

graduation plan: architecture

PERSONAL INFORMATION

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STUDIO

studio	Interiors, Buildings and Cities
teachers	Jurjen Zeinstra Laura Alvarez
theme	Urban Culture and New Openness: a rehabilitation center in Rotterdam

argumentation for this studio

I have chosen to graduate in Interiors because I experienced in previous master projects that the chair's ideas on architecture and designing buildings are very close to my own opinions. In addition, I value that most of the research in Interiors is of an architectural nature, and that consequently research results are always connected to a certain opinion on or feeling for the architecture. This also ensures a certain practicality: it allows, within the limited time frame of a project, for the design to be thoroughly investigated on all scale levels — which is what i would like my graduation design to be.

TITLE

project title	A public villa for rehabilitation
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product

PROBLEM STATEMENT

The graduation project is concerned with a hypothetical replacement design for the existing rehabilitation center Rijndam Westersingel, which is located on the eastern edge of the Museumpark in Rotterdam. The current building stems from the early 1990s and currently needs to be extended with additional rooms and facilities.

Although this extension will be realized by a separate office in practice, the need for extension provided grounds for the Rijndam board to question the entire rehabilitation center organization and its architecture on this specific location, from an academic perspective. The graduation studio is therefore aimed at developing new models for the rehabilitation center, that communicate to the board what kinds of added value specific architectural solutions can provide to the rehabilitation center program.

The design brief equals that of the current building, but new visions on how to organize this program so as to use to full extent the currently underused potential that is to be found in the program and the site, are much appreciated. In this respect, the particular challenges of the graduation project are

- (i) to design a rehabilitation center that has a distinct appearance other than that of a hospital, i.e. to provide a specific identity;
- (ii) to attempt to provide possibilities for a more public use of the rehabilitation center;
- (iii) to relate the design more to, and make better use of, the surrounding landscape of the Museumpark.

GOAL

The goal of the graduation project is to incorporate the above potentials in the design for a rehabilitation center, without negatively affecting its organizational functionality. It is felt that a distinct identity for the rehabilitation center should not be derived from its typically bland program. Rather, in this specific context, the landscape directly surrounding the building, and its relation to the larger park, is as important a subject to design as the building itself. As such, a second objective is to acquire identity for the rehabilitation center by designing building and landscape into a unified composition that reinforces the architecture.

process

METHOD DESCRIPTION, LITERATURE AND GENERAL PRACTICAL PREFERENCE

Several methods are employed to assist the design process. Firstly, a range of research courses that provide input to the design run parallel to the studio. A social research was conducted that investigates the needs and future wishes of the rehabilitation center's users, both staff and patients; a position paper was written to support the design decisions made from a theoretical perspective; and in a three week workshop an analysis of a Brazilian rehabilitation hospital was made, to kickstart the design. The resultant texts of the social research are included in the appendix, the position paper will be added to the graduation plan at the P2 itself.

In addition, a study was performed on the theme of 'architecture and landscape designed in cohesion', to investigate design principles to employ in the positioning and massing of the building and the design of the surrounding landscape. This research is largely based on an extensive written account of Italian villas of the Renaissance, that has been published by TU Delft researchers Van Ree, Smienk and Steenbergen¹, from which general characteristics were distilled.

The compact building mass that was developed is organized around a series of atriums, that provide daylight and a point of orientation. Some reference plans that employ multiple atriums were looked into for guidance, in particular a police station designed by the Belgian office Bovenbouw.²

Of course, a lot of more general techniques (sketches, models, cad) are utilized as well during the design process, but these will not be elaborated on here.

reflection

RELEVANCE

In a broader scope, the design of the rehabilitation center has parallels in our society's current urge for solutions to the health care debate, which questions how health care should be organized. The graduation project adds to this debate from an architectural point of view, by investigating the possibilities of the introduction of clinic as a more public building, a satellite of a hospital at an inner city location. This adds value to these programs and opposes the old-fashioned trend of the hospital as an all-encompassing mega building at the edge of the city, with efficiency as its prime underlying idea.

¹ Van Ree, Smienk, Steenbergen (1992) *Italian villas and gardens*. Amsterdam: Thoth

² <http://bovenbouw.be/#!/realisaties/politiekantoor-schoten>

TIME PLANNING

The graduation project started in september 2012. The P2 presentation is on january 25th (14:15 - 14:45). Up until the P2 presentation, I will have addressed the following issues in my design process:

- analysis of, and formulating an opinion on, the location and the program
- visiting and analyzing reference buildings (NL, DK, course Ar3Aio4o)
- literature study on 'architecture and landscape'
- studying possibilities for filling the plot (1/500 mass models)
- studying programmatical organizations that fit the urban models
- formulating a concept for the building
- writing a position paper that theoretically legitimizes all decisions taken
(course Ar3A16o: will be added to this graduation plan at the P2)
- first design attempts: plans, sections, façades, models (1/200)
and subsequent adjustments
- building technology: investigating possible structural systems

Issues that will be addressed for the P3:

- adjusting and elaborating plans, sections and façades (1/200, 1/100)
- models (1/50) to investigate key spaces in the design
- materializing (exterior and interior)
- building technology: developing concepts for the structural system, the façade, for the climate, incorporating a vision on sustainability

Issues that will be addressed for the P4:

- adjusting and elaborating plans, sections and façades (1/200, 1/100, 1/50 segments)
- further designing interior spaces in models and perspectives
- building technology: incorporating the technical concept further in the design, creating overview sections (1/20) and a selection of important details (1/5)

In working towards the P5 presentation, the design will be fine-tuned and adjusted according to the last comments at the P4 presentation. In principle, this period will have a large focus on the presentation techniques that best reflect and communicate the specific qualities of the design.