

JOY

'Joining Old and Young'

Research book

Preface

As the last part of my Master of Science in Architecture at TU Delft, I decided to work on a social topic that is possible within this study. The graduation studio "Designing for Care -Towards an inclusive living environment ", offered me an opportunity to actually do something within the field of architecture with a social aspect. The topic focuses on something that we will all have to deal with at some point: How do we want to live when we are old? A difficult, yet crucial question that will have to be answered. From my environment I know that the current elderly homes are not praised as a happy destination for the elderly. The elderly prefer to stay in their familiar neighborhood where they lived all their lives. At some point, however, the living environment no longer meets the needs of the elderly and they see the retirement home as final destination. As architects, we can change that.

When designing for a specific focus group, it is important to understand their wishes and needs. Within this research, a fieldwork was done in which the focus group was observed from a close perspective. This provided a lot of useful information about the focus group we are designing for. Therefore I can say the fieldwork is a main key factor within this graduation studio. And helped us a lot in the research and design proces.

Of course I could not have managed all this alone and I had a lot of support from my beloved ones. First of all, I want to thank my family, the most precious of my life, who helped me through all the difficult times with encouragement and motivation. Especially my thanks go to my mother, who is always positive minded and is always there for me. My father who has supported me all my life and always encourages me in everything I do. And of course my brother, who has always been a role model for me and manages to make me smile in every situation.

Also I want to thank my supervisors: Olindo Caso and Pierre Jennen, who believed in me and my special interest and guided me during this period. They helped me enormously during this graduation process.

Last but not least, I want to thank the Almighty who made it possible to reach this special point in my life. With the intention and hope that in this life I can leave something valuable and useful for the vulnerable and needy in this world.

Reading Itinerary

This report is a collection of my research done during my graduation process. It is divided into four main parts. The part (chapter 1) will introduce my motivation for this topic and the research question of this study. The second part (chapter 2 and 3) discusses the anthropological studies conducted within this study, in particular the fieldwork that has been done. The outcomes of these anthropological researches forms a starting point for the research. In the following (chapter 4) part it goes deeper into the personal topic, which looks at the topics of social interaction and intergenerational living related to the research question of this report. Finally, in the last part, design tools are formulated that follow from the research. These will be used during the design process. The outcomes will be presented in the 'Design Booklet'.

Colophon

Delft University of Technology
The MSc Architecture, Urbanism and Building Sciences
MSc3 / 4 Dutch Housing Graduation Studio 2022|2023
AR3AD110- Dwelling Graduation Studio: Designing for Care in an Inclusive Environment

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I . I n t r o d u c t i o n

1.1 Motivation

I believe that as an architect we can have a big impact on people's lives. After all, we have a major influence on shaping our society. We shape how we live, in other words we define the living environment that more or less meets the requirements and wishes of the users. However, the social aspect is not always visible in the design process, what exactly does the user want? and what will it be like for them to use the building in the future? We are quickly inclined to make assumptions for the chosen target group, while in reality not always everything works as well as we expected. It is therefore very important to empathize with the user and listen to his / her wishes and requirements. As architects we can achieve much more when the well-being of the users is kept in mind, and want to improve this through our architectural design. This will also bring multiple benefits, including promoting the social cohesion and social interaction within society.

In the Designing for Care studio, there is an opportunity to focus on this. The social aspect is more visible, a human-centered project is realized. This is also the main reason why I chose for this studio; The idea that you can do something for someone. It is a great opportunity to work together with people and does not only focus on the architectural but also social aspects. I was always interested in working with people, but during my studies I really missed this connection of making something for someone. This studio is really focused on the humanitarian side of architecture and gives the chance to do something for the vulnerable focusgroup in our society.

1.2 Problemstatement

The most challenging issue we are facing today is the increasing amount of elderly (CBS,2019). The aging population will be a big part of our society, so we have to deal with how we accommodate these elderly.

"How do we want to live when we are old" was the main question within this studio. When we ask the upcoming elderly classes today how they want to live in a few years, their biggest fear is ending up in a nursery home. They want to live independently in their own living environment for as long as possible. Even if their home is no longer suitable for them, they are more willing to change it than to move (CBS,2020). When it really is no longer possible, they move to a nursing home, where they can get the necessary help.

Although it is a great opportunity to receive help in these care institutions, most elderly are frightened by the idea of living here. An example is my Oma, which I want to tell more about in a short story on the following page.



‘ A true friendship that never ends ’

I would like to introduce you to my Oma, Grandmother or by her name Corrie Marantika.

And yes, as you might have guessed, I don't look like my grandmother. Although we are not flesh and blood of each other, our bond goes far beyond this.

Oma is actually my neighbor. We've known each other since I was a baby. My family had just moved into a new house next to Oma's. One day, Oma and her husband Jonas came across me and my parents in the apartment building. "Ah, daar hebben we roodkapje!" Jonas said to the baby laying in her basket. And so the story began..

Oma came to the Netherlands when she married her husband Jonas. Because of his job, a marine who travelled a lot for work, Oma usually lived alone. Unfortunately, Corrie and Jonas were unable to have children. Besides her friends and family she had no company. On 17 sept. 1997, she lost her life partner.

Since Corrie had no children of her own, she was always nice and kind to children and their families. Since she lives next door to our apartment, we often had interaction with each other. Small conversations when we left the house or even having a cup of coffee together. She also had a garden in front of our apartmentblock, where we used to sit and garden during good weathers. Every passing child wanted to join us. So we always ended up in nice group gatherings, where we played but also learned a lot from oma.

At a certain moment she started babysitting while my parents were working. These moments were very special to me. She taught me how to read, calculate and play games with me. This helped me a lot during school. We both had a great time during these days, resulting in memories that will last forever.

Oma is becoming less and less mobile these days due to her age, but that doesn't affect our bond. Just like she did when I was younger, I now try to take care of her as much as possible. At least once a week I try to visit her, we drink a cup of coffee together and do groceries. On special days we come together to celebrate and reunite memories.

As long as we can, we will take care of Oma. Our bond goes far beyond than a relationship with a neighbor. To me, Oma is not only a great friend, but also a great life advisor and grandmother who has great value in my life.

Our story is one of the beautiful examples of an intergenerational living environment. Where young and old together take care of each other.



As described in the short story above, Oma has been a widow living on her own for years. The relationship we have built up over the years has ensured that she can still live independently in her current home today. Where she used to be the one who cared and helped us, today we do it for her. The interaction that has taken place has done us both good. She had company and an activity to fill in her spare time, we had someone to learn from. Soon her network expanded, and she had developed a bond with the neighborhood, which has made her known as the Oma of the neighborhood. Today she is still remembered for these intergenerational friendships, and she is truly grateful for that.

Oma's greatest fear is ending up in a nursing home. She sees it as the last station in her life. The idea of living in a building with only elderly does not make her happy. She loves the lively atmosphere in her neighbourhood and has a certain status here. "Everyone knows me here, I can't leave this place" is what she always says. She also still has her social contacts here, which she is afraid of losing in such a situation. Unfortunately, the older she gets, the more physical barriers she will encounter. It will be a pity if her worst fear becomes true one day. To prevent this from happening not only to my Oma, but also to other elderly as well, I think it is time to change this negative perspective.

The image obtained of a nursing home today, can easily be associated with loneliness and isolation. Perhaps the greatest fear is the idea of being forgotten. This idea is relatable when we look at the social image we currently have. People are busy with their careers until their 50-65 years and can enjoy their well-deserved rest after retirement. Because the social circle becomes

smaller after retirement, the elderly have less social contact than before. As a result, the elderly are more stuck at home. The busy life we lead often makes us forget to pay attention to our predecessors. While we can still learn and share knowledge with them. The segregation between the elderly and different target groups in society must disappear. Social interaction with the elderly is fading in our society. Therefore, we must build and design differently to reduce this segregation; the built environment should encourage people to enter into more social relationships in and around their residential building.

How can we change the negative image on elderly housing, where people are not afraid of getting old? How can we create a living environment in which the elderly can still be part of society, without creating segregation? The aim is to create a living environment in which vulnerable elderly people are included instead of removing them from society. A place where they can still socialize and interact with the people from the neighborhood.

This research focuses on these points. Because the studio is people-oriented, we make use of anthropological research. During the first weeks we experienced what it feels like to be weak through various exercises. In addition, we conducted various observations in which we looked at elderly people in the living environment. Finally, we went to a fieldwork week to experience what it is like to live in an elderly home. The following pages will go more in depth about these experiences and the conclusions out of this fieldwork week.

1.3 Relevance

During the fieldwork week in which we observed the daily life of the elderly in a home, it was striking that the elderly have little to social interaction with the younger residents inside and outside their living environment. Besides their relatives who visit them once in a while, they don't have many regular contacts. Older people want to have more contact with people, go outside to make contact, but this is often not possible due to their limitations. This results in unmotivated elderly people who stay indoors all day and are often inactive. As a result, they often have to deal with depression and physical complaints.

The literature of Dupuis- Blanchard emphasizes the importance of social interaction for the elderly. Connecting with others and communicating has been shown to be important factors in staying engaged and avoiding loneliness (Dupuis-Blanchard et al., 2009).

It appears that retirees have a higher risk of depression and loneliness because they are removed from their usual social network (Cacioppo et al., 2006). It takes a lot of time to get used to this new lifestyle in which the usual contacts diminish. This means that most retired elderly people spend their time at home. Over time, opportunities for social interaction are limited by the death of peers or by physical limitations such as immobility that causes loneliness (Pinquart & Sorenson, 2001).

This research provides insight into the importance of the relationship between architecture and the creation of social interaction within and outside the living environment.

Of course it is important that the elderly can decide for themselves whether they would like to have social interaction or not. It is therefore not a problem if they like to stay at home and take their rest. However, when this inactive posture persists, complications can arise. It is therefore important that the options are available and the degree of participation is up to the user.

The literature by Gehl (2001) emphasizes that when there are more options and triggers available, people are more likely to respond. Implementing good planning and strategy in the living environment can support interaction between different generations (Ter, L., Isa, M.H.M., 2020). This will bring mutual benefits for the young and old generations, creating a harmonized and sustainable community (Ter, L., Isa, M.H.M., 2020).

This research provides insight into the importance of the relationship between architecture and the creation of social interaction within and outside the residential environment. How can we design the living environment in such a way that older people have more social interaction, so that they are part of society again?

1.4 Research plan

In this paragraph the main question, sub-questions, definitions and research methods are explained.

Research question:

In this research the following main question is central:

How can architecture encourage and facilitate the social interaction between young & old in the living environment?

Explanation: The idea is that the elderly will be more involved within the society through these social interactions with the younger generations. This will create a more lively surrounding within the elderly's the living environment. To make this happen architecture should support these social interactions among young & old.

Sub questions:

The following sub-questions have been formulated to answer the main research question:

- 1) *What is the importance of social interaction ?*
- 2) *What are types of social interaction ?*
- 3) *How can the living environment promote social interaction ?*
- 4) *What are architectural resources to stimulate social interaction?*
- 5) *What are the benefits of an intergenerational living environment for the elderly?*
- 6) *How can Intergenerational living promote ageing in place?*
- 7) *How can young and old mean something to each other?*

Research Methodology:

The research started with several anthropological exercises. Using anthropological methods, provided a better view on the behaviour of humans. Since the studio is based on humans, and anthropology focusses on the human aspects (physical and cultural), this methodology provided us many options to conduct information about our focus group. It is important to understand the needs and conditions of the focus group, so a proper design can be made that meets their needs.

Humans always tend to have an assumption about people, their behaviour and needs. We are quickly intended to put people in boxes, assuming they have common characteristics. In reality, these characteristics can differ from person to person. Because every individual has their own preferences and needs. Therefore it is important to listen, observe and research the target group before making a decision for the design.

To understand the needs of elderly and the way they are living, we conducted anthropological research through: observations, experiencing with limitations (visual and physical) and fieldwork.

Observing elderly in an objective way provided us a neutral perspective on the focus group. Without making any assumptions we were able to observe their actions in daily life.

Experimenting with physical limitations, allowed us to empathize with the elderly. It is more difficult to create a sense of awareness if you are unable to feel and see what state this person is in. So the exercises of how to feel weak gave us

more insight in these conditions of the elderly people.

The fieldwork gave us the opportunity to observe and get to know the focus group better in detail. During this week we were able to do research in a nursery home. For this research we used methods related to anthropology and sociology. The main tools we used during fieldwork were observations and interviews. Observation of elderly and their daily life, allowed us to gain better insight in their activities and behaviour. Interviews have helped us further with specific questions and helped to validate or reject our assumptions. The outcomes of the fieldwork are visualised by sketches, interviews, tracking and mapping activities. From these researches we were able to draw conclusions that were useful in this project. The experiences from fieldwork also guided us to the personal research direction.

In addition theoretical research is done to gain more information about the research topic. Looking at literature that focusses on previous researches done on intergenerational living and social contact. Also looking at case-studies related to the topic, to gain more information and inspiration for the design.

In order to gain more knowledge about the research topic, multiple methods are used within this research. The methodologies used in this research are explained below.

- **Anthropology:**
Anthropology focusses on the human. This was the main methodology used during this graduation research. Through observations, visuals are made out of these like a soft atlas,

visual essays and sketches of people. By this methodology we will gain more understanding about the lives of elderly, their daily habits, actions and behaviour.

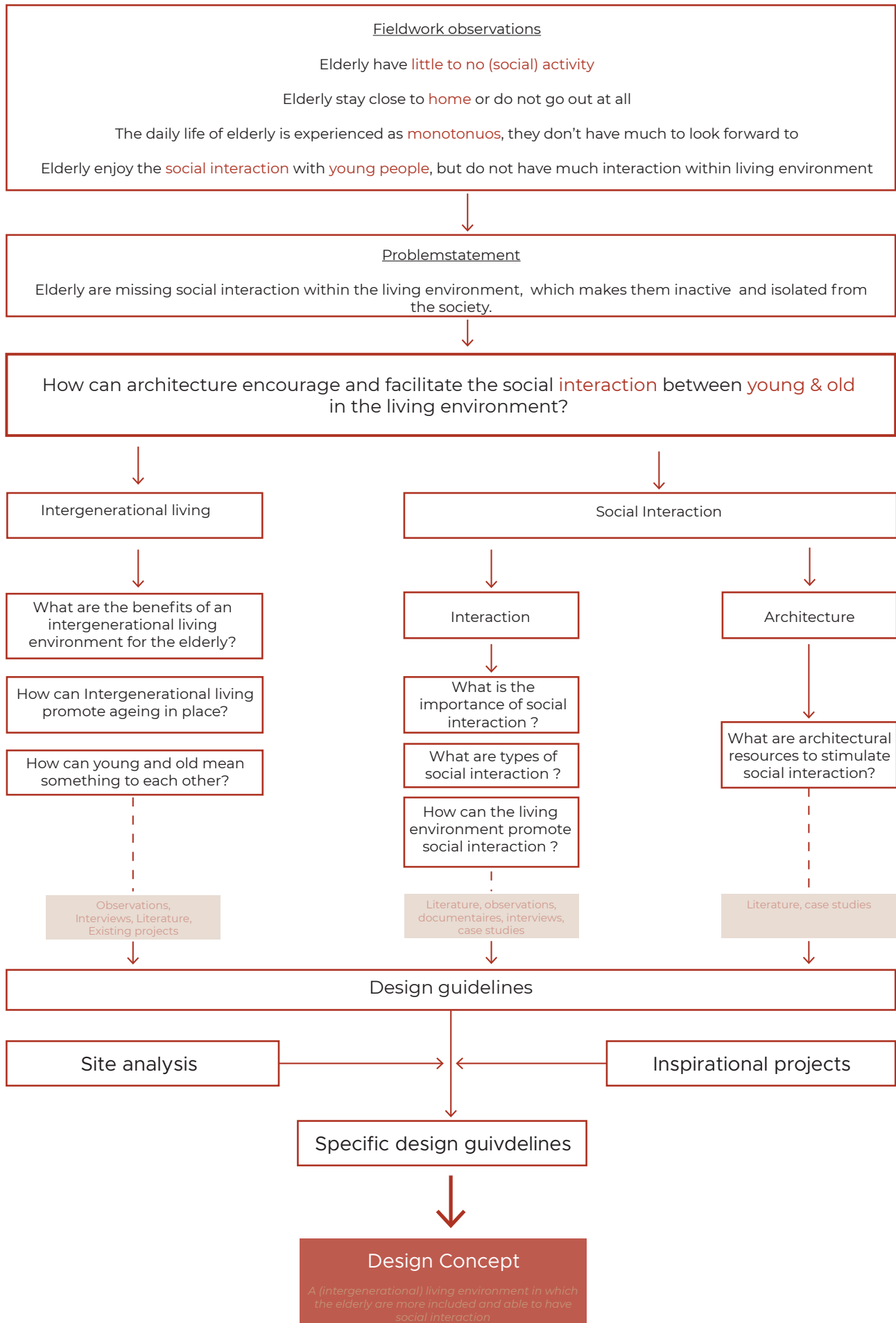
- **Praxeology:**
Praxeology focusses on the human action. How are people do / use things? Within architecture we look at how the building or design is being used. This is the main field we are working within this research, since we are researching the use of architecture by the elderly. This Methodology will be done with interviews, questionnaires, and tracking. This methodology will give us more information about how the elderly use space, what their spatial preferences and requirements are for social interaction.

- **Phenomenology:**
Phenomenology focusses on how things are perceived. How are is the living environment of elderly experienced from their point of view? To understand this we are using exercises to understand how it feels to be weak, do sensory mapping and do fieldwork in a nursery home. This methodology will give us more information about how the elderly perceive their living environment and how they want it to be.

The combination of praxeology with phenomenology will provide a better view on how architecture is experienced by elderly. Using this combination will gather more information in detail. While praxeology will focus on quantitative aspects such as size, lay-out and elements, phenomenology can focus on qualitative aspect such as colours, tactility and sound. So Praxeology is more focussed on the physical elements in a space and phenomenology on the senses, or how the space is perceived by the senses.

RESEARCH PLAN

R. Kocak | 4436814



1.5 Theoretical Framework

The number of elderly people will increase rapidly in the upcoming years. It is expected that by 2030 a quarter of the population will be over 65 years old (CBS,2019). This means that there will be more elderly than young people to provide care for them. Therefore the elderly are required to live longer independently (Ministerie van Volksgezondheid Welzijn en Sport, 2018). Small care should be provided in their own social network or by organisation such as 'thuiszorg'. However to provide this small care the elderly need connections with people from their living environment.

The segregation between the elderly and young people in society complicates the opportunities for social interaction and care. This leads to a generation gap between the young and the elderly in society. Older people are isolated from the outside world, but they need more social interaction with people. By mixing the elderly with the young in a young, lively and vibrant living environment, the elderly get more opportunities for social contact and possible informal carers. Hopefully, this will ensure that older people feel less lonely and can stay in their place longer. That is why we need to rethink how we house the elderly in our society and how we can revive the interaction between young and old. Finding a way to involve the elderly instead of keeping them out of society.

In this research we are looking for design tools that help create a suitable living environment for the elderly in society. The research differs from other approaches in this area by the methods used during this process. During this research, a more social and people-oriented position was taken.

Anthropology and phenomenology have been used as approaches in our research.

A similar approach to design was done by Jan Gehl. He conducted various studies on social topics, such as human behavior in public life, using methods such as observations and participatory research (fieldwork). Jan Gehl's unique methodology is based on the idea that people are the primary focus of public space in the design of cities. In his research, he used architectural tools such as counting, mapping, tracing, tracking, tracing, photography, journaling, and test walks, to understand and design people's wants and requirements.

Another architect who uses participatory design and fieldwork as a tool during her research and design process is Anna Heringer. Observing the group for which she designs and understanding the circumstances in which the design is done, gives her more understanding to improve its architectural design principles. Anna also works closely with the local population and users of the buildings, listens to their wishes and needs and tries to find (together) a solution for the design. This benefits both groups and enhances the architectural design.

However, most buildings built for a specific target group do not always meet the needs of the users. For example, most of the nursery homes today are not attractive and do not really meet the requirements of the residents. They are designed in a more practical way so that caregivers can work efficiently. The needs and wishes of the focus groups are not visible.

The elderly group in particular faces different difficulties and experiences a different way of life than we do. That is why it is important to focus on the needs, barriers and wishes of this specific vulnerable group. This will help improve our design choices, which focus more on users' perceptions and needs than efficiency.

In this research, fieldwork is also used as the main method to gain more insight into the focus group for which we design. By staying in a nursing home and living close to the elderly, I realized that we often approach the elderly in a general way, when in reality they are different individuals, each with their own needs and wishes. It also becomes clear that their lives are very different from ours and that they face more problems than we can imagine.

The fieldwork gave us the opportunity to see life from a different perspective. Rather than making assumptions about the elderly, it offered the opportunity to see and experience reality. The anthropological research gave us more insight into the focus group than we could glean from the literature. The tools we used in this research clarified what the daily life of the elderly was like, the problems they encounter, their wishes and needs in their living environment. With the help of the knowledge gained from this research, we can tailor the design to the needs of the user, in order to create a suitable living environment for the elderly.

1.6 Course Research plan

The Research Plan course focused on various topics related to the research in this graduation project. We have had lectures on methodology, history and theory, each supplemented with examples from previous graduates. All these lectures gave us a broader view of how to conduct research within a field. For example, each field has its own direction within the research and the tools that can be used with this. I found the first lecture especially useful, in which the different methods and tools were explained. This way we could see which types of research methods are applicable in our case. The discussions after the lectures were also very useful, due to the presence of different professors, useful tips and comments came up during these discussions that made us think about possible interventions. This also provides a different view of the subject in which research is being conducted.

The Research Plan gave me insight into how research could be done within the different fields of architecture. Seeing examples of previous graduates helped me to get inspired and showed that there are many ways to carry out your research.

At the end of the course we had a masterclass dedicated to the type of studio we were in. As a class, we participated in the fourth master class that was about disciplinary merges and multi-disciplinary encounters. This offered us a better understanding on how to work on our research during this studio. During the masterclass we looked at how different disciplines work together in a research. In this way much more can be learned about a topic, than research is done within one particular discipline. In our studio we focus on

the design for humans, so the social, anthropological, psychological and demographic disciplines are important to get a better understanding. We conducted different types of research; qualitative research (interviews and interaction with people), experimental research (fieldwork: staying in an elderly home to observe the lives of the elderly and interact more closely with them) and visual research (observing, making visuals out of these observations). All these different disciplines relate to each other around the focus group for which we design. By applying these different disciplines in the research, we can learn more about the focus group, but it is important to understand how it relates to architecture.

All in all, I think the research plan course was a good addition to the learning process within this studio. In addition, I can say that it was not always clear what we should be taking away from it, which makes it more difficult to keep your attention during the lecture. The how-to tutorials have been well thought, but here too it would be helpful if it could be applied more in your own research. Think of gradually working on the research plan, explaining per lecture what needs to be paid attention to and which parts can be tackled in which way. These are tips that I would like to share to improve this course. I want to thank all teachers and participants involved in this course for all their efforts and help.

III. Explore

In the first weeks of the studio we focussed on how to conduct antropologic research. Trough different exercises we experienced how it feels to be weak and how to do observational research.

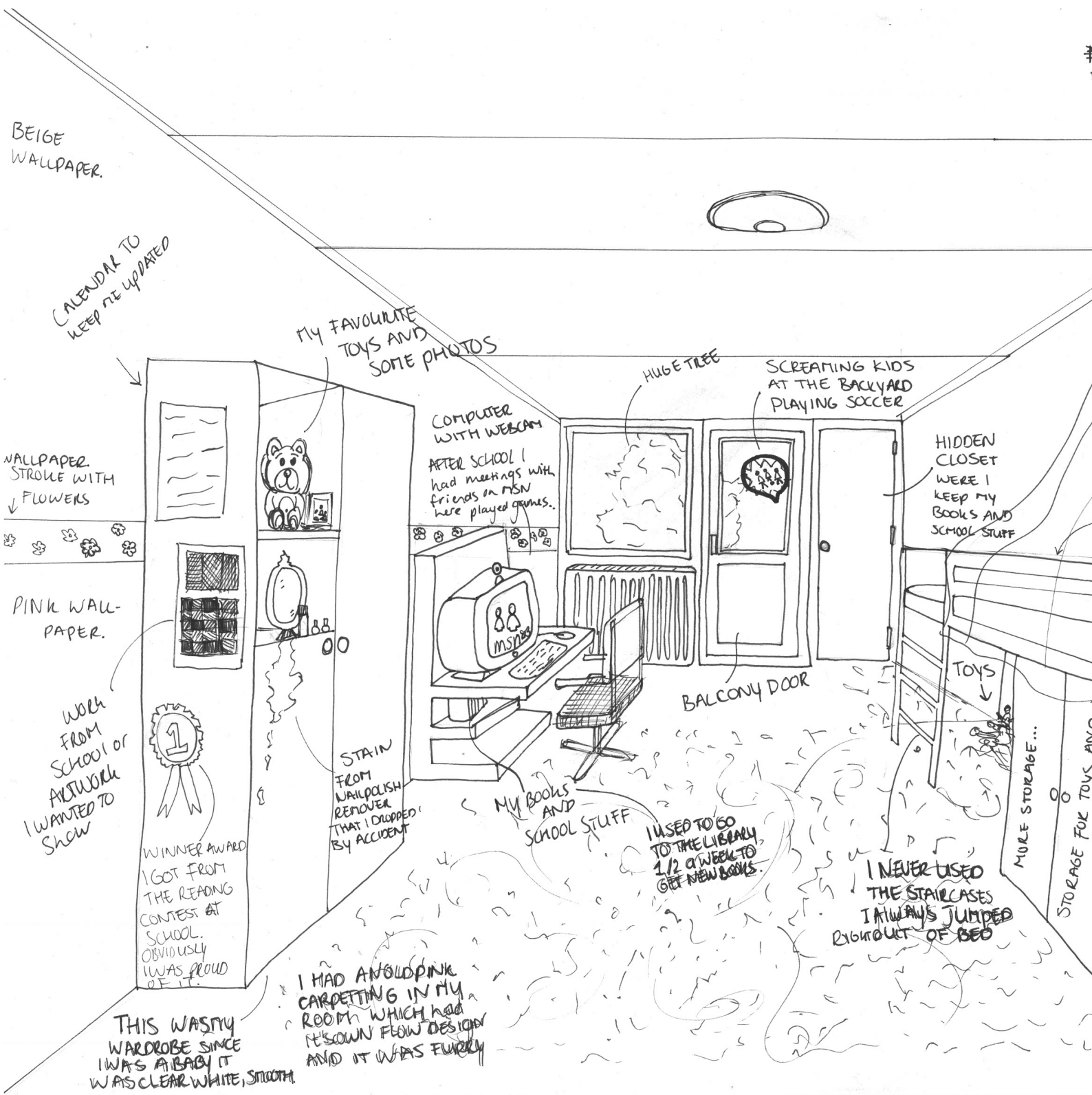
During these observations it was important to remain objective. This was important because we humans are very judgemental. We tend to make an assumption about something, which may not be true. Therefore, we had to learn to observe in an objective way so that we could better understand the focusgroup.

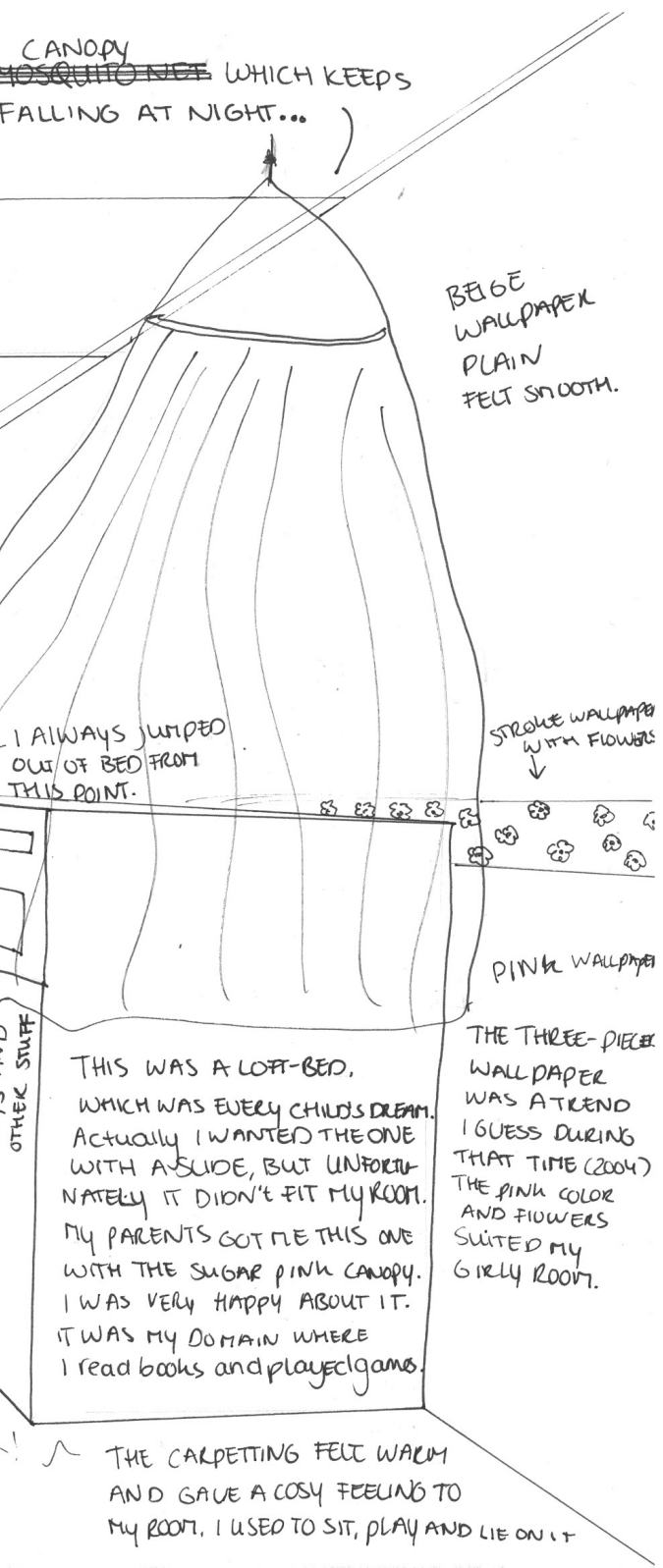
This is done with different exercises. We did observations in a specific space and afterwards made visual out of it like the soft atlas by Jan Rothuizen. By using a wheelchair / stroller / visual glasses we experienced how it feels to be weak and live with a limitation.

The exercises provided us a better view on these aspects. Like the dutch saying says: "In iemands schoenen staan", we empathize with the situation and feelings of others. This created a better understanding for these people.

The following pages will show the results of these exercises.

2.1 Soft atlas; drawing a place from your childhood



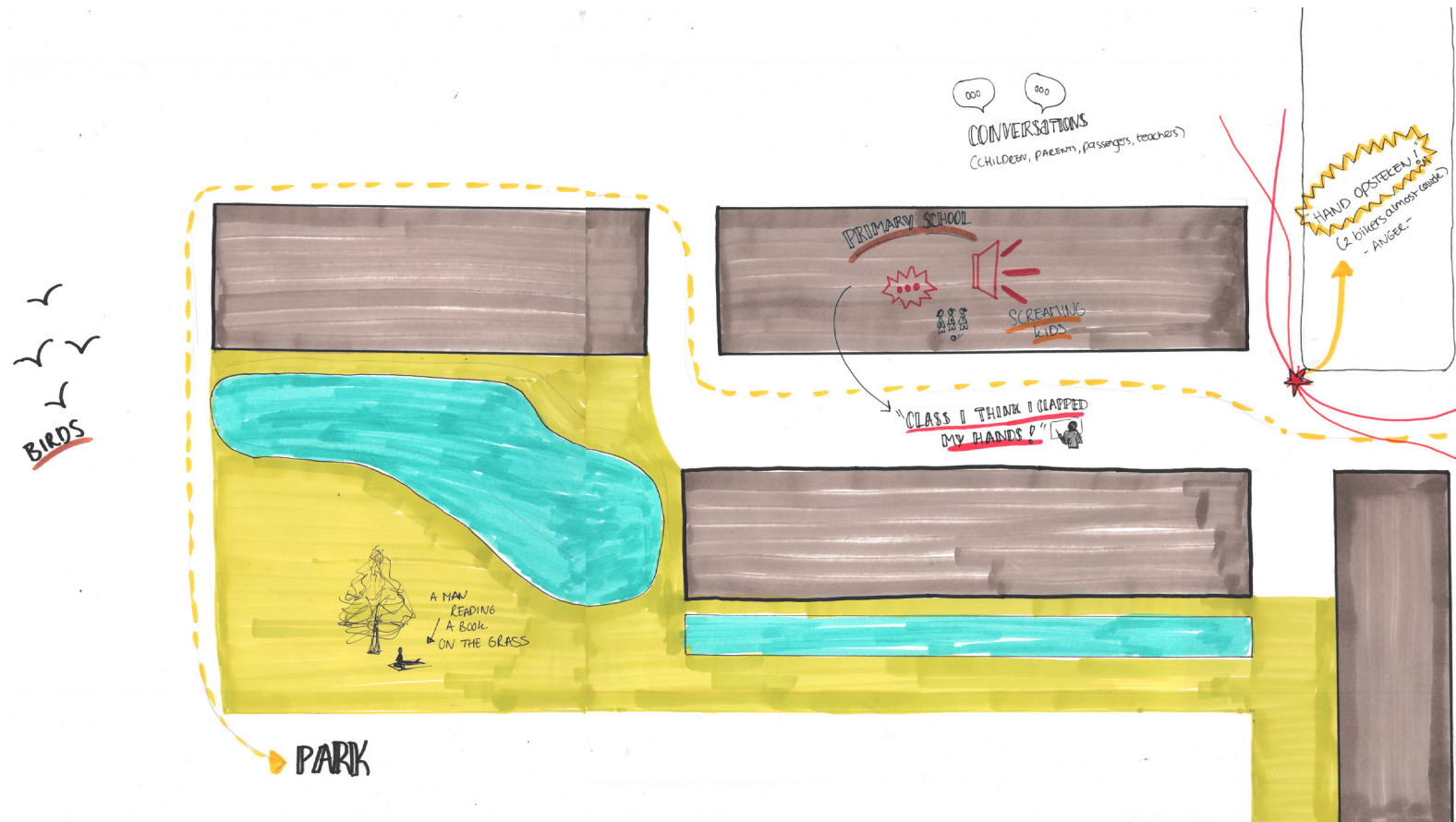


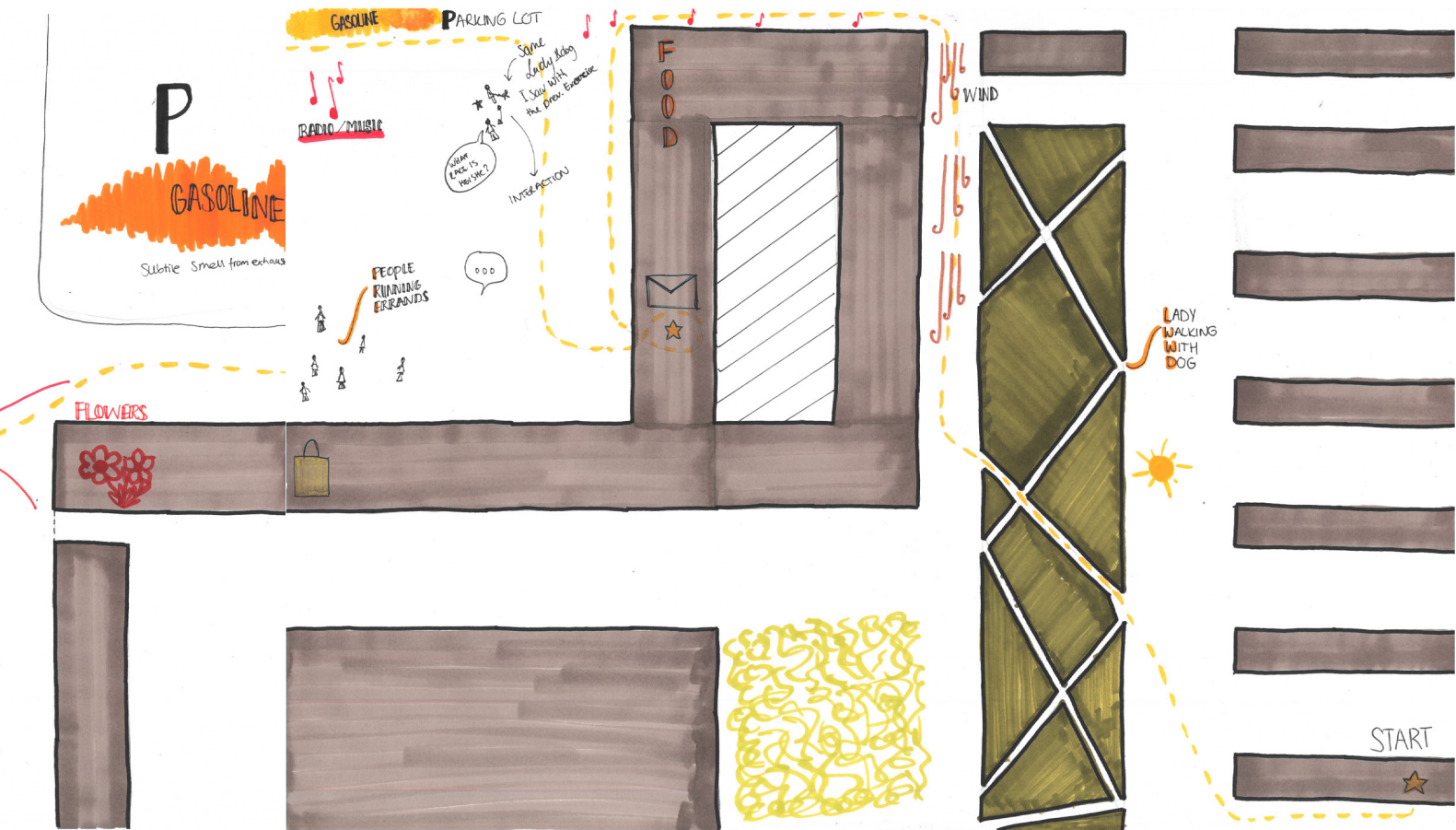
For this exercise we were asked to draw a place from our childhood. We had to process as many memories and details as possible. The idea of the soft atlas method is that within the drawing small descriptions are given of the place, objects and events that took place.

For this exercise I drew my old room with a lot of memories from my childhood. While doing this exercise I noticed that more and more memories from this place came up.

The final result shows a detailed drawing. It is possible for a stranger to read the place as I do. Also giving the detailed description shares the memories of this place with others.

2.2 Documenting a place; making a visual essay through observations



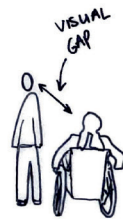


For this assignment, the intention was to observe a place and turn it into a visual essay. I chose to walk in my neighborhood and observe the area. I focused on the different senses on this journey, not only focusing on what I saw but also trying to listen to sounds and smells. After this walk within the neighbourhood I made the drawing above with the observations I came across.

2.3 How to be weak

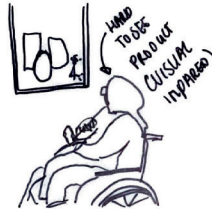


We started with the exercise at the parking lot of the faculty. It was easy to manage the wheelchair on this lot. There were a few students looking confused at us. We went to the park. The glasses gave me a blurred vision. This made the park look like an abstract painting. I only saw the colors green, white and at a certain moment orange.



We went to the supermarket to experience a daily routine as someone who is visually and physically impaired.

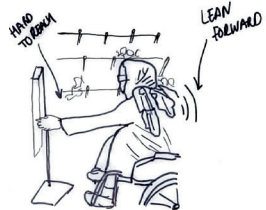
Sitting in a wheelchair forms a gap between mobile people and impaired people. You have to look up all the time. There is another eye level.



I tried to guess the items which were in sale this week. Unfortunately I guessed it wrong.



At the supermarket it was easy to drive the wheelchair. At some points I had my doubts whether I could pass through, but it was usually doable.



The first task was to get some bread. Passing through the supermarket, I mainly relied on my memory based on a usual supermarket. We first passed the fruit and vegetables department and then came to the bread department.



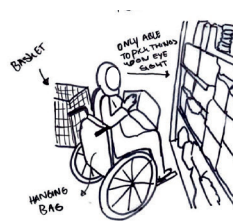
I could smell the freshly baked bread and pastries. It was a little bit hard to reach the pincet for pastries, since there was a gap between my wheelchair and the shelf.



The second task was to get some milk. I could feel the cold temperature and see the brightness of the refrigerators.



The first attempt I got to the wrong door. Instead of milk, I reached for yogurt. But this was mainly due to the blurred vision, which made it difficult to distinguish the products.



And the final task was to get some toilet paper. It was easy to take the ones on eye level, but the other levels were much harder to reach.



At the end of the experience, I felt the pain in my hands. Driving a wheelchair yourself is a serious effort.

During this exercise we experienced what it feels like to be weak. Using a wheelchair we strolled around the neighbourhood. It was a really exhausting journey. Together with the impaired glasses it was even harder to observe the surroundings. In the drawing above I made some sketches about this journey and my experiences during this road trip.

2.1 Conclusions; *first conclusions about designing for elderly*



Senses

A place can be read in many ways, not only visually, but also in terms of smell, sound, texture and atmosphere.



Empathy

Putting ourselves in the position of vulnerable people revealed the difficulties they face on a daily basis. To better understand this group, we need to show empathy.



Safety

The feeling of safety is very important when you are vulnerable. Knowing that you can get help from others when needed gives comfortable feeling.

III. Fieldwork

At the beginning of this research project, we conducted anthropological research during a threeday overnight stay in the elderly home Huis Assendorp in Zwolle. During these days, we tried to get a sense of how the elderly people spend their time and how their living environment influences them and they influence their living environment.

To get a sense of this, we created four themes to study: Activity, Encounter, Emotion and Contribution. These themes were the foundation for the questions we wanted to answer with our fieldwork.

To get answers to our thematic questions, we used research methods which find their origins in anthropological and sociological fields of study such as observation, interviewing, counting and mapping activities.

In the fieldwork research booklet we have visualised our findings and drawn conclusions about our four topics which can be useful for our future design choices for elderly housing.

The Fieldwork research booklet can be found in the Appendix A. The important findings, which are useful for this individual research, will be represented in the following pages.



3.1 Activiti

While staying at Huis Assendorp, we tried to talk as much as we could to the residents. Getting to know them as an individual was important to us. They told us a lot about themselves, their lives and experiences. With these stories and questions about their daily habits, we tried to figure out how a day in a life looked like.

How is a day of a life as an elderly look like?

What are common activities they do on a daily basis?

How often do they go outside?

How often do they get help by the caregivers?

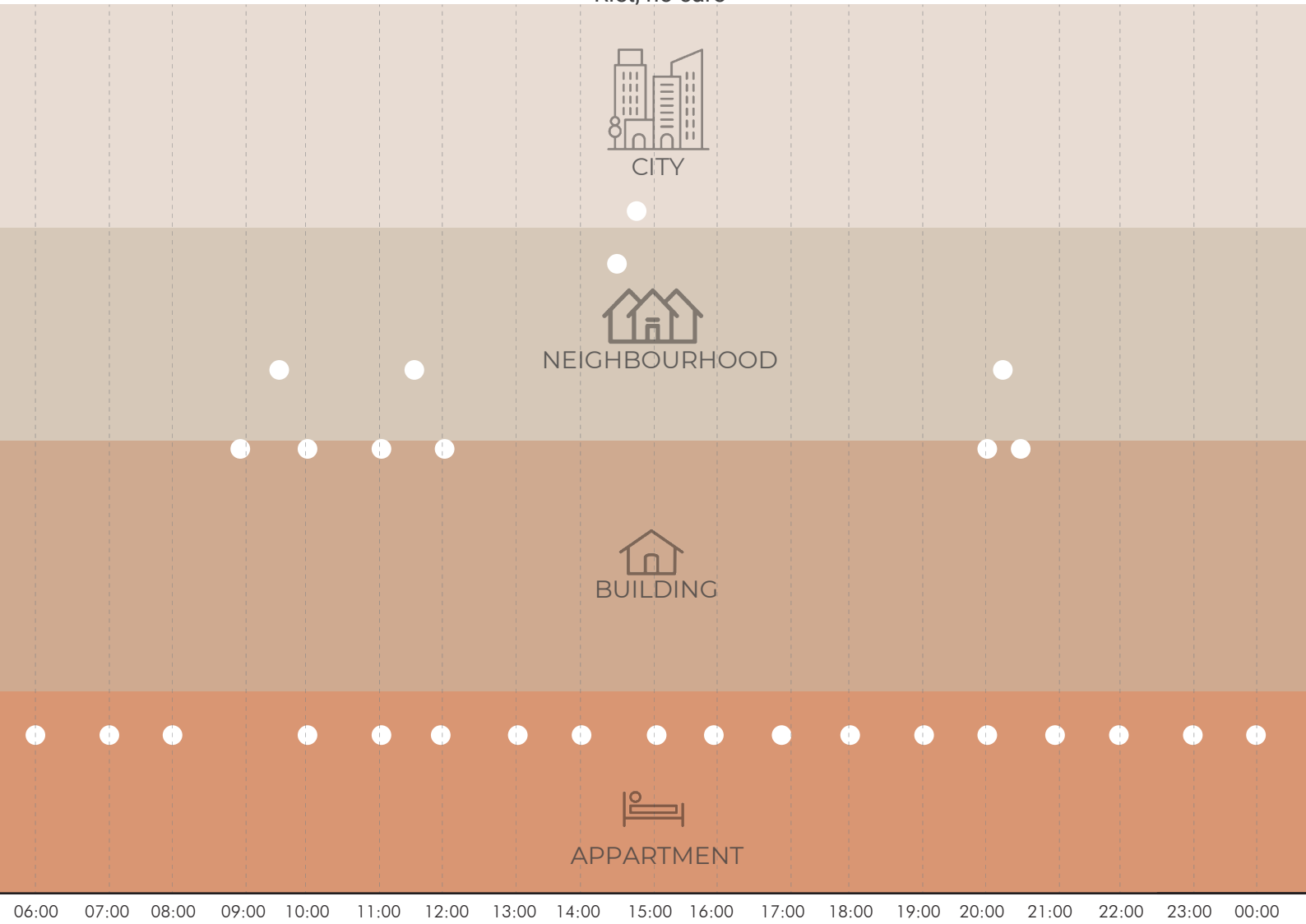
These were questions we wanted to research during our fieldwork.

By looking into these questions we can figure out where elderly are located during the day within their living environment and how often they are leaving their intimate zone.

The following pages will show the results.

Daily routine

Riet, no care

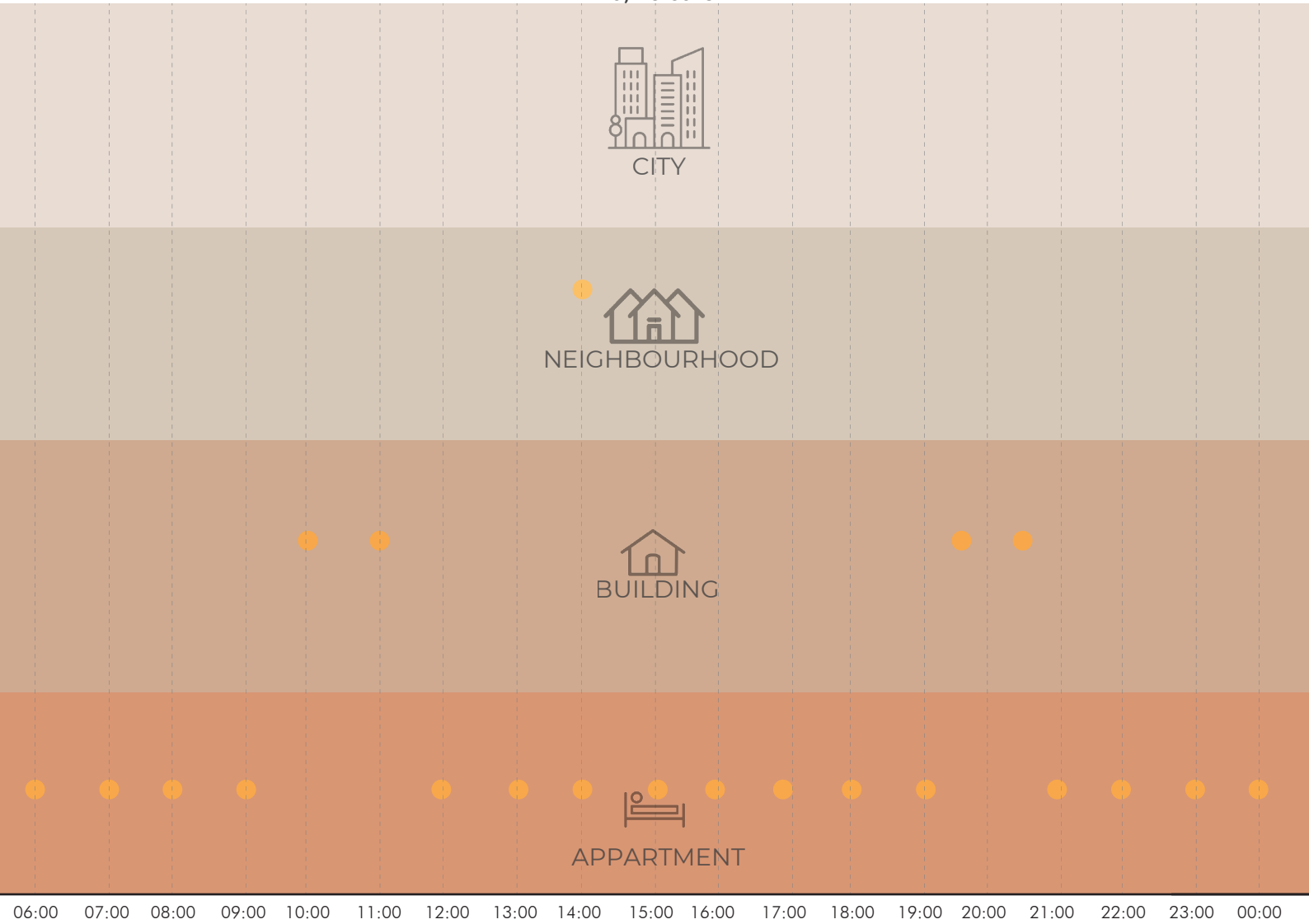


Riet | no care

Sleeping	Getting ready	Dog w/ Ria	Coffee	Dog w/ Truus	Lunch @ Home	Daily activities in or outside house, visits of grandchildren or repose.	Cooking & Eating	Dog w/ Joke	Rest Prepare for bed	Sleeping
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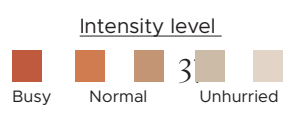
Daily routine

Ad, no care



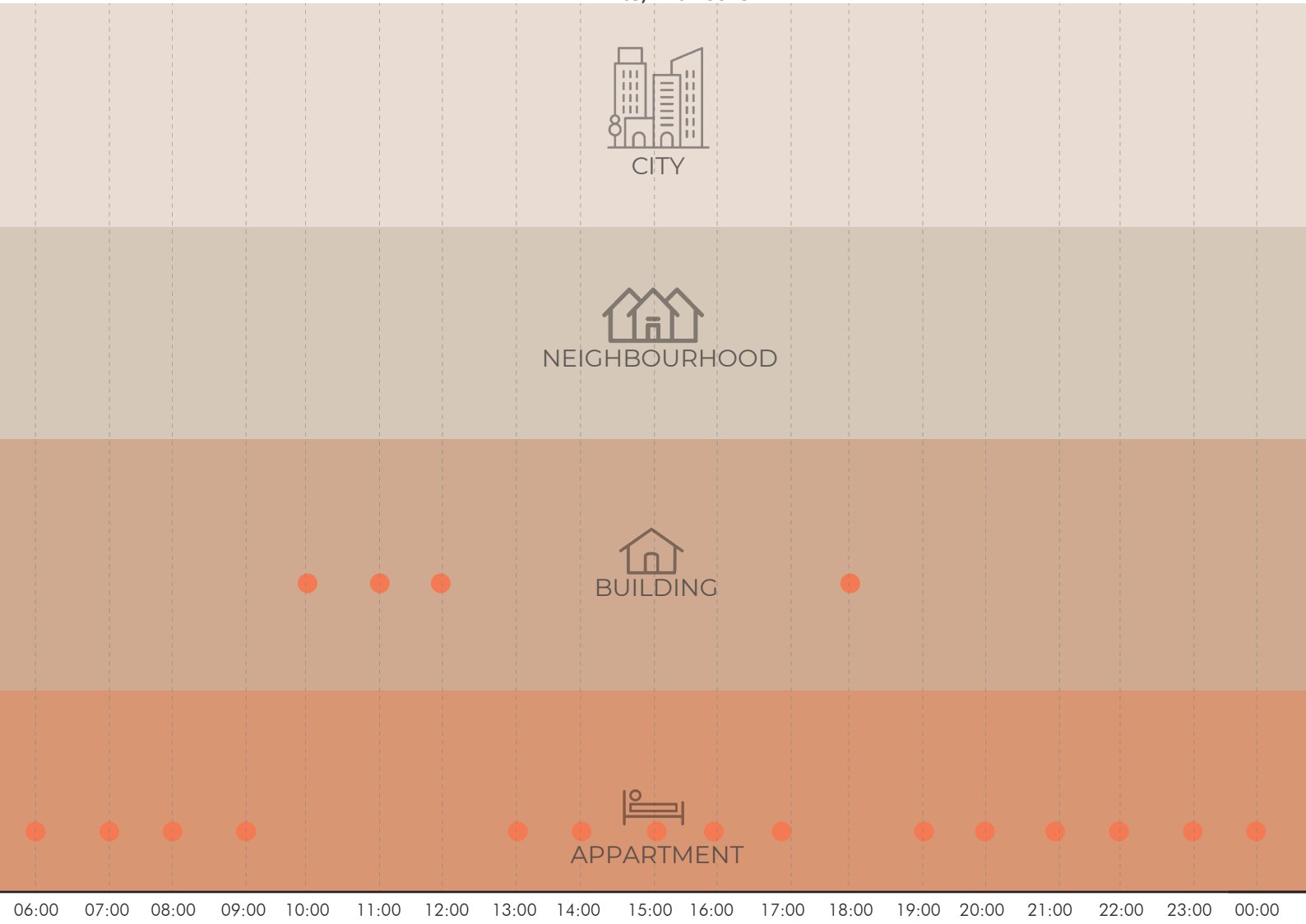
Ad | no care

06:00 - 07:00	07:00 - 08:00	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00
Sleeping	Getting ready	Breakfast	Tea @ Grotezaal	Lunch @ Home	Daily activities in or outside house, Time for some rest.	Cooking & Eating	Tea @Grotezaal	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed	Rest Prepare for bed



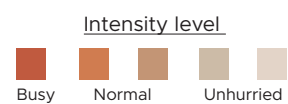
Daily routine

Frits, with care



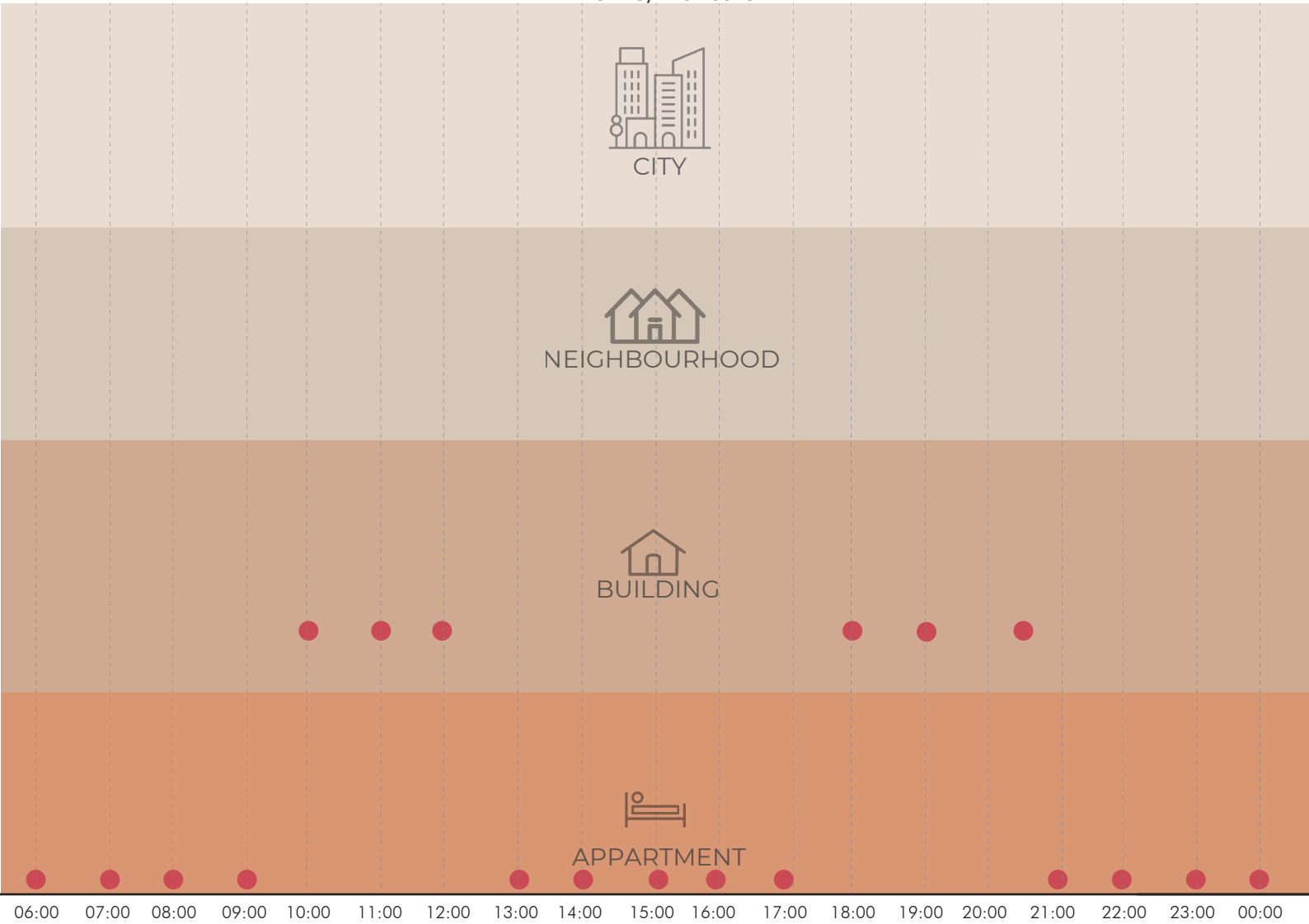
Frits | with care (dementia?)

Sleeping	Getting ready	Break-fast	Coffee @PGVZ	Sit at front door	Lunch @ PGVZ	Have some rest at the place in front of the door, wander around.	Dinner @ PGVZ	Rest @ home	Rest Prepare for bed	Sleeping
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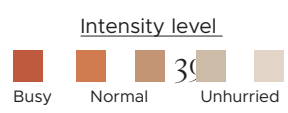
Daily routine

Menno, with care



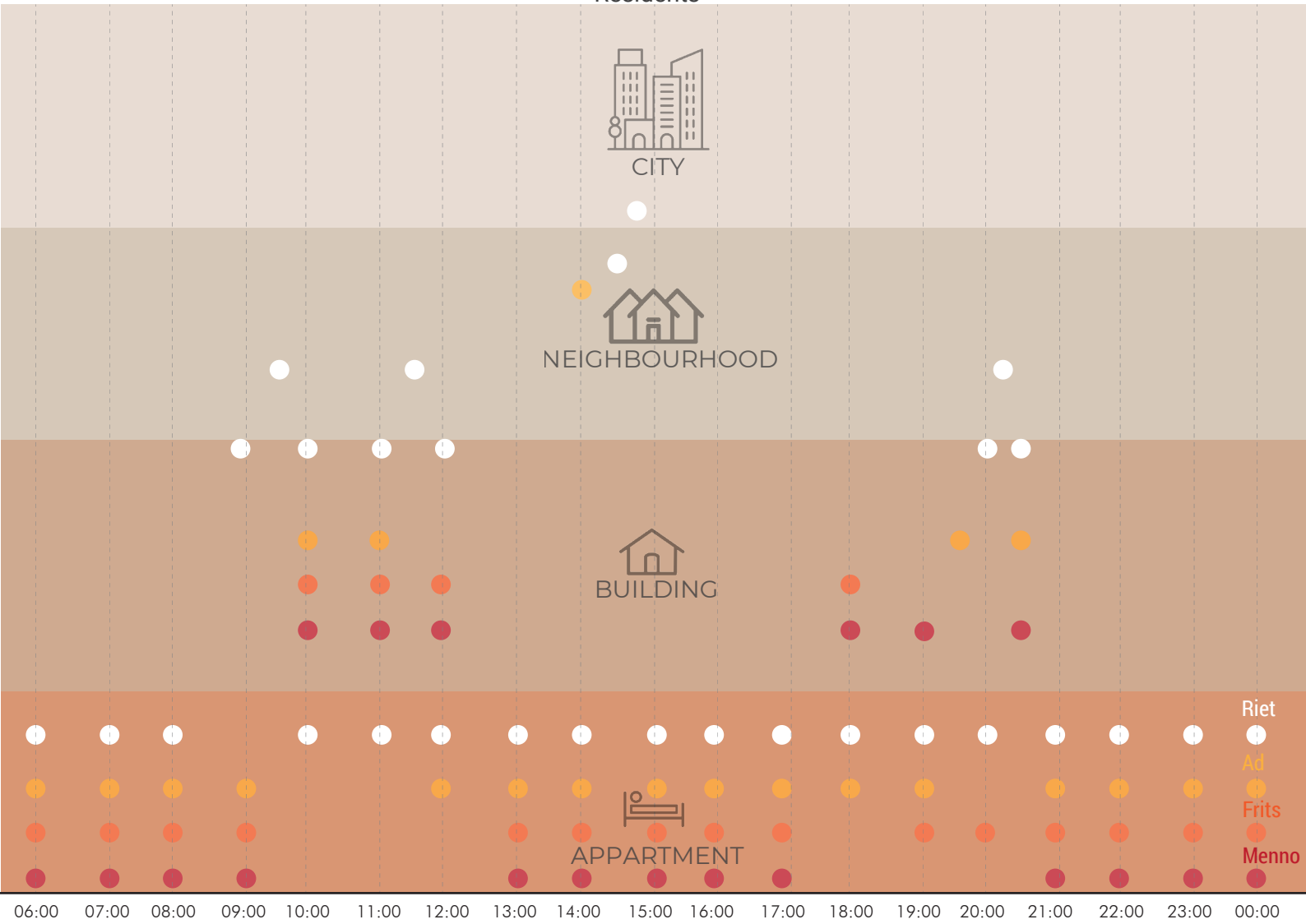
Menno | with care

06:00 - 07:00	07:00 - 08:00	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00	18:00 - 19:00	19:00 - 20:00	20:00 - 21:00	21:00 - 22:00	22:00 - 23:00	23:00 - 00:00
Sleeping	Getting ready	Breakfast	Coffee @ Grotezaal	Lunch @ PGVZ	Have some rest at home, watching TV, sometimes organised daily activities.			Dinner @ PGVZ	Tv / Tea @ Grotezaal	Rest Prepare for bed	Sleeping						



Daily routine

Residents



Riet
Ad
Frits
Menno

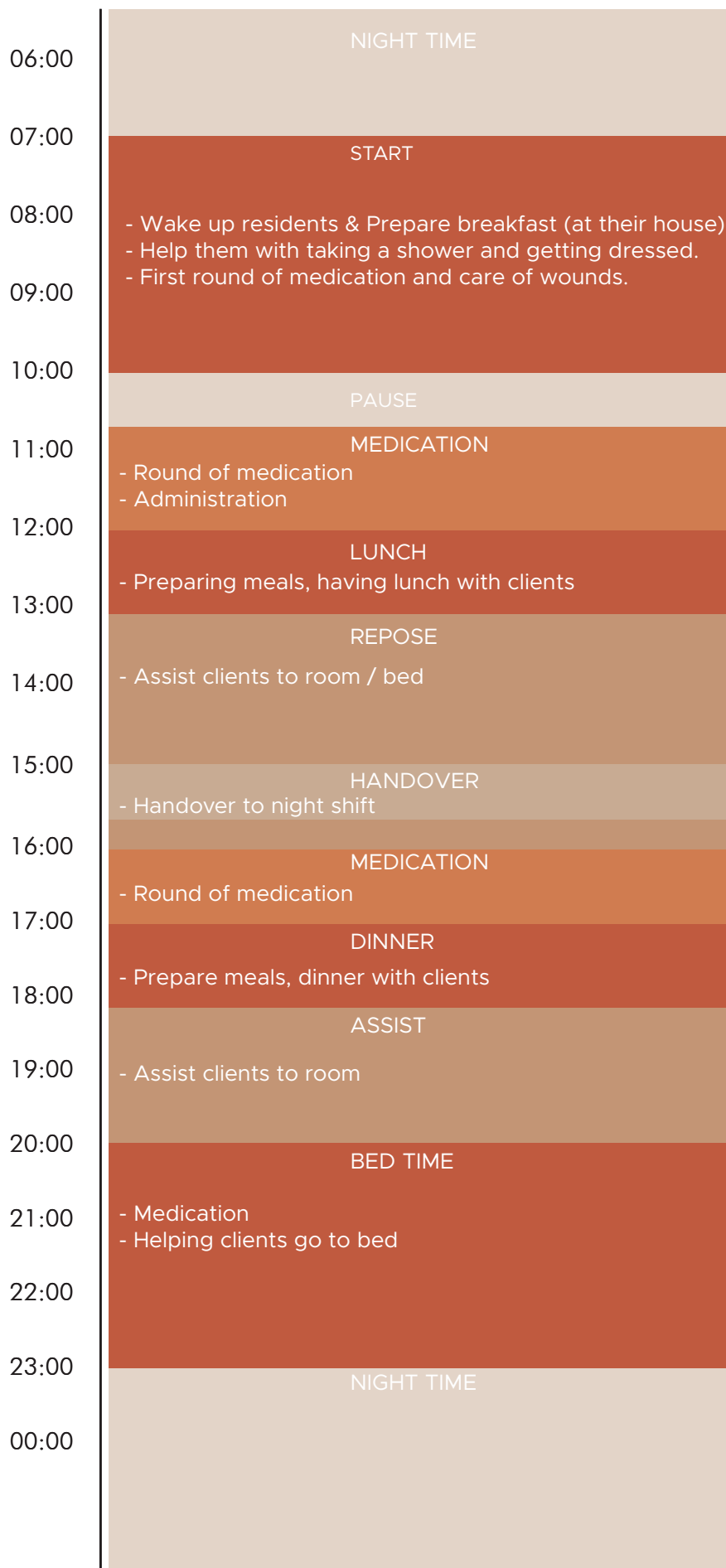
Resident	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	
Riet no care	Sleeping	Getting ready	Dog w/ Ria	Coffee	Dog w/ Truus	Lunch @ Home	Daily activities in or outside house, visits of grandchildren or repose.	Cooking & Eating	Dog w/ Joke	Rest Prepare for bed	Sleeping									
Ad no care	Sleeping	Getting ready	Break-fast	Tea @ Grotezaal	Lunch @ Home	Daily activities in or outside house, Time for some rest.	Cooking & Eating	Tea @Grote zaal	Rest Prepare for bed	Sleeping										
Menno with care	Sleeping	Getting ready	Break-fast	Coffee @PGVZ	Lunch @ PGVZ	Have some rest at home, watching TV, somtimes organised daily activities.	Dinner @ PGVZ	Tv / Tea @Grote zaal	Rest Prepare for bed	Sleeping										
Frits with care (dementia?)	Sleeping	Getting ready	Break-fast	Coffee @PGVZ	Sit at front door	Lunch @ PGVZ	Have some rest at the place in front of the door, wander around.	Dinner @ PGVZ	Rest @ home	Rest Prepare for bed	Sleeping									

Intensity level



Daily routine

Caregivers PGVZ



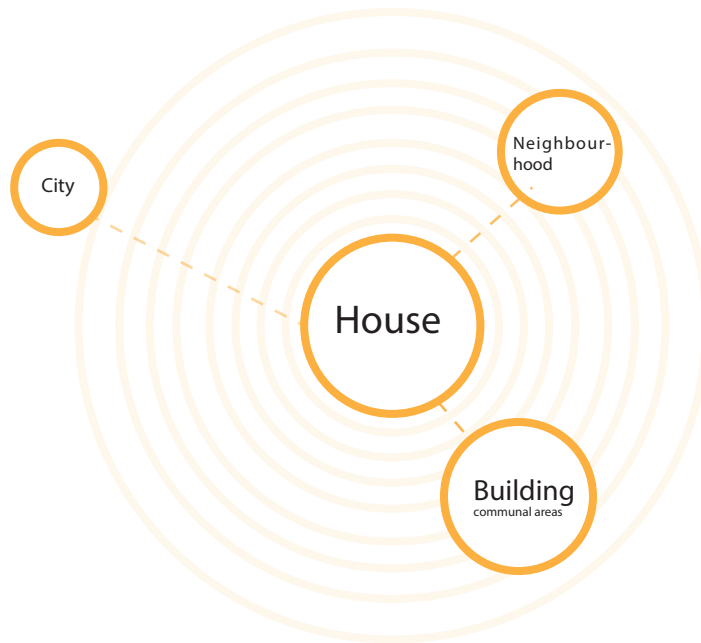
Intensity level



Daily routine

Conclusion

The daily routines of the elderly are more and less comparable. Depending on the care they need, it will take a little longer to prepare in the morning or evening. Both elderly with care and without do not go that far from the house. Occasionally the elderly (without care) do their shopping in the neighborhood and walk the dog here. They don't go too far, because of the long distances that they can no longer handle. Usually they visit the city with family.



There are 3 specific time slots when most of the elderly leave their house:



9:00 - 12:00

Morning Coffee,
Walking with dog



13:00 - 15:00

Appointments, Groceries or
going out with family,
Walking with dog



18:00 - 20:30

Watching TV together
at the coffee hall,
Walking with dog

Conclusion Activity



A → B

The elderly stay close to their home.
Can't go far due to physical conditions

Mainly from home to their destination,
and from destination back to home.

ACTIVITIES

The main activities are:



Coffee



Groceries



Walking with dog



Medical Appointments



3.2 Encounter

The activity study shows that elderly people mainly stay close to home because of their physical limitations.

They have a number of activities every day where they meet others. Some of these meetings are of short duration, others are longer.

During the fieldwork week we were interested in the topic of encounters. Where do the elderly meet others? And in what kind of spaces do they come across? What time and how often does this place take place every day?

These were the questions we had in mind. We observed the residents and the common areas in and around the building. We looked at all the common areas in the building and kept track of how many people use these places. Based on how often the space is used, we looked at the qualities of each space. In this way we can find out which qualities are essential for encounters.

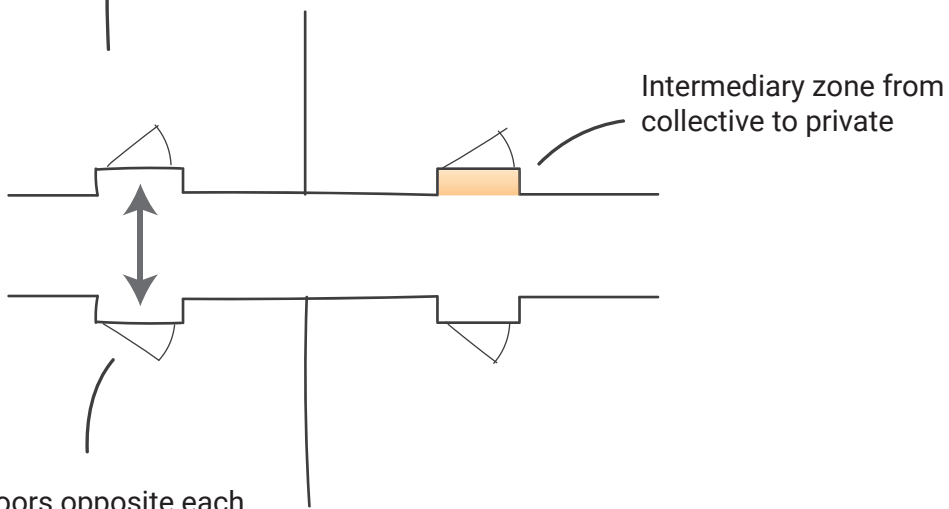
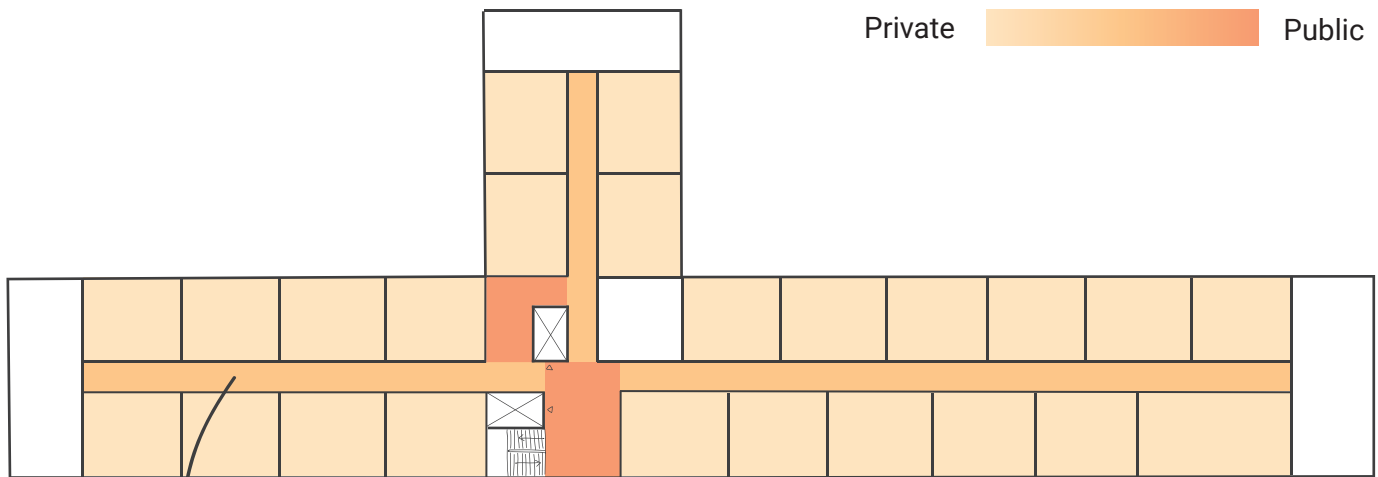
The following pages show the analyzes of rooms that are used the most. If you are interested in the studies of the other rooms within Huis Assendorp, you can take a look at the final field work booklet (see Appendix A).

Zoning

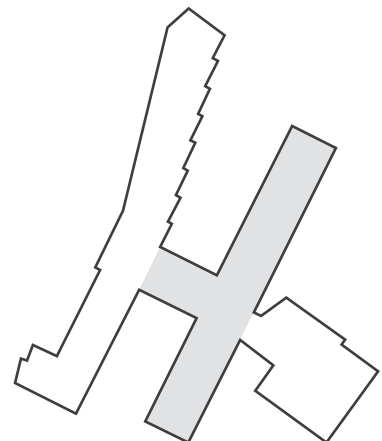
Public/Private

The boundary between public and private in Huis Assendorp

People have their private appartments, that are attached to a communal hallway. This hallway leads to a more open communal space, where it is possible for people to move through the building vertically. When one goes to the ground floor, the communal spaces have a more public feeling to them, since they are more closely connected to the outside world and outsiders at times walk through them or even make use of them for short periods of time.



Doors opposite each other: meeting opportunity



Most used communal spaces

Communal spaces

Central hall with mailboxes

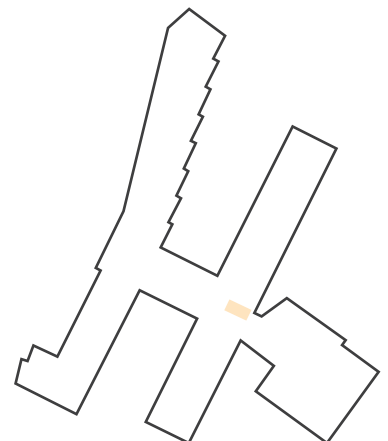
Used often by both residents and visitors (that come to see residents), place of spontaneous meetings



This is not a place people stay for long, but they often pass through it since it is located in the middle of the building and close to the elevator, stairs and mailboxes. This is where spontaneous meetings happen.



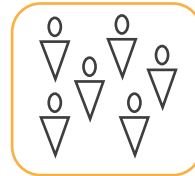
Used almost constantly throughout the day. Most busy moments are before and after coffee-time: 9.30-11.30.



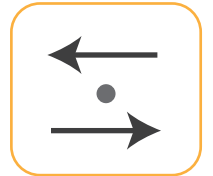
Communal spaces

"Tea house" near the main entrance

Used mainly by residents, place where most residents and visitors enter the building.



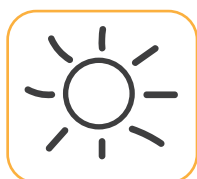
Can sit with a group



On way during daily routine



View outside



Natural light



Outsiders pass by



Possible to sit

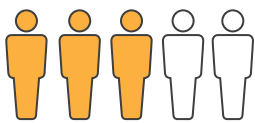


Spacious for wheelchair

Communal spaces

"Tea house" near the main entrance

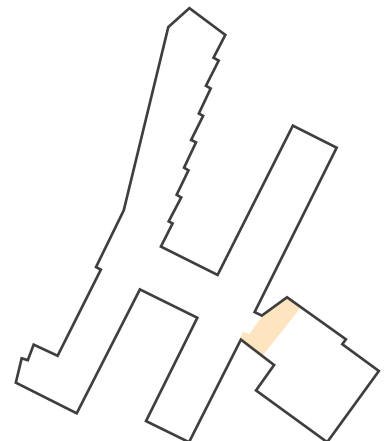
Used mainly by residents, place where most residents and visitors enter the building.



Residents often sit next to the main entrance, drinking tea, chatting to each other and looking outside. Spontaneous meetings take place when people come inside. The couch area is not used.



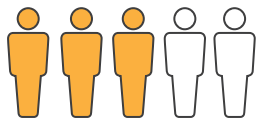
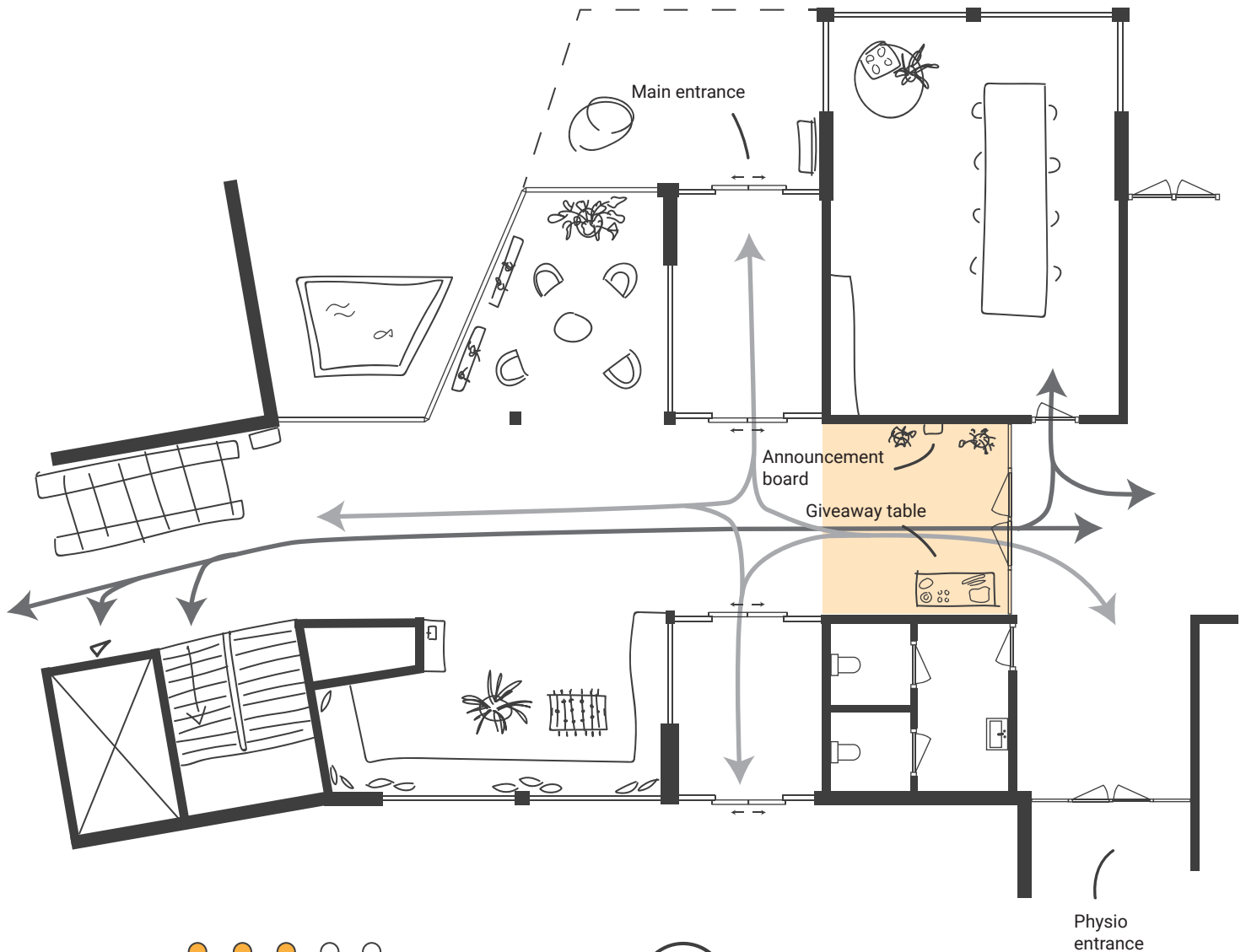
Used sporadically during the morning and more often at tea-time: 16.00-17.00.



Communal spaces

Giveaway table and announcement board

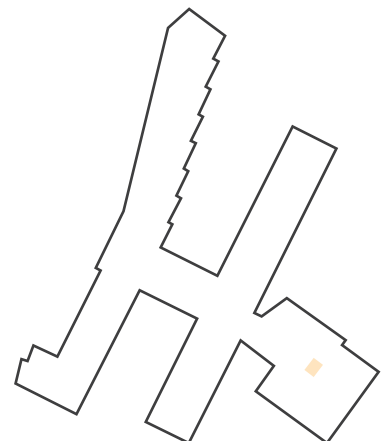
Residents often walk by the giveaway table on their way to the dining room or coffee room to see what is on the table. It often happens that residents meet here and have a quick chat.



This is not a place people stay for long, but they often pass through it since it is located close to the entrance, dining room and coffee room. Spontaneous meetings happen here.



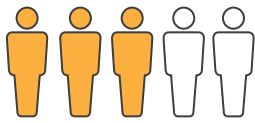
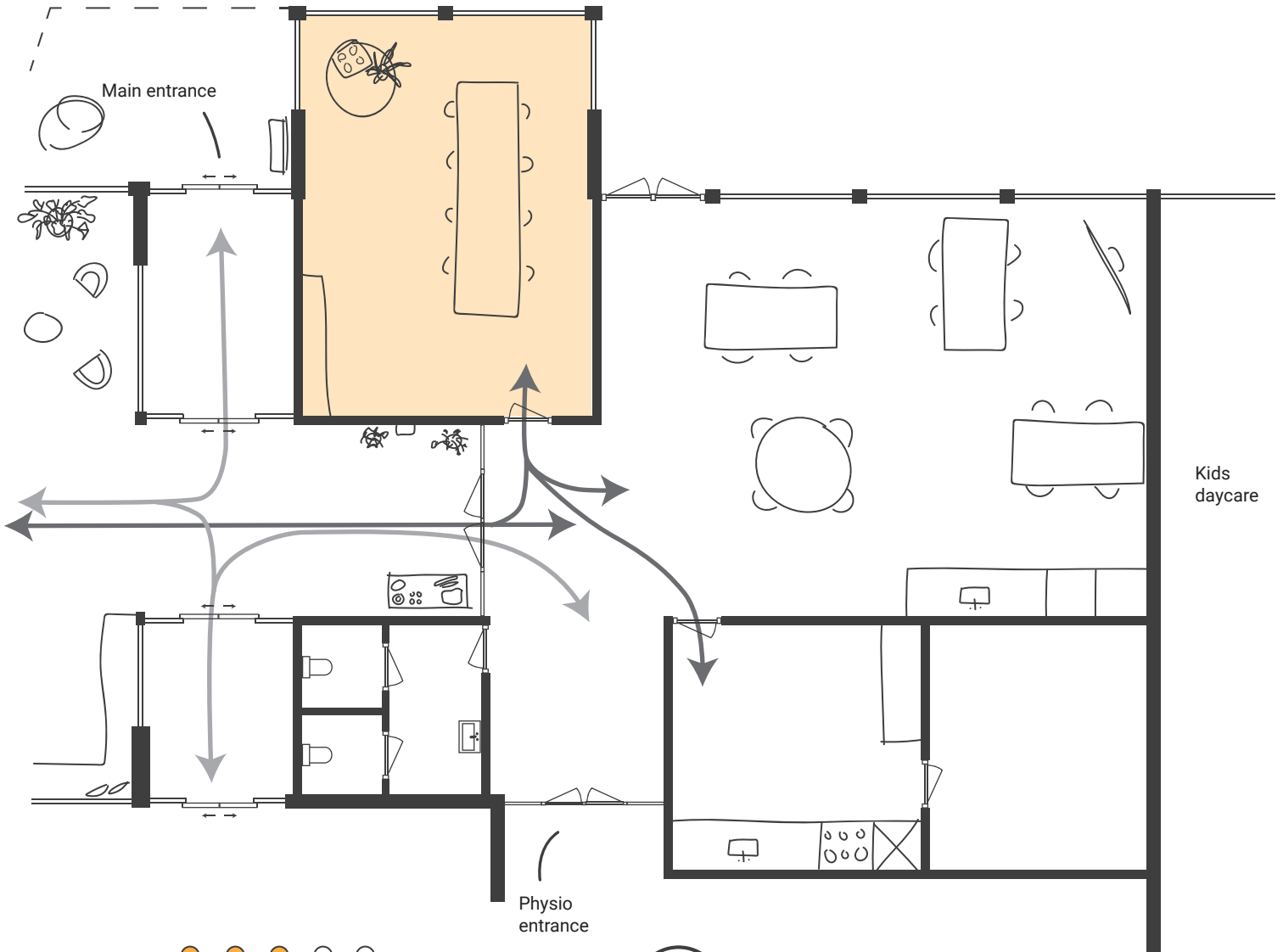
Happens most often around coffee and eating times:
 9.30-11.30
 12.00-14.00
 17.00-18.00



Communal spaces

The dining room

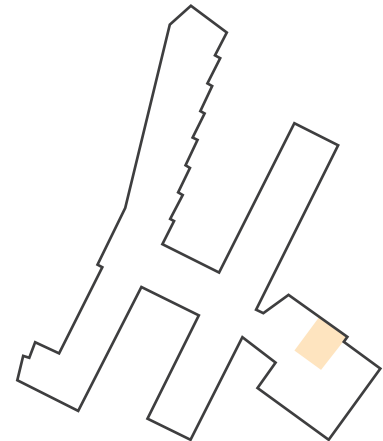
This room is only used by residents that need care and their caregivers. People do sometimes have a chat with someone in the coffeeroom after meals.



A room that is used quite often, always by the same people. The residents that need care get their meals here. They are the only users of the room together with the care staff.



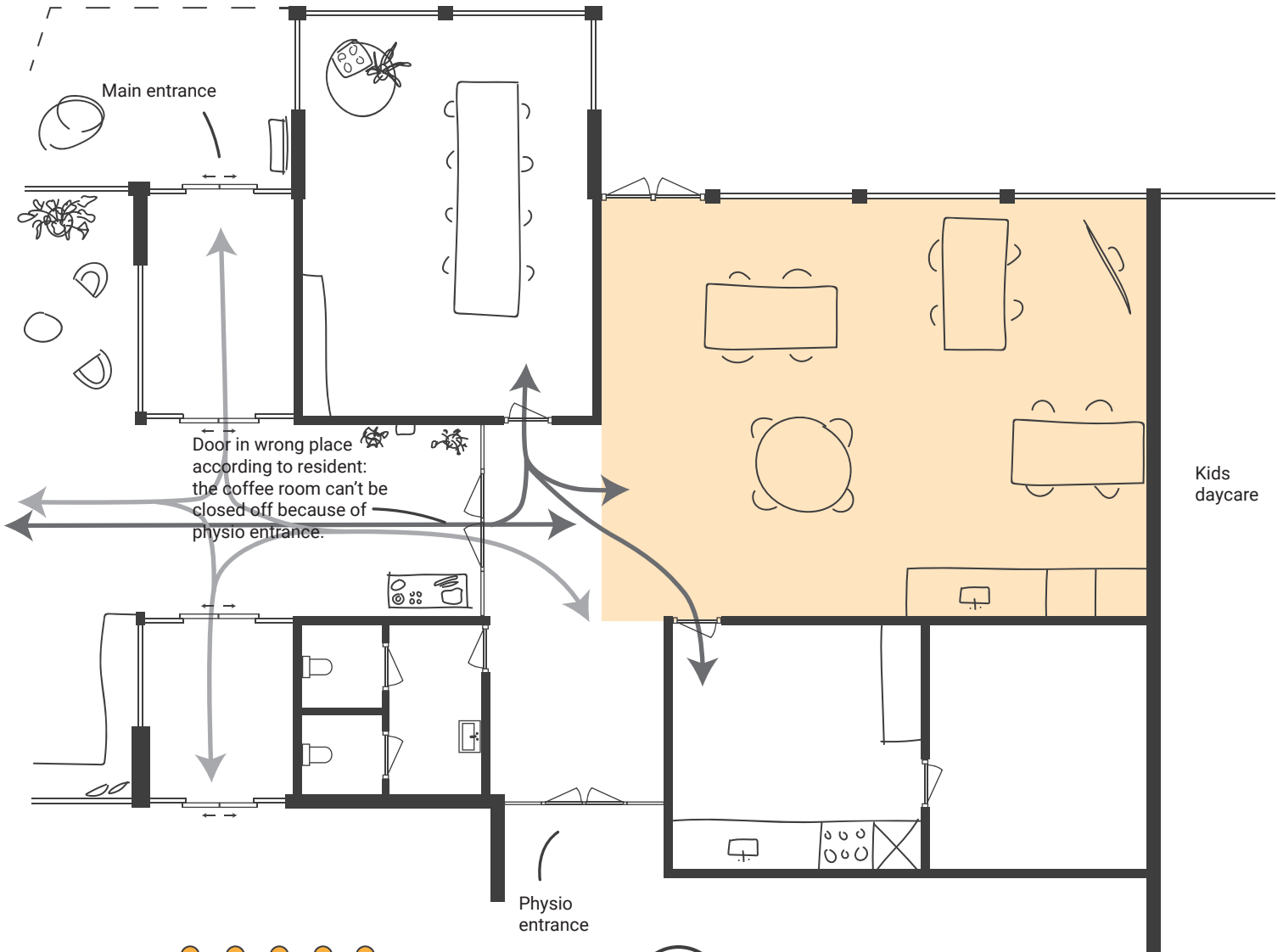
Used intensively at meal times:
 8.00-10.00
 12.00-14.00
 17.00-19.00



Communal spaces

The coffee room

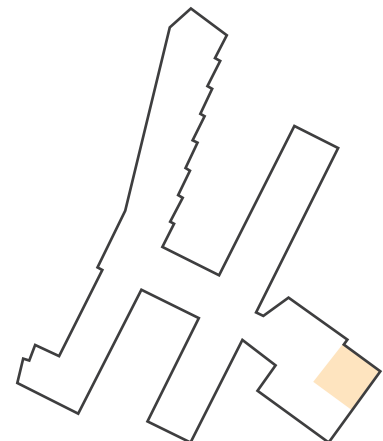
Used very often by residents throughout the day. People coming into the building often say a quick hello,



The most used room in the building. Residents like to come here to have a cup of coffee or tea and chat with each other during the morning and evening.



Used intensively at coffee times and tea-time:
 9.30-11.30
 16.00-17.00
 18.30-20.30
 Every friday it is also used by a group of men to eat dinner together.



Communal spaces

The coffee room

Used very often by residents throughout the day. People coming into the building often say a quick hello,



View outside



Natural light



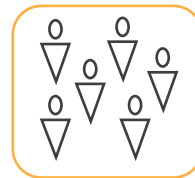
Outsiders pass by



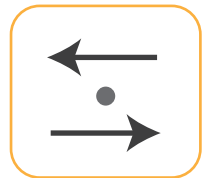
Possible to sit



Spacious for wheelchair



Can sit with a group

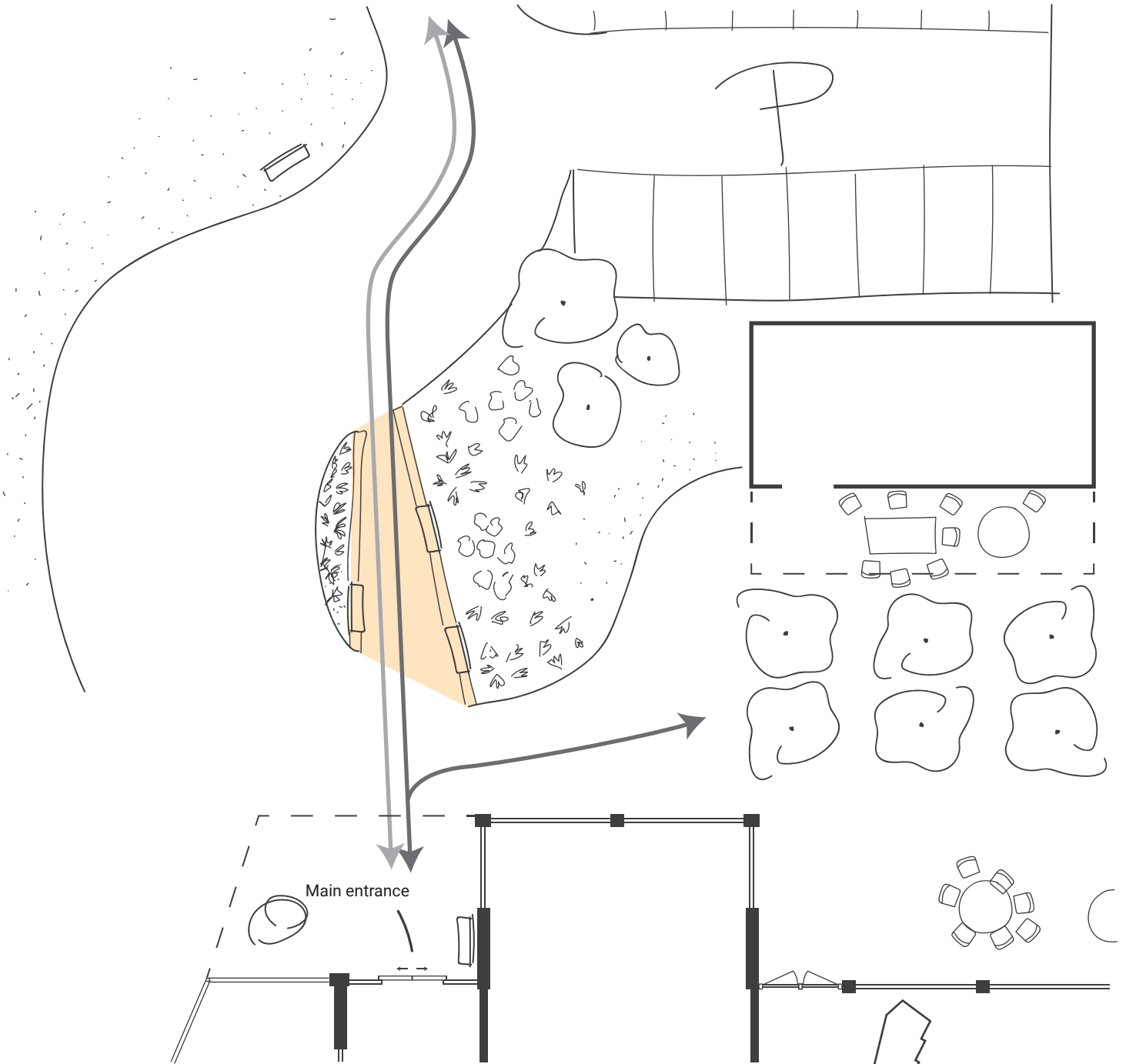


On way during daily routine

Communal spaces

Sitting area in front of the main entrance

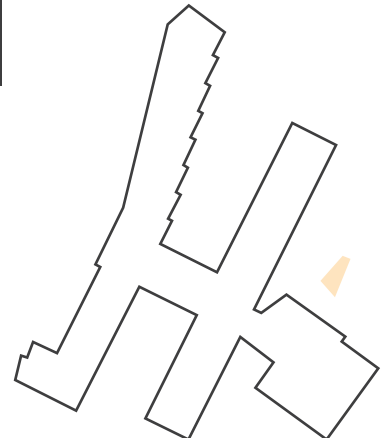
This space is often walked through when people enter or exit the building. When the weather isn't terrible, residents often sit here for a while to see people coming and going and chat with one another.



This space is used by residents to stay for a while, watch people coming and going and chat with one another.



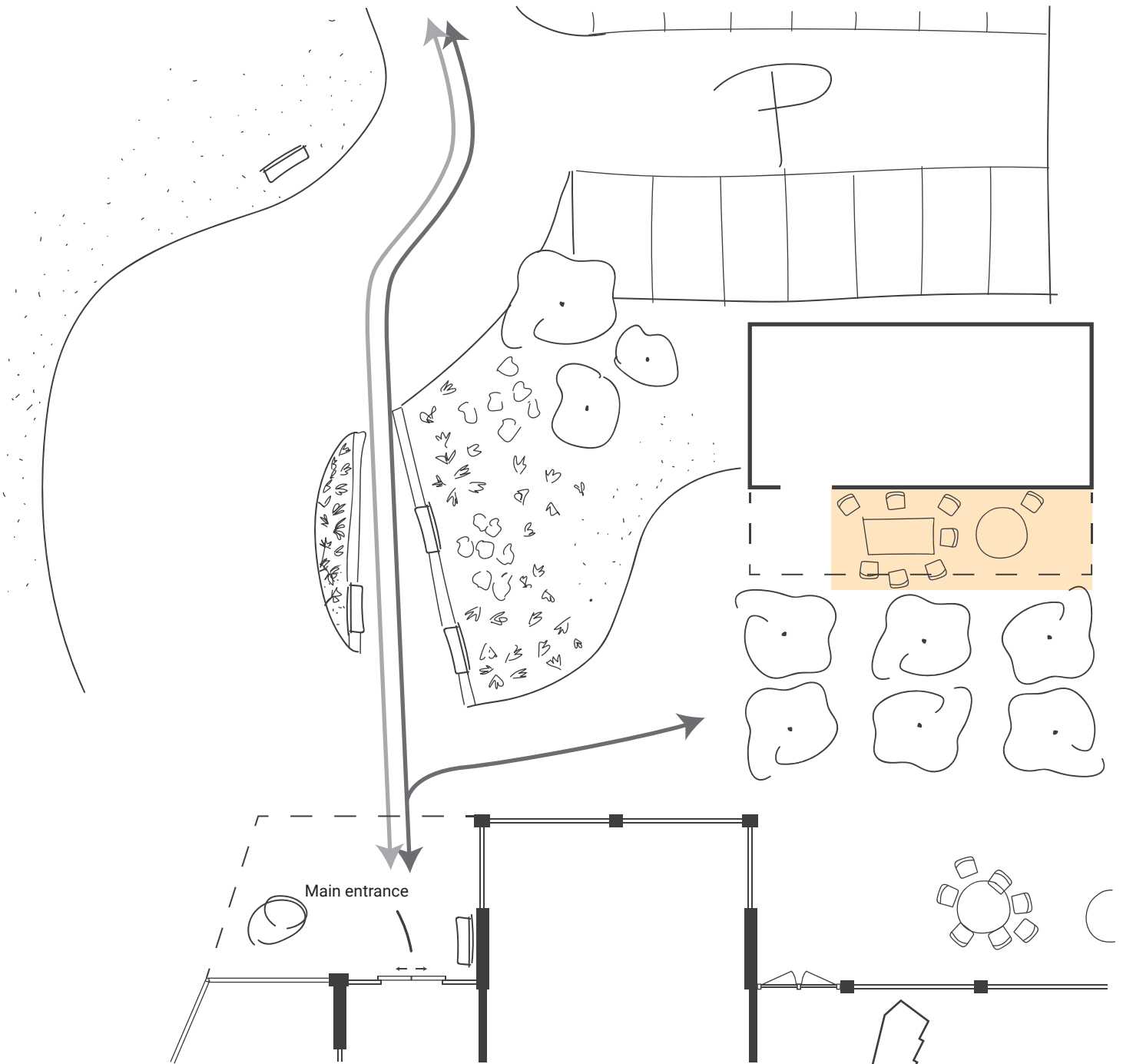
Used sporadically throughout the day by residents, when the weather allows for it.



Communal spaces

Smokers' shed

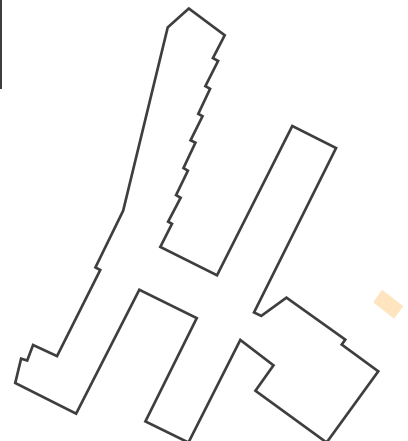
This space is almost solely used by smokers, but is used quite often. Not many people walk by this place, it is a bit hidden.



This space is used by a group of residents that smokes and caretakers. They sit here for a while to smoke and chat. Some times non-smokers join too.



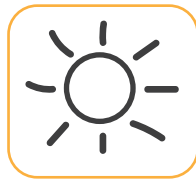
Used a little throughout the day by residents and caretakers (not at the same time). Residents often sit here at night: 19.00-23.00



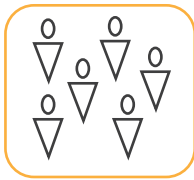
Communal spaces

Smokers' shed

This space is almost solely used by smokers, but is used quite often. Not many people walk by this place, it is a bit hidden.



Natural light



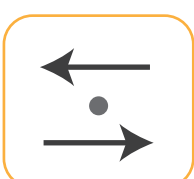
Can sit with a group



Possible to sit



View outside



On way during daily routine

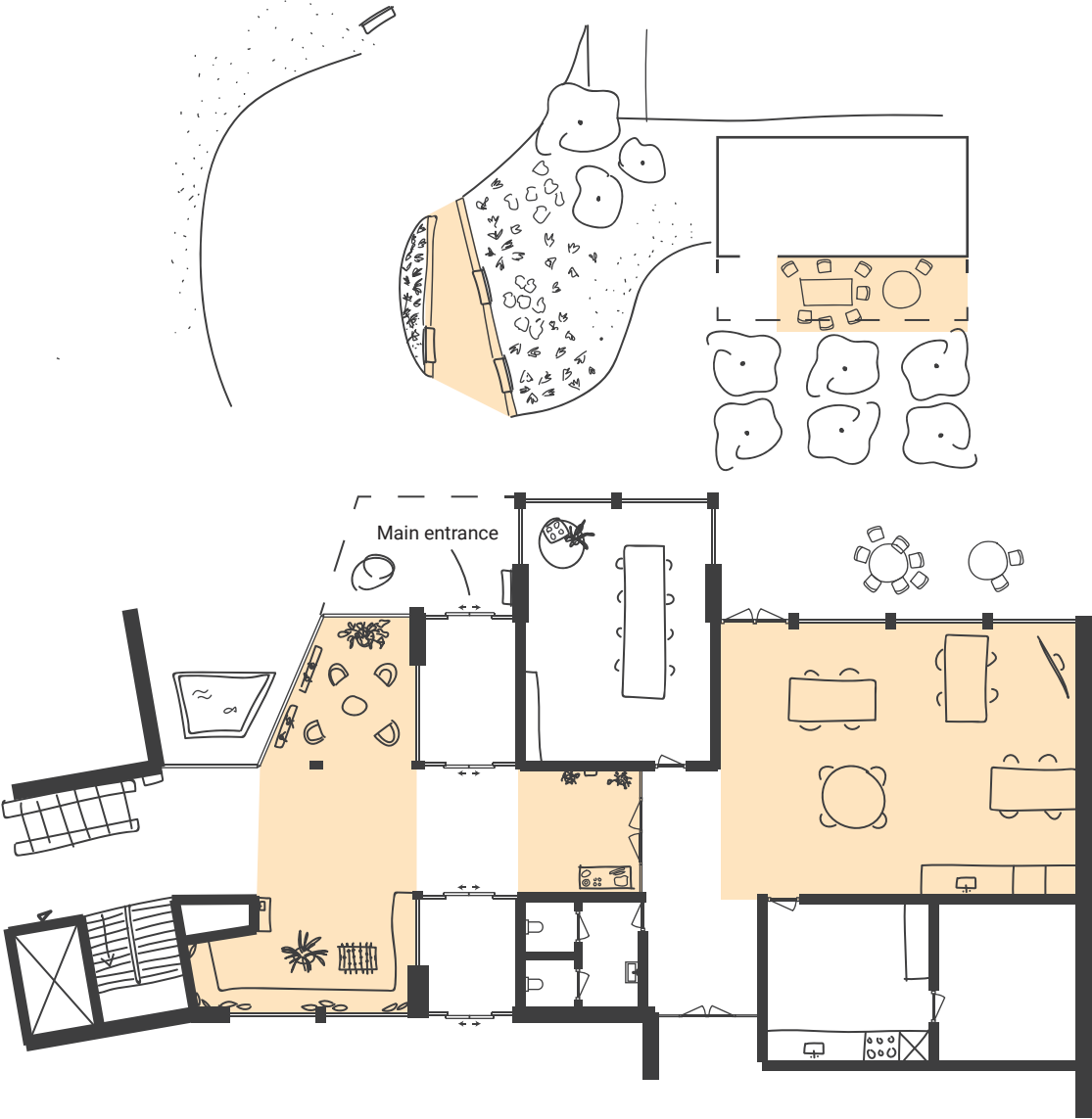


Spacious for wheelchair

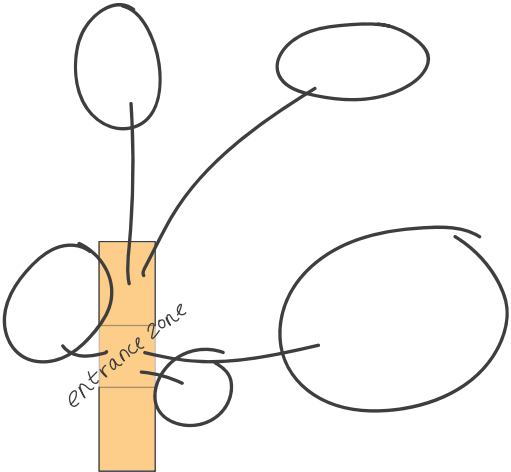
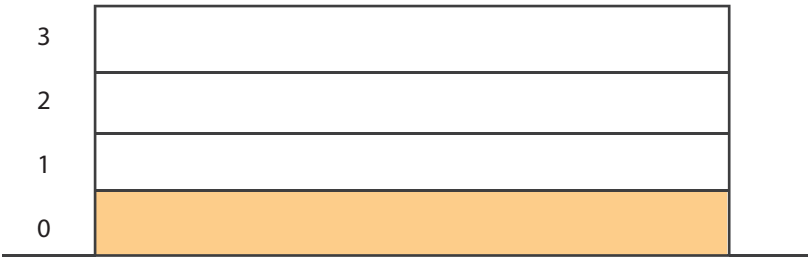
Communal spaces

Conclusions: location

The most used spaces are located on the ground floor of the building, around the main entrance.































Location most used spaces:
On the ground floor - Around the main entrance



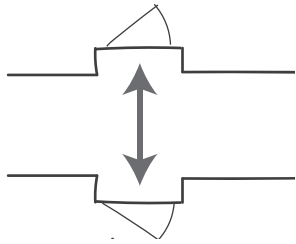
Communal spaces

Conclusions: qualities

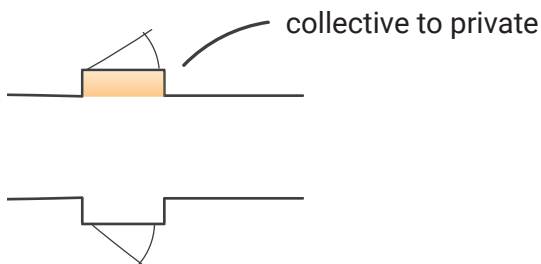
The most used spaces have different qualities, but all of them are frequently passed by residents during their daily routines, offer plenty of space for people in a wheelchair and have natural light coming in. Or in other words: the spaces are accessible, there is constant movement through or past them and they have a light and open atmosphere.

Smokers shed	 View outside	 Natural light	 Possible to sit	 Spacious for wheelchair	 On way during daily routine	 Can sit with a group
seat in front of entrance	 View outside	 Natural light	 Outsiders pass by	 Possible to sit	 Spacious for wheelchair	 On way during daily routine
Tea house	 View outside	 Natural light	 Outsiders pass by	 Possible to sit	 Spacious for wheelchair	 Can sit with a group
Giveaway table		 Natural light	 Outsiders pass by	 Spacious for wheelchair	 On way during daily routine	
Coffee room	 View outside	 Natural light	 Outsiders pass by	 Possible to sit	 Spacious for wheelchair	 Can sit with a group

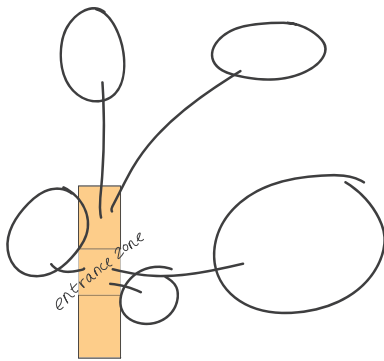
Conclusion Encounter



Doors opposite each other -> meeting opportunity



Zoning the private area of residents



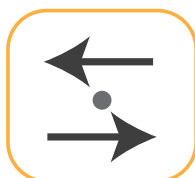
Most encounters take place at:
- Ground floor : public facilities
- Around main entrance



Natural light



Spacious for



On way during

Spatial Qualities of most used spaces



3. 3 Emotions

Another topic we focussed on during the fieldwork was emotions. We wanted to know what elderly makes happy and what makes them sad. How are they dealing with these emotions and is it related to their living environment?

Based on the conversations we had with the group of elderly in Huis Assendorp, we tried to figure out what their feelings are and how they feel about some activities, people or amenities.

In order to get more understanding about the emotions of elderly we tried to ask them specific questions about their feelings. This was very hard since the elderly find it difficult to talk about how they feel and express their feelings.

But based on their mood and enthusiasm while talking about a specific topic, it was easier to gain insight into their feelings. To confirm our observations, we asked the elderly whether our assumptions were true or not.

We spoke to a diverse group of elderly people. We asked them about their hobbies their former job and activities they perform. Some of them were more active on a daily basis than the others who mainly stayed in their room sitting and watching tv.

We also asked about their social contacts. Do they have often people visiting them, do they have family nearby and if yes how often do they come? In terms of family contact some elderly people had relatives nearby, while others had no relatives or only from a long distance.

Because Huis Assendorp also has a few students as residents, we also asked the elderly what they think about this. What kind of relationship do they have with these students? Are they happy with their presence? Do they like to see children around?

It was interesting that none of the elderly had any problems with the presence of younger people in the building. They liked the liveliness. While some of them have close contact with a few students, others only see them once in a while in the building. The elderly really enjoy seeing small children passing by and especially when their own grandchildren come to visit. They are having a great time with each other.

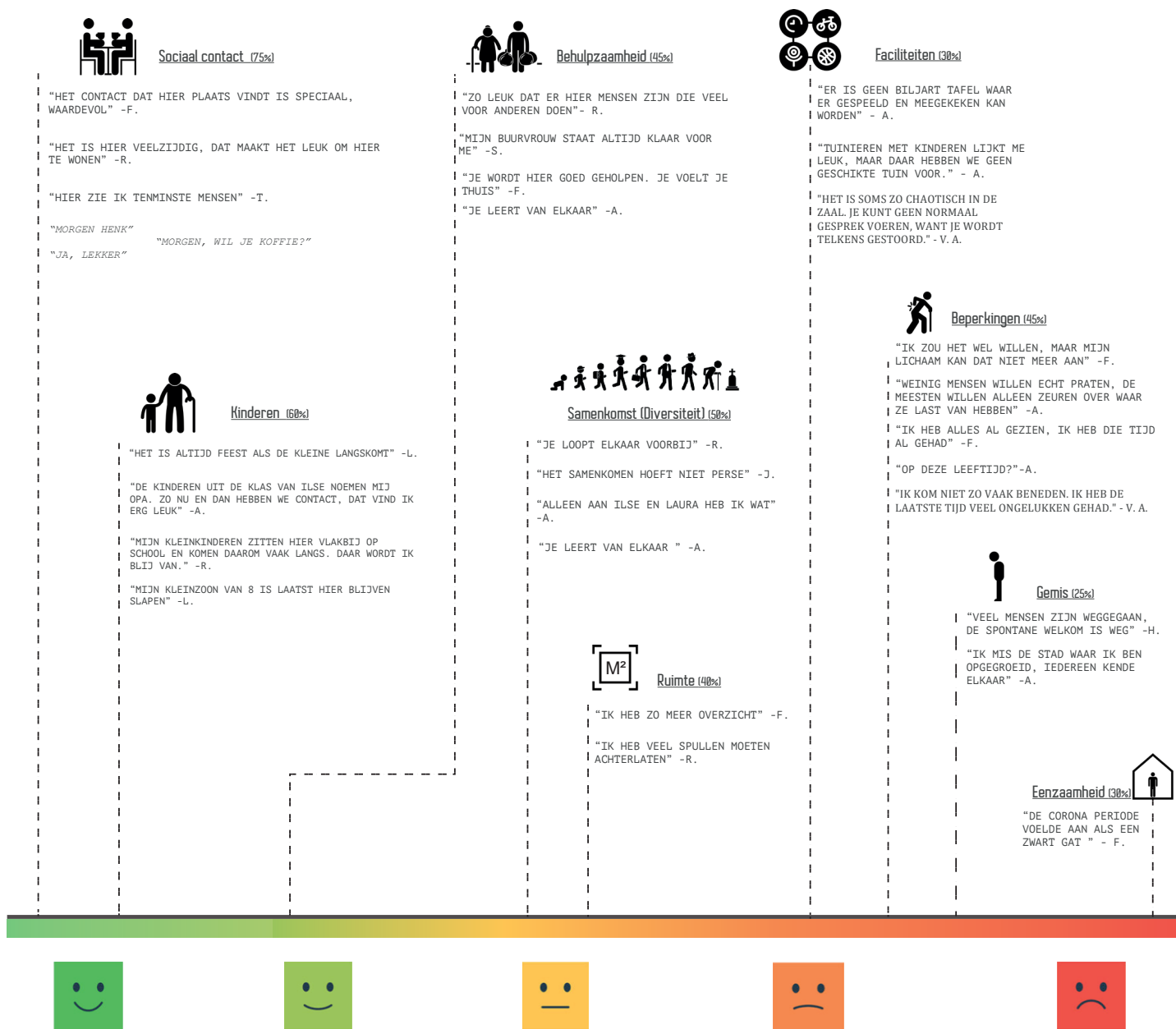
Finally we asked the group of elderly about what makes them unhappy. What are they willing to change? Are there things they missing doing? What kind of amenities are they missing? The answers to these questions were different for each. This was also related to the physical condition of the elderly. Some are still vital, while others are more physically limited.

During the conversations we tried to ask as many as possible to the elderly. In this way we could gain more information.

On the following pages the results are shown.

Mood tracker

moods based on quotes of residents



During the fieldwork we asked the residents what makes them happy and what makes them unhappy. Based on the conversations, we took out the most striking quotations and put them on a moodtracker. It turns out that elderly appreciate social contact, even if it is a small talk, a goodmorning or a handwave. Also they like to have contact with younger people, but unfortunately they do not have much contact with them. This lack of contact makes them unhappy. They miss their own hometown, neighbours and friends which they can not see longer

Out of the interviews we did with the elderly on emotions, we took out the most striking quotations and put them on a moodtracker.

It turns out that the elderly in Huis Assendorp appreciate social contact the most, even if it is a small talk, a goodmorning or a simple handwave.

This group of elderly, consisting out of elderly who are more likely to socialize within the community, also like to have contact with younger people, but unfortunately they do not have much contact with them. This lack of contact makes them unhappy. The elderly miss their own hometown, neighbours and friends which they can not see longer.

The elderly like the helpfulness of the people within Huis Assendorp. They are willingly to help each other. In this way the elderly with more limitations can ask for help by more vital seniors within their network.

When it comes to facilities, the elderly miss some activities in and around the building. Due to their physical limitations, they are limited in doing things, but indicate that they also enjoy watching others do activities.

Physical limitations are the most frequently mentioned aspects that make older people sad. They can do less than what they did before. The lack of contact and loneliness are also mentioned. This is often due to the loss of former friends due to relocation and bereavement.



Front doors



- Plants
- Quotation
- Pets
- Care
- Memories of beloved ones
- Hometown

The residents of Huis Assendorp each have a personal space at the front door that they can furnish to their own taste. The resident can show his/her identity by placing objects and personal belongings.

While some keep it minimal, others have a fully decorated front door.

To see what they love to show and cherish, we created a photo series and analyzed the elements presented.

Front door spaces

Extra space claimed by residents

We found that residents not only decorated the designated area next to their door, but also the door itself or space around their door. This space was sometimes also used to store things. This shows that residents prefer to have more space to decorate and perhaps need more storage space than they have in their homes.



Front door spaces

Extra space claimed by residents

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Front door spaces

Conclusion



Plants

70%

Plants as decorative items. It varies from fresh flowers, green plants to artificial greenery



Notes

5%

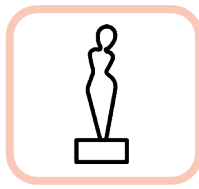
Has notes represented. Mostly to give a message to other residents in the building



Home town

10%

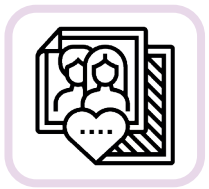
Refers to home town related images, statues and drawings



Objects

54%

Places objects like statues, figures and personal items



Memories of beloved ones

20%

Represents photos and / or postcard that refer to memories with beloved ones (friends / family)



Quotes

30%

Shows quotations about life, home or spirituality



Pets

6%

Has a name tag of their pets and /or a photo of them represented



Care

20%

Has items of the care facility in front of their doors. These do not directly belong to the resident

It was striking that every resident decorates its front door differently. While some of the residents like to decorate extravagant, some of them like to keep it simple as it is. Most of the residents like to have some greenery in front of their entrance, like plants or fresh flowers. Also it is common that they place decorative objects and quotations, in which they can identify themselves. Finally we see a lot of pictures and postcards of beloved ones, which residents can cherish the memories with them.

Conclusion Emotions

Important factors



Nature: plants, flowers, greenery



Social contact; small talks, encounters and spontaneous meetings



Helpfulness: providing informal care / help



The valuable moments with beloved ones



Hometown feeling



3.4 Community

The interviews about emotions with the group of elderly in Huis Assendorp, revealed that they like the community feeling here. It makes Huis Assendorp more than a care home.

We were interested in this community they told us about. How is the network of elderly composed? Who helps them outside of their family? Do they do something for others? How does the community work within the building? *(The scheme of this network within Huis Assendorp can be found in the fieldwork booklet (Appendix A, p. 63))*

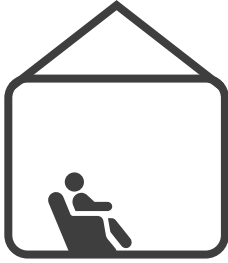
While they enjoy talking about a community as a whole, the reality showed us that there are different groups of people meeting and helping each other. Not every resident within the building joins these groups.

To get more information about the elderly network, we did some research on this topic. We observed the residents and asked about their social network in interviews. We also asked whether the elderly mean something to each other and are willing to do something for others. The results of these studies are shown on the following pages.

Community - Network

Conclusion: involved residents

Based on our observed care network and information from interviews, we have made an estimation of how many people are involved in the informal care network. We have used the following numbers: 25 people involved in care network (5 more than observed), 15 students and soccer players and 90 home sitters. The overall makes 130 residents.



Home-sitters

69%

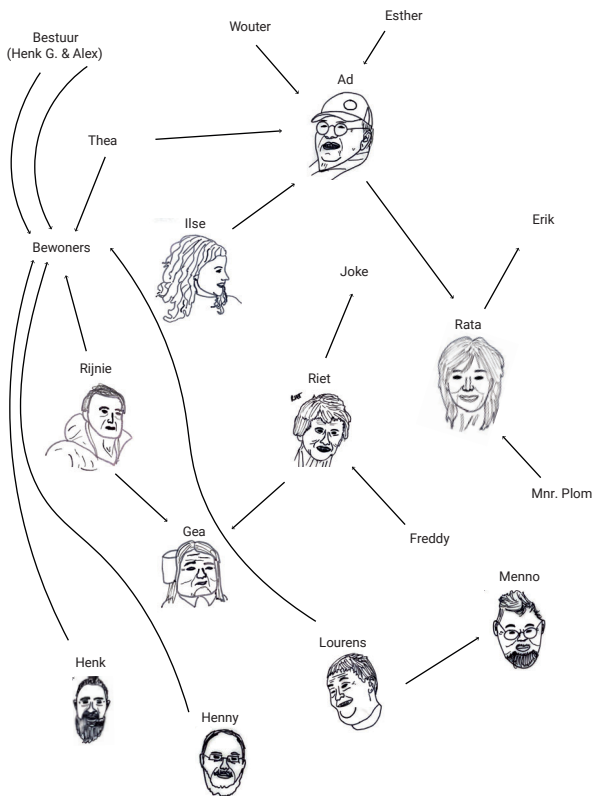


Soccer team & students

12%

Uninvolved

Involved



19%

Care - network

Conclusion Network



Majority of the elderly are 'home sitters':
Little / no social interaction, unmotivated to go outside



Community network firm & balanced



Involve older people more with young people

3 . 5 C o n c l u s i o n s

Conclusions Fieldwork

Striking points (problems)

Focus points



Less activity

The elderly are less active, they are most of the time sitting at home.



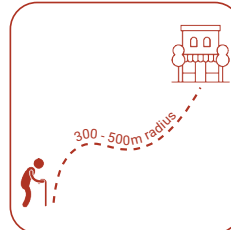
Lack of interaction

Majority of the residents do not interact with each other or with people from the neighbourhood



Segregation

The group of elderly are more and more segregated from the younger people living in the same living environment



Facilities close by

Facilities should be in a radius of 300-500m so the elderly with limited mobility can easily do their groceries on their own.



Identity

Residents like to give their space an identity, decorating their private or shared space to make it their own. The space is familiar and recognizable.



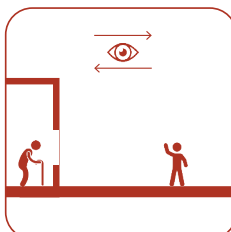
Walk

Elderly like to walk in and around their living environment. However this walking area should be safe and providing comfort to the elderly.



Time

Elderly people have certain times during a day when they leave their home. These times are fixed for most of them.



See and be seen

Older people like to have insight into what is happening in their living environment. This also ensures that they are seen by others, making them more likely to have social interaction moments.

IV. In depth Research

4.1 Social interaction

Definition

In this paragraph, the term *Social Interaction* will be defined in order to obtain a clear interpretation and understanding so it can be incorporated into the design in a considered way.

The term *Social interaction* is interpreted many ways. This may be due to the fact that this term consists of two different words; *Social* and *interaction*.

The adjective *social* relates to society in this context. According to the Cambridge Dictionary the adjective *social* is defined as:

“Relating to society and living together in an organized way”
(Cambridge Dictionary, 2020a)

Interaction is an combination of the terms *inter* and *act(ion)*. The prefix *inter*-means reciprocal and *action* refers to an act; doing something (Cambridge Dictionary, 2020b).

So interaction can be seen as the reciprocal actions of people or things. This is also similar to the definition according to the Cambridge Dictionary:

“A situation where two or more people or things communicate with each other or react to each another”
(Cambridge Dictionary, 2020b)

Although the definitions seem to be clear, the aggregation leads to different interpretations. Some definitions are more global, like the following definition:

• *A term referring to the daily relationships among individuals* (Kiran, 2019)

While others are more specific:

• The behaviour, actions, and exchanges between/among two or more individuals. Although social interaction often involves language or ‘talk’, it is not a requirement as it is for linguistic interaction (Campbell, 2016).

• The communication or contact of an individual with another individual or a group of individuals in the society for purpose of information exchange, entertainment, or to maintain essential social connection (Usman, 2019)

• “Social interaction is the process of reciprocal influence exercised by individuals over one another during social encounters” (Little, 2013).

All in all, it is clear that social interaction is about the connection of people within a society, that can not only take place verbally but also by doing, giving or exchange.

Within this research we will focus on the social interaction between the elderly and young. These two groups differ from each other in many ways. The important one is maybe their lifestyles. The fieldwork research showed that the elderly are social inactive and missing social contact. This lack of social interaction can be explained by the diminution of the social circle of elderly, due to changes in their life cycle stage (Kemperman et. al, 2019).

In order to get a grip on this problem we will first look at how social interactions takes place. Following with the importance of social interaction for the elderly and finally discussing how it can be stimulated.

'Meneerke Wuif' zwaait elke dag naar iedereen die zijn huis passeert: "Vriendelijk zijn kost niets"



■ Karel Wauters posteert zich elke middag aan zijn voordeur om het voorbijrijdende verkeer te groeten. "Vriendelijk zijn kost niets."
(FOTO: CARLO COPPEJANS)

Figure 1: Mr. Wave (Coppejans, 2019)

	Type	Trigger	Distance
non-verbal	Wave 	 Seeing	
	Eye-contact 		
	Smile 		
verbal	"Hi!" 	 Hearing	
	Small talks 		
physical	Meet (coffee / visit) 	 Physical activity	
	Doing something for someone (helpfulness) 		
	Doing something together (activity) 		

Figure 2: Scheme types of social contact (Koçak, 2020)

Why is it important to encourage social interaction?

In order to age in a more healthy way it is important that elderly are integrated in society and have social participation (Kemperman et al., 2018). Although this may be true, in general the elderly have a small social circle comparing to the younger generations. The reason for this occurrence is the change of their life cycle, age-related losses along with limitations in health and mobility (Kemperman et al., 2018). Which results in feelings of loneliness and social isolation (Pino, 2013).

According to the study of Penninx (2003) elderly are more in need for social connections within their living environment.

Seniors mainly prefer to stay in their own house for as long as possible. They are even more likely to adapt their house rather than moving out. Their familiar environment and independency are important factors. This also refers to the ageing in place concept which is promoted by policy makers and health care institutions. This concept entails that the elderly are remaining in their own living environment where they can stay independent and get informal care from their social network (Weijs-Perrée, et al., 2015).

How does social interaction take place?

Social interaction can take place in many ways. It is all about receiving something from someone and reacting on it. This interaction takes place in a social field, which therefore makes it possible to socialize with the other one. Unconsciously we are using different types of social interaction on a daily basis. The simplest one is the hand wave to greet someone non-verbally. And like Mr. Wave says (figure 1) it's free, but in return you get a smile, hello or conversation which will morally reward you.

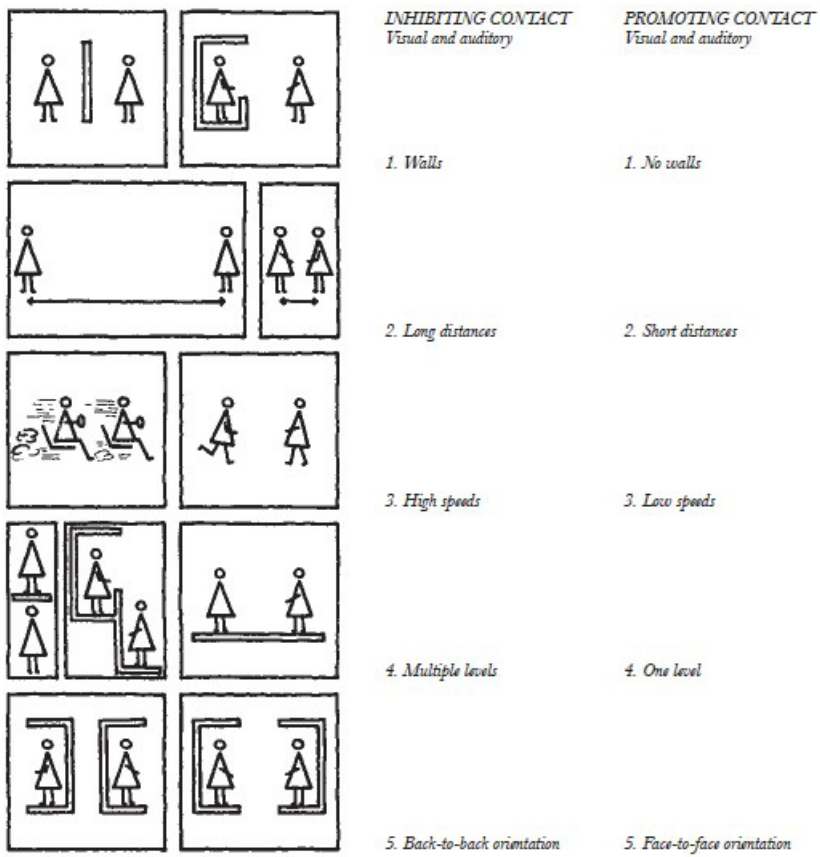
To make it clear these types of social contact are categorized within a scheme (see figure 2).

In order to interact with some one you need to receive some triggers. These are more or less related to our senses. As a reaction to these triggers we answer with the same or another type of contact.

The ways of contact are divided into 3 different categories. These are the following: Non-verbal contact where physical actions takes place, verbal contact where the acoustics comes into play and lastly physical encounter where all of these occur.

the senses and communication

Physical arrangement can promote or prevent visual and auditory contact in at least five different ways.



62

Figure 3: The senses and communication (Gehl, 2011)

How can it be stimulated?

There are many ways to provide social interaction. In general the contact moments of people are distinguished in informal and formal contact moments. The formal moments are intended and takes place in a more formal setting, like meetings, dinners or organisations. While informal contact moments are more spontaneous, like meeting a neighbour in front of the door or a simply hand wave. This was also visible during the fieldwork. Elderly sitting at the entrance had a lot of contact moments with people that were passing by. These contact moments were unplanned and in an informal setting.

According to a study of Williams (2005) the social contact between residents within a community is encouraged when there are opportunities for contact, they live close to each other and have an appropriate place for interaction (Williams, 2005, p.197). This is where architecture can play a role. By understanding the needs of the target group a proper living environment can be designed to promote the social interaction between residents.

So instead of positioning elderly all together in a specific place, it is better to settle them in a more divers living environment. A living environment with other generations will provide the elderly opportunities to form social networks. As well as the possibility to form a network that provides informal care.

It is clear that social interactions are important for the social and emotional well-being of people. According to Glanz (2011), loneliness can be reduced by frequently walking in the neighbourhood, because it leads to

spontaneous social interactions.

And as stated in the study of Van den Berg et al. (2016), mobile elderly are able to have social interaction at different locations/ amenities than less mobile elderly. In order to success in the concept of ageing in place, it is important to have amenities that are also accessible for elderly with limitations.

In order to promote social contact, it is important to understand which factors are playing a role in here and how we could improve these.

Danish architect Jan Gehl did a lot of research on this specific topic of how people act and use public space. In order to gain more insight into improving social contact, information has been gathered from his book "Life Between Buildings: Usign Public Space" (2011).

In this study, Gehl argues that social contact can be promoted or prevented in five different ways by the physical layout of a place (see figure 3). Physical barriers to contact include the following:

1. **Walls or visual blocking elements** in the living environment seperates and blocks the view and communication of two individuals. These seperating elements are inhibiting contact. Therefore visual blocking elements should be avoided in places where social contact should take place.

2. **Distance** plays a role in acoustic and visual communication. The longer the distance, the harder it is to see and recognize the other person as well as trying to communicate with them.

3. The **speed** of people passing by. It is easier to talk to someone who is passing

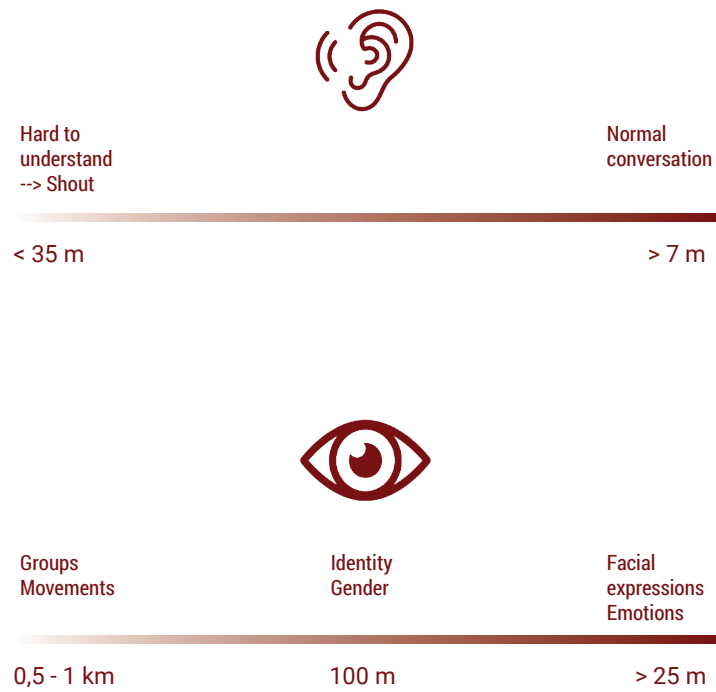


Figure 4: The senses and communication (Gehl, 2011) illustration by (Kocak, 2020)

by than to someone who is passing with the car. The high speed of passers-by slows down contact. "Slow traffic means lively cities" (Gehl, 2011, p. 77)

4. The amount of *levels*. Living next to each other on the same level, makes it easier to have contact. People can easily approach each other. This is more difficult with someone who lives on a different level. Because the two individual live on different levels, it makes it harder to easily see each other (lack of visual contact) and therefore less likely to have contact with each other.

Also the amount of floor levels has impact on having social contact. The more levels, the more the meaningful contact with the street level decreases. This also has impact on the visual and acoustic contact with the public street level. The maximum floor levels to maintain meaningful contact with the street level are a maximum of 3 to 4 floors.

5. **Access orientation** has a major impact on promoting social contact. A back to back orientation ensures less rapid contact moments because people do not see each other, while a face to face orientation ensures that each other can be seen more quickly and therefore both visual and other forms of contact take place. Also people can follow what is going on in their living environment, which provides social safety feeling.

In all these options two senses have a major impact on social contact.

The sense of sight:

Seeing is one of the most important senses in order to react on triggers. It has been stated by Gehl (2011) that the senses are oriented horizontally. We are able to see more things on a

horizontal field rather than on higher levels. Therefore it is important that events happen in front of the humans in their visual perspective and preferable on the same level.

The larger the distance the harder it is to get in contact. Normal conversations with necessary details like emotions and physical movements take place in 1 up to 3 meter distance.

The longer the distance, the more details are lost. For example, it is more difficult to recognize someone's identity from a certain distance (+100 m). This is also known as the social field of view; not being able to see each other's actions and identities, so one can remain unrecognized. After a certain distance, the field of vision is so much reduced that people are difficult to recognize and only movements can be recognized (see figure 4).

So to sum up everything, the smaller the distance between humans, the more senses are included and work together in a conversation. This makes the contact between people more valuable.

The sense of hearing:

Hearing is also an important sense for having a good conversation with someone. This aspect is also related to the distance between people. In his research Gehl (2011) stated the following about hearing and contact:

Up to 7 meters it is possible to hear each other and have a conversation.

Up to 35 meters it becomes a bit more difficult to understand, people have to speak louder.

Above 35 meters people are difficult to hear, they have to shout and can not have a proper conversation (see figure 4).

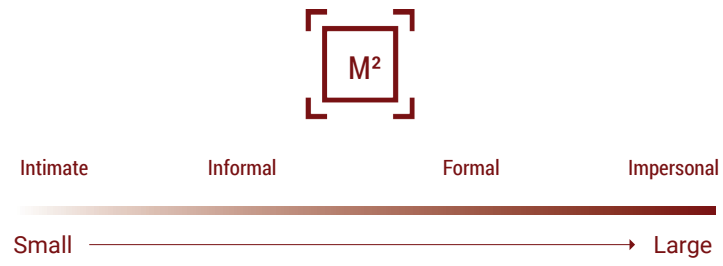


Figure 5: The senses and communication
(Gehl, 2011) illustration by (Kocak, 2020)

From these two important factors we can understand that distance has an important factor on creating and ending social contact moments within the public space.

This implies that a certain suitable space is needed in order to have good social contact (Gehl, 2011).

As discussed by Gehl (2011), the space should not be too small to avoid unwanted contact moments. On the other hand, a room should not be too big, so that a formal and impersonal atmosphere is created in which it is difficult to start a conversation (see figure 5). According to the survey within this research of Gehl, a distance of 3.25 meters turned out to be very useful in the context of front gardens where conversations can take place.

This may be due to the fact that small spaces create a more intimate and personal space, which is more often perceived as warm, cozy and personal. The small distance makes it possible to see each other better and to work with more senses and to exchange emotions. This is in contrast to larger spaces, where the room feels more impersonal and unpleasant in most cases (Gehl, 2011).

To create more familiar and more personal spaces, it is therefore important to have a certain gradation within the living environment. This transition from private to more public spaces makes the spaces feel more familiar and homey. This helps people to maintain social contact and interact with others in the public space.

To become more familiar with a space, the shared space should not be too large. It has been found that a shared semi-private space of 15 to max. 30

households works well together to create a social network within a residential area (Gehl, 2011).

Another factor to improve social contact is to be able to see movement within the public space. When people can follow the movement in their environment, they are more likely to join others and are kept informed of what is happening in their immediate environment.

As Gehl (2011, p. 23) quotes. "People and human activities attract other people". That is why it is essential to place entrances, balconies, front yard and gardens in the direction of the more active street. So residents can enjoy the movement and life in their environment.

This also applies to benches, which provide a view of the environment and the activities that are going on. The study by Gehl (2011) showed that benches with little or no (active) view are used much less than benches with good view. That's why it is also important to point benches towards the view where activities are going on, such as the edges of an open space. In addition, it is important that people have good back protection and that a bench or seating area is available every 100 m, so that people (but especially the elderly) have the opportunity to sit (Gehl, 2011).

In terms of physical encounters, there should be places available within the living environment where people can meet each other. These encounters can take place spontaneously or planned. Therefore there should be a variety of facilities available for the residents of different age groups.

Facilities must be easy accessible by the elderly, so that they can do their

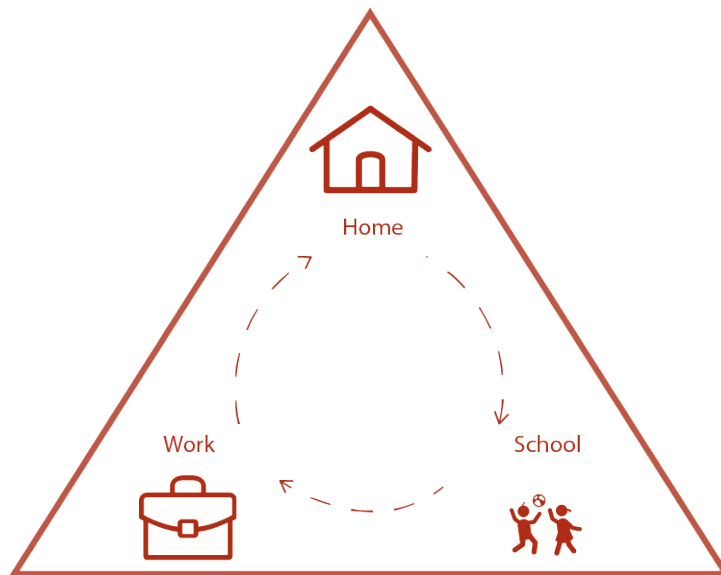


Figure 6: Daily shifts younger families, illustration by (Kocak, 2020)

‘Het Amsterdamse stadsbestuur zou wijkcentra moeten koesteren’

Amsterdamse wijkcentra staan onder hevige druk van het participatiebeleid van het college. Rogier Havelaar (CDA) vraagt zich af waarom wijkcentra zich telkens weer moeten bewijzen. ‘Buurten leefbaarder maken is niet altijd sexy.’

Rogier Havelaar 16 december 2020, 19:00



In buurtcentrum De Driehoek in Noord gaat zelfgemaakte soep van buurtbewoner Carmelita (links) rond. BEELD DINGENA MOL

Figure 7: “The Amsterdam city council should nurture community centers” (Havelaar, 2020)

groceries independently. From the fieldwork research we concluded that the elderly can walk in a maximum radius of 500m. It is essential to have places to sit on this road. These places can also provide encounters.

For the elderly it is important to have at least the 3 A's available in their residential area. These A's stand for: Arts (Doctor), Apotheek (Pharmacy) and Albert Heijn (Supermarket) (Hoof, 2019).

These three programs are most essential for the elderly to meet their daily needs. The care related functions are important because most of the elderly are making use daily of care related functions. Besides these functions they also get care at home by professional care providers (thuiszorg). So in order to remain self-reliant, it is important that these functions are easily accessible to the elderly within the living environment.

Also the supermarket does not only function as a place to do groceries, it is also a place where elderly can arrange services (bank, public transportation) and even have social contact with employees, like the small talks with the cashier at the desk (Hoof, 2019).

While it may seem like these features are only for the elderly, the 3 A's are useful for the younger people too. Although they can use a car, bicycle or other transport, younger people also want to have amenities within walking distance for better accessibility. In this case, both groups can take advantage of these features.

For younger families (with younger children) it is also important to have a suitable space for their children. A safe, green and child-friendly environment is essential for them. The younger

families prefer that their child can grow up in a safe neighborhood with other children. It is also important for them to have facilities for children, such as playgrounds and public spaces, where they can meet peers and social contact between parents and children can take place. A daycare and school in the area are also essential for this group (Laarman et al., 2018).

Younger families have to travel between three major destinations every day; home, work and school (see figure 6). It is therefore important that the distance between these destinations is as short as possible so that people can move quickly, easily and efficiently during the day (Laarman et al., 2018).

As mentioned earlier, it is important that both young families and the elderly socialize with neighbors. A central community center can bring residents together. This can be a place where young and old can meet.

This community center is known as de buurthuis in the Netherlands and in Germany as the Mehrgenerationshäuser; A place where young and old can be brought together ("Jongeren en ouderen helpen elkaar", 2017).

Over time, the community center has lost its image in the Netherlands. Certain municipalities such as Amsterdam are even considering closing these facilities to make place for newer functions such as co-creation spaces (see figure 7, Havelaar, 2020). Havelaar wonders why municipalities are aiming for this change while there are still so many people who are committed to the maintenance of these community centres. "Making neighborhoods more livable is not always sexy" (Havelaar, 2020).

The community center is a place where daytime activities take place, so people can avoid isolation. A must have for elderly people who are dealing with social isolation and loneliness.

Being able to go somewhere and do activities offers a completely different atmosphere for the elderly and vulnerable people than being accompanied by professional care providers who visits them (Havelaar,2020).

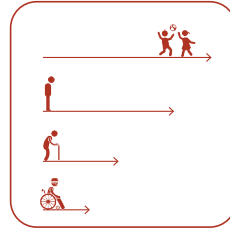
The community center is an entertainment point, a place where people meet and keep company. It also offers people the opportunity to contribute to their neighborhood. Residents can organize events and dinners for the neighborhood. Play activities can be organized for children to bring them together and provide temporary care for parents. Emergency services can be provided by and for others, such as household, garden and / or repair chores. It is a way of reciprocity. Therefore it is important that we cherish the community centers ("Jongeren en ouderen helpen elkaar", 2017).

However, it is important that the community center is also open to development and makes way for orientation to the future, so that they can be maintained longer and retain their prestige. So instead of removing community centers, municipalities can consider adapting the current ones in the neighborhood.

Guideliness to improve social contact



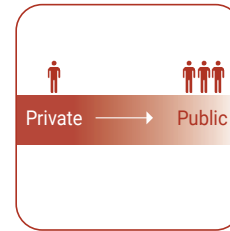
Diversity
Mix elderly residents with divers ages within the living environment



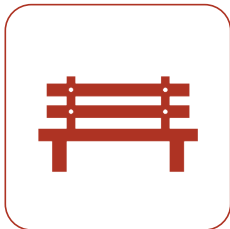
Speed
Make the space also accessible for people with limited speed. Focus on the low speeds to promote social contact



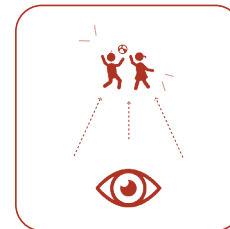
Walkability
The residential area should be pedestrian friendly and provide walking routes



Soft borders
To make the space more familiar and give a feeling of belonging, it is important to have a soft borders going from private to public areas



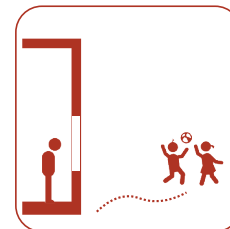
Seating
Provide enough seating places so elderly can take a break. A seat every 100m is useful, not only for recovery but also for promoting social contact



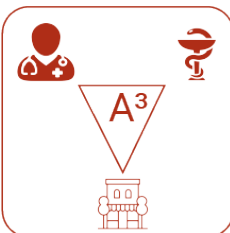
View of movement
People like to see movement within the living environment. Focus on views on movement, where something happens



Facilities
Facilities must be within walking distance (>500m), so that it can be easily reached by the elderly themselves

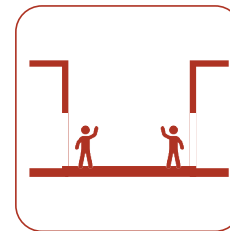


Face the active street
Facing the active street, provides residents social control of what is happening around their living environment

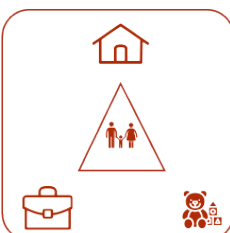


A³
Must have facilities for Elderly people:
Arts (Doctor)
Apotheek (Pharmacy)
Albertheijn (Supermarket)

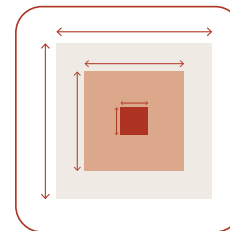
(Hoof, 2019)



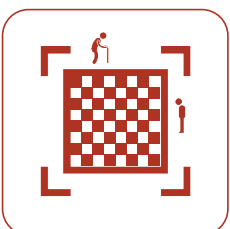
Face to face
Locate entrances face to face, so that residents see each other and have more oppurtunities for small contact moments



Everyday cycle
Young families are looking for short distances between home - school - work. Provide places for them aswell



Size
Pay attention to the size of a space. When it is too big, it becomes impersonal and unattractive to people. On the other hand, a place that is too small feels intimate and uncomfortable for contact to take place



Place for Interaction
Provide places for interaction, where people can come together or watch others

4.2 Intergenerational living

Definition

In this paragraph, the term intergenerational living will be defined to obtain a clear interpretation. In this way it the design choices can be done in a considered way.

The term intergenerational, consist of the prefix inter-, which is defined as “between or among the people, things, or places mentioned” (*Cambridge Dictionary, 2020b*).

Generation is defined as a group of people of the same age (*Cambridge Dictionary, 2020c*). So we can assume that intergenerational stands for in between or among people of different ages or stages in life.

In this research the term intergenerational living can be defined as a living in between different age groups. So not only focussing on the elderly, but also the youngsters in the living environment.

A living environment in which the elderly and the younger population are more involved with each other. In this way, a more inclusive and diverse environment can be created to combat the social segregation we are faced today.

The concept intergenerational living is discussed in several researches. In the following paragraphs the benefits of this concept will be elaborated.

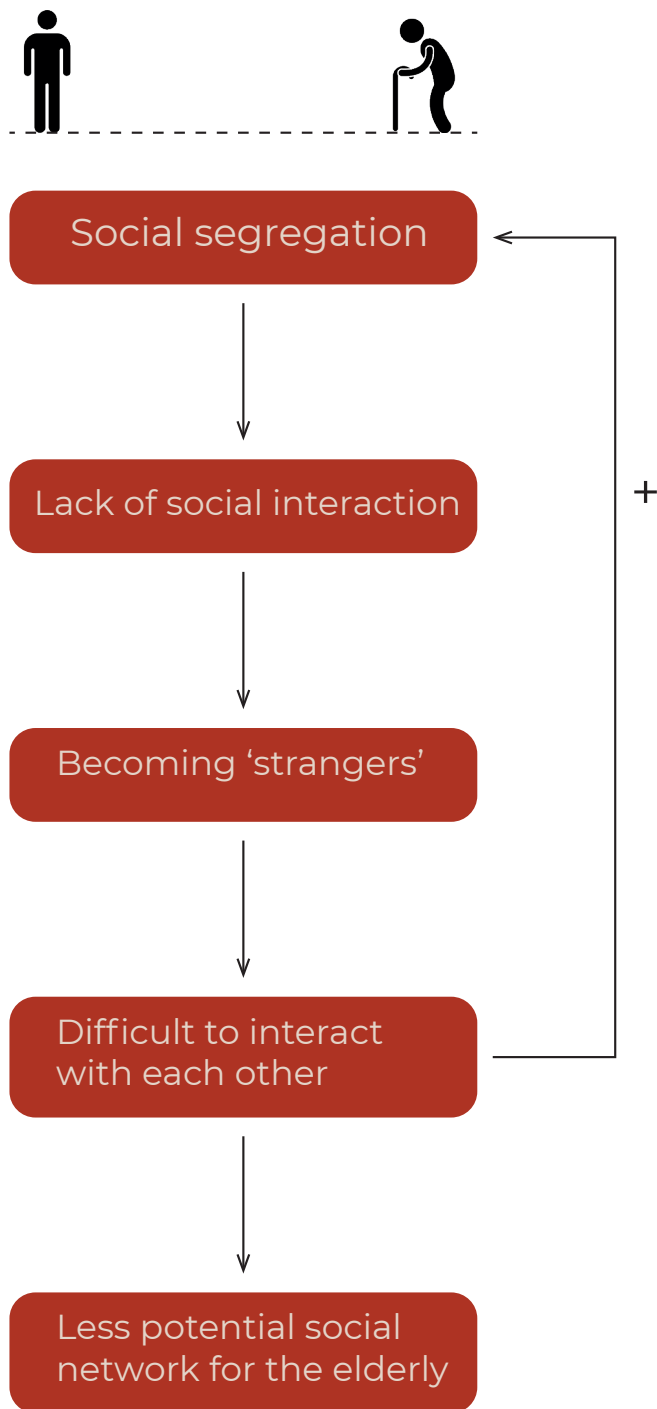


Figure 8: Social segregation (Kocak, 2020)

Social segregation

The lack of social interaction between the elderly and younger generations are more and more visible nowadays.

There are multiple factors which provokes this disconnection between the older and younger generation. Social segregation is one of these factors. It has an huge impact on the problems we are facing nowadays with the ageing population and the complications that comes with it.

Social segregation is defined as age segregation or ageism (Hagestad and Uhlenberg, 2005). It can also be defined as excluding based on age.

Separating certain age groups creates a lack of interaction. Which results in less social contact and therefore a lack of knowledge about each other. This subsequently leads to growing stereotypes and assumptions about one other, which makes it easier to become more strangers to each other.

According to the study of Hagestad and Uhlenberg (2005), this age segregation appears on three levels:

1- Institutional segregation

Exclude ages based on certain principles and standards, such as activities or functions that are only suitable for certain age groups. (e.g. activities with an age limit)

2- Spatial segregation

Spatial segregation is caused by the functionality of spaces within the living environment and also by the institutional segregation mentioned above. It is mainly based on where the different age groups are spend their day. Where children go to school, adults go to work and the elderly are spending their time at home. All these daytime activities take place in a different place,

which leads to less interaction between the age groups.

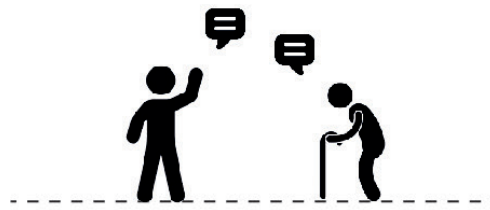
3- Cultural segregation

The cultural segregation can be seen as the differences in lifestyle, language and habits of the different generations. (e.g. Where the elderly like to old-school games, the young prefers to play digital games. Also the younger people are more intended to use foreign language and slang words, which can be confusing for the elderly).

All of these types of segregation together make it more difficult for both generations to interact with each other. Which makes the two focusgroups even more segregated. Also with this the potential social network for the elderly is becoming smaller (see figure 8).

So in order to diminish this age segregation, the contact between these generations should be stimulated. This could be done by promoting the interaction between both groups. According to Williams (2005, p. 197), "social contacts are enhanced in a community when residents have opportunities for contact, live in close proximity to others and have appropriate space for interaction" (Williams, 2005, p. 197).

This suggest that the social interactions between the elderly & younger people are enhanced when they live in the same living environments. Therefore an intergenerational living environment will provide places for interaction, to be able to form a network and diminish the separation of young and old.



Social interaction



Social relationships



Potential social network
to provide informal care



Ageing in place



Remain independent
-> improve well-being

Figure 9: Benefits of IGL (Kocak, 2020)

Ageing in place

Becoming old, not only does an elderly face physical limitations but also gets independent of others. This is mostly the case in care houses where the elderly are getting care and help according to a fixed schedule.

This dependency is not always appreciated by the elderly. Staying independent is one of the reasons why they prefer to stay at home as long as possible. Even if their home is no longer suitable for them, they are more willing to change it than to move to a nursery home (CBS,2020).

This concept of staying longer at home is defined in the term 'ageing in place'. According to Davey et al. (2004, p.20) it defines as "older people will remain in the community, either in their family homes, in homes to which they have moved in mid or later life, or in supported accommodation of some type, rather than moving into residential care'. In this way they can stay independent and get informal care from their social network.

Ageing in place is also promoted by the government. It is assumed as a solution for the problems we are facing with the ageing society and the load on health care organisations (Sixsmith and Sixsmith, 2008). In addition to this, ageing in place makes it possible for the elderly to remain independent (Sixsmith and Sixsmith, 2008). As well as enhance the well-being of the elderly (Wiles et al., 2012).

In order to make it more possible to age in place, the government and WMO, are providing care at home and make adjustments in homes of seniors to make it more elderly proof (Rijksoverheid, 2014).

To make ageing in place successful the following conditions are important (Krul, 2015):

- Opportunity for informal care (Chappell et al., 2004)
- Social network to avoid loneliness (Zantinge et al., 2011)
- Suitable surroundings (Burton et al., 2011)
- Senior housing (Raad voor de Volksgezondheid en Zorg, 2012)
- General health (Bekhet et al., 2009)

The opportunity for informal care will be easier when the elderly have a certain social network. Since the social network of elderly are small (Kemperman et al., 2019), it is important to focus on creating these social networks. In order to do this social contact within the living environment should be encouraged, which will make it easier to create a social network. And thereby making it easier to age in place, so the elderly can stay independent for as long as possible and improve their well-being (see figure 9).

Generaties helpen elkaar: het succes van Japanse kinder-bejaardenhuizen

De ouderen blijven actief, de allerjongsten leren iets over en van de alleroudsten. Kinder-bejaardenhuizen in Japan zijn een succes.

Jeroen Visser | juli 2017, 2:00



Figure 10: The succes of Japanese childcare-elderly homes (Visser, 2017)
Photo by Jun Michael Park (2017)



Guraus leefplezier Les 2: hoe gaan we wonen?

Een woongroep die voelt als een dorp: 'Ik leef hier mijn eigen toekomst'

Figure 11: How are we going to live?
(Marijnissen & van de Wier, 2019)
Photo by Roos Pierson (2019)

Prachtig initiatief tegen eenzaamheid: studenten gaan op kamers in een verzorgingshuis



Figure 12: Students living within care facility
Photo by Paradijsvogels magazine (n.d.)

Related projects

The success of intergenerational living is increasingly visible in the media. There are several successful projects running worldwide claiming that the results of these projects are successful and are pleasantly experienced by both generations. According to the study of Springate et al. (2008), the interaction between young and old has positive effect on the health and well-being of elderly. They felt they belonged and were worth something.

In Japan there are several project which merges elderly and child care centres. They call this concept “Yoro shisetsu”, which stands for “facility for children and the elderly”. The joint care facility brings benefits for both groups (see figures 10, 11, 12).

An example of Yoro shisetsu is Kotoen in Tokyo. This facility opened in 1976 and is one of the oldest intergenerational facility in Japan. The elderly and children do have their own private sections and they come together in common spaces for activities to interact with each other. Interaction takes place in both ways: the elderly often help staff with the care of children, like serving meals. Children visit the elderly care home's to company the elderly and spend some quality time with them (Visser, 2017).

The results show that both groups benefit from this interaction. The elderly have the company of children, a sense of belonging and are more active. The children learn from the elderly and develop a positive vision, are more understanding and show empathy and respect towards elderly people (Visser, 2017).

The Elderly also showed positive changes in their behaviour. They were more motivated to contribute to

these interactive encounters and had something to look forward to. According to the Singaporean anthropologist Thang Leng Leng, there was also a change in the conversations of elderly in these Yoro Shisetsu institutions. He said the following about these changes:

“Where it used to be about aches and pains, the elderly now talk over the children. It became more of a family conversation.” (Visser, 2017)

This example of IGL is more related to the connection of the elderly with preschool children. There are also examples where different age groups are being connected.

The Co-living concept is another type of intergenerational living, where multiple residents from different ages live together within a home. Every resident has its own private bedroom and shares the communal amenities like the kitchen, living room, working spaces and cleaning services (Souza, 2019). This Co-living concept is very popular in Germany, also known as the *Wohngemeinschaft*.

Besides Co-living there is also Co-Housing. Although it might sound like the same concept, they differ from each other. While residents in Co-living have a private dormitory, they have their own private home within Co-housing. In this concept they share communal spaces for socializing and activities (Souza, 2019).

Another well known concept is the students living in an elderly home to accompany the elderly. Students can live in one of the apartments in the nursery homes for a small rent or even rent free, to accompany the elderly living there. This was also the case in the nursery home we went during









Type	Private	Shared	Type of support
Co - Housing	 House	Communal spaces for socializing shared facilities	 Informal support and care within Community
Co - Living	 Dormitory	Kitchen, living room, working spaces, cleanin services	 Community
Students in nursery homes	 Single person apartment	Communal spaces for socializing within care home	 Students providing informal care to elderly
Joint care facility (elderly & children)	 Own private section for both facilities	Communal spaces for socializing (Daycare, nursery, care home)	 Elderly support the care of children children are accompany the elderly

Figure 10: Types of IGL (Kocak, 2020)

Wie is wie?

In deze handige Wie is wie? ziet u in een oogopslag welke mensen belangrijk voor u zijn. Handig voor uzelf en voor uw hulpverleners!

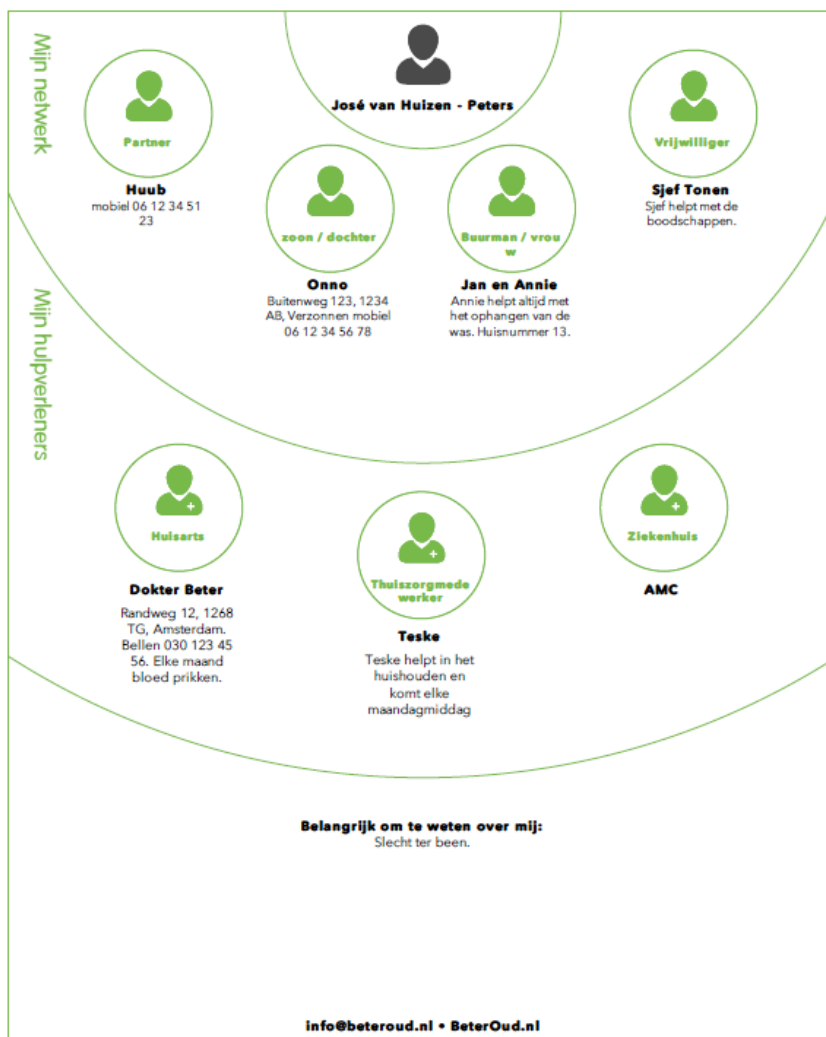


Figure 11: Wie is wie ? (Beter oud, 2018)

our fieldwork week. The students are asked to organize events or activities to entertain the elderly and also help them with providing informal care. However this type of IGL is only limited to students and sometimes they are not as active as they should be.

The discussed types of IGL are organized within a scheme (see figure 13), to make clear what is private, shared and the type of support within these concepts.

How to attract younger people?

In order to attract young people, something must also be offered in return for the help that young people provide to the elderly. Whether it concerns free accommodation, discount on the rental price or other kind of reciprocity.

Nowadays it is becoming increasingly difficult to find a home (figure 14). Especially if you are single and have a low income. Single young parents in particular are the victims of this and therefore also have concerns about their children. It often takes years before this target group can find a suitable home. It is also indicated that sharing basic facilities is annoying and it is not always possible to move in with family because one has to adapt to others (Teije, 2019).

These types of target groups in particular are more often willing to do something for a house where they can live independently on their own.

It can be considered to set some requirements when choosing residents for an intergenerational living environment. Young residents who are willing to contribute within the community can be given priority over this in getting a home. In this way, single people or parents can get a house faster and they can work within the community to keep their house. A similar idea to the students who can live for free in a retirement home in exchange for a few hours of volunteer work with the elderly.

Mix and Match

Not only young people but also older people can contribute within the community. Think of looking after children or pets, keeping an eye out when the young people are not at home, cooking or baking and other skills that young people do not have time for or are not skilled in (sewing, chores). Therefore it is important to know who can provide what.

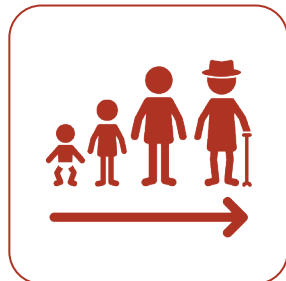
The organisation Beter oud created a tool *Wie is wie*, which makes an overview of people who can help them. In this way the elderly have an overview of their care & help network and know who to call when they need help. This social network overview is also useful for professional caregivers (See figure 14, Beter oud, 2018).

A similar overview can be created for the community. In this way it is easier to mix and match people within the neighbourhood. If person 1 can cook for others on Monday, person 2 can take some groceries along for someone else and person 3 can babysit the kids (e.g.). People know who can do what and the help network is more accessible in this way.

In order to create this overview it is important that there is a central point. Here people can apply for providing or receiving services. This central point acts as an intermediary, by linking residents with each other.

The central care point can also arrange on-call care when needed. Elderly people who are normally independent but require care due to circumstances can indicate this and obtain this through the mediation of the help point. That is why it is essential that a district nurse is present who can tackle care-related issues.

Guideliness for Intergenerational living



Avoid Ageism

Make places within the living environment accessible for all ages. Avoid excluding people due to their age



Support elderly

Make it possible for elderly to age in place. Give the opportunity for informal care



Social Network

Intergenerational social connections within the living environment will support the elderly and create a community feeling. This will avoid the feeling of loneliness and create togetherness (Zantinge, 2011)



Facilities for all

Offer spaces, functions and programs that appeal to all ages, so the living environment is divers and lively and multi generational

4.3 Survey on site location

To get more information about our site and the residents that are currently living in Tanthof, we arranged a survey.

Our goal with this survey was to get more detailed information about our specific interests.

For my research it was important to know what type of social contact the residents have, How they feel about living with younger people within the same living environment, What amenities they are currently missing, what qualities they prefer within their living environment and lastly are they are willing to share their living space with others.

Together with the other group members we made one survey. On Friday 20.11 we went to the site and ask as many person as we could to fill in our survey. In the end we collected in total around 37 respondents. The following pages will show some important results which will be used within this research. The entire survey and its outcomes, are available within the site analysis booklet (See appendix B).

Within this site analysis booklet you will also find other researches related to the location.

Do you ever meet outside with people from the neighborhood?

40 people



sport in the neighbourhood, homeparty, having coffee together, guests, dog walks, sewing, playing cards



corona, no relation, ageing, limited contact, no need

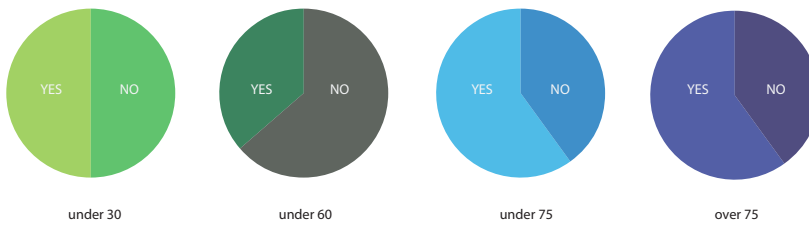


Figure 12: Survey outcome *Social contact; encounter within neighbourhood* (Kocak, 2020)

Social contact

To get more insight in the existing social relationships within the location, we asked the respondents if they meet outside with their fellow neighbours.

Out of 40 respondents, there is an equal division. While some answer that they frequently see their neighbours, others mentioned that they do not need such contact.

A small majority of the respondents answered that they meet outside with their neighbours. Especially the age group 60+ and <30 where in majority.

Looking at the respondents answering no, their reasons were based on the situation with corona, no relatedness with their neighbours and not feeling into it.

Would you like more contact with your neighbors / local residents?

40 people

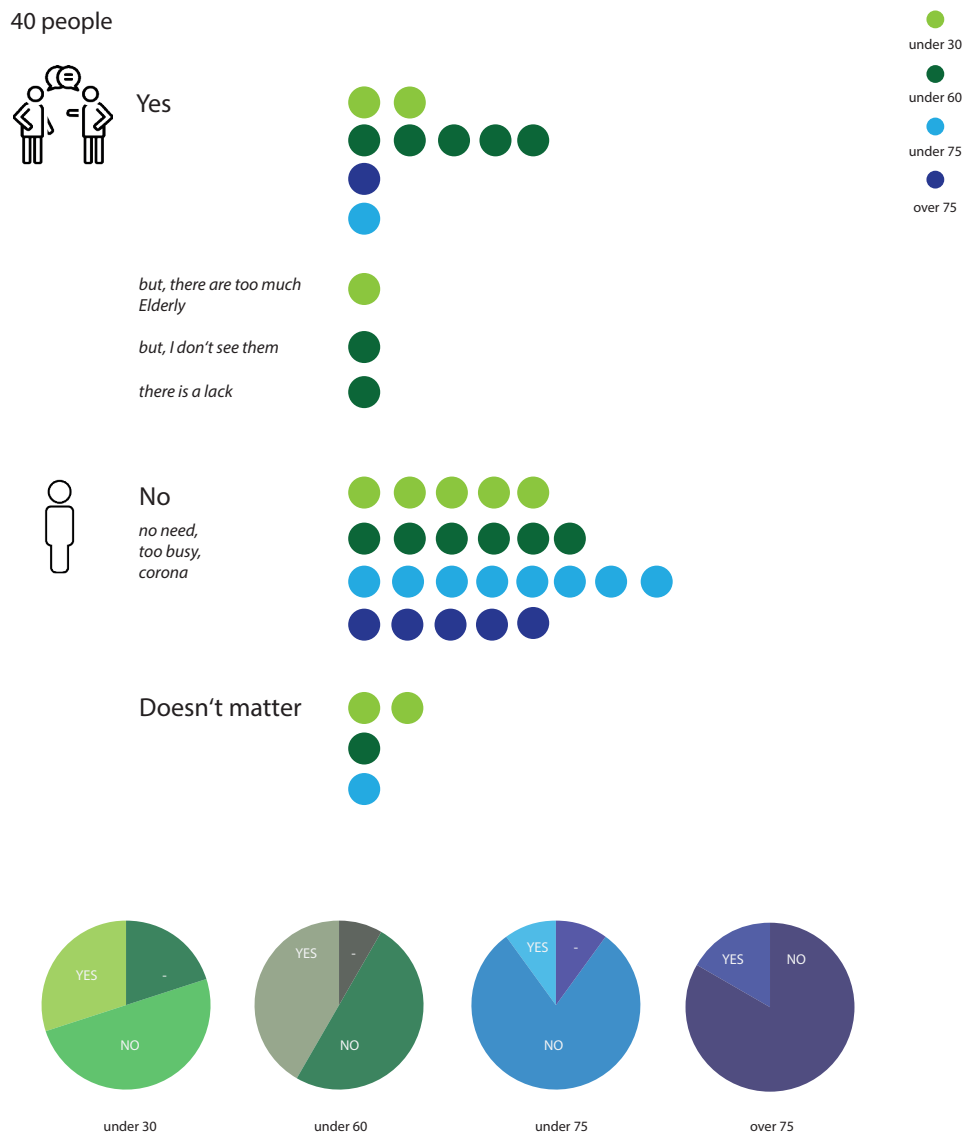


Figure 13: Survey outcome *Social contact, need for contact* (Kocak, 2020)

Social contact

It is possible that residents do not have good meeting places or do not actually know each other well yet. That is why we were curious whether the respondents would like to have more contact with their neighbors. In the survey we asked if the residents wanted more contact with their neighbors.

The results show that the majority answered that they do not need more contact. Especially the majority of elderly people over 60 years of age answered no. The reason for this was that they already have enough of existing contacts, can not because of their physical limitations and are afraid of meeting new people because of corona.

Do you have contact with local residents from your home or around your home, what kind of contact?

40 people

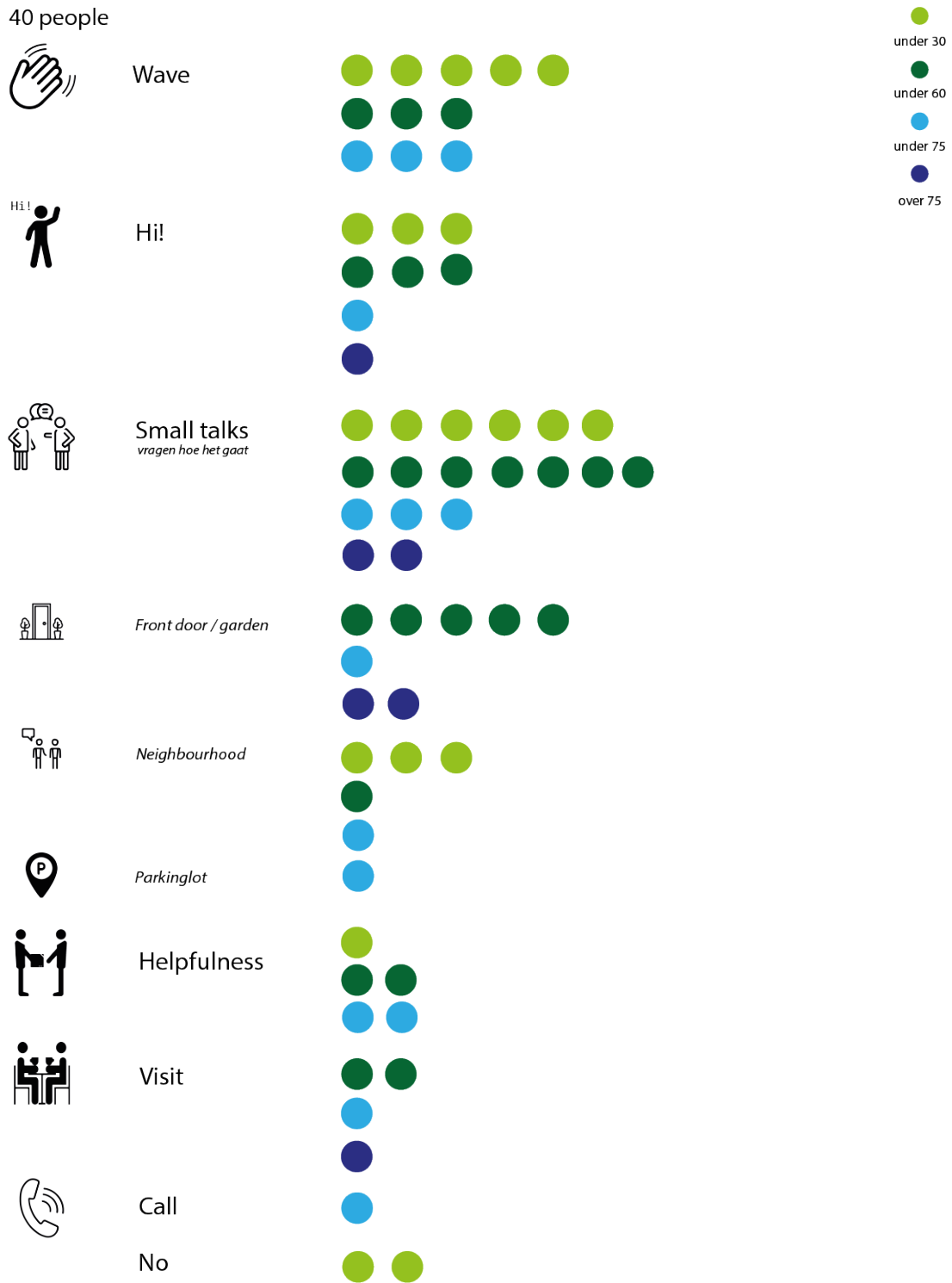


Figure 17: Survey outcome *Social contact, types of contact* (Kocak, 2020)

Types of Social contact

In order to obtain more information about the types of social contact that takes place within the neighbourhood, we asked the following question:

Do you have contact with local residents from your home or around your home, and if yes, what kind of contact?

The survey shows that the small contacts happen more often. Especially the small talks, where neighbours ask how it is going, are voted the most.

The respondents were free to give their own answer. Therefore we collected even the small details, like where they have their small talks. This happens the most in front of their entrance or front garden. So when entering or leaving their home.

In terms of the elderly we can see that the votes are divided. Also here the small talks are voted the most and the wave and helpfulness follows.

The more physical encounters, like meeting each other at a place or doing something together are voted less. These are the kind of contact that more often takes place with people who are more closely related to each other.

To sum everything that has been stated, social contact takes place at different levels. The most important and common ones are on a general level, like the hand wave, "hi!" and small talks. These take place mostly at the front door/ garden. A minority are having more close contact (visits, helpfulness and calling).

So the following points can be concluded from this survey question:

- Create opportunities for small contact moments to improve social contact

- Make it possible for residents to see each other when leaving / entering home, so that they can have the small conversations

- Create places where residents can gather outside their home.

What amenities are you currently missing in your area? No matter what the cost, what features would you like?

40 people

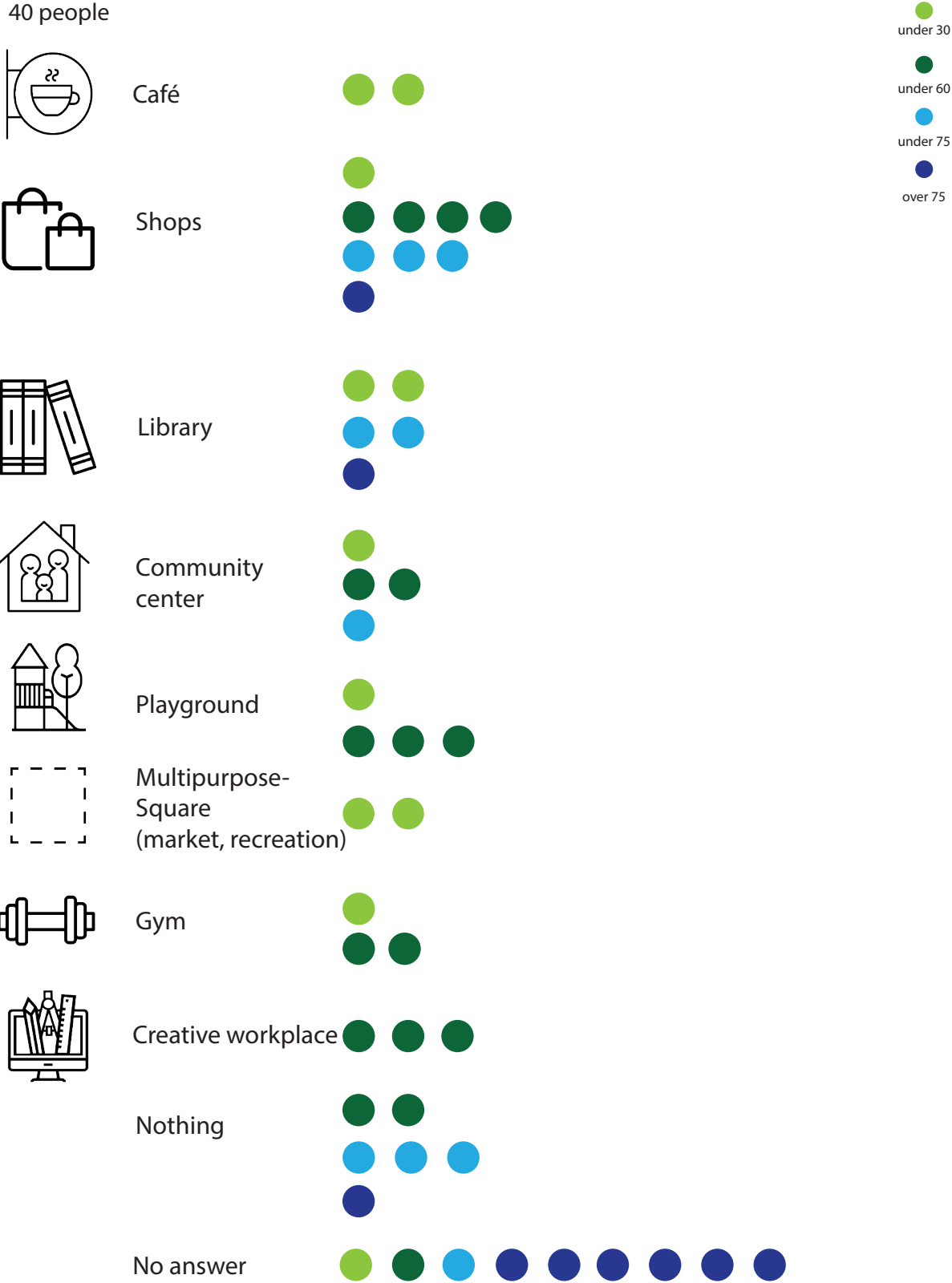


Figure 18: Survey outcome *Facilities, lack of facilities* (Kocak, 2020)

Amenities in the neighbourhood

We asked the respondents what kind of amenities they are missing in their living environment. In order to get more diverse answers, this question was an open question.

The answers are divided into categories. For the youngsters it was remarkable that they are missing a place to hang out, like a café or recreation place. A place to sit and have a talk with friends.

Another remarkable point was the availability of shops. Currently there is a supermarket, a bakery and some other local shops available at Dasstraat, but the residents answered that this shoppingstreet is outdated. They want a more diverse shopping area.

Also the availability of communal spaces like a library, community center and playground are missing. The residents would like to have a place where they can come together and meet each other.

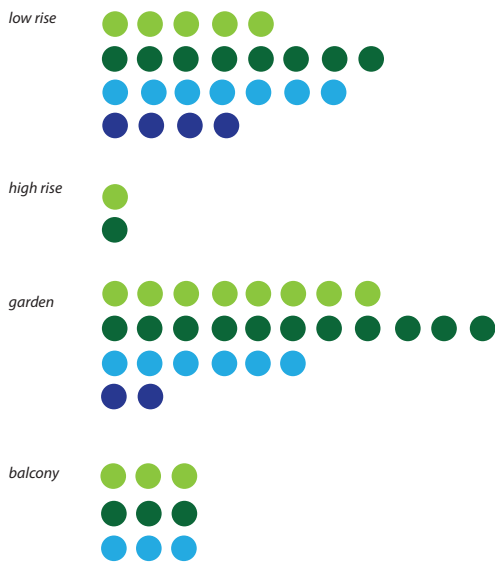
So in order to fulfill the wishes of the residents, the following points are important to consider:

- To attract youngsters a café or restaurant where they can gather
- Diverse shopping center where residents can provide their needs (revive the current shopping center)
- Communal space where residents (young & old) can gather and interact with each other

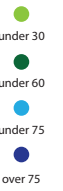
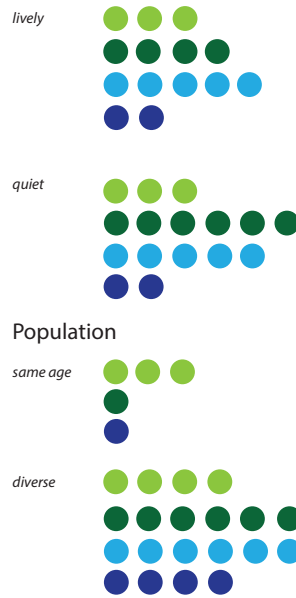
What qualities in your living environment would you prefer in old age?

40 people

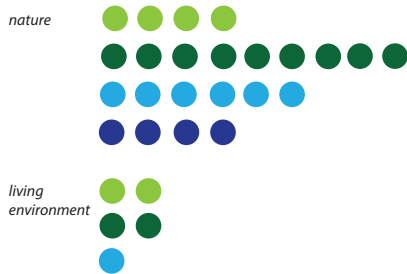
Building type



Living environment



View



Facilities

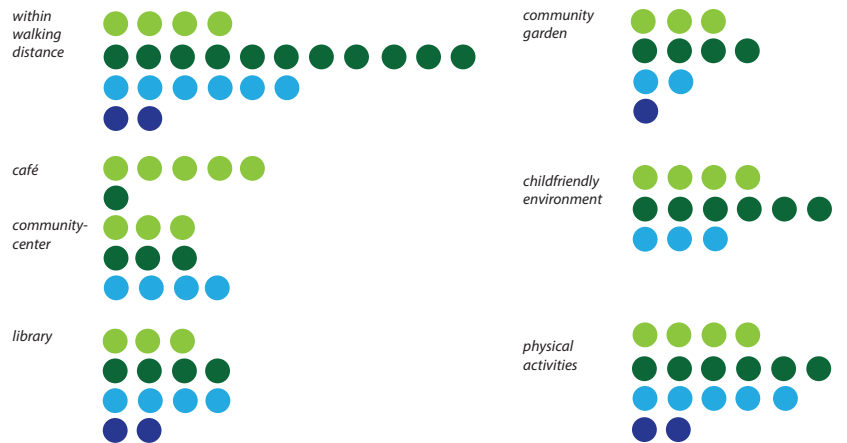


Figure 19: Survey outcome *Qualities within the neighbourhood, preferences of residents* (Kocak, 2020)

Qualities in the neighbourhood

The respondents were asked what kind of qualities they would like to have within their living environment when they are older.

This question was divided into categories, so the respondents could choose out of options.

Here it was remarkable that the majority of the residents are more likely to have a lowrise dwelling with garden. This also fits well in the building environment of Tanthof.

The respondents indicated that they are more likely to have a view on nature and want a lively as well as a quiet neighbourhood. A small majority of 75+ chose here for a more lively environment.

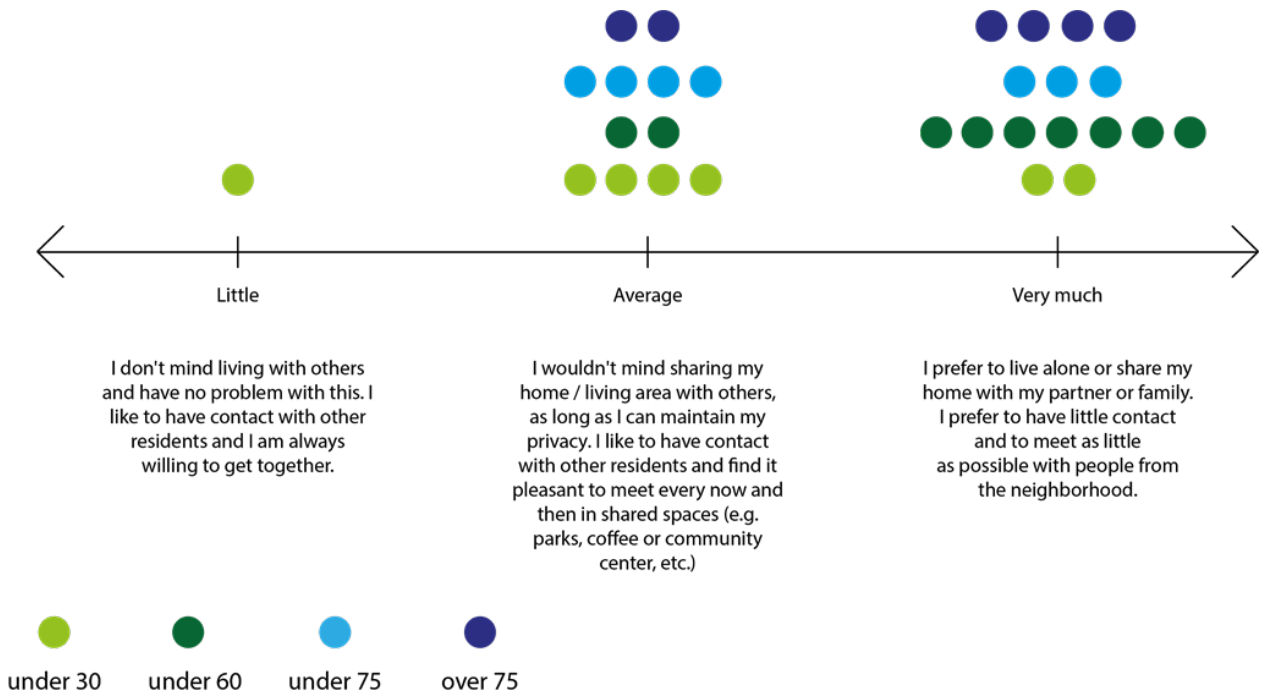
It is clear that a more diverse age group is more preferred than a living environment with only the same age.

Also here it is visible that the residents want facilities nearby, some public buildings/space and a childfriendly environment where they can also do physical activities.

So in terms of preferences for qualities within the neighbourhood, the following point can be considered:

- Focus on low rise with garden
- Use nature in a valuable and favourable way
- Focus on a more diverse mix of ages, so including elderly within young population instead of excluding them
- Facilities within an acceptable walking distance (with at least the 3 A's: Arts (Doctor), Apotheek (Pharmacy), Albert Heijn (Supermarket)) for the seniors (Hoof, 2019).

How much do you value your privacy?



Which spaces would you like to share with others?



Figure 20: Survey outcome *Privacy* (Bohn, 2020)

Privacy

In terms of privacy we can see that the respondents value their privacy very much. They only like to share their home with their own family. In addition to this they like to have contact with other neighbours and meet them at public places like parks, cafés or community center etc.

Also in the infographic below, we can see that most of the respondents answered no. The younger respondents (<30) are more willing to share spaces. The residents <60 are more willing to share less private areas like the living room, balcony / terrace / garden and hobby room, while the majority of the elderly 60+ like to share nothing.

So the following point can be taken into account:

- Try to give as much privacy as possible within the domestic framework, but gradually share it outside with fellow residents within the neighbourhood.

Suppose you later live independently in a place, who would you like to have as neighbours (who could possibly take care of you)?

34 people



Figure 21: Survey outcome *Target groups* (Jager, 2020)

Targetgroups

Another important question was what kind of neighbours respondents would like to have when they are older and in need for care.

There is a shift in answers as the age of the respondents increases.

Among the older respondents (60+) living with family and young families is more preferred than the younger respondents. In addition to this, people often choose to live together with friends and strangers with the same interest. Another remarkable point is that living with students for all ages scores very low.

So in conclusion, residents want to live independently with friends, family, young families and strangers with the same interest within the same living environment.

The following points can be taken into account:

- Focus on a familiar and family feeling within the living environment.

How often do you go outside? And what do you do outside?

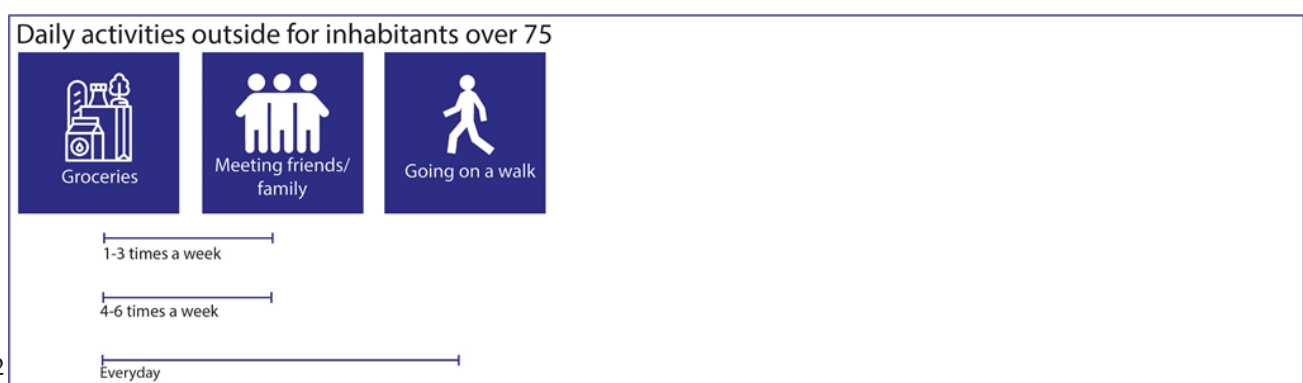
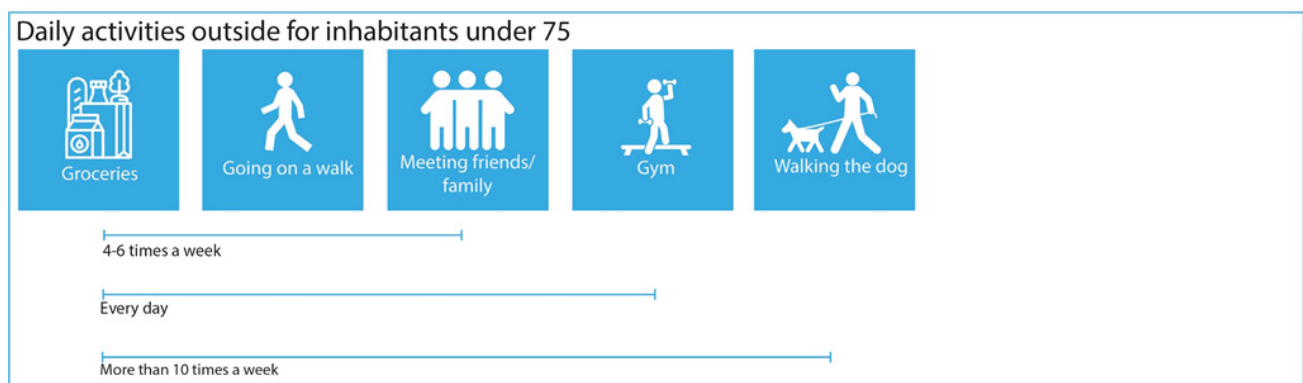
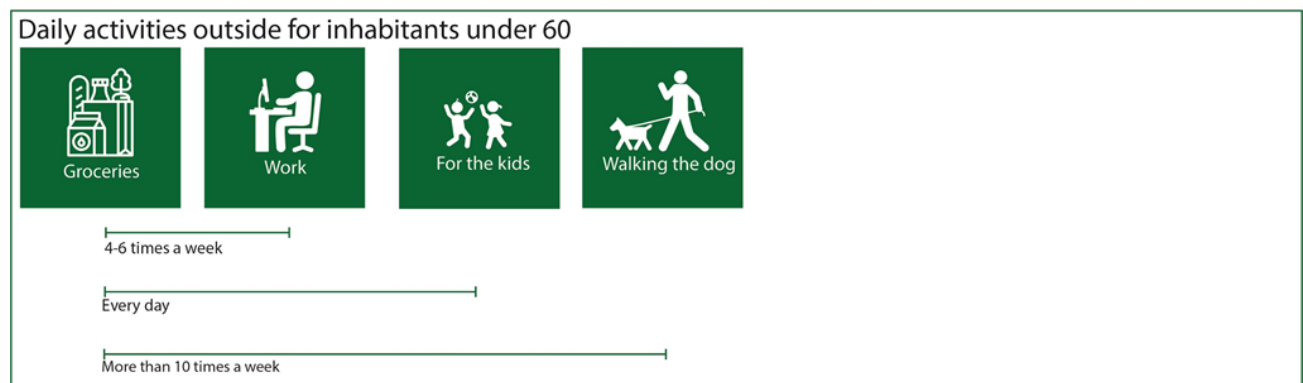
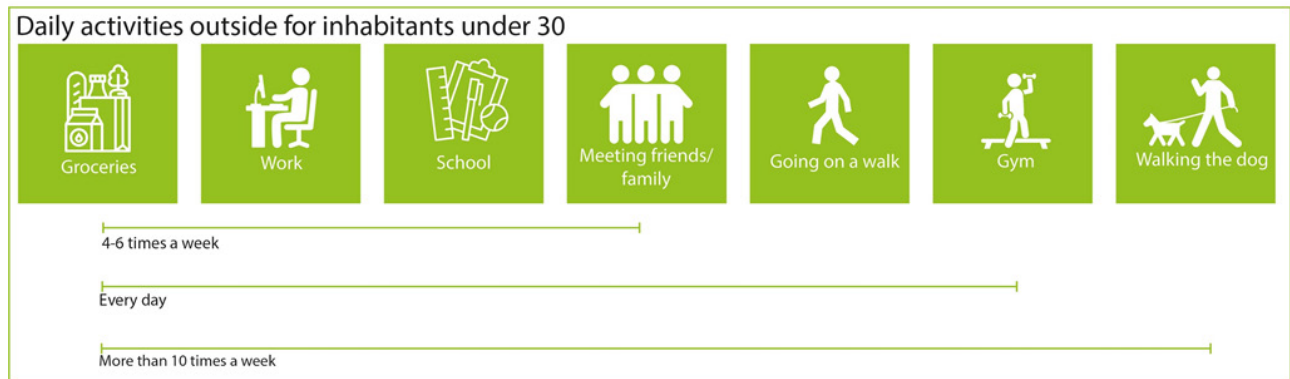


Figure 22: Survey outcome *Daily activities based on age* (Lê, 2020)

Daily activities

In terms of activities it is interesting to see how the amount of activities are shifting.

We categorized the answers according to the age group of the residents.

For the residents <30, 6 out of 8 under are going outside 7 to 29 times a week. The type of activities are mainly going outside for groceries, meeting friends, study/work etc. How many times they go outside depends on the activities they have. Residents that are walking the dog are going outside the most. They are mainly busy with their social life

For the residents <60, 5 out of 7 under are going outside 7 to 30 times a week. The main activities are going outside for groceries, work and activities for the kids etc. Here again residents that are walking the dog are going outside the most. From the answers it shows how busy their lives are and mainly busy with their kids:

*“Typisch 5 keer per dag: 30 keer per week
Werk boodschappen kinderen van school halen”*

*“Vier keer naar werk. 7 Keer boodschappen. 10 - 15 Keer hond uitlaten.
Een keer per 2 weken in centrum boodschappen doen.”*

Almost all <75 are going outside daily for groceries, going on a walk, meeting family and sports activities. They are less busy with social life or kids. Their lives are getting little by little smaller. Lastly the resident over 75 are going outside max. everyday. Their lives get

even smaller and the reason to go outside is mainly for groceries. They tend to stay at home more, no reason to go outside or they can't because they have to take care of their partner

To sum everything that has been stated, activities and reasons to go outside get less when getting older. Main purposes that are visible in every age group are groceries, meeting friends/family and daily walks. As it is a very walkable neighbourhood with a lot of greenery and slow traffic.

The following points can be taken into account:

- Focus on a walkable area within the neighbourhood
- Places to meet and interact with others (for all ages)

Daily routines

Comparison

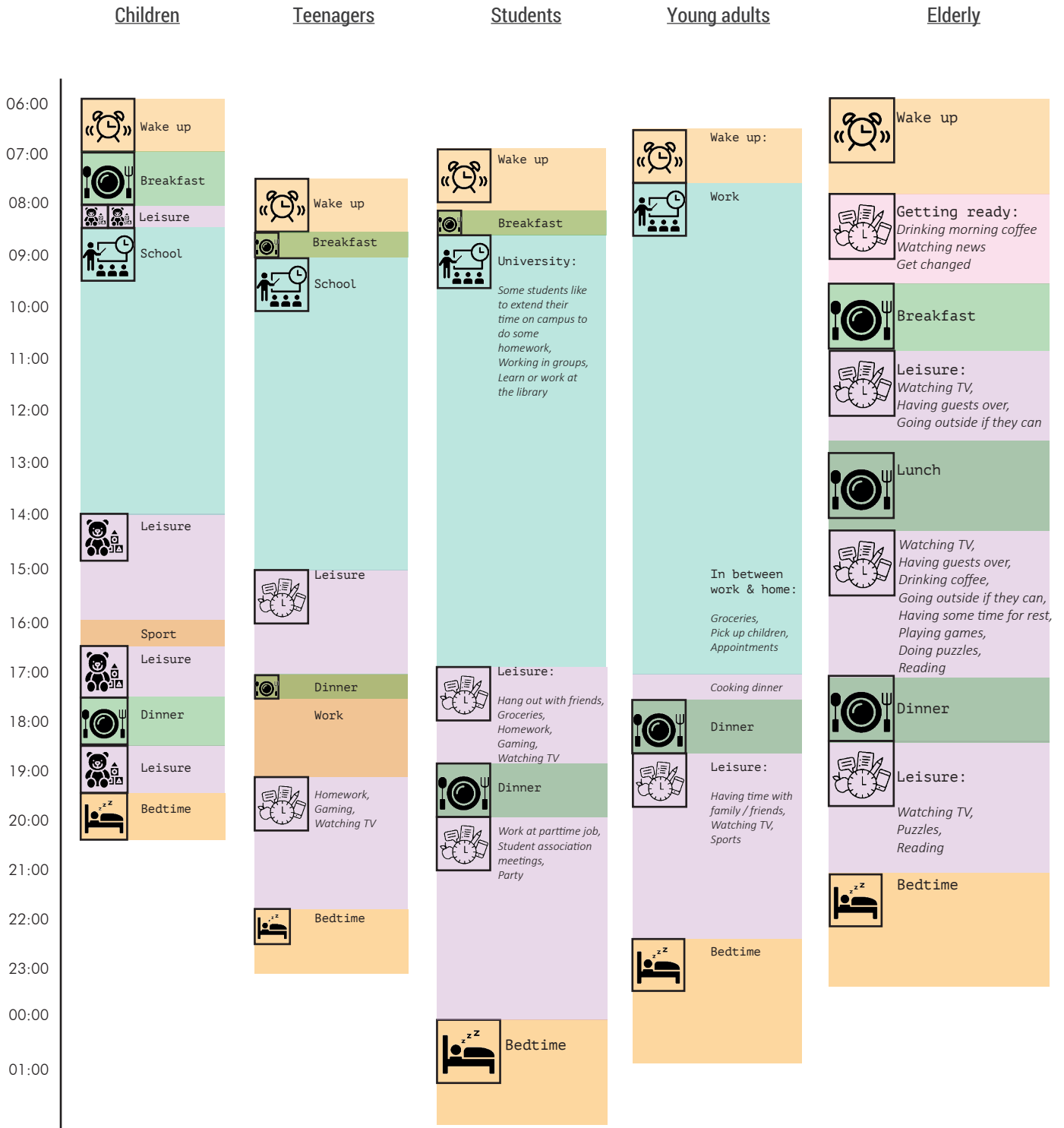


Figure 23: Survey outcome *Daily routine of age groups* (Kocak, 2020)

Daily activities

In order to get a more detailed view on how a day in a life of looks like, I did a separate survey/interview with several age groups.

These are categorized into children, teenagers, students, young adults and elderly.

A daily routine scheme was also made during the fieldwork. This time I asked also other elderly who are more vital and independently living on their own. This brought more insight in common activities on a daily basis.

The schemes of all ages are visible in figure 20. To make it easier to compare them they are put in the same scheme. There is a visible shift in the schemes when getting older. This may be due to the amount of activities, vitality and social network or responsibilities they have.

The following shifts are visible:

- Waking up and Bedtime:

It is visible that children and elderly wake up early (naturally) comparing to other ages.

- Workload:

The workload is in building up from the teenager years up to presenior age. The older the more responsibilities, not only of yourself but also your family/children. Being an elderly, this workload diminishes the seniors have more spare time. This is related to not having to go to work or other responsibilities of your children. Although it might seem they have a lot of spare time, they are spending most of the time at home.

Sometimes they are having guests at home, but mostly they like to watch tv, read or puzzle.

For young adults and students the spare times are more dense. Especially students like to hang out with friends, do multiple activities such as work, student organisations etc.

For children the spare time are mostly filled in with playing (inside or outside) and educative activities.

- Daily activities

For children the main daily activities are school and playing. Becoming older these play hours become more less and shifting into more work hours for school (homework) and socializing (hanging out with friends). For students the main activities are university, social time and their parttime jobs. Young adults are spending their time mostly with working, spending time with their family and doing home tasks, as well as leisure activities. Lastly the main activities of elderly are (if they are able to) doing groceries, home tasks and spending time at home watching tv, having guests at home and family visits.

4 . 4 C a s e s t u d i e s

In this paragraph we will be looking into casestudies in order to collect more information and insight about intergenerational living and living environments with a diverse age group.

As criteria for the project is has to be an living environment where both young and old can live together, shared spaces for interaction are available and lastly enough facilities to socialize and recover needs of the focusgroups.

There are a lot of existing project which are stated to cover these aspect, however the most appealing ones are going to be tackled within this research to have a better insight in their design choices and guidelines. In this way I want to be inspired and create my own way of design.

The chosen projects are:

Bloemkoolburenbond, Almere
by bureau SLA

Marmalade Lane, Cambridge
by Mole architecture

ParkEntree, Schiedam
by Blauwhoed

In these case studies, we look at the following points:

Typology
Accessibility
Public vs. Private
Facilities

Bloemkoolburenbond

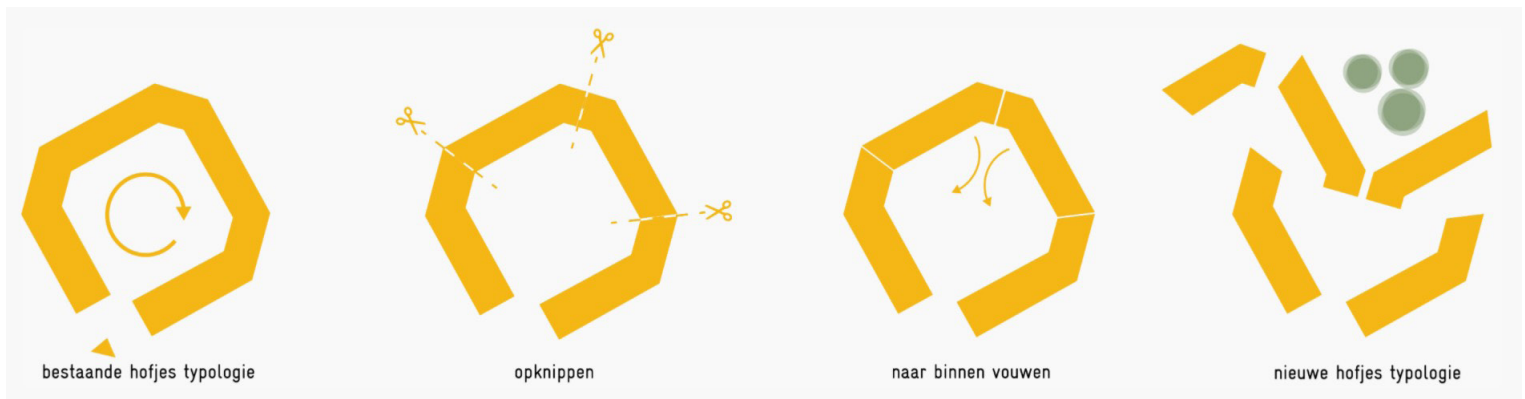


Figure 24: Bloemkoolburenbond concept (SLA, 2020)

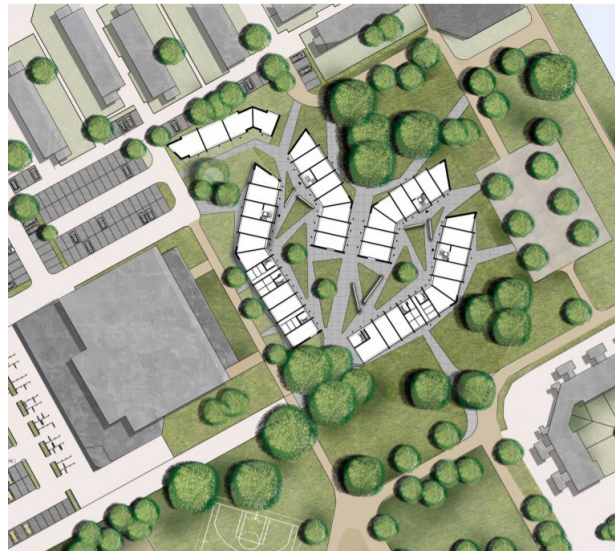


Figure 25: Bloemkoolburenbond plan (SLA, 2020)



Figure 26: Bloemkoolburenbond impressions (SLA, 2020)



Figure 27: Bloemkoolburenbond impressions (SLA, 2020)

Bloemkoolburenbond. SLA

Competition winner: Who Cares
Design: Bureau SLA

The central question in this design was the following:

How do you organize care and housing for people for whom this cannot be taken for granted? How can you connect life and care more emphatically, in a society that attaches importance to separating housing and care?

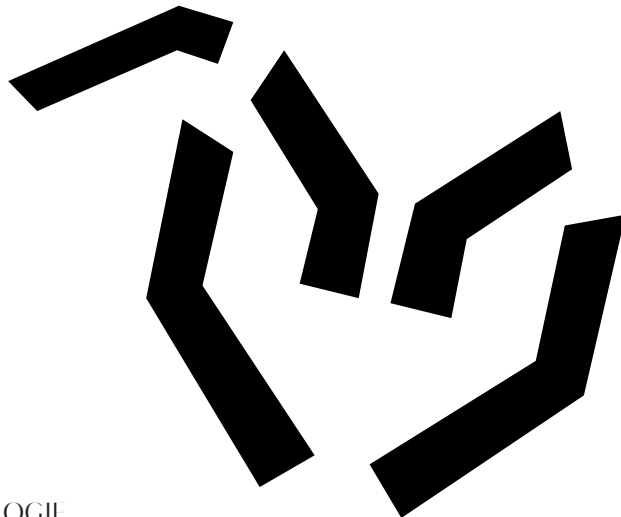
The design is based on two well-known concepts within Dutch society, namely the hofje and the neighbors' union (SLA, 2020).

The target group is very diverse, from students to the elderly. The typology stems from that of a hofje, which also took place earlier at the Almere location. This has been transformed into a more open and distributed structure of residential blocks with the public space in between (see figure 24).

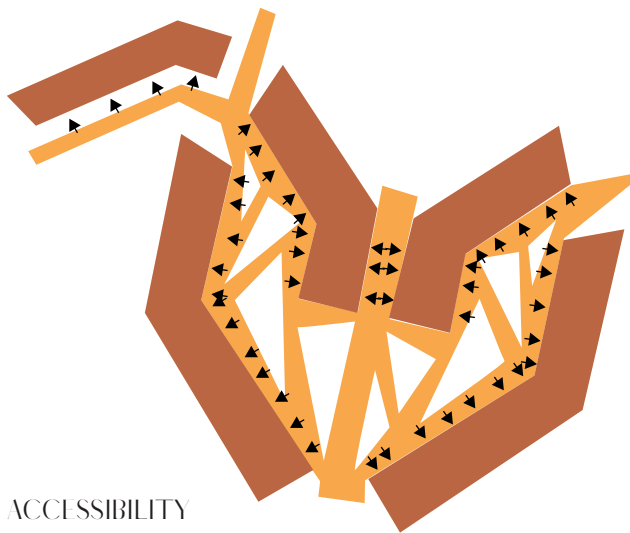
Where the front doors used to be on the outside, this plan paid attention to the position of the front doors facing each other. In this way, through routes are formed without losing the characteristic of the inner garden. It also consists of various homes that are suitable for both single and single-family homes that vary from 30 m² to 120 m² (SLA, 2020). This makes it possible to mix target groups.

In addition to living, this project also provides space for a lively communal space and an inner street where residents can come together.

For this competition, SLA proposed two different options for this concept. Both are discussed on the following pages.

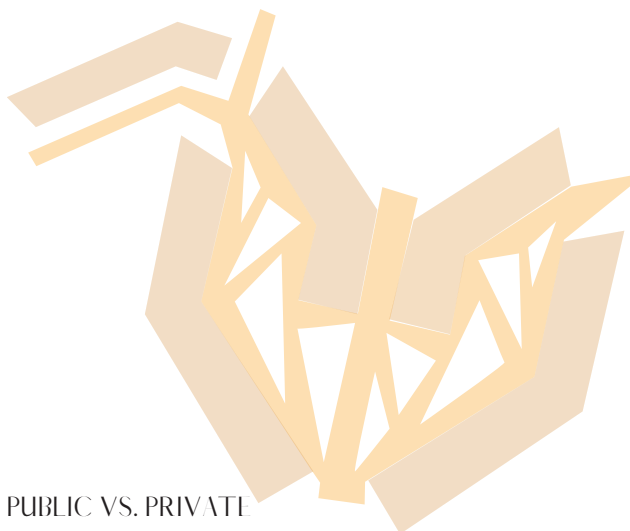


TYPOLOGIE



- Dwellings
- Public area
- Front doors

ACCESSIBILITY



- Private
- Public

PUBLIC VS. PRIVATE

CONCEPT 1

TYOLOGIE

The concept is based on the idea of breaking the loop of the original typologie of het hofje; the entrances are outside and the gardens face each other towards 'het hofje' (see figure 24).

In this new concept this original loop is broken up in order to have a flowing route around the houses. The front doors face each other, which makes it possible to have more social contact (see figure 25).

In the centre of the design there is a larger green area and in the plinth of the buildings public buildings are situated, where residents can come together (see figure 26).

The design concept consists out of a diversity of lowrise and midrise buildings (up to 3 storey high) (see figure 25).

ACCESSIBILITY

The buildings have their entrance facing the public area. Where before the front doors were situated towards the outside, this time they are facing the interior space of the design. At this way people can see each other and have more control on what is going on within the living environment. This also promotes the social contact between residents.

PUBLIC VS. PRIVATE

The residents have their private dwelling and share the public area around the living environment. Greenery is added within the living environment together with benches, so people can have a sit during their walk in the neighbourhood. Also this public area provides a place to socialize and a green view to the residents.

FACILITIES



Garden



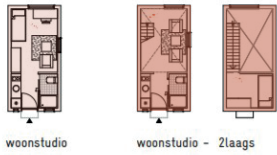
Community bond /
organisation



Cafe (place for
encounters)



TYPOLOGIE

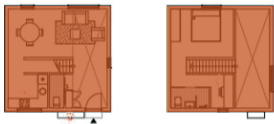


woonstudio

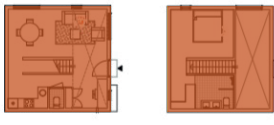
woonstudio - 2laags



senioren- of mindervalide woning



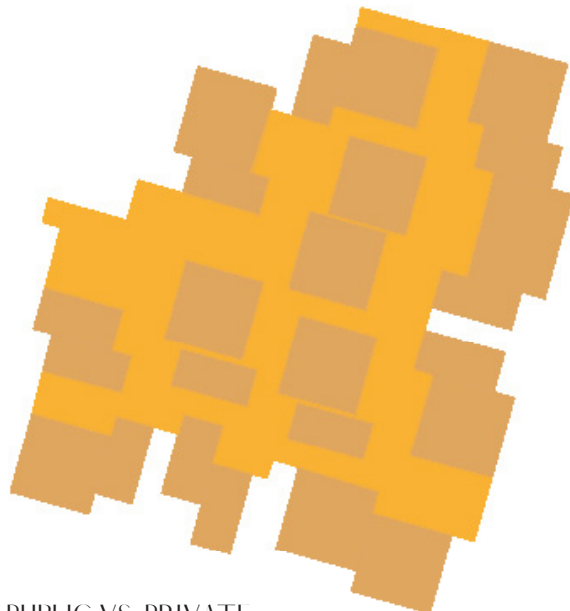
loft type A - 2laags



loft type B - 2laags



ACCESSIBILITY



PUBLIC VS. PRIVATE

Concept 2 TYPOLOGIE

In this concept the design consists out of low rise buildings (1 to 2 storeys high), where a high density is created by stamps consisting out of 3 building types merged together.

The 3 main buildingtypes are:

- Studio (one or two storey high)
- Elderly home (bigger bathroom and adjustments for limitations)
- Loft (type A or B)

All these buildings are single rooms with a living room, bathroom, kitchen and work area. The sizes differ per building type.

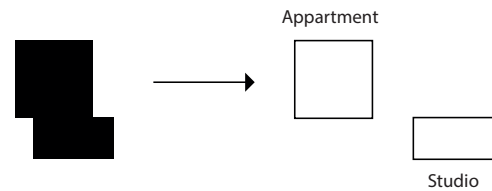
ACCESSIBILITY

The front doors of the houses are situated towards the inside of the design, in order to have a visual connection between residents.

As shown in figure 29 (*Accesibility*), several front doors face each other and are visually connected. It is also possible to see movements within the residential area through the big windows of the houses. These also provide a good view and connection with what is happening outside.

PUBLIC VS. PRIVATE

The houses are surrounded by the public space flowing around. This space is accessible for everyone. There are benches available in front of the houses and at various places in the public space. This provides residents places for interaction and a place to sit and have a view on the surrounding area. Due to the location of the buildings, several routes are possible to reach a destination. This makes the design more vibrant. The public building is situated at the corner of the site plot, so it easy accessible for people from and around the neighbourhood.



FACILITIES



Garden



Community bond /
organisation



Cafe (place for
encounters)



Community Center

Marmalade lane CoHousing



Figure 30: Marmalade lane (Butler, 2019)



Figure 31: Marmalade lane (Butler, 2019)



Figure 32: Marmalade lane (Butler, 2019)



Figure 33: Marmalade lane (Butler, 2019)



Figure 34: Impression (Mole architects, 2018)



Figure 35: Site plan (Mole architects, 2018)

Marmelade lane cohousing, Mole

Building year: 2018
Design: Mole architects
Location: Cambridge, UK

Marmalade lane is one of the first cohousing projects in Cambridge. Also known as community-led housing.

Key features of the project are that it is intergenerational, mixing young families with children with retired couples as well as single person households.

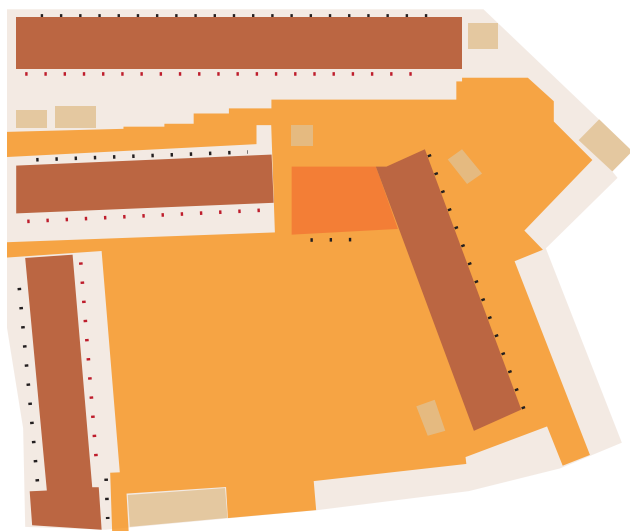
With its maximum height of 3 floors plus attic, it perfectly blends into the building environment. The houses differ from 1- and 2-bedroom apartments and 2- and 5-bedroom and terrace houses.

To encourage a sense of community and sustainable living within Marmalade Lane, shared spaces and communal amenities have been incorporated into the design (Mole, n.d.). These are communal gardens, a “communal house” with several rooms such as a play room, guest rooms, laundry, meeting rooms, large hall, kitchen where residents can eat or party together (Mole, n.d.). This communal home is located in the heart of the community. In addition to these functions, there is also a workshop hall located on the site.

All residents together manage the common areas and the management of the community. Completed in December 2018, Marmalade Lane has become a diverse, multi-generational living environment where the sense of community continues (Mole, n.d.).

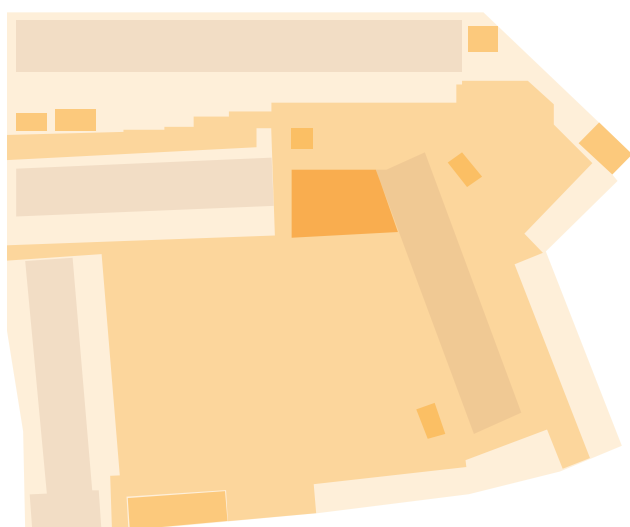


TYPOLOGIE



- Dwellings
- Public building
- Public area
- Communal buildings (storage)
- Semi - private area
- • Front doors
- • Backyard doors

ACCESSIBILITY



- Private
- Semi - Private
- Public
- Semi - Public
- Public building

PUBLIC VS. PRIVATE

Figure 36: Analysis sketches of Marmalade Lane (Typology, Program, Public - Private) (Kocak, 2020)

TYOLOGIE

The design consists of 4 building rows. The two horizontal blocks forms together a small street; the Marmalade Lane.

This lane grows into a large public space, which is bordered by three rows of buildings. Here a community building, shared garden and public areas are available (see figure 36, accessibility)

ACCESSIBILITY

The entrances are situated on the outside of the public space. However, the backyard doors face the entrances of their neighbors. In this way, the residents can interact socially with each other and have social control over what happens in the common public space.

PUBLIC VS. PRIVATE

The spaces between the houses are shifting from semi-private space (the personal terrace / gardens) to public space where everyone is welcome. In the center of the design is a public building where residents can come together. This "communal house" has several rooms offered for the residents. A play room, guest room, meeting room, laundry room, large hall, kitchen where residents can come together. There is also a workshop space located.

There are also several communal buildings that residents share, to store their personal belongings. These storage rooms are only accessible to residents.

FACILITIES



Communal gardens



Communal house:

- *playroom*
- *guest room*
- *meeting room*
- *laundry room*
- *kitchen*
- *large hall*



Workshop hall

ParkEntree



Figure 37: Parkentree (Parkentree, n.d.)



Figure 38: Parkentree (Parkentree, n.d.)



Figure 39: Parkentree (Parkentree, n.d.)

ParkEntree. Blauwhoed

Building year: 2015-2020

Design: Blauwhoed

Location: Schiedam, Netherlands

ParkEntree is one of the first Senior smart living areas, where attention is paid to vitality, sustainability, mobility and community feeling.

The project is based on vital elderly, everyone over 55 is welcome. It is for everyone who likes to live close to peers (Langerveld, 2020)

Key features of the project are that all houses are on the same floor level (gelijkvloers). This is useful in the vision of long-term living and an adaptable home when the residents are less vital (Langerveld, 2020).

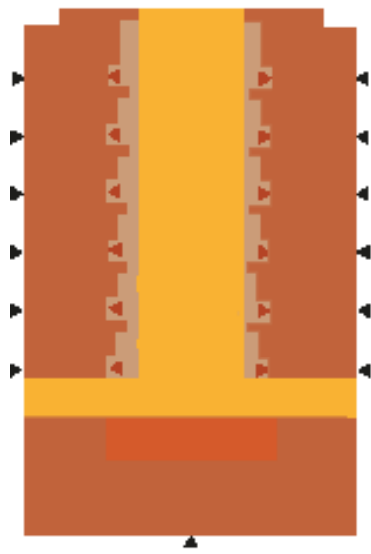
The project is based on the typical dutch hofjes, the residents share a common interior space. This interior space consists of a gradation from semi- to public spaces. The residents' gardens are also faced towards this interior space. The purpose of this is to create encounters within the residential environment (Langerveld, 2020).

In the centre of ParkEntree is the Lounge, a communal space where residents can come together and socialize (Langerveld, 2020).

Having entitlement and the anonymity that takes place here makes living pleasant and gives a feeling of safety and takes away the loneliness of the residents (Langerveld, 2020).



TYPOLOGIE



- Dwellings
- Public building
- Public area
- Semi - private area
- ▼ Front doors
- ▼ Backyard doors

ACCESSIBILITY



- Private
- Semi - Private
- Public

PUBLIC VS. PRIVATE

Figure 40: Analysis sketches of Parkentree (Typology, Accessibility, Public - Private) (Kocak, 2020)

TYOLOGIE

Parkentree consists of 2 building rows (2 storeys high) facing each other and an apartment block (4 storeys high) closing the internal space from the outside (see figure 40).

The gardens are facing the internal space and some of the balconies of the apartment block are also facing this internal space.

ACCESSIBILITY

The residents can enter their home from the street side. The gardens are faced inwards, sharing a large communal area with the neighbors. At the center of this communal area is a central road with branches to each resident's personal gardens.

PUBLIC VS. PRIVATE

The design is shifting from public to private spaces from the inside to the outside. The interior space is the most public, this is also the place where residents share the common space and where a sense of community arises.

FACILITIES



Communal garden



Communal lounge:

- coffee
- kitchen
- workshops



Community bond/
organisation

	Bloemkoolburenbond	Bloemkoolburenbond 2	Marmalade lane	ParkEntree
Typology				
Accessibility				
Public vs. Private				
Facilities				
Speciality	<p>"Public functions" The building complex has public functions which is available for residents in the complex but also from outside. This creates more liveliness.</p>	<p>"Connections" The dynamic organisation of the houses creates interactions between the dwellings, making it able to interact in a passive and active way</p>	<p>"Communal house" The heart of the complex offering several rooms for the residents: Play room, guest room, meeting room, laundry room, large hall, kitchen</p>	<p>"Internal Garden" The internal garden creates a special place for the residents where they can meet and interact</p>

Figure 41: Summary Cases (Typology, Accessibility, Public - Private) (Kocak, 2020)

Conclusion cases

In figure 41 the important features of the analyzed case studies are shown.

TYPOLOGIE

The typology of the cases differ. Mostly there are building blocks with row houses, where there is place for apartments and maisonettes on top. The shapes and organisation differ according to the site location and design plot. It is remarkable that the building blocks together create always an internal area, which is dedicated to the residents of the building complex.

ACCESSIBILITY

For accessibility it is remarkable that the entrances are facing each other. In this way the residents can see each other when entering and leaving the house. Sometimes it is possible to enter the house from both sides (front and back entrance). In this way the resident can choose which entrance is more convenient.

PUBLIC VS. PRIVATE

The public private division differs per case. It is remarkable that the in between space of the building blocks are public and the border between these two zones are divided by a semi-private area, to make the border softer (see Marmalade lane and ParkEntree).

FACILITIES

All cases have facilities that provide a place for interaction. Besides the public greenery there are several functions as local cafés, a communal house for the residents of the community, an internal garden acting as a community garden and a workshophall to share skills with others.

All in all, the analyzed cases show the following:

Bloemkoolburenbond shows that by directing the entrances towards the interior space, more opportunities are created for social contact (face to face orientation) and the creation of an internal public green space.

Just like ParkEntree, where the building blocks enclose the interior green space. These enclosures and inner garden create the opportunity to create social safety and to see movement in the living environment.

This is also reflected in the second concept of bloemkoolburenbond, where the building blocks are organized in such a way that each resident has visual connections with one or more neighbours. In addition to social safety, these visual connections and sightlines also create a sense of interaction and social contact. Which will follow the next time with physical encounters.

These encounters can take place in public or communal functions within the building design, such as in Marmalade lane, where the communal house acts as the heart of the complex. Here the residents can meet and undertake activities together, strengthening social bonds and allowing them to recreate with your fellow neighbors.

V. Design guidelines

Conclusion

The research provides more clarity about how we can design the living environment of the elderly in order to encourage and facilitate the social interaction between young and old.

It turns out that the way in which we organize the living environment has an effect on social interaction and the amount of contact between residents. Social contact within the living environment is promoted by using the right physical arrangements. This provides a healthier place to age, as social interaction has a positive effect on our well-being.

There are many ways to interact socially with others. It is more than just meeting others physically. Social interaction takes place on different scales in which we unconsciously use our senses. The more intimate the type of social contact, the more senses are involved.

Architectural tools and physical arrangement of the living environment can promote or inhibit social interaction. The way in which these tools are used and the living environment is designed can provide space for different types of social interaction. This can lead to planned and unplanned meetings.

The main focus here is again our senses; seeing and hearing are the most important triggers for social interaction. Focusing on these senses and trying not to block them can promote social interaction between people.

It turns out that older people prefer to live in a diverse living environment. Being surrounded by young people makes them more active and brings more liveliness to the living environment. The diversity of ages will also promote social interaction between ages, reducing the gap between young and old (social segregation). This gives older people more opportunities for new social contacts, which can possibly provide them with informal care. Which makes it possible for the elderly to age in their place.

The following pages will show the guidelines that resulted from the research. These form a starting point for the design. The guidelines are categorised per level (dwelling, street and neighborhood). Followed by some starting points for the design, resulted from these conclusions. These will be essential when making choices for the design project.

Guidelines for living environment

DWELLING

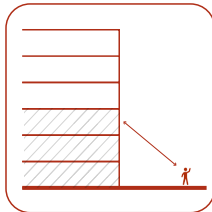
STREET



Home town feeling



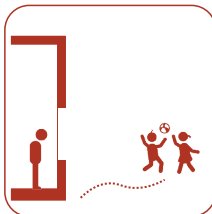
Personalization making the place familiar



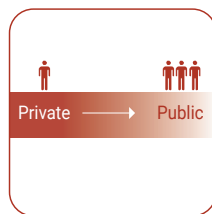
Low density to keep interaction with street level



View of movement



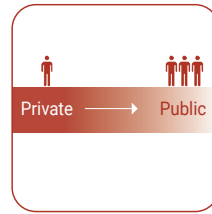
Facing active street



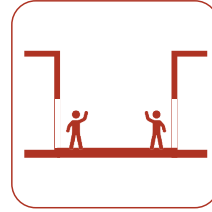
Soft transition from private to public spaces



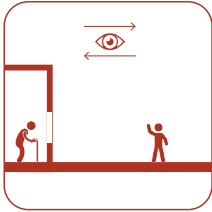
Neighbors of young ages in addition to peers



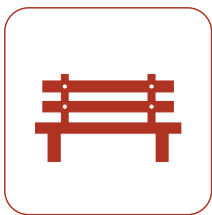
Soft transition from private to public spaces



Being able to see others, providing small talks



Seen and be seen



Providing seating places for repose and social interaction



Wheelchair friendly

Guidelines for living environment

NEIGHBORHOOD



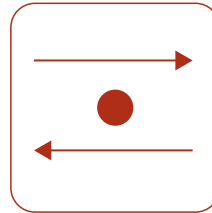
Neighbors of young ages in addition to peers



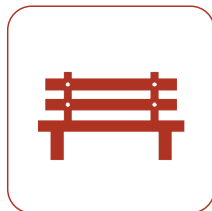
Wheelchair friendly



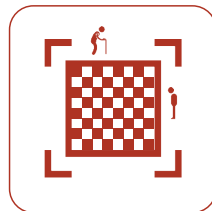
Walkable area



Places for interaction along the way (spontaneous contacts)



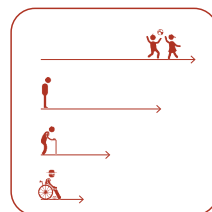
Providing seating places for repose and social interaction



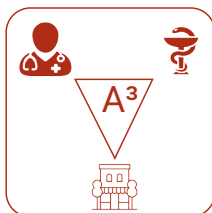
Places for interaction (planned encounters)



Facilities nearby so that elderly can easily access



Low speed area



Main facilities for elderly (3A's); doctor, pharmacy and supermarket



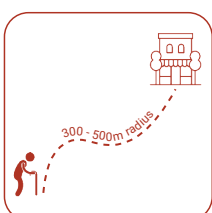
A place for all generations, avoiding ageism



Providing facilities for families to fit their everyday cycle



Make it possible to age in place



Amenities in a distance of max 300-500m

VI. Starting points

Vision



My vision about housing for the elderly in the future is that the elderly can grow old in a living environment that not only feels **familiar** but also has a **lively** atmosphere. Elderly do not need to be clustered in residential areas and isolated from society because of their age, but can continue to live in a neighborhood with people of different ages as they have before.

This suggests an **intergenerational living environment** that is suitable for **all ages**, where people look after each other and are able to maintain their **social contacts** within the living environment. A place where we can be young and old together.

Important terms

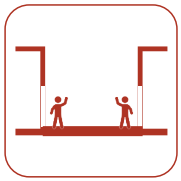
Term	Definition
Intergenerational Living Environment	<p>A living environment in which people of different ages share a residential community with each other.</p> <p>In this way, the elderly are not isolated from the younger society and have a more vibrant and varied atmosphere in their environment. The opportunities for interaction within this inclusive and diverse environment will combat the social segregation between old and young that we face today. This gives the (future) elderly the opportunity to grow older in their familiar environment ¹ and to maintain their social contacts.</p> <p>¹ "Intergenerational housing projects are aimed at offering opportunities for an aging population place and active aging" (Krul, 2015, p.16)</p>
Co-Housing	<p>A living community in which residents have their own private home (with their own bathroom, kitchen and living area) and share communal areas with other residents (; communal garden, communal room (activities), laundry service and care on demand for the vulnerable elderly (thuiszorg / wijkverpleegkundige)).</p>
Interaction	<p>Social interaction is an important factor for our wellbeing. To prevent loneliness and feeling of isolation among elderly it is important that they are connected to their living environment. Being able to see and interact with others (social contact).</p> <p>Focussing on the spontaneous and planned social contacts in the living environment. A vibrant and diverse environment offers the elderly the opportunity to interact with others and avoid loneliness.</p>

Conclusions Social Interaction

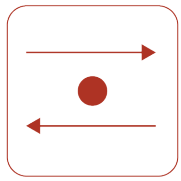
Social interaction



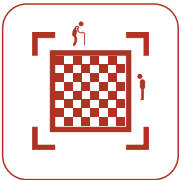
View of movement



Being able to see others

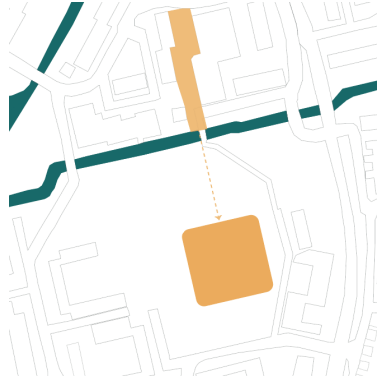


Places for interaction along the way (spontaneous)

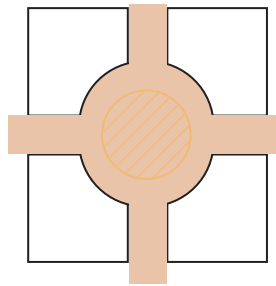


Place(s) for interaction (planned encounters)

(Extend) Public street

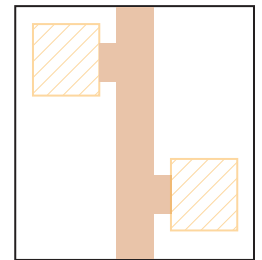


Central space in living environment (Macro)



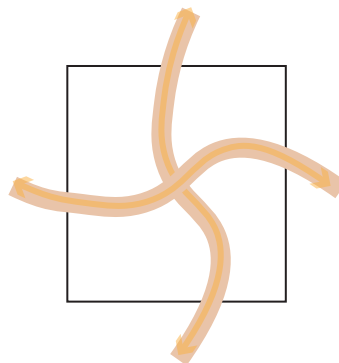
Macro = building complex

Communal places and public functions in building (Meso)



Meso = building

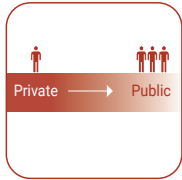
Accessibility



more connected to site and allows interaction along the way

Conclusions Building

Building



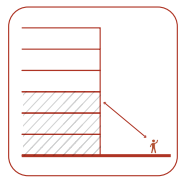
Gradually transition from private to public spaces



Neighbors of young ages in addition to peers



Personalization making the place familiar

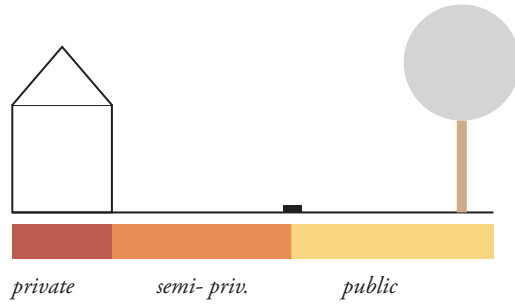


Low density to keep interaction with street level

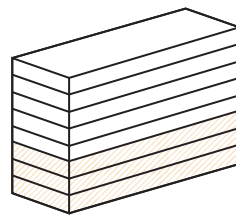


Wheelchair friendly

In between spaces

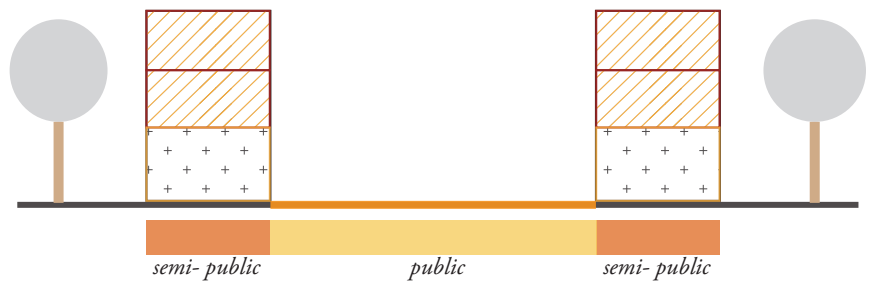


Max. of 3 to 4 layers



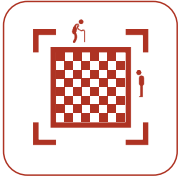
adapt height to current situation

Private houses but share communal and public spaces



Conclusions Public space

Public space



Place(s) for interaction



Walkable area



Facilities nearby so that elderly can easily access



Possibilities for a break

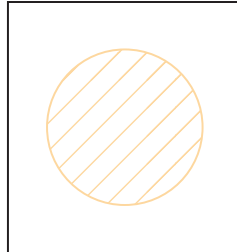


Low speed area (car free)



Wheelchair friendly; materials, tresholds, size

A central space



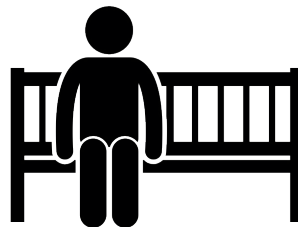
with attractive functions

Functions for both young and old



Focussing on needs (wishes)

Place for recreation



A place to relax and entertain

VIII. Literature

Literature list

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A p p e n d i x

A. Fieldwork booklet

The fieldwork booklet is a separate booklet, included in the documents folder of this research report.

B. Site analysis booklet

The site analysis booklet is a separate booklet, included in the documents folder of this research report.