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Title
Comfortable aging at home

Project description
Comfortable aging at home is a graduation project about the improvement of row house dwelling. by making a wooden extension, the comfort level for senior citizens can be improved. By making the extension flexible the house can also be made fit for families again.

Seniors are staying longer in their own home. A lot of the post war houses are not very suitable to cope with the demands of older people. This project describes the possibility of making an easy to construct wooden addition to existing Dutch row houses. This way older people can stay longer in their own home and age comfortably in their own environment.

Reflection
At the start of my graduation year I already quickly knew partly what I wanted to do. And that was to do something with wood. But I didn’t want to to research on a topic that is just focussing on wood. Then I came upon the issue of senior housing. People tend to stay longer in their own house, but that often causes some difficulties, because a lot of Dutch houses are not very suitable for the problems occurring when getting older, especially the row houses. This concluded to the idea of making an extension to row houses, making them better suitable for people of all ages, and also ready for the future in terms for making the houses energy efficient.

To investigate the possibilities of this idea, I divided the research into three parts; the first part was on the needs of seniors when it comes to their homes and how that can be added to the existing row houses; the second part was on the possible connections that could be made against current row houses; and the third part was on wooden connections and which are suitable to make an extension.

The main Methods of my research were literature and case studies, depending on the chapter. The first chapter on the needs of seniors was almost completely done.
with literature studies. The second chapter, on existing houses was also done with literature studies, but I also made some case studies. In the third chapter I combined literature study with some research by design. It was nice to combine the different kinds of research and the three different chapters, this made the work more varied and more interesting. At the same time I gathered information that was useful for different aspects of the design. Because of the first chapter, I had a clear view on the possibilities on how too fit the program to an existing house. Therefore it was very easy to continue on the design of the floor plan. The second chapter helped me to understand what I had to take into account when designing against an existing house and what the possibilities are. In the design phase I often looked back to that research to check if what I had came up with was also suitable for different kinds of houses. In the end I tried to look at the possibilities of the houses who were the most difficult to adapt to and test the design to that. The third chapter, about wooden connections, turned out to be harder to implement in the design than I expected. Part of that research was to investigate the different kinds of wooden joints without the use of other materials. In the design phase it became clear that the beam connections I was planning on to make with wood on wood connections were not very suitable for the size of the building I was making. Therefore it was much easier to make use of external joints and I chose to make use of those.

However the technical research at the first half year helped my a lot to make design decisions at the beginning of the designing phase, it was sometimes still quite hard to make design decisions. This was the first time for me to work on a building part this small, for this amount of time. And I experienced that every decision I made had big influences on all the other aspects, even more than when you are designing a complete building.

To help myself to find a good form for the building, I first sketched a lot of small 3D images of how the improved house could look like. Then when I found an interesting form, I tried to make a simple 3D model out of it, to look if it could work out the way I planned it to. I ended up making a lot of models, of which some were more successful than others. But step by step the contours of the building became clear. I tried to focus on the experience of the people living in it as much as possible. The extension had to make sure that for different groups of people the house would improve. Not only the fitted program, but also the climate of the house had to be improved. This combination: of the added program, the climatological improvements and the object to fit it against any current row house, was the biggest challenge of the design phase.

I think the concept of improving the program of a house to make it suitable for seniors and at the same time making them energy efficient is a promising concept. Mostly because both are major issues in today's housing market. A lot of seniors want to stay in their own living environment, besides, nursing homes a no longer a usual place for all seniors to end up. But a lot of those houses are not suitable for the changing demands of the seniors. At the same time most of the row houses, especially the older ones are energetically not sufficient according to today's standards. Both of these problems are being dealt with at the moment. Houses are getting upgrades in terms of energy efficiency and there are also parties working on the house improvement for older people. But I think by combining them a house can be made future proof in a more efficient way.