Graduation Plan

Architecture, Urbanism & Building Sciences | Msc 3, P2 | January 2013

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Studio
Theme: Architecture | Interiors buildings and cities
Teachers: Jurjen Zeinstra | Laura Alvarez
Location: Westersingel, Rotterdam
Argumentation of choice of the studio: I have chosen the interiors studio because I wanted to design

a public building which was not only an icon in itself but a building which fits in the context of the Museumpark and its history. Besides, the design project covers many different levels of architecture. Starting with an urban plan based on the context, resulting in detailed and materialized facades and off course interiors.

Another thing which separates this studio from others is their approach to do research by designing. Giving you opportunities to detect design problems in an early stage of the graduation project and to discover things you wouldn’t with only studying literature. Of course the combination between the research by design and the research of literature results in the most underpinned and realistic projects.

Title of the graduation project: Healing at home | Urban culture and new openness

Product
Problem statement
The board of the Rijndam Rehabilitation center would like to extend their existing center located on the Westersingel, facing the Museumpark. In this graduation project the design group studies the different possibilities of rehabilitation centers, in order to provide new strategies for building or extending the rehabilitation center. Therefore we demolish the existing rehabilitation center, including the bakema
tower, the pomp station and the Maasdam building have to remain,

The new rehabilitation center consists of different departments incorporating different injuries, these different departments each need special treatment areas, bed rooms and living rooms. Besides there are some functions used by all departments, like the café, restaurant, sports hall, pool and theater. During the design process the shape and size of the building should be examined, the scale of the building should be mastered and spatial qualities within the building - the division of spaces, the use of materials and the construction – should be developed.

The site is located between the Museumpark and the Westersingel, the building(s) have to fit the urban pattern of the location with on the north side an existing building block overlooking the park and on the south side the Westzeedijk and its high apartment buildings. The nineteenth century pomp station and the Maasdam building determine the scale of the new rehabilitation center, a connection between the Museumpark and the Westersingel its precise location.

Goal
The main goal of this project is to design a new kind of ‘rehabilitation center’ in which the patient feels comfortable or at home. In order to create a comfortable home it is important to separate the treatment from the bed- and living rooms. The trip from the ‘home’ to the treatment becomes a metaphor for the street, the treatment a metaphor for the work. Therefore I would like to create different blocks which can function as different houses, each fulfilling the wishes of a different group of users, a treatment block and a corridor linking these different blocks. I would like to move away from the typical hospital corridor towards a more ‘streetlike’ corridor, where there will always be daylight and a visual connection with either the city or the park.

Second, I would like to create a comfortable place where the patient can feel at home. As discovered in the research not by designing curtains, couches or bookshelves but by creating spaces which provide social interactions to take place, either in groups or alone.

Process
Method
As every project, this graduation studio started with a program. A complicated program based on many functions, spaces, places and numbers. To translate this program into architecture I started with a study of the logistics of rehabilitation centers: how can patientrooms, living areas and treatment be connected with each other and how do the more public functions relate to this functional approach?

After this first study mass models where used to grasp the program and to fit the mass in the context. Working with mass models as well as spatial models and a program study resulted in a new building mass: related to the context with an clear idea of the program and its organization, separating the work (treatment) from the home (patient area).

The second step in the research was a more intuitive research on the scale of the building: based on visiting references (rehabilitation centers in the Netherlands and Copenhagen) abd working on plans, sections and making models, this resulted in five buildings connected with each other by a ‘street’ or corridor, finishing the existing building block at the Westersingel and creating a new route towards the Museumpark. Further on I will continue with models and sketches to support the two
dimensional drawings in order to achieve the previously described spatial relations.

In the Research Seminar, which will further be reviewed in the next paragraph, I studied different organization principles of existing rehabilitation centers in order to understand the consequences of a separation between treatment and patients. I also interviewed several patients, nurses and doctors and asked them if they would prefer separation. For the full research I can refer to the third report written for the Research Seminar titled: I live here, but it is not my home. Thuis in het ziekenhuis

Literature and general practical preference
For the previously mentioned Research Seminar I have done a study into the world of children with Spina Bifida, I studied their complications, how they are treated and how a rehabilitation center can improve this treatment. In the first study it became clear that the Swimming pool can be more then a bath for therapy and can be part of a social healing environment in which children can play, have therapy and relax as was done in the traditional ‘Kurhauses’ in Germany. The second study focused on the link between the rehabilitation center and the city, which could be improved by providing a place for families and their children (abled or disabled) to gather, cook, play and mingle. In this way the social exclusion of the disabled child and their families could be decreased. These two literature studies form a base for the extra functions in the design: a community center with a playground and a larger swimming pool.

Besides I studied the rehabilitation center of the Brazilian architect Lelé, his ideas of separation the patients into three different rehabilitation phases along one corridor formed the basis for my rehabilitation center; separating different rehabilitation phases into different block which provide smaller and more comfortable departments.

Reflection
Relevance
Nowadays there is a trend of clinical buildings trying to create a more domestic atmosphere, we see this in nursing homes, elderly houses, hospitals and rehabilitation centers. In most examples we see the similarities of the living room at home and the living room in the hospital, formed by the use of carpets, curtains and fluffy couches. However, the scale of these living rooms is different as is its use. In this new rehabilitation center the creation of a home, or a comfortable feeling should therefore be more then the adding of nice curtains and provide spaces where the patient can be in control, where it can make its own decisions: will I stay alone or in a group? Should I pick an extra pillow or not? By giving the patients a control over their stay, they will start to feel at ease or even at home.

This new typology gives the board of the Rijndam Institute insight in how to create a less clinical building without the typical use of carpets and curtains, which causes problems with the hygiene in these kind of buildings.
## Time Planning

### Before P1
- Analysing site (1:500)
- Analysing program (1:500)
- Analysing precedents
- Study mass models (1:500)
- Study individual mass model (1:500)
- Study tour: visiting references in Copenhagen
- Concept
- Understanding the size of the program

### Before criticsday
- Finishing urban concept
- Developing 1:200 plans and sections
- Transition from public to private
- Analysing different patient areas and their treatment (1:200)

### Before P2
- Refine urban concept
- Developing 1:200, 1:100 plans and sections
- Design studies for the facade
  - Mass model 1:500,
  - Spatial model 1:200
- Working on entrances, elevation points and construction
- Defining the different houses and their different spatial qualities
- Write position paper
- Write reports Research Seminar
- Graduation plan

### Before P3
- Adjust the final details of the concept
- Developing facades (analysing + designing in different scales)
- Materialization (1:20, 1:5)
- Simplify the design: structure the route, adjust entrance and construction
- Define concept for construction, building physics and sustainability (1:200)

### Before P4
- Finishing the layout, sections and plans of the building (1:100)
- Finishing the facade (1:100, 1:50, 1:20)
- Physical model showing the facades and the surrounding context (1:200)
- Adjusting building physics (1:20, 1:5)
- Adjust remaining points
- Reflect on the first ideas and final design

### Before P5
- Improve all points discussed at the P4
- Visualize the building in models, renderings and photomontage
- Physical model 1:50 or 1:20 showing the spatial qualities of the building
- Criticize the story of the building