DESIGNING A SCHOOL FOR THE FUTURE

With methodological research as guideline

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INTRODUCTION

Architecture is designing space where activities could take place (Havik, 2019). But making space requires decisions during the process. There are various practices to get to these decisions, using different methods that influence the results you desire. Each method is unique in its way and there is no wrong or good approach because how something is tackled and investigated ultimately determines the outcome and result. That is why doing methodological research is relevant to our profession. Methodological research investigates how various methods come to a design proposal (Hernández, 2019, p.22). In addition to the conventional architectural professional that was taught to me at TU Delft, there appears to be different systems of knowledge to work within architecture.

Le Corbusier ones said; "I prefer drawing to talking. Drawing is faster and leaves less room for lies (Dushkes, 2012, p.16)." At the TU Delft, the professors learned us to design using sketches and drawings. Students gather around information about the built environment and transform this information into their design on different scale levels. While focusing on the course AR3A160 - Methods and Analysis I learned about the different ways to approach design research and it changed the way I look at gathering knowledge. It gave me the insight that when I can look at things from different perspectives, the outcome of my research could be of much greater value. Nonetheless, the graduation studio Heritage & Architecture already has a strong methodology, considering the cultural value matrix described in the book of M. Kuipers and W. de Jonge (Kuipers & de Jonge, 2017, p.65-97). But there are several ways to approach a project in this scene.

The spatial narrative theme which was part of this course interested me the most. The fact that architecture and the environment together can have a major impact on the human senses. I understood that the power of words and the importance of the story in combination with the imagination can determine the structure of the project. The site that I am researching for my graduation studio has an open green structure in an area with public buildings in the small village of Winterswijk. These characteristics can play a major role in stimulating the human senses if they are approached correctly. The building that will be transformed is the former town hall. Due to the growth of the services of the municipality of Winterswijk, the town hall became too small, making it vacant. To bring back life into the building, it needs a new function. From 2020, Grensland College will take place in the town hall which is a new school with MBO-plus courses. For the transformation plan of the town hall, I have decided to further elaborate on how this school can develop in several phases in the surrounding and building with the characteristics of a campus. But what are school buildings today? It is important to know more about this typology to make a transformation design. Therefore, the main question in my research is: How can the experience of multiple users and atmospheres be transformed into a design for a school? In this research I try to find the answer to this question, so I can come up with plan that is suitable for the town hall.

II 

RESEARCH-METHODOLOGICAL DISCUSSION

There will be two different epistemologies that will help with the investigation as the question requires multiple methods to answer it. The design of the school is like a typology, but the actual appearance of the space in the school is more difficult to express because it depends on the function and their users. Tasting the atmosphere is something different because it changes over time. It's not tangible and may seem hard to measure and that's where phenomenological research fits in. By combining these epistemologies to create a broader perspective for this research, a combination of a more objective investigation and a more subjective investigation will be needed. The episteme typology is the structure of elements or things that have the same set of characters, also called the study of types (Gorny, 2019, p.4). On the other hand, phenomenology is the study of appearance. It is the way things appear to us where the role of our bodily, neural and mental being is important for experiencing space (Havik, 2019).
Grensland College is a new school, which will settle in Winterswijk from 2020. The school has major plans to counteract shrinkage in the Achterhoek. The school must develop into a regional player that also attracts students from outside the region and Germany to counteract the shortage of labor force and craftsmanship. The large area that the school will reach makes it necessary that appropriate functions such as adding a campus will be needed. But how do you design a school? Education is a characteristic element of the school. How education is provided determines the space for a school. These spaces can be subdivided into learning areas, team areas and common areas that play a role in the composition of the school (Meuser, 2014, p.46-55). The type of functions in a school is also a characteristic. Marlies Rohmer (2008, p.5) has done research with her bureau into schools and how to design them for the next generation. A generation where room for maneuver is of enormous importance to get the children into movement in this digitized world. The play areas will become part of the so-called community school in which other communal, societal and cultural functions will also take place. Given the still uncertain future of the Grensland College, it needs to be flexible, adaptable, variable, multi-usable, and exchangeable.

The philosophical analysis will deal with the use of space. It turned out that not all architects have thought about the end-user when designing schools; the child who is inside the school every day. Research has shown that children at school also have their own needs. Needs that contribute to the well-being of the child, which in turn can increase productivity. One of the most important needs of children is that they need a place where they can be on their own to play or study and where they are not bothered by teachers or fellow students. In the past, schools have been built with simply open physical spaces, but that does not satisfy this need. What is also striking is that often only the child is taken into account utilizing adapted furniture. It can be said that the schools were designed from the adults perspective. Of course, some adults work there and so a combination will be needed that will take both end-users into account, depending on the purpose space is meant for. It may, therefore, be that there will still be spaces that are not considered useful for the child, but also the other way around. (Taylor & Vlastos, 1975, p.14-17). To be able to estimate what the needs of a child are, you should be in the shoes of the child to view situations from a different perspective. Our literary imagination can play a major role in this. The power of this is that the imagination can stimulate the architectural experience of space. Imagination can sometimes be even stronger than our sense of reality. Think about how involved we can be with a fictional person from a book or in a film (Havik, 2014, p.9).
Both epistememes have their own history that is important for the development of their methodology. Beginning with typology, which has a long development in history. The architects of the Enlightenment gave buildings a concrete form based on the activity that took place in the building. As a result, these activities became visible in society and built environment, so that characteristics of these typical buildings with the same use could be adopted or expanded to other cities (Aymonino, 1981, p21.). One of the first known architects that made use of this episteme were Quatremère and Durand in the 19th century. According to Quatremère, a type has everything to do with the characteristics associated with the past. On the other hand Durand believes that typology is a way to organize buildings based on the same use and function. It is an approach whereby buildings with the same characteristic belong to the same type. As you can see in image 2, Durand uses drawings of plans and facades to analyze and categorize the types. In the 20th century, the modernists had different arguments about what typology meant to them. A well-known architect who had an opinion on this was Aldo Rossi in the late sixties. According to him a type exists because of the so-called juxtaposition. This means that two elements can form a type by correctly approaching them together. These two elements consist of memory and reason (Moneo, 1978, p.28-39).

Phenomenology in architecture became interested in the 1950s, where the philosopher Gaston Bachelard also expressed his thoughts about connecting the poetic imagination to the physical reality of place (Havik, 2019). In his book "The poetics of space" he wants to draw the architects’ attention to base their work on the experiences that will arise within the designed space. He believes that the reader or user takes part in the happiness of design. The culmination of this phenomenological way of thinking took place at the end of the 1970s, where famous people such as Steven Holl, Martin Heidegger, and Christian Norberg-Schulz expressed their thoughts about it. According to Norwegian architectural historian Christian Norberg-Schulz, the densely growing cities and thus the nature that is lost as a result is caused by man. That is why it is important that people can continue to recognize and remember the place; the genius loci (Norberg-Schulz, 2003, p.31). A place or space is formed by the characteristic or recognizable elements. The history of the place plays a major role, depending on events that are remembered. Kevin Lynch has other arguments about this methodology. According to him the genius loci referred to the individual, subjective and perceptive understanding of each place (Kepczynska-Walczak & Walczak, 2015). Today's phenomenology can be found in the visualization of the "genius loci" through the use of digital tools, but is this the way to clarify? Havik (2017, p.42) uses scriptive perspectives to do architectural research. Memories, use, and perspective are aspects that can only be described through narrative. It is named scriptive because of architecture scripts spaces and spatial sequences. This can be applied by different methods of which one will be described in more detail in the next chapter.
As described in the course, the epistemes have been developed in history. These methods can be used to answer the research question of this study. They are helpful but will need some adjustments to find the answer. For typological research, it is useful to look at Durand’s method of organizing the types according to use and function. However, as indicated earlier, several factors are important to take into account when designing a school. Consider the type of education and the type of functions inside the building. This can be seen as the use and function, which need to be approached differently. They each have to be categorized on their own. Durand’s way of looking at buildings considers use and function allied when categorizing them. As told before in my opinion it is better to investigate use and function separately.

The use of the rooms in the school depends on the end-user. In this case, these are the teachers and the students (between 17 and 20 years old). Two target groups, each with their requirements for the room having each room with their atmosphere based on the function. By making use of phenomenology research, I want to achieve that I can create a space for the two target groups that is pleasant for both, but different inexperience. The scriptive perspectives of Havik fits well with this research.

IV POSITIONING

To take a position for this research, a closer look is needed to the research question; How can the experience of multiple users and atmospheres be transformed into a design for a school? The question can be divided into two parts; the experience of space and designing a school. For this, two epistemes will be approached in the study; phenomenology and typology. These are described as in the lectures of this course. The perspective of this research is both objective and subjective, to provide a comprehensive answer. Typology is the more objective approach of research that looks at the categorization of schools in the Netherlands. The community school is a type of school discussed by Rohmer (2008, p.35). It is a building where the main function is education, but it also offers room for other functions. These other functions are often appropriate in addition to education, such as workshop space, day care center or room for integration courses. Since the future of Grensland College is uncertain, a flexible building is necessary and the type of community school fits in well because it must become a building for everyone. In Durant’s theory, the elements of a building determine the function. However, the school is located in an existing building where the characteristic elements have already been placed according to the old function, but is it possible to convert these characteristic elements of that type of building so that they become characteristic of a school? I would like to investigate this further in my graduation studio.

The main focus of this research will be on phenomenology. This is the subjective perspective of this research. The building will be used by many different people, but the main group for which it will be designed consist of students and teachers. However, it is difficult to put yourself in the position of the students if you are an adult yourself. Simple things such as the needs for certain spaces will differ substantially. Not only the experience of the target group will be important, the various functions that the multifunctional spaces will have will also need their own atmosphere. That is why the approach to this study will be as follows. To find out the needs of the target groups, I will visit various reference projects. First, I will visit a number of ROC schools in the same region. During these visits, I will take place in a large open space such as the hall, canteen or computer rooms. I then will observe how both students and teachers make use of this space. This will be an observation of people, which according to a scriptive perspective will record as Havik did in her own research. I choose specifically these schools because key characters are typical of certain regions. The other observations will be at community schools, where I want to look at the use of multi-purpose space. This will also be recorded by means of scriptive perspectives. A scriptive perspective has different methods. However, each method can be used in different ways. The method of transcription from Havik (2014, p.20) is in line with the elements that will be investigated. This method describes activities that are caused by events or activities that are important for the interaction between the architect and the user for making architecture. On the other hand the genius loci is important to take into account while designing the campus. To design a campus,
program requirements have been drawn up for the land use. In addition, goals have been set. One of these is the campus image, which means that the campus landscape must reflect back on typical landscapes of the area. To achieve this, it is important to know what the development of this targeted area has been (Neuman, 2003, p.20).

To be able to get an answer to the research question, I need to combine the two methodologies to get to the design principles needed to formulate the concept for the design. This forms a good basis for the still uncertain development of the Grensland College in the future. The way of research for this study is visualized in the image below.
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