P4 Reflection

Laura Vester

1363980

Architectural Engineering
Annebregje Snijders
Marcel Bilow
Evelien Brandes

Starting this graduation with the Architectural Engineering studio made it clear the subject of my graduation was going to be a technical one. For me, the technical focus was on the qualities of greenhouses and how to integrate them into architecture. My research however had another direction as well. This one researched the typology of elderly cohousing for this was what I wanted to combine with the results from the greenhouses research.

The studios approach, in which the MSc3 focusses on writing a research paper on the subject of the students choice worked well for me. Since the subject had to be technical, my research for the paper focusses on the greenhouses. Because I however already knew my target group would be the elderly, it was possible to draw extra conclusions from my research focussing on them. I also beard in mind that in the end the research should help me with my design. This way of thinking helped me structure my research into topics that would be of use for me later on.

The main method of my technical research has been case studies. Studying designs with greenhouses and meeting their architects not only gave me a lot of insight and information on this way of designing, it also brought me a lot of inspiration. My believe in the use of greenhouses kept growing throughout the entire research. By visiting cohousing buildings, their residents, their architects and by extensive phone conversations with professionals on this topic I also became really enthusiastic about this way of living.

My research concluded with some clear decisions a designer needs to make when he or she wants to use greenhouses in the design. By using the program of requirements which was the result of my research on elderly cohousing, these questions could be answered. This led to guidelines which could then be implemented on the design location. The research also gave me knowledge of what to look out for when designing with greenhouses. Starting with my design I already knew where (a part of) the problems and opportunities would lay.

Only after the guidelines were created, they were applied onto the design location. This was done because I believe the created typology can be places in (almost) any location. Parkstad, in the south of the Netherlands, proved to be a very suitable location since it houses beautiful nature and experiences an shrinking population with a growing percentage of elderly people. The structure of the research and design process is shown in figure 1.

The guidelines resulting from the research proved to be of great help when starting the design. I already knew the general shape of the building and the fact that the dwelling volumes needed to be stacked in such a way that roof terraces and overhangs would be created. Finding the right balance between optimal greenhouse properties and architectural quality (aesthetics as well as the perception and atmosphere) however proved to be quite a challenge. By making physical models of different options and with guidance from my tutors the right balance slowly begun the appear. The configuration of the dwelling volumes influenced the shape of the greenhouse and vice versa.

During the design semester, much of the focus has been on the experience of the 'inside-outside' area created by the stacking of the volumes and the location and dimensions of the greenhouse. Because of this focus, unfortunately it was at a quite late stage of the design that I realized the dimensions of the apartments and other functions were rather small for residents who are likely to need wheelchairs in the future. This in combination with the fact that I underestimated the areas needed for, and the impact of stairs and escalators created struggles in the lasts weeks before P4. Eventually solutions were found by once again researching multiple options.

The concept of living in a greenhouse is, in my opinion, very clear in my design. By bringing active elderly together in a building housing multiple functions ranging from ateliers and workshops to guest apartments and by combining this with the sheltering qualities of a greenhouse I've created a new way of aging in the Netherlands: Mediterranean aging.

I believe very much in this concept and I see more people around me making the connection of elderly and greenhouses. It is my hope and believe that this way of living can become a suitable way of dealing with the growing amount of elderly in our society.

