

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

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

Personal information	
Name	Rens van Os
Student number	4575180

Studio		
Name / Theme	AR3AD110: Designing for Care in an Inclusive Environment	
Main mentor	Birgit Jürgehake	Architecture, Research
Second mentor	Lex van Deudekom	Building Technology
Third mentor	Frederique van Andel	Research, Architecture
Argumentation of choice of the studio	Housing for the elderly is an underrated subject, but very important in the ageing society we live in right now. Elderly people in need of care, who have experienced a lot in life, deserve a nice, accessible and included living environment; on a social level and on an architectural level.	

Graduation project	
Title of the graduation project	'Multi-generational Co-living for the Elderly'
Goal	
Location:	Apollostraat, 110 Morgen, Hillegersberg-Schiebroek (municipality of Rotterdam)

<p>The posed problem,</p>	<p>The ageing of our Dutch society has been an occurrence we as a country have had to deal with for many years now; the amount of people above age 65 gets larger, while people live independently for longer as well, often alone.</p> <p>Partly due to this immense growth of seniors, and those in need of care, the shortage in professional healthcare staff is increasing.</p> <p>Mental issues like loneliness and a feeling of exclusion from society is a specific problem for the elderly, but it occurs in other age groups too.</p> <p>Many seniors have the urge to move to a smaller home that is more included, instead of the family home they grew old in, but unfortunately the current supply and construction of proper homes for the elderly (in need of care) is still lagging behind demand. Some great initiatives for housing the elderly inclusively have been implemented (like Habion's multi-generational co-living community Huis Assendorp in Zwolle), but the problems found conclude that the architectural design of these projects is an obstacle on the way to its full potential.</p>
<p>research questions and</p>	<p>How can architectural design establish multi-generational, co-living in which elderly can be easily cared for?</p> <ul style="list-style-type: none"> - Which architectural typologies could facilitate a multi-generational co-living community best? - Which age/generational groups would fit in a co-living community together with elderly people and why? - What is a suitable size for a co-living community?

	<p>- Which variety and mix of dwellings, facilities and spaces should be offered to make the co-living community meet the needs of the multi-generational target groups?</p> <p>- How can 'care' be categorized in 'formal care' and 'informal care' and to what degree does 'informal care' play a role in the care for elderly who need it?</p>
design assignment in which these result.	The assignment is to create a multigenerational co-living arrangement, in which the elderly (in need of care) can live as independently as possible, connected and integrated with other generations/age groups from society; an inclusive environment that facilitates social interaction, privacy, collectivity, support and care for its residents and the surrounding neighborhood.

Process

Method description

- **Literature research:** Literature studies will provide needed information regarding the concept of co-living in general and the multi-generational variant of it; in which different age groups can complement each other by living together and mutually support one another, especially when the project is about elderly (in need of care) in an inclusive environment. Next to the composition of such a community, the dimensions of the co-living group is also something to look into; to determine the scale and size of the future project. Further research will determine in what degree 'informal care' from neighbours in the community can substitute the 'formal care' from professional care givers and where the latter is essential no matter what (*Bonsang E. (2009), Does informal care from children to their elderly parents substitute for formal care in Europe?*). Many of the sources contain fieldwork data from many different nursing homes and co-living arrangements.

The next step, after the social- and health aspects, the field of architecture starts to play a bigger role in the research process. Starting on the largest scale, information about different co-living typologies will be gathered, including specific typologies for people/elderly in need of care (*Stavenuiter M., Van Dongen M. C. (November 2008). Gemeenschappelijk wonen: een literatuurstudie*). Diving more into the architectural building itself, co-living shows a noticeable importance of the balance between collectivity and privacy (*Linden, K. P. (1992). Community and Privacy in the Swedish Collective House*). This balance also impacts the spaces within the architecture; public, collective and private spaces, their function and the relation between them (*Fromm, D. (1991). Collaborative Communities: Cohousing, Central Living, and Other New Forms of Housing With Shared Facilities.*)

The findings of the literature research will provide design tools in the form of schemes, diagrams and drawings to eventually combine and use in the architectural design process of the multi-generational co-living community.

- **Case studies:** A useful source for finding design tools, next to literature, are case studies on recent architecture projects concerning the same subject of multi-generational co-living. The discovered information from the literature research will form criteria for selecting the cases and this same information can eventually be checked and compared with the designs of the chosen cases during the analysis as well. The most important topic for analysis will be the relation between collectivism and individualism (from the scale of the entire project to dwelling-scale), communal space/dwelling variety and distribution, the included outdoor space and presence of public functions for people outside the co-living group.

Criteria: the cases need to

- be a co-living arrangement
- be a multi-storey building
- contain both communal functions/spaces and independent, private dwellings
- include a variety of dwellings to house multiple generations within the project
- accessible for elderly to live in
- (bonus) contain care facilities or facilities for the surrounding neighbourhood

Two cases were found that met the the criteria and provided enough material to actually do all the essential analysis.

The first one is a Norwegian project called 'Vindmollebakken', by Helen&Hard Architects. This co-living arrangement consists of a variety of private dwellings surrounding a semi-public outdoor courtyard and an assemble of indoor, collective spaces. Different levels of collectivity and privacy can be found throughout the project, giving the residents the opportunity to live in a direct living environment they prefer, together with likeminded neighbours.

The second project is located in Vienna and is called 'Zwei+plus', by Trans_city Architects. Four comparable building blocks are placed in a way that they create semi-enclosed, green courtyards together with collective gardens and playing areas. Most of the collective functions are located on the ground floor; examples are assisted living for elderly, a common house/café and a kindergarten with playground. Residents settle in this project as pairs, resulting in a community with mutual support and company, where there is always someone familiar close-by.

Literature and general practical preference

Our fieldwork findings and conclusions from the stay at nursing home Huis Assendorp function as a precedent; the first experience in the concerned environment of the elderly during the graduation project.

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Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

'Dwelling' or 'Housing' is a section within the larger field of 'Architecture' and its master track and programme. In this graduation project, a specific concept regarding the housing for elderly (and other generational groups) will be researched. One of the project goals is to design an environment in which the elderly can receive care and live independently, integrated and connected with other groups from society; 'Designing for Care in an Inclusive Environment'.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

Especially in this time of ageing and an increasing housing shortage (including proper homes for the elderly), architectural concepts and typologies need to be designed and further developed to house multiple groups of people from society who are looking for a home. The different generational groups all have their own experiences, ideas, skills and knowledge with which they could enrich one another. In this way the elderly will no longer be excluded from society, but they will become more integrated in the system and they will be able to fulfil a role within it as well. 'Multi-generational housing' is not an unknown topic, but usually it deals with 'multiple generations within one household or family'. This graduation work will explore this living concept on a bigger scale; the scale of society (a region, city or neighbourhood), attracting a larger span of target groups with a prominent role for the elderly in need of care.

