## Reflection

In terms of the relationship between research and the design. I think the research is a very important step before the design and during the design as well. Before the design, we have to do the research about almost everything related to this project. For instance, the site analysis, the history of the place, the culture background of the place and the existing condition of the building if it is a renovation project. Only if we have a deep understanding of the situation, we could find some interesting point and turn it into the starting point of the design and transfer the outcome of the research into the design. During the design, the research is even more important and specific. At this stage, after you know the direction of the design, research could help you develop on a right track and help you make the decision when design has multiple choices. In general, from what I learnt in my process for the studio. The research is a preparation before the design, and it need to be continued during the design to support the design in different scale from masterplan till the detail strategy.

In terms of the relationship between my project and the Architecture track, I think Heritage architecture plays a more and more important role in the sphere of contemporary architecture. Many building need to be renovated, in order to give it another life instead of just demolish it and build another new building on that spot. From this point of view, retrofitting the heritage building is very sustainable by reusing the existing material. From another point, dealing with heritage architecture is a journey which is balancing between the old and the new. We could not do anything without considering about the existing situation. In this case, some old characteristics could be kept and the diversity of the architecture world could be somehow protected in this process.

For my final year project, I am doing the renovation of the central Beheer designed by Herman Hertzberger during 1980s'. It is even more obvious that the importance of keeping diversity of architecture. The building is the masterpiece of the Dutch structuralism. The unique form and the repetition modules reflected the idea. The building has a very strong concept and theory behind which obviously we could not neglect when we touch it. Because of the strong identity it has, this final year project became more interesting, and that is why it is more attractive to me than other studios' project.

My specific topic is transferring the building into a leisure and recreation center. In terms of the relationship between my project and the studio topic: the future of Structuralism, I think I could split it into two parts. The first part is the relation between my project and the structuralism style. From my point of view, the key idea of the structuralism is duplicating the simple single unit and organized them in a logic way to form a complex or a building, in many cases, it will create a feeling of being in a small city rather than a building. However, sometimes this kind of copy and paste is too direct and the outcome is not like what designer explained in the design stage. For instance, in the Centraal Beheer, the inner street space, from my point of view, is not well designed and could be seen as a leftover

space after the duplication of the modules. It is narrow and high, and it is even dim in some part. It didn't work well as a public space in this small city. In addition, the city needs exceptions to indicate the directions for people. The getting lost feeling is also not the characteristic of the city. As a result of this, I decreased the volume of the center area and create an inner plaza for this building. For the four wings, I researched the limitation of the flexibility and transformation potential of the original module. In this way, I highlight the routine in the center but also keep the lost feeling in the wings. This effect could contribute to make an interesting leisure activity space. In general, the way the architects doing the design in structuralism is from small to big, from single unit to the whole building, I was trying to balance this process and renovate the building more in the way which is from big to small, from exceptions to the standard. This is how I react to the structuralism building through my design.

When doing the renovation of a heritage architecture, the first step is to do the research on the existing condition, as well as the original design, In the research period, we separated the issue into four aspects, which is time, material, social, and space, and we did the research in the form of group. For my group, we separate the work again into different aspects in terms of the social idea behind the building. First is the social background during the design stage and the social idea of the Dutch structuralism. Then the story started from surrounding and site, to the skin, structure, space and plan, surface, service and finally the stuff. For instance, I was in charge of site and surrounding, so I did the research about how the building connected with the surrounding and the relationship between the site location and the culture and commercial axis as well as other issues related to the social aspect of site. After the individual analysis, we put everything together and drew the conclusion of our group. Finally, the analysis of whole group was combined together, and we had a comprehensive research outcome for this building. When I looked back, I thought this process worked well. For each member, we researched deeper and really share what we found, so before the design start, every group member got a good understanding of the building.

After the research period, I started to do the individual research about my own design. The very beginning issue is to find a new program for this project. I was trying to start from the biggest scale to see what we really need in the contemporary society, and then gradually scaled down to the complex level to check what does the city specifically need right now. Then I started to look at the building, and tried to extract some key factors which interested me and find the relationship between these factors and the possible program. For instance, the complex edges in each module and the vertical openings could be helpful for transferring part of the building into an airsoft field. The sunken area in the original restaurant area could be transfer into a spa pool. The existing car park could become a nice designed karting race area. In this process, the original spatial quality could be linked with the program which will be happened there. At the end of this stage, I selected the leisure and recreation function as my program of this building. For this part, I think I did a good job in exploring the possible activities, and tried to build the connections. However,

for some activities, I could analysis it deeper than what I have done. The overall outcome is satisfied at that stage, and I got a good database of what I could do in this building and briefly how I could change the building to make this happen.

After this stage, I started to first focus on the leisure activities, but more in a detailed level. By introducing three ways of doing the transformation. Original modules could be changed to fit in different activities. For some small activities I tried to use the original module without changing too much. For the medium level of activities, I tried to combine several modules and did the subtraction and addition to make it suitable for the activities. For the activities which requires a large open space, I thought about totally removing towers to create the space. By a series of transformation, when I reviewed what I did, I think for small activities, the original logic of the space meets the requirement perfectly. For the medium level activities, like airsoft. The "+-" effect create a more interesting routine than the normal battle field, it creates more fun experience than the normal one, but considered the safety issue, more effort need to be put in to make sure the participants are safe when they are doing this activity. For the biggest activity area in this building, roller skating field. The remove of the two towers create the enough space for that. Although, from my point of view, this removing is a little bit straight forward, it did create a new relationship between the existing open corners and the large open space in the middle, and creating a more open visual connection between different activities.

After that, I was struggling with which direction I will go, more realistic project or more theoretical project. At that time, I have two main concepts, one is using this building as a showcase of the flexibility of the basic module, and transfer it based on different strategy. Another one is creating a real leisure and recreation center in Centraal Beheer which could be one serious proposal in the real life. At that time, I thought about which one I was more familiar with and more confident to play with. In the end, I selected the more realistic way to do the design, because, I think I was used to design in a realistic way. If I pick the theoretical design, I may lose the control and trapped into endless experiment without getting a result. As a matter of this, I think making a real leisure and recreation center is more suitable for me.

When doing the research about different activities, I also found some characteristics of some specific leisure activities is different from what I thought before. For instance, there is a big decision I made during the design which is about the original restaurant wing of the building. At very beginning, during the observation stage, three sunken areas in that part caught my attention. For my leisure and recreation center, I was thinking these sunken areas could be transfer to the pools for a spa, and this whole wing could be transferred into a health & spa center. At that time, I thought this idea is practical and clever. However, it is not. After doing the research, I understand that the spa is so special compared with other kinds of leisure activities. It requires a more complexed ceiling and the floor system for cycling the water and remain the heat. Considering the existing floor height and the concrete structure of the building, it is very hard to install the required facilities for the spa.

On the other hand, at that stage, I didn't have a formal restaurant for this huge complex of leisure activities. Although there is a small bar for almost every activity, a big restaurant for the whole complex is needed for the whole building. It not only works as a restaurant but also as a meeting point, and I think it is very important for a leisure center to have a place for people to meet and share the experience they have in the building. Based on these reasons, I decided to change the spa to a restaurant which works as the same function as existing condition.

After this, the focus point turned to design the communal space in-between, the inner plaza in the center location. One important issue for this part is how to make this plaza as special as possible compared with the four wings. One aspect I considered is the shape of the elements in this area, including the wall, the floor and the openings. As we can see, the Centraal Beheer is composed of many rectangular units. I was thinking if I introduced some curved shape in the center area, it will be easy to be recognized for the visitors and create an outstanding atmosphere compared with the four wings. However, after the research of the existing floor structure. I found it is quite difficult to cut the concrete floor without damaging the rest part. As a result, I tried to use the curved form partition wall to create a feeling of flow without touching the existing structure. In this way, from the perspective of plan, it is different from other parts, but from the perspective of users, it worked terrible, and even sometime block the route. So I decided to not using the curved shaped element anymore, using the existing element as much as possible to create the freedom of the movement from the visitors. Instead, the outstanding feature of the inner plaza was highlight in the aspects of colour, material usage, lighting condition and the openness of the space, but not in the aspect of the form and shape.

In terms of the relationship between the graduation project and the wider social, professional and scientific framework, I think firstly, my project could be a reference for other people who want to design a leisure function building. As there are many different activities in my building. People will see the spatial requirement for different activities from my design. Besides, as I did the research in different aspects, not only the spatial aspect, but also the environment aspect and the social aspects. They could understand how leisure activities in different scale could work well very quickly. The combination of different activities is also a good test and used Secondly, I think right now, leisure is becoming more and more important in our daily life. People have more spare time compared with before, and the requirement for the living qualities is rising again and again. However, the qualities of the leisure building are not rising with the same pace. I want to show that this kind of building also could become a well-designed place in terms of architecture quality. In addition, Centraal Beheer has its very strong own logic. To input a very different program composed of activity functions with different scales and requirements could become a very interesting and challengeable renovation. I want to try my best to test the boundary of this transformation of heritage. In the end, I wish I could create a unique example of dealing with heritage which is successful.