Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Steph Kanters
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Studio	
Name / Theme	Hyperbody
Teachers	Dr. Henriette Bier & Dr. Nimish Biloria
Argumentation of choice of the studio	I want to specialize in generative and non-standard architecture. These topics are best represented in the Hyperbody graduation studio.
Graduation project	
Title of the graduation project	Healing environment for the elderly
Goal	
Location:	Rotterdam, The Netherlands
The posed problem,	There are currently two shifts happening in The Netherlands. One of them is the increasing amount of empty office buildings, visualized in this assignment as the Marconi Towers. The second one is the increasing percentage of elderly people and the lack of specialized living spaces for them.
research questions and	The research question includes the transformation from an office building towards an optimized apartment building for the elderly and the use of healing environment, such as interior and exterior green spaces in the building. Sub-questions are related to the other functions (GP, nurse, physiotherapist), routing and the different requirements of the users.
design assignment in which these result.	What is the best way to combine all these properties, so that the Marconi Towers will be transformed to a comfortable living space and a healing environment for the increasing amount of elderly.
This should be formulated in such a way that the graduation project can answer these questions. The definition of the problem has to be significant to a clearly defined area of research and design.	

Process

Method description

At the beginning I gather information about healing environment, housing for the elderly and I do various analysis of the urban surroundings and more closely to the towers site.

With the use of this information I make a generative model of the information. These external parameters influence the design of the building. By making connections between the different functions and assign requirements towards each other and the external parameters, the main structure will be generated. This way everything will be programmatically placed at the optimal location for that specific function in the building.

This will all be done with a multi-agents system where the different factors will be addressed.

Literature and general practical preference

Ko, D.-H., Elnimeiri, M. and Clark, R. J. (2008), Assessment and prediction of daylight performance in high-rise office buildings. Struct. Design Tall Spec. Build., 17: 953–976. doi: 10.1002/tal.474

Mens, N. and C. Wagenaar (2010). Health care architecture in the Netherlands. Rotterdam, NAI Publishers.

Mens, N. and C. Wagenaar (2009). De architectuur van de ouderenhuisvesting : bouwen voor wonen en zorg. Rotterdam, NAi Uitgevers.

Kas Oosterhuis, Towards a New Kind of Building (Rotterdam: NAI Publishers, 2011)

Patrick Schumacher. et al, Negotiate my boundary! (London: AA Press, 2001)

Reflection

Relevance

The project tackles two big current problems in the Netherlands and combines them to solve both of them. It uses existing empty office buildings and transforms them into dwellings for an increasing group of people. This is not only a problem in The Netherlands, but in general it is a problem for all the Western civilizations. There is a lot of research done about the connection between a green living environment and the physical and mental health of people. By using this information the building will be a healing environment for the people living there. But by opening parts of the building for the city, everyone can enjoy the extra green spaces given to the city.

Time planning

MSc 3

Week 1-8:
Analyzing the site and its surroundings in a group of three people. This is done on a micro, meso and macro scale. It is not only done for the current and the past situation, but also for the future. What are the prospects of the area and the city. Next to this there was a 3-week workshop about robotic fabrication.

Week 9: P1 Presentation

Week 10-18:
Reflection on midterm presentation and decision on how to continue;
More research about elderly housing;
More research about healing environment;
Workshop Python for Rhino;
First experiments on the form finding process;
First model making phase;
Model making and presentation preparation;
Graduation plan;

Week 19: P2 Presentation

Week 20-27:
Reflection on P2 presentation;
Continue on the model making;
Continue developing generative system;
Develop structural, climatic and skin systems;
Start working on a smaller scale;

Week 28: P3 Presentation

Week 29-34:
Reflection on P3 presentation;
Finish the design;
Making plans, sections and elevations;
Design details;
Make renders;

Week 35: P4 Presentation

Week 36-41:
Working on final presentation;
Finish all drawings (plans, sections, elevations and details);
Make needed diagrams, drawings for the presentation;
Make renders;
Finish 3D model;
Rehearse for final presentation

Week 42: P5 Presentation