Graduation Plan

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AR3Al113 Interior graduation studio – Urban culture and new openness
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Problem Description

This graduation project is about designing a physical rehabilitation center in Rotterdam. The site location is on Westersingel, adjacent to the Museumpark. The existing buildings on the site are Rijndam Clinic, a student housing, a pump station and a 1930s school building. After research of the site and building volume, the whole group has agreed that we would demolish Rijndam Clinic and the student housing, but keep the pump station. As for the 1930s school building, it is individual decision whether to keep it or not. (We can change the function of the buildings we have kept) I chose to keep the 1930s building together with pump station because I believed that the complexity of urban context would enrich my design project. Thus, limitation has increased when I try to blend the new volume into the urban context. Westersingel is a very noisy street. To solve this disadvantage for rehabilitation building is another problem of this site.

The programme of this project is very complicated. According to the existing functions of Rijndam Clinic, we could simplify it into a matrix. The horizontal direction has seven units: spine injury&neuro rehab department, amputation department, chronic pain department, children department, outpatient department, functions nearby outpatient department and common functions to all departments. The first four departments are all inpatient departments. And the vertical direction has eight units: patient accommodation, medical assistance, paramedical care, psycho-social care, rehabilitation techniques, management&training, civil&technical service, staff facilities. However, We can make our own storyline according to basic functions. Most of the patients who use this building are seated in wheelchairs and suffered with their disabilities. Our challenge is to create a comfortable and relaxing environment for their mind and body.

Goal of the project

My goal is to design a rehabilitation building which has rich experiences of movement. So patients could experience diverse spaces when they are moving through the building by their wheelchairs. Patients will be mostly considered in my design. I am inspired by Museumpark. So I want to bring nature into the building as much as possible by creating two big courtyards inside the building. This is also good for healing environment of patients. The position of two courtyards and shape of the building give great flexibility into my design. So there is a potential to design a rehabilitation center with nice atmosphere and spatial quality.

My second goal has to do with adolescent patients. This is inspired by my reports for research seminar of Irene Cieraad. Children are very different from adults. Also, they are very different patients. Thus, I want to design a separate children’s department with its own entrance, which is specific for them. Children are fond of outdoors space more than adults. So I intend to put children’s department on the ground of Museumpark level and has direct access to the park.
Process (methods and techniques used for analysis and design)

For my design process I use multiple methods and techniques. For the course AR1AI132 research seminar, I focused on the patient group as children. I started with creating a fictive patient profile as a young girl with congenital disease. And I did a research about play space in children’s healing environment for first report. After that, I discussed the possible activities for children under 12 years old. For my final report, I visited Mytyschool de Brug in Rotterdam. In there, I got to know the subdivision of age groups and the relationship with disabled children’s schooling and rehabilitation. I also got to know the situation of adolescent patients we are designing for.

For the design process itself, I first started with urban approach for my site model and then combined it with the programme. The flexibility of my model gave me much freedom to design the building and I have tried many possibilities of organizing the functions. In order to pursue the spatial atmosphere for my design, I have done many reference studies, such as monasteries. I especially studied nice corridor spaces and double high spaces. For techniques, I use autocad drawings, sketchup drawings, models, analyzing references, 2d and 3d sketches to express my design. I also refer to the excursion of nice rehabilitation center in Netherlands and Denmark.

Literature (theory and research data)

In the first three weeks, we have done a workshop of analyzing one particular rehabilitation building. In this workshop, my partner and I have made our own interpretation about Salvador Hospital in Brazil. We analyzed three stages of patients’ recovery and related it with architectural approach. We made many analytical drawings to support our conclusion. I also studied Beyong Clinical Buildings gave by Birgitte Hansen (our workshop tutor), which presents diverse design researches under the topic of care hotels. I also look up to the typologies of healthcare buildings.

Reflection

My design has much flexibility that has a lot of freedom but also brings me difficulties with choices. I have changed my design a lot since my mass model was confirmed. In the start, I went for very complicated organization of space. My tutors asked me to make the plan simple and strong. After weeks of changing, I finally found my own principle and kept the organization much more simplier. Furthermore, I need to work on my facades, both from outside and from courtyard views. My building is about atmosphere and experience of space. I need to work on that also with materials and make spatial interior models.
Planning

The graduation project started in September 2012.

I will be working on the following points for the P1:
- Location analyses (including museumpark)
- Program analyses
- References visits (the Netherlands and Copenhagen) and reference analyses
- Concept. Urban context with mass model
- Scheme plan and section

I will be working on the following points for the P2:
- Finishing urban concept
- Concept development
- 1:200 plan, section, models
- Facades design and materials
- Interior models of double high space
- Perspectives inside the building

The P2 presentation will be on January 25th.

I will be working on the following points for the P3:
- Adjust final details of the concept
- 1:200 plan, section, models, facades
- Materialization
- Working on structure and construction
- Routing through the building
- Sustainability

I will be working on the following points for P4:
- Further work on the layout of the entire building
- Finishing the façade
- More interior models
- Finishing building physics
- Making details

P4 presentation (date unknown)

For the P5 all points discussed at the P4 will be improved and further developed.