities. Taking the aforementioned into account, it becomes apparent that the scientific relevance of the graduation studio is very important and challenging for developing successful design strategies. Books such as the *"Reuse, Redevelop and Design"*², written by Paul Meurs and Marinke Steenhuis, present inspiring redevelopment projects in The Netherlands and abroad, addressing the story behind the success of each redevelopment.

² Meurs and Steenhuis, 2017

The relationship between the theme of the graduation studio and the subject chosen by the student within this framework

The Heritage & Architecture studio focuses on the preservation and transformation of sites and buildings, which hold cultural significance. In the case of the graduation studio 'Zutphen - Sustainable City', the emphasis was given on understanding, by research and analysis, the tangible and intangible values of the city and specifically the area of Nieuwstad, and developing design proposals and strategies, that could embrace the existing qualities and cultural values and lead to resilient structures and a sustainable, well-functioning city.

As students, we were free to choose the area, which we would focus our analysis and design on. Already from the beginning, I developed an interest in the area of Klein Vaticaan, since I was fascinated by the location and its historical, spiritual and social significance. Being developed by the Roman Catholic community, as a communal, educational, care-taking and cultural network, the whole area holds a unique 'spirit of place', which I was eager to investigate and 'bring to the surface'. Moreover, the school buildings of St. Jozef and St. Anna and the Pastorie articulate an interesting ensemble, with different architectural expressions and typologies. This fact, in combination with the 'irrelevant' extension of St. Anna's school, which in my opinion doesn't fit to the context neither in terms of typology nor as regards its morphological character, triggered my enthusiasm in respect to how I could redesign the building block, based on the analysis and the values of the site. Therefore, the intervention which I propose derives from the cultural values, respects the existing qualities and searches for a balance between the old and the new. In other words, I used the heritage as a starting point of my design; the existing was, consequently, the focal point of my design. The new structures form a dialogue with the old buildings, and together they form places of interaction, areas where people meet, interact, socialise. These places of social interaction, the atrium and the central communal courtyard, create enclosure, densification and transitions, making the block experienced through a crossing of different enclosures and spatial sequences. Within these spaces, different functions are arranged, all focusing on providing attractions and activities not only to the students of the Waldorf School and the Crafts Centre, but also to the whole community. Thus, outside the school hours, the whole block remains a liveable and attractive space, where different workshops and activities are organised, providing community members with interesting and creative ways of spending their leisure time. Through the teaching of excellent building skills, the new design aims to empower men and women, children and elderly people to use their bodies and minds for creative and useful ends. The new program aims to increase the skills of individuals and hopes to remind the community members of their potential to create what they need with their own skills and strengths. In doing so, the value that these things deserve could be reestablished and people could thrive both mentally and financially by fully engaging in their most basic pursuits.

Additionally, my vision on the new typology of the Waldorf school played an important role in the definition of my design assignment. With this aspect in mind, but also based on several Waldorf school case studies, I created a vision of a new studying, learning, creating and interacting environment. This vision slowly was translated into the design and configuration of the new buildings and their relationship with the existing. By creating different programmatic and spatial diagrams I illustrated my strategy on how the site should be designed in order to manifest the new spaces. By developing this strategy I was able to have an overview of how the existing buildings should be used and how the new structures could complement and highlight the qualities of the old layers. A dialogue in terms of morphological features but also as regards the materialisation and the details was the ultimate goal of my intervention. However, my design was not only based on developing new structures, but also improving the current spaces, for example make them more spacious and add more daylight in the corridors. These decisions were based on the value assessment and the hierarchy of the existing elements. For instance, by removing an addition from the east facade of St. Anna's school, which was valued low in the value assessment, the inner corridors became more comfortable, since the daylight could enter, without any obstacle, the interior of the building. Likewise, the removal of St. Anna's extension, which was also valued low in the value assessment due to its irrelevance to the context of Nieuwstad, gave me the opportunity to design a new structure and a new facade, which shares a common language with the existing buildings, serves the new typology and functions and is integrated in the overall context.

In general, I would argue that my intervention is quite humble and conservative as regards the existing buildings. Except for removing some small additions, which were considered less valuable, I treated the historical buildings with care, especially the facades which were valued high in the value assessment, due

to their richer architectural language and materialisation. The same applies for the interior surfaces, such as the historical terrazzo or ceramic floors and the wall paintings. According to my opinion, these elements hold values and, thus, remain present in my design; they influence the interior atmosphere and reflect the history of the buildings.

The relationship between the methodological line of approach of the graduation studio and the method chosen by the student

As I had already chosen the MSc1 Heritage & Architecture studio during my first semester of master studies, I was familiar with the methodological line of approach. The method is based on the design by research and, thus, the studio starts with the analysis of different scale levels, from urbanism to culture, architecture and building technology. This thorough analysis leads to the value assessment, which is used as a guide line and starting points for the design. All design decisions will be based on the analysis and the formulated value assessment. The following illustration, the so-called 'Transformation Framework', shows this methodology and was developed as a means of translating the historical, cultural and technological research into a design.

The 'Transformation Framework' describes the process of carrying out research and consists of the architectural and technical analysis, the cultural values and the student's own brief. The cultural values resulted from the architectural and technical analysis, while the brief derived from my own fascination and interest. All three aspects played a significant role in the formulation of my starting points and they were used as basis and guidelines for the following steps and the decision making. Even after starting the design process, it is crucial to have something to refer to; something that puts together and summarises the initial findings, thoughts and ideas.

Sometimes, the starting points caused conflict as regards the different values. These points of conflict formed the challenges, dilemmas and opportunities of the design. From this point, various stories and scenarios were developed, which were examined by using the 'Transformation Framework'. It is important to highlight that designing within Heritage & Architecture is not a linear, but rather a dynamic spiral process, in which the values, opportunities and dilemmas constantly need to be re-evaluated. For example, as regards the historical double door entrance in St. Anna, it was classified very important for the history of the building, since it reflects the social context of the past. Besides, the original routing was valued high in the experience of the entrance hall. Thus, it was first decided to bring back the original routing and reuse the historical double door as the main entrance of the Waldorf school. However, as the project progressed, I realised that this decision generated problems in the internal circulation of the students. Hence, I reconsidered my first choice and I kept the original entrance as a secondary access to the building, giving the opportunity to future users to reinstate it, if necessary.

Thanks to this framework it was possible to find narratives and form a solid storyline and argumentation for the design. It was a valuable tool that helped me discover what is important and why and how to incorporate it in my new design.

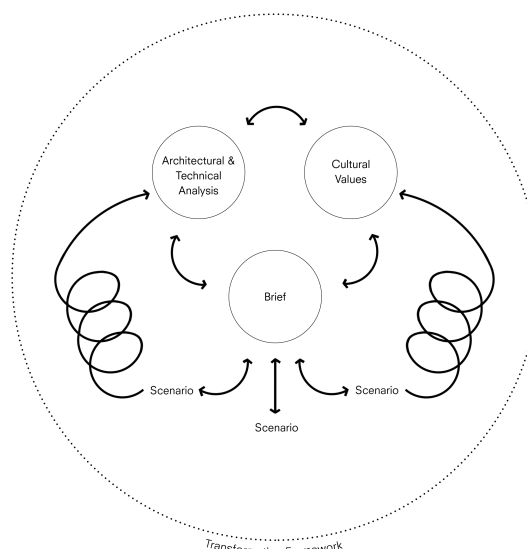


Figure 5: Transformation Framework (own diagram)

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