P4 Reflection For Hyperbody Graduation Studio 2014-2015

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In this graduation studio we got the site of Merwe-Vierhavens in Rotterdam. This is an old harbour which is losing its original function. The increasing vacancy of office buildings is in this area also becoming a problem. The Marconi towers are currently for the most part in use, but with the move of the municipality, big parts of the towers will become vacant.
The goal in this graduation project is to reconnect this area of the city with the city centre. Transform part of the tower in such a way that people are coming to the area and put the vacant places to better use.

The wider social context that i try to tackle is the growing group of elderly people in the dutch society. More precise, the consequences it has for the shift of homeownership looking to age. The group of elderly couples who are staying in their family homes is increasing, therefore young couples have difficulty finding new homes to start their families in. Therefore to get the elderly people to move out from their comfortable homes, you have to give them something that is an improvement to what they have right now.

To achieve this, I implement the factor of green. Multiple studies have shown that people who are having mental or physical problems, who are in a green surrounding feel their pain or problems diminished. By using one of the Marconi towers i try to accomplish a new apartment building. By cutting holes in the building for the green, the building will be a green area in the city for everyone to enjoy. And next to the green park the apartments are placed, so that elderly people want to move from their family homes and then the family homes can be used for new families again.

The start of the project was done with parametric and computational simulations. With the computer i calculated where i should cut out parts of the building for extra light to enter the building. With these holes in the building I get extra height in some places that can be used for trees to be placed in the building. The holes will therefore create extra light in the building and create extra height for the green.

The green should be accessible for everyone, not just the residents. Therefore there are different functions throughout the whole building which are connected to the green area. The green area should be one continues path to the top where a roof garden is situated.

The next step in the process was making the the grid that would carry the building. By making holes in the building, part of the column structure on the outside was cut away. Therefore a new structure was implemented which is surrounding the holes that are cut. They are an envelope around the holes. They are influenced by the workshop we had at the beginning of the year: *Continuous Variation*. Here multiple scales of porosity came by and they helped me in the design process.

The last part was the placement of the apartments. I made a script in grasshopper where the three different apartment types (active elderly, protected living and complex care) had their own properties and needed different placements in the building. The script then divided the different apartments through the building and the placement was set.

In the end a change in the building has been made which is both internally and exteriorly visible, but the exterior has enough of its former look so that it is still a union with the other two towers. The interior has changed from an office function towards a park, apartments and other functions. They all have a relation towards each other and everyone who is in the building will enjoy it.