Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Name	Renske de Meijer 4281462
Student number	
Telephone number	
Email address	Designing For Care
	Birgit Jürgenhake	Architecture Paddy
Studio	Tomesen	Building Technology Mo
Main metor	Sedighi	Architecture
Second mentor	Petra Diesfeldt
Third mentor	
Ext. commission	

Table of Contents

1. Studio Designing for Care

1.1 Introduction

The studio 'Designing for Care – towards an Inclusive Living Environment' engages with the living environment of elderly that are in need of care. Existing structures and neighbourhoods are often not adequate for housing this growing frail, often less mobile group. This, together with a shift from institutional buildings to informal support networks ask for new concepts regarding the housing of the elderly. New concepts in which the elderly are again part of society, where support is given by neighbours if possible instead of professional caretakers and where they can live as independent as possible.

1.2 Argumentation of choice of the studio

For me, the graduation studio Designing for Care was an opportunity to do a studio that works in close collaboration with a real care and housing association, Habion, and involves not only architecture but also anthropological studies. During my studies I missed the realness of projects and the feeling of doing something for someone. With this graduation studio I get to explore a topic that is very much human centred and focusses on a vulnerable group that relates to and is the prospect of all of us.

2. Graduation project

Exploring generous reciprocity: the act of giving as a means to reinvent life´s second half home.

Location: Hilversum

2.1 The posed problem

Our society has to cope with a growing amount of elderly and less young people to take care of them. The existing buildings and neighbourhoods often do not meet the needs and wishes of this growing group. No-one looks forward to the prospect of having to spend the rest of their days in an elderly home.. But why is that?

An ethnographic research into the daily lives of residents in an elderly home has brought to light the deprived independence of the residents. The elderly are willing to do things, talk to others and to go outside, but are often not able to do so because of the way things are organized, their fixed schedules and the way the building and neighbourhood are designed. It means a loss of their independence, resulting in being lived, instead of choosing how to live.

Literature stresses the importance of independence for intrinsic motivation in life, and motivation for participation. In fact, the feeling that people have a free choice, that they can be sociable if they like to, but that it is also okay if they retreat, will make them more likely to interact. Two other notions important for this intrinsic motivation are relatedness and competence. Independence, the state of being free from the control of others, like autonomy, is directly related to competence, which is about mastering skills and the ability to execute certain tasks, leading to the feeling of contribution and thus the feeling of still being "of use". Relatedness is being connected to others. Making contact with others and being able to interact has been proven to be important for staying engaged and prevent loneliness.

While these notions turn out to be essential, the ethnographic research showed that all three are impeded in elderly homes resulting in passive elderly and the prevailing stigma around those homes. How can we break the stigma around elderly homes so everyone has something to look forward to?

2.2 Research question

How to translate the intertwined relationship between independence, relatedness and competence to a spatial design that creates an inclusive community for elderly?

(for an extensive overview of all questions see the appendix)

2.3 Design assignment

To be able to house the future generations, things have to change. The goal is to design a place where elderly with and without care can live together with others, which takes into account the wishes and needs of elderly and gives them something to look forward to. A place that does not exclude elderly from society, but makes them part of it again. One that stimulates them, encourages them to participate and contribute, enjoy, laugh. In which people look after each other and take care of each other. A social net. A place they can transfer their knowledge gathered throughout life. Tell their stories. And one in which they can in turn learn from others. A community based on generous reciprocity.

3. Process

3.1 Method

Throughout the project, research plays an important role. The studio started with small exercises to get to know a new field of research: anthropology. Later, the anthropological research methods learned were applied in a fieldwork week, in which I slept in an elderly home for one week, observing the daily lives of the elderly. The methodology applied during this week is called ethnography, which is about studying a group and its rituals. The usual product of an ethnographic research is a written text. Since the architectural language is a visual one, instead of a written text, the observations were made visual, resulting in anaytical drawings. The observations, but also conversations lead to the first design guidelines. Literature, studying existing theories, questionnaires and case studies have been used to validate, reinforce and expand these guidelines.

Staying in a place where elderly live, being part of their lifes for one week and doing the same things, gave me the opportunity to really dive into their rituals and daily lives. Having this experience and knowledge is so valuable as a designer. It gives me the chance to really ground my design and take well-considered decisions.

Because of the multiplicity of the topic, different research methods at different stages have been and will continue to be combined. An overview can be found in the appendix.

3.2 Literature

Sociology
Blokland, T. (2008). *Ontmoeten doet er toe*. Rotterdam: Vestia
Gehl, J. (2011). *Life between Buildings: Using Public Space*. Washington: Island Press.
Hillcoat-Nallétamby. S. (2014). The meaning of "independence" for older people in different residential settings. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 69*(3), 419–430.
Sennet, R. (2018). *Building and Dwelling: Ethics for the City*. London: Penguin Books Ltd.

Collective Living
De Visscher, L. Devoldere, S. & Totté, P. (Ed.). (2019). Special Edition: Collective Housing. *A+, 280.*
Müller, M. (2017). *Together! The New Architecture of the Collective*. Berlin: RUBY PRESS.
Schmid, S. (2019). *A History of Collective Living: Forms of Shared Living*. Basel: Birkhäuser

Architecture
Feddersen, E. & Lüdtke, I. (2014). *Lost in Space: Architecture and Dementia*. Basel: Birkhäuser.
Hertzberger, H. (2005). *Lessons for Students in Architecture*. Rotterdam: 010 Publishers.
Ligtelijn, V. & Strauven, F. (2008). Aldo van Eyck Writings: Collected Articles and Other Writings 1947-1998. Amsterdam: SUN Publishers.
Mah, D. & Villoria, L. (2016). *Lifestyled: Health and Places*. Berlin: Jovis.
Van der Wilt, H. (2016). *De Invloed van de Relativiteit op de Architectuur van Aldo van Eyck*. http://harmenvanderwilt.nl/wp-content/uploads/2017/11/HAUDpaper3HarmenvanderWilt.pdf
Van Eyck, A. (1960). De Milde Raderen van de Reciprociteit. *Forum, 6/7*, 205-206.
Van Eyck, A. (n.d.). Niet om het even: van en over Aldo van Eyck. Amsterdam: van Gennep bv.

Intergenerational Care
Hernandez, C. & Zubiaur González, M. (2008). Effects of Intergenerational Interaction on aging. *Educational gerontology, 34.* 292-305. Https://doi.Org/10.1080/03601270701883908.
Knight, T., Skouteris, H., Townsend, M. & Hooley , M. (2014). The Act of Giving: a Systematic Review of Nonfamilial Intergenerational Interaction. J*ournal of Intergenerational Relationships, 12*(3), 257-278. Doi:10.1080/15350770.2014.929913
Morita, K. & Kobayashi, M. (2013). Interactive Programs with Preschool Children bring Smiles and Conversation to older Adults: Timesampling Study. *BMC Geriatrics, 13,* 111.
Reisig, C. N., & Fees, B. S. (2007). Older Adults' Perceptions of Well-being afterIntergenerational Experiences with Youth. *Journal of Intergenerational Relationships, 4*(4), 6-22.
Ryff, C. (1995). Psychological Well-Being in Adult Life. *Current Directions in Psychological Science, 4*(4), 99-104.
Somers, a. (2019). *The Intergenerational Programme at Nightingale House: a Study into the Impact on the Well-being of Elderly Residents*. London: Nightingale Hammerson Trustee Company Limited

Location
Gemeente Hilversum. (2005). *Het Boombergpark te Hilversum. Verleden, heden en toekomst van een monumentaal wandelgebied*. Hilversum: Uitgeverij Verloren.

4. Reflection

4.1 Relevance and relation to education
We cannot deny that our society is aging. It is a problem that concerns and affects all of us. How are we going to take care of them? There will also be a point that you yourself will become old. How do you want to live then? How can we try to design the environment in such a way that it can cope with this growing group of care demanding elderly? Can we design in in such a way that less professional care is needed? That we live healthier so we get older with a smaller care demand?

As an architect, it is an opportunity to think not only about the next generation, but also about my own future. About everyone's future actually. People forget how big the impact of the built environment can be. It is a challenge, but one I eagerly accept.

Wie zal straks ónze billen wassen?
Ouderenzorg is volledig uitgekleed
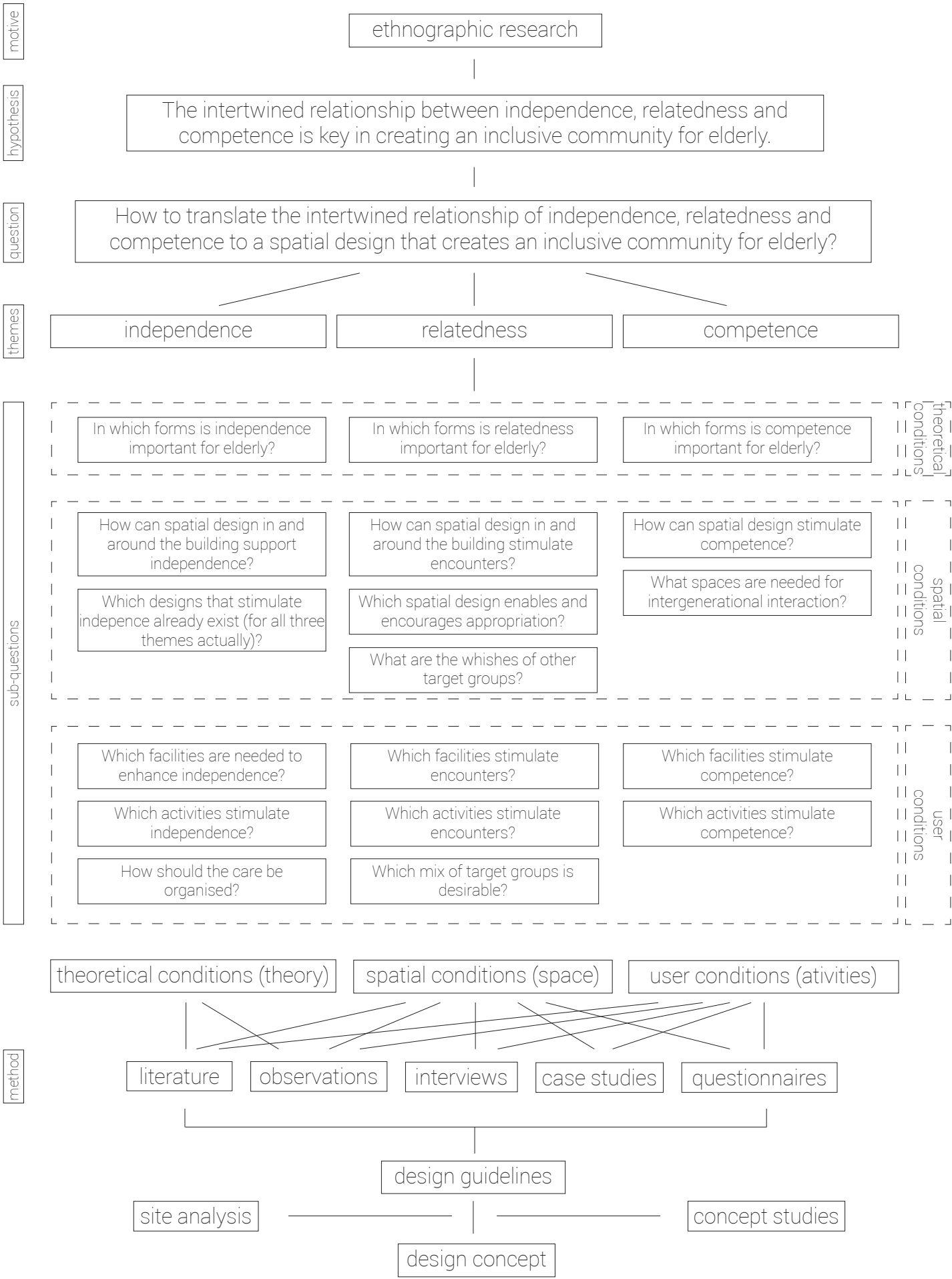NRC Nov 2019

31 mrt. | Binnenland
Oudere verdient betere zorg
Telegraaf Mar 2019

PREMIUM   01 okt. | Binnenland
Aantal 80-plusser explodeert komende jaren
Telegraaf Oct 2019

Appendix

motive

ethnographic research

hypothesis

The intertwined relationship between independence, relatedness and competence is key in creating an inclusive community for elderly.

question

How to translate the intertwined relationship of independence, relatedness and competence to a spatial design that creates an inclusive community for elderly?

themes

independence	relatedness	competence

sub-questions

theoretical conditions

In which forms is independence important for elderly?	In which forms is relatedness important for elderly?	In which forms is competence important for elderly?

spatial conditions

How can spatial design in and around the building support independence?	How can spatial design in and around the building stimulate encounters?	How can spatial design stimulate competence?
Which designs that stimulate indepence already exist (for all three themes actually)?	Which spatial design enables and encourages appropriation?	What spaces are needed for intergenerational interaction?
	What are the whishes of other target groups?	

user conditions

Which facilities are needed to enhance independence?	Which facilities stimulate encounters?	Which facilities stimulate competence?
Which activities stimulate independence?	Which activities stimulate encounters?	Which activities stimulate competence?
How should the care be organised?	Which mix of target groups is desirable?	

theoretical conditions (theory)	spatial conditions (space)	user conditions (ativities)

method

literature	observations	interviews	case studies	questionnaires

design guidelines

site analysis — | — concept studies

design concept

tutorial
week 1 - 12

questions

How can nonfamilial intergenerational care improve the well-being of elderly and children, while at the same time responding to the shortages by combining their care?

method

Studying literature and a case study to dig into the state of the art of intergenerational care programs

conclusion

Well constructed programs that are about giving and receiving, that pay equal attention tothe elderly and children, take into account the abilities of the elderly and provide enough staff contribute to **less loneliness, reduced depressions, more physical activity, less thinking about pains, the feeling of being connected and useful and cognitive stimulation for elderly and being less scared of growing old, more understanding towards the elderly and more self-confidence for children**, all improving what defines well-being according to literature.

literature

Hernandez, C. & Zubiaur González, M. (2008). Effects of Intergenerational Interaction on aging. *Educational gerontology, 34.* 292-305. Https://doi. Org/10.1080/03601270701883908.

Knight, T., Skouteris, H., Townsend, M. & Hooley , M. (2014). The Act of Giving: a Systematic Review of Nonfamilial Intergenerational Interaction. J*ournal of Intergenerational Relationships, 12*(3), 257-278. Doi:10.1080/15350770.2014. 929913

Morita, K. & Kobayashi, M. (2013). Interactive Programs with Preschool Children bring Smiles and Conversation to older Adults: Timesampling Study. *BMC Geriatrics, 13,* 111.

Reisig, C. N., & Fees, B. S. (2007). Older Adults' Perceptions of Well-being afterIntergenerational Experiences with Youth. *Journal of Intergenerational Relationships, 4*(4), 6-22.

Ryff, C. (1995). Psychological Well-Being in Adult Life. *Current Directions in Psychological Science, 4*(4), 99-104.

Somers, a. (2019). *The Intergenerational Programme at Nightingale House: a Study into the Impact on the Well-being of Elderly Residents.* London: Nightingale Hammerson Trustee Company Limited [case study]

fieldwork
week 3 - 11

questions

What does the daily life of elderly look like? How is their living environment designed?

method

Ethnographic research. 2 short visits to and one entire week staying in an elderly home to observe their behavior, talk to them, interact with them, etc.
- participant observations
- interviews
- sketches

conclusion

The way the care is organised, the fixed schedules of the residents that need care, their immobility and the lack of choice results in elderly that are being lived in stead of living their lives themselves. It is mainly their **independence** that is the victim of this.

literature

Lucas, R. (2016). *Research Methods for Architecture.* London: Laurence King Publishing Ltd.

theory
week 7 - 11

questions

In which way is independence important in the lives of elderly?

method

Studying literature to check if my observations are and can be grounded.

conclusion

Literature confirms the loss of independence is a recurring problem in elderly homes. Because of this elderly become passive even faster, which will influence their well-being. They mention the combination of **independence, relatedness and competence** as conditions for well-being and intrinsic motivation for life, which is often missing in the lives of elderly.
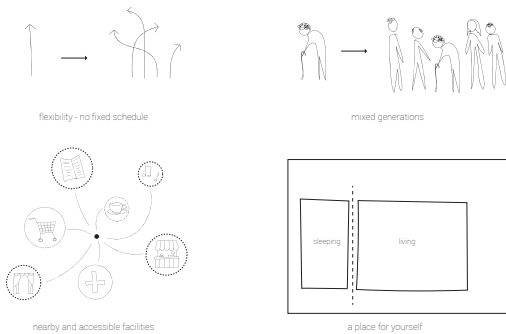
literature

Ryan, R. & Deci, E. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist, 55*(1), 68-78

Hillcoat-Nallétamby, S. (2014). The Meaning of "Independence" for Older People in Different Residential Settings. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 69*(3), 419–430
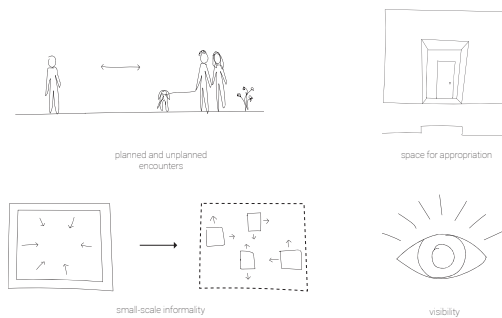
conclusions

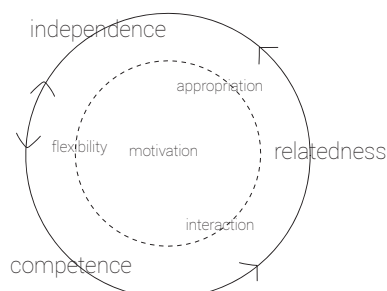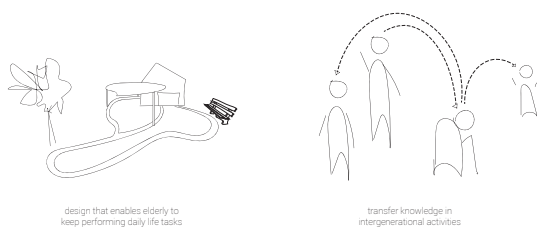### independence
the state of being free from the control of others

flexibility - no fixed schedule

mixed generations

nearby and accessible facilities

sleeping | living

a place for yourself

relatedness
a particular manner of connectedness

planned and unplanned encounters

space for appropriation

small-scale informality

visibility

competence
the ability to do something successfully

design that enables elderly to keep performing daily life tasks

transfer knowledge in intergenerational activities

independence

appropriation

flexibility   motivation   relatedness

interaction

competence

---

location
week 12 - 17

questions

What are the neighbourhood's characteristics?
Which facilities are there?
What opportunities are there?

method
- observations
- sketches
- photographs
- studying official documents about demographics

conclusion

The neighbourhood Boomberg, Hilversum is a quiet **residential area** with mainly villa's. The city centre is at 10 mins walking and is also the nearest place that has facilities like a supermarket. A characterising element is the **monumental Jan van Ravenswaaypad** that is designed by Dutch painter Jan van Ravenswaay in the 19th century and runs through the design site, conneting it to the Boombergpark and the Corversbos. It is home to a big veriety of plants and animals and has protected value.

literature

Gemeente Hilversum. (2005). *Het Boombergpark te Hilversum. Verleden, heden en toekomst van een monumentaal wandelgebied.* Hilversum: Uitgeverij Verloren.

---

target group
week 13 - 20

questions

How do you want to live when you are old?

method

Informal conversations with family and friends and the development of a questionnaire to find out what it really is that people, not only the current elderly, but also the future elderly (aged 30 - 85), find important.

conclusion

Results show people really value their independence, in being able to choose what to do at what time. They also say to be willing to do quite some stuff for others: they are **willing to give** (time, affection, knowledge, experience, etc.) They are open to **shared living** to a certain level, prefer living with **mixed ages, like-minded** and preferrably with **partner**. Important are **facilities** and **green** nearby and **staying active**.

concept development
week 7 - 11

questions   *How to translate the intertwined relationship between independence, relatedness and competence to a spatial design that creates an inclusive community for elderly?*
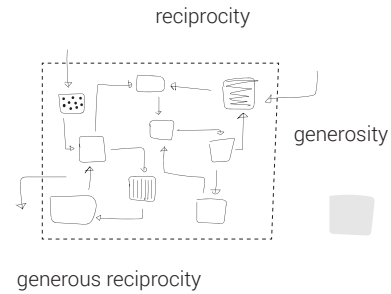
method   Exploratory research into my own material.

conclusion   The intertwined relationship between independence, relatedness and competence seems to be reinforced by the principle of **reciprocity**. Reciprocity is the mutual act of giving and affects all three notions. Since these indispensible notions are inextricably linked, the reinforcement of them will only result in more reinforcement of the whole. Since a lot of the outcomes of my research are about giving in some sort of way, it seems a logical concept to built upon.

exploratory research
week 16 - 20

questions   *What is reciprocity? How to deal with reciprocity in architecture?*

method   Studying literature that contains existing theories about reciprocity to find possible architectural design guidelines.
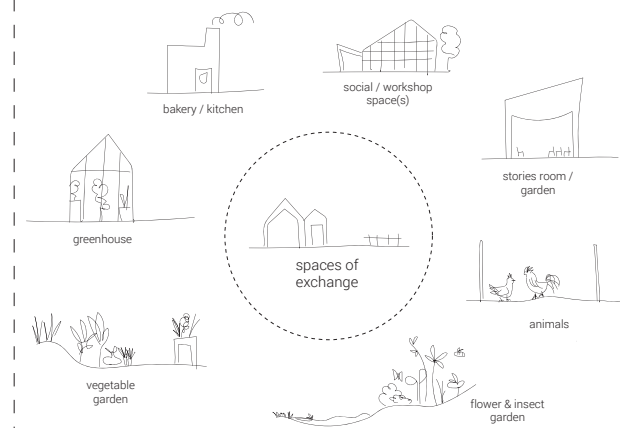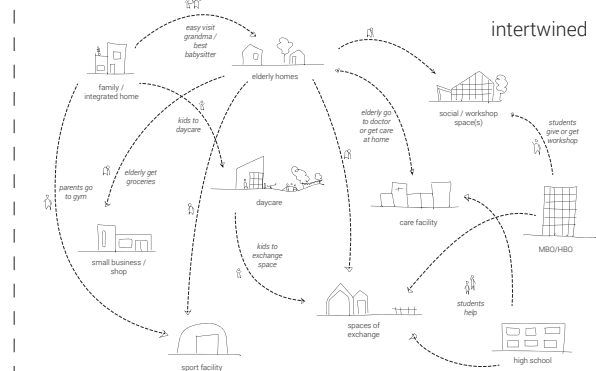
conclusion   Aldo van Eyck has written about reciprocity. The core of his story is about **twin phenomena**, like open - closed, part - whole, individual - collective, outside - inside, simplicity - multiplicity, etc. These twin phenomena cannot be seen seperately, because their power lies in their unity. Equally using them in a well-considered balance to achieve **diversity trough unity.** By allowing polarities to coexist, no physical centre is needed, it will arise in between.

literature   Van Eyck, A. (1960). De Milde Raderen van de Reciprociteit. *Forum, 6/7*, 205-206.

Van der Wilt, H. (2016). *De Invloed van de Relativiteit op de Architectuur van Aldo van Eyck.* Harmenvanderwilt.nl

Ligtelijn, V. & Strauven, F. (2008). Aldo van Eyck Writings: Collected Articles and Other Writings 1947-1998. Amsterdam: SUN Publishers.

concept

reciprocity

generosity

generous reciprocity

intertwined

easy visit grandma / best babysitter

family / integrated home

elderly homes

kids to daycare

elderly go to doctor or get care at home

social / workshop space(s)

students give or get workshop

parents go to gym

elderly get groceries

daycare

care facility

MBO/HBO

small business / shop

kids to exchange space

spaces of exchange

students help

high school

sport facility

bakery / kitchen

social / workshop space(s)

stories room / garden

greenhouse

spaces of exchange

animals

vegetable garden

flower & insect garden

. . .

method and planning until P4

personal fascination
doing something for someone,
helping a vulnerable group

social context
growing amount of elderly,
decreasing amount of young
people to take care, insufficient
housing

fieldwork Zwolle
staying in an elderly home for
one week, diving into the daily
lifes of the elderly to find their
rituals

tutorial research
state of the art elderly housing
with intergenerational care

literature study
grounding observations with
existing theories

come back day Zwolle
checking previous observations
and interviews

problem statement + research question

P1
nov 2019

location analysis
spatial qualities, historical
elements and demographics of
the neighbourhood Boomberg
Hilversum

exploratory research
studying literature and own
material to find essence and
overall concept

target group
questionnaire to find whishes of
current and future generations
based on design themes of
independence, relatedness and
competence

case studies
study examples of new style
elderly housing

design guidelines
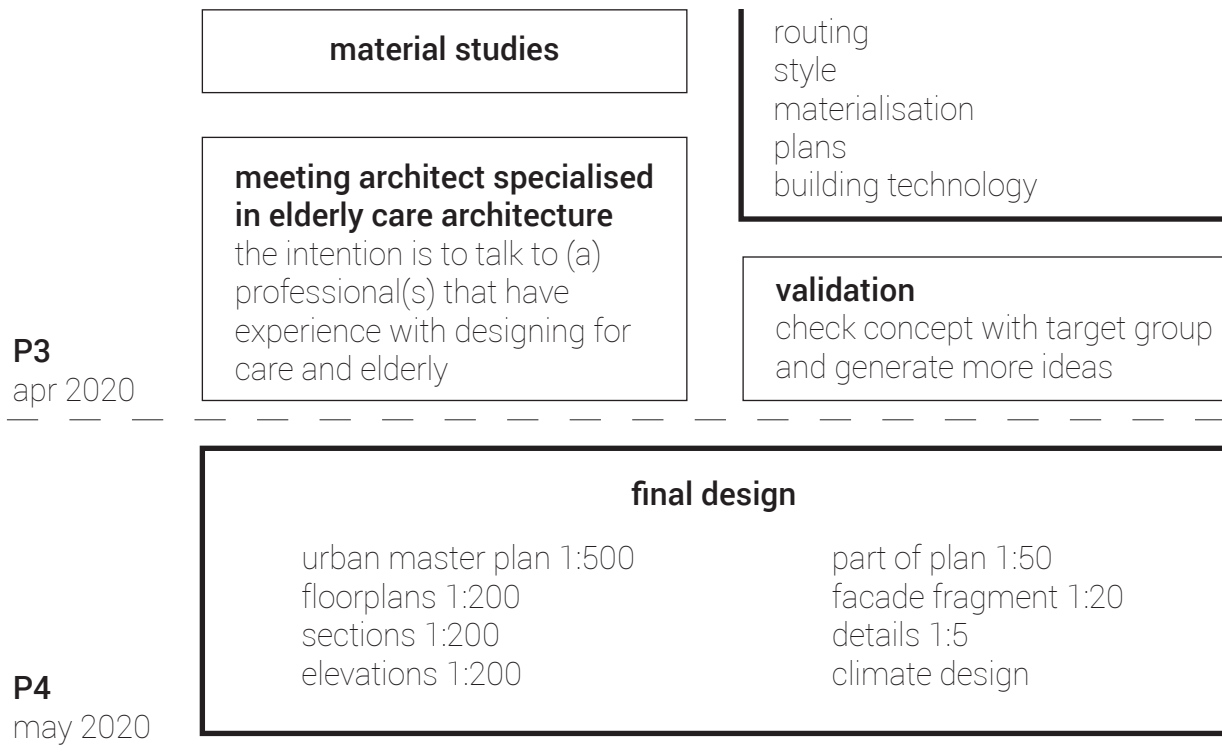
abstract concept / design brief

mass studies

concept design
urban masterplan 1:500
spatial organisation
first design sketches
.....

program of requirements

P2
jan 2020

	material studies	routing style materialisation plans building technology
P3 apr 2020	**meeting architect specialised in elderly care architecture** the intention is to talk to (a) professional(s) that have experience with designing for care and elderly	**validation** check concept with target group and generate more ideas

P4
may 2020

final design

urban master plan 1:500	part of plan 1:50
floorplans 1:200	facade fragment 1:20
sections 1:200	details 1:5
elevations 1:200	climate design

Products
These products are based on the graduation manual.

P2   16 Jan
· graduation plan
· conclusions research leading to concept
· urban draft / master plan 1:500
· program of requirement
· draft design (plans, sections, elevations) 1:500 / 1:200

P3   08 Apr
· draft reflection
· plans, facades, cross-cuts, 1:200
· part of the building, plan and cross-cut 1:100
· façade fragment with hor. and vert. cross-cut 1:20
· set up details 1:5

P4   20 May
· theoretic and thematic support of research and design
· final reflection on architectonic and social relevance
· site 1:5000 / 1:1000
· plan ground level 1:500
· plans elevations, sections 1:200 / 1:100
· part of the building, plan and drawings 1:50
· façade fragment 1:20
· details 1:5