

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	Jordy de Rouw
Student number	1534378

Studio		
Name / Theme	Advanced Housing Design, AR3AD100 (Dutch Housing)	
Main mentor	T.W. Kupers	Architecture
Second mentor	F. Adema	Architectural Engineering
Third mentor	A. Kockelkorn	Architecture, Dwelling
Argumentation of choice of the studio	A large part of the build environment consists of dwellings and at the same time everyone lives somewhere, and everybody has ideas on how to dwell. As a future architect I think it is an important part of the job to know how to design a residential building and how to achieve good quality housing. I want to use this graduation studio to further deepen my knowledge and refine my design process to be able to create good quality residential buildings.	

Graduation project	
Title of the graduation project	Growing Up & Growing Old in the City. Intergenerational living in a residential urban complex.
Goal	
Location:	Merwehaven, Rotterdam
The posed problem,	[Problem Statement]
The current housing stock in the cities no longer fits well with the demands of families nor the elderly citizens. Therefore, apart from building more houses we need to figure out what type of houses are needed. To do this it is important to take a closer look at the changing life trajectories, identities, and societal need of these groups to understand what has changed and to come up with new schemes, types and methods of dwelling design that fit better with their current lives.	
research questions and	[Research Question]
Main question	
What are the changing life trajectories, identities and societal needs of elderly citizens and families with school aged children? How can housing design answer these needs and incite a positive rewarding encounter for both groups?	
Sub questions	

- How can housing design support elderly people to remain autonomous while living at home as long as possible and how can it cater to those that might desire a more communal way of living?
- What are the daily routines and use patterns of elderly people living in a dense urban setting and what formal and functional features of the building and the urban surrounding can support them?
- What are the daily routines families with school going children living in a dense urban setting and what functions in the building and in the urban surrounding can support them with raising the kids?
- How to design for a multitude of modern family compositions, and how to do this in a way that is flexible enough that it can accommodate change in composition but also in lifestyle as the kids grow older?
- What are the similarities between elderly and families with children when it comes to living requirements and what are the main differences on the scale of the neighbourhood, building block and dwelling?

design assignment in which these result.

[Design Assignment]

Main question

How to design a residential urban courtyard block in the Merwehavens in Rotterdam for families with kids and elderly citizens in such a way that they can benefit from each other and can form communities while minimizing the potential nuisance caused by different lifestyles?

Sub questions

- What are the different types of dwellings needed for elderly citizens and families with children regarding size, organization, autonomous living, and flexibility?
- How to organize these dwellings in a courtyard block while keeping into account solar orientation & daylight entry, view and stacking of structure and installation shafts.
- What type of circulation systems would be good for accessing dwellings in a courtyard block while at the same time allowing for encounters between neighbours and a good connection to the collective and public spaces?
- What public and collective functions would suit the need of families and elderly citizens in an urban block? What size should they have and where should they be placed in the building?
- What is a good way to integrate green outdoor spaces into a courtyard block?

Process

Method description

For the research I will use two methods: literature research and case study analysis. For the literature research I will make use of news articles, journal articles, reports and books. For the case studies plan drawings and images that are made available by the different firms that designed the projects will be used. Also, I will look at written explanation of the building either from the architects themselves or from different project reviews.

The first part of the literature research will be the introduction in which news articles and reports are used to show the current relevance and urgency the topic. Also included will be research conducted by architects from different firms in which they looked at how different families and elderly citizens live in the city and used this information to come up with different design concepts that can be implemented during a design project. In this part it is crucial for the reader to understand why there is a real necessity to improve upon the way we build for elderly citizens and families in the city and what the benefits of doing this in an intergenerational building block can be.

For the second part of the literature research the goal is to further define the user groups in this case the elderly and the families, defining their challenges and defining their needs on the scale of the neighbourhood, the building block, and the dwelling.

The third part will consist of case study analysis. This part will focus on plan analysis of four selected case study projects. This analysis will result in conclusion drawings that show the main principles of the projects in order to compare them to each other to find out what are the differences and similarities and to be able to notice trends between the buildings.

Literature and general practical preference

Vision & Household prognosis Rotterdam

Municipality of Rotterdam, afdeling Onderzoek en Business Intelligence. 2018.

Bevolkingsprognose Rotterdam 2018-2035. Policy note, Rotterdam: Municipality of Rotterdam.

Municipality of Rotterdam. 2020. *Nieuw Rotterdams Kwaliteitsbeleid Wonen: Nieuwbouw en transformatie*. Policy note, Rotterdam: Municipality of Rotterdam.

Municipality of Rotterdam. 2020. *Vuistregels bouwen in de Stadswijken van Rotterdam*. Policy note, Rotterdam: Municipality of Rotterdam.

Elderly & living at home longer

Aanjaagteam Langer zelfstandig wonen. 2016. "Van tehuis naar thuis, Hoe is te bevorderen dan mensen zelfstandig kunnen (blijven) wonen?"

ANA architects. 2017. *Ouderen wonen in de stad, Aandachtspunten voor het ontwerp in de ouderenhuisvesting*. Brochure, Amsterdam: Municipality of Amsterdam.

Doekhie, K. D., Veer, A. J. E., Rademakers, J. J. D. J. M., Schellevis, F. G., & Francke, A. L. 2014. *Ouderen van de toekomst verschillen in de wensen en mogelijkheden voor wonen, welzijn en zorg : overzichtstudies*. Utrecht: Nivel.

Heren 5 Architects. 2016. "Stadsveteranen." Amsterdam.

Melchior, M. 2013. "Omringd met vertroetelzorg." De Volkskrant newspaper, March 2 2013.

Ministry of Health, wellbeing and sports. 2018. *Programma, Langer Thuis*. Policy note, The Hague: Central government.

Municipality of Rotterdam. 2018. *Samenwerking Agenda Rotterdam, Ouder en Wijzer*. Policy note, Rotterdam: Municipality of Rotterdam.

Municipality of Rotterdam. 2019. *Uitvoeringsprogramma Rotterdam, Ouder en Wijzer*. Policy note, Rotterdam: Municipality of Rotterdam.

Elderly with migration background

Pharos. 2014. *Wie zorgt voor oudere migranten?: De rol van mantelzorgers, sleutel figuren, professionals, gemeenten en ouderen zelf*. Utrecht: ADMercurius.

Pharos. 2017. *Zo lang mogelijk zelfstandig en gezond in de eigen wijk*. Utrecht: Pharos.

Zorgsaam wonen. 2021. *Thuiskomst: Wonen, zorg en welzijn voor ouderen met een migratieachtergrond*. Zwolle: Zorgsaam wonen.

Children & Families

ANA architects. 2019. *De Kindervriendelijke stad: hoe stadsgezinnen willen wonen*. Amsterdam: bpd.

ANA architects. 2017. *Family Plan: stadswoningen voor gezinnen*. Amsterdam: bpd.

Heren 5 Architects. 2010. "Het gezin in de stad." Amsterdam.

Karsten, Lia, and Naomi Felder. 2016. *De nieuwe generatie stadskinderen*. Rotterdam: nai010.

Keesom, Jolanda. 2013. *Nestelen in de stad: Appartementen voor gezinnen*. Amsterdam: BNA.

Kennisplatform Verkeer en Vervoer. 2008. *Inspiratie voor kindvriendelijke wijken: Bewegen, verplaatsen en spelen*. Rotterdam: KpVV.

Municipality of Rotterdam, City development. 2017. *Eengezinsappartement, Een gesprek tussen stadmakers. Gestapeld wonen voor gezinnen in de stad?* Rotterdam: Veenman+.

Laarman, Koen, and Frank van Dam. 2018. "Waar willen jonge gezinnen wonen?" *Demos 34* (7): 4-7.

Municipality of Rotterdam. 2015. *Open oproep Gezinsappartementen*. Competition, Rotterdam: Municipality of Rotterdam.

Municipality of Rotterdam, Onderzoek en Business Intelligence. 2016. *Kindvriendelijkheid in Rotterdam en in de Kansrijke wijken: Monitor Rotterdam Kindvriendelijk 2016*. Policy note, Rotterdam: Municipality of Rotterdam.

Municipality of Rotterdam, youth, education, society. 2009. *Bouwstenen voor een kindvriendelijk Rotterdam*. Policy note, Rotterdam: Municipality of Rotterdam.

Social and Behavioural sciences

Fitzpatrick, Anne. 2013. *Together Old and Young (TOY): A Review of the Literature on Intergenerational Learning Involving Young Children and Older People*. Dublin: Arrow@TU Dublin.

Intergenerational case study projects

Schittich, Christian, ed. 2007. *Housing for People of All Ages: Flexible, Unrestricted, Senior-Friendly*. München: Birkhäuser .

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)?

The relation between the graduation topic, the studio and the master track is the following. I am in the Architecture master track in the studio for Advanced Housing Design. The studio focuses on doing research and design into residential buildings. For my personal theme I will do research followed up by design for an intergenerational residential urban complex. This will result in a building block for elderly citizens and families. This topic fits well within the studio and the master track.

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

Intergenerational living is an up-and-coming topic. Within the field of architecture there is a lot of research to be found on how to design for elderly people and also how to design for families but the mixing of these two specific target groups is something that is not yet seen often in the Netherlands.

As it becomes more important for cities to be inclusive, a good building design can be important to serve as a bridge between different generations, to avoid alienation between different groups and to allow exchange of information and values in order to create mutual understanding.

How to integrate these groups into a building and also figuring out what functions they can share and how to stimulate community forming between different generations is something that has just started to be explored. So, this research could contribute to filling a gap in architectural knowledge on how to combine the families with children and elderly in one building.