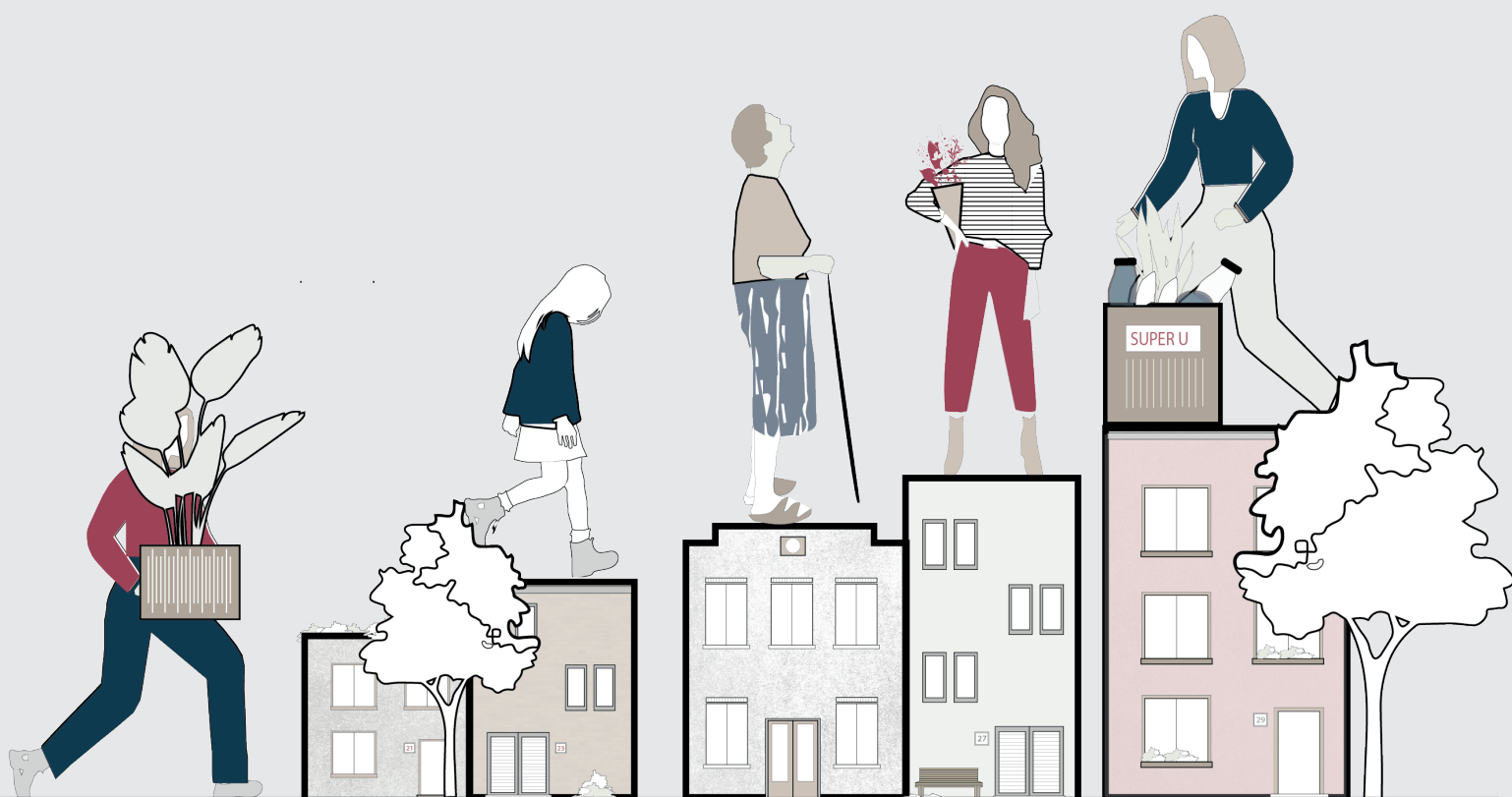


NEIGHBOURS

A social interactive living environment with the elderly



Colophon

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Master Graduation Research Booklet
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Keywords

Building block, elderly, dwelling, informal care, light care, living environment, neighbourhood, neighbours, providing help, shared facilities, social interaction, transition zones

Abstract

The amount of elderly people in the Netherlands is increasing rapidly. In conjunction with the individualization of the population, this has led to a number of problems. There is a lack of suitable houses for the elderly, a lack of money and nursing staff in the health care sector and a high rate of loneliness among the population. New housing forms for elderly cannot be omitted and having social interaction and taking a moment to help your neighbours should become normal again. This research aims to find new ways in which architecture could contribute to a living environment where elderly in need of light care live together with people of different ages and households. The main question that is addressed in this research is: "What architecture and built environment features can encourage social interaction in a living environment between elderly in need of light care and their neighbours?". To conduct this research, the most commonly used method is anthropological research. This is supplemented by literature research and case studies. The results of this study are a wide range of architectural aspects, on different scales (dwelling, building block, neighbourhood), that stimulate interaction between elderly in need of light care and their neighbours. These aspects are translated in design guidelines.

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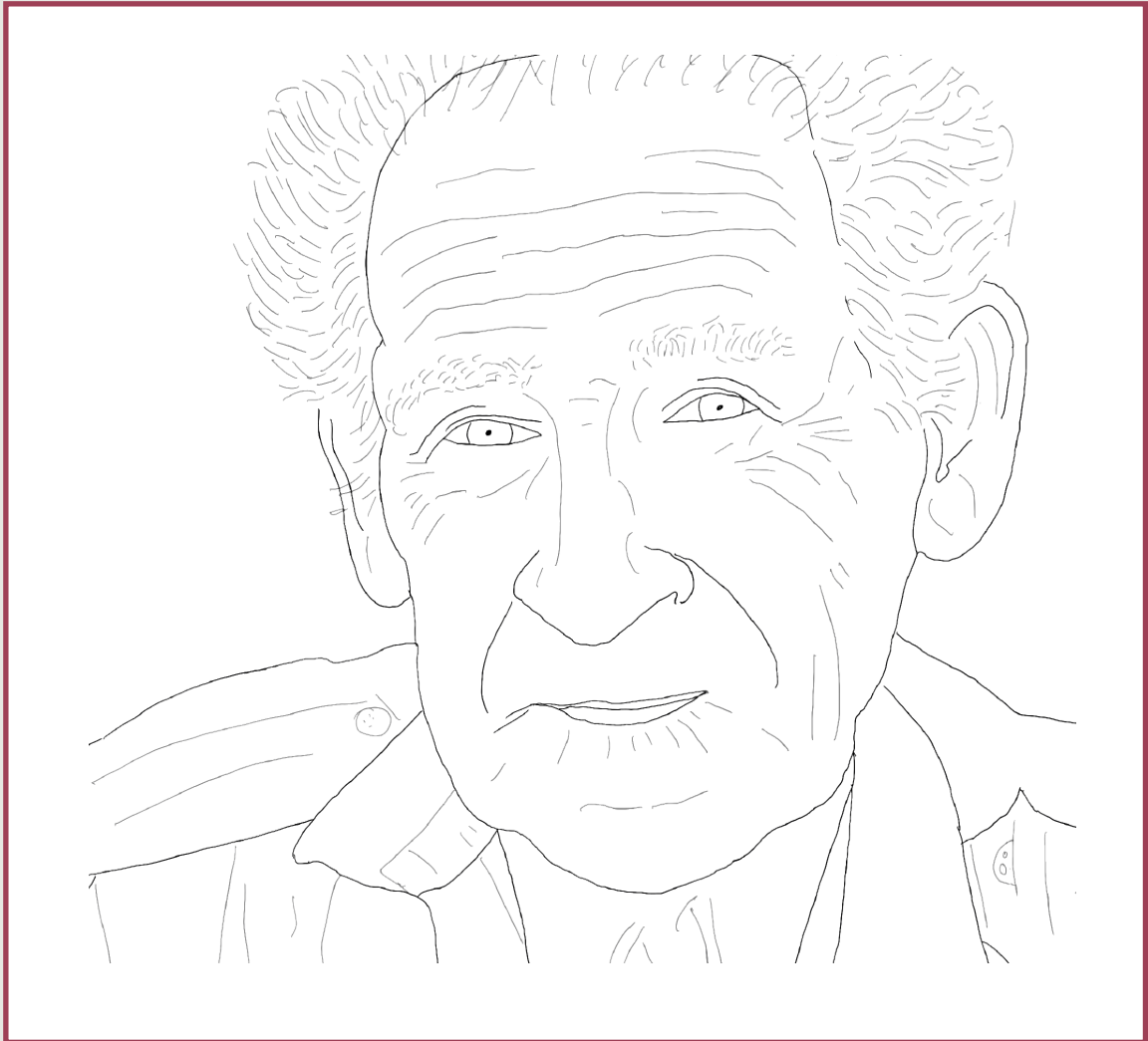


Figure 1.0| Own work (K.Kleine Punte, 2022)

01

INTRODUCTION

WHAT IS BEING INVESTIGATED IN THIS STUDY



The amount of elderly people in the Netherlands is increasing rapidly. To emphasize, the amount of people aged 65 and over, relative to the population aged between 20 and 65, is now a percentage of 34 percent. In the coming years this will increase to a percentage of percent (CBS, 2022b). Besides that, the elderly of today live relatively longer, which only increases the amount of elderly compared to the total population (Ministerie van Algemene Zaken, 2022). These shifts have an huge impact on public health and care. A number of problems have existed so that new housing forms for elderly cannot be omitted. This chapter indicates these arisen problems and then clarifies how this research may enact in this.

1. INTRODUCTION

PROBLEM STATEMENT

The composition of the world's population is changing due to aging and longevity. That last, should be good news for all of us, however, together with aging, it often makes synonymous with economic disaster and societal crisis (Tornstam, 2010). To start, the current environment does not respond with the needs of elderly of nowadays (Feddersen & Lüdtke, 2009). They want to live independent for as long as possible and not be excluded from society (Ministerie van Algemene Zaken, 2022). In fact they live too long in unsuitable homes, mostly in spacious single-family homes, because there is no alternative. This also poses a problem for starters on the housing market. While elderly often live too large, they have difficulty finding a spacious home (Geuting & Timmen, n.d.).

The second problem concerns the healthcare costs. In 2015 a profound change in the financing of the Dutch healthcare system was initiated to reduce healthcare costs and to accommodate the elderly to live independently longer. (Van Oel, Bergsma & Spinnenwijn, 2022). Unfortunately, the consequence of this decision was the closure of most care homes and an increase in the required care indication for nursing homes. Now again the healthcare costs are very high and will increase even more. Besides that, the needs of the elderly are still not fulfilled (ABNO, n.d.). The disappearance of care homes and the required higher care indication nursing homes, have actually led to a gap between staying at home and moving to a nursing home. The intermediate link, where elderly live independent with informal care nearby, is often missed (ABNO, n.d.).

The third major reason for the importance of the development of new forms of housing is the increasing pressure on the nursing staff. Due to the increasing amount of elderly and the longer life expectancy of them, the number of people with chronic diseases is also growing. It is not only aging that causes this increase, also the way the healthcare system is set up has to do with this. The system focuses on repair rather than prevention of diseases and well-being (Leijen, 2020). Besides that, elderly live independently more often and their overall well-being has deteriorated because of loneliness. These developments are increasing the pressure on both formal and informal care (Synthese| de impact van de vergrijzing, n.d.). In the future, the lack of nurses will only increase more.

Additionally, a slightly different problem appeared in recent years. The Dutch population has been individualized. Fences in gardens are forming barriers and people are living next to each other without knowing each other (Oorschot, 2021). Adding to this, Camp (2016) states that loneliness and social alienation are more than ever a problem among people of different ages. The growth of individualism, social alienation and the reduced sense of neighbourhood was already noted at the beginning of the 1980's. It slowed down the development of providing informal care to neighbours (Mens, Wagenaar, z.d.). Let that be exactly, more than ever, what we need nowadays in sake of the aging population, the lonely elderly and the increasing pressure on the healthcare system.

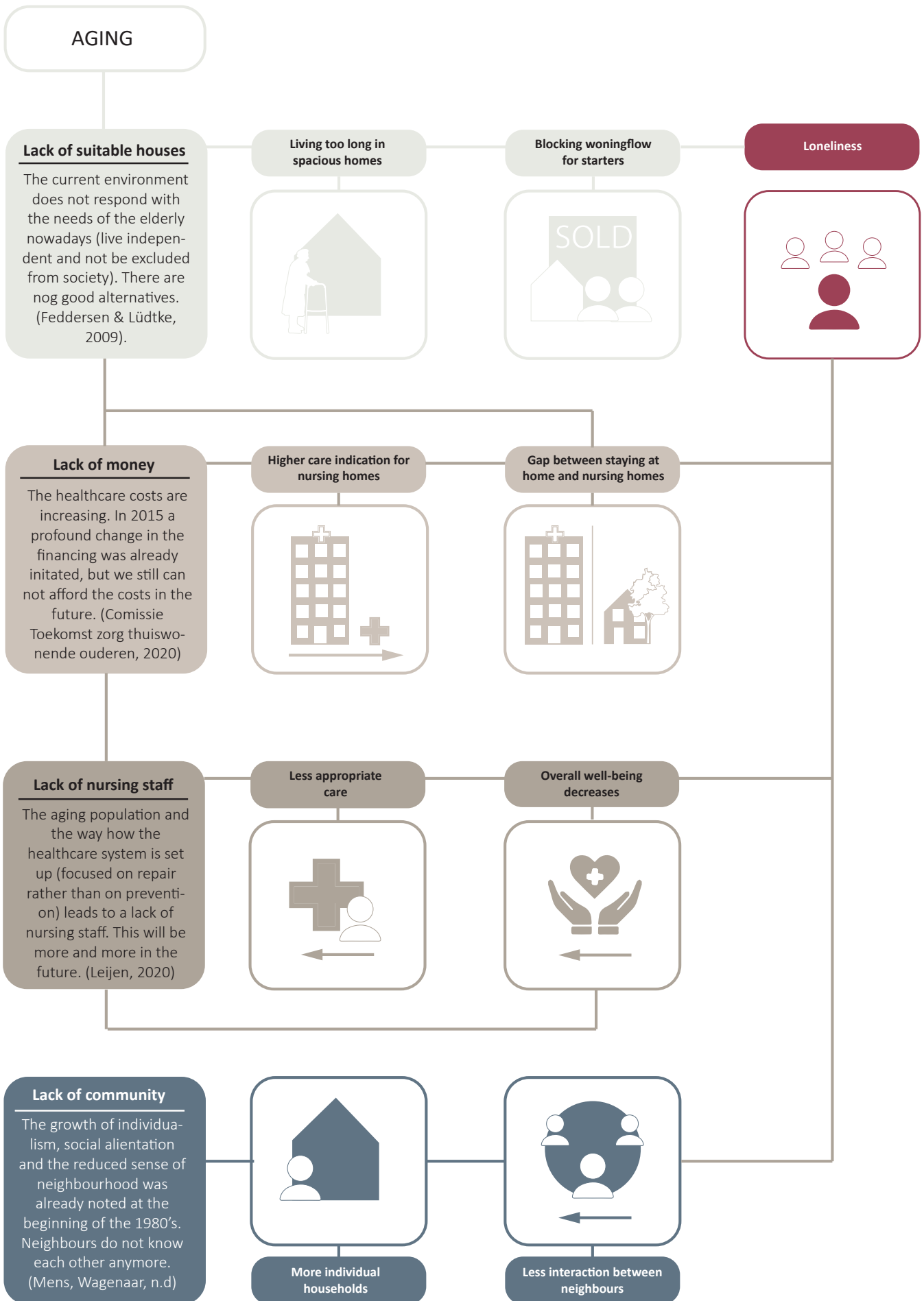


Figure 1.1 | Problem statement. Own work (K.Kleine Punte, 2022)

THEORETICAL FRAMEWORK

The theoretical framework (*figure 1.2*) demonstrates previous studies on the theme of this research. The theoretical framework can be categorized into three groups, each representing a different relevant aspect of the broader research theme.

Elderly in need of light care and their neighbours

First, the needs of elderly (in need of light care) have to be mapped. Several studies have already been conducted on their wishes. To start with the study of Eijkelenboom, Alkema, Meinsma & Hammer (2022), who investigated the different preferences of future elderly. They both the physical and social environment of elderly in to account in their research. Adding to that they examine the willingness to share. Another interesting study is done by Feddersen & Lüdtkke (2009). They investigated new ways of living for the elderly in the future while taking into account the changing preferences as living independent and remain part of society. More from a technical point of view, issues 'woonkeur' certificates for technical housing quality based on flexibility, adaptability, accessibility and flexibility of homes. The aim is to make homes life-resistant (Woonkeur, 2015).

Intergenerational living could be a solution and has other benefits. Many architects and researchers advocate the commonality of different households and age groups. Architect Gerards (2015) states that a heterogeneous network may offer solutions against the aging population, the generation gap, loneliness and care. Such a network is created by a combination of four opposites: young and old, with or without child, partner or need of care. Examples of this can be seen in various architectural projects. Pedersen (2021) of NORD Architects, highlights the advantages of an intergenerational living project in Odense.

Different facilities are combined with housing types for all ages while architecture contributes in creating social synergies between the housing clusters. It shows how architecture may accomplish interaction between various groups.

Social interaction

To continue, other previous studies on the theme of social interaction are relevant for the research and further design. A study about types of interaction is done by Blokland (2008). She advocates encouraging small moments of encounters and distinguish this in weave and cross-link encounters (*weven & verknopen*). Weaving contains sliding past each other every day without the purpose of meeting. Whereas, cross-linking is about meeting and entering into more sustainable social relationships. According to Blokland both forms of encounter are of importance thus may be translated into architectural design. An inspiring architect who shared this opinion about encounters in the built environment is Hertzberger. He has written many books on this theme, to emphasize: *Lessons for students in Architecture & Herman Hertzberger*. He advocates the importance of spaces that offer security and communality. He states that shared places where you can meet each other make you part of social fabric. His excessive interest in intermediate areas and flexible spaces could be helpful for the research (Brinkgreve 2021). When talking about shared spaces, Elinor Ostrom, an American scientist who won the Nobel Prize with her work 'commons', should not be forgotten. Ostrom (2015) wrote eight design fundamentals for the management of commons, useful for all forms of communion. Some of these principles are of great value for further research. For instance, the adaptation of the commons to local conditions and the presence of clear boundaries of the common places.

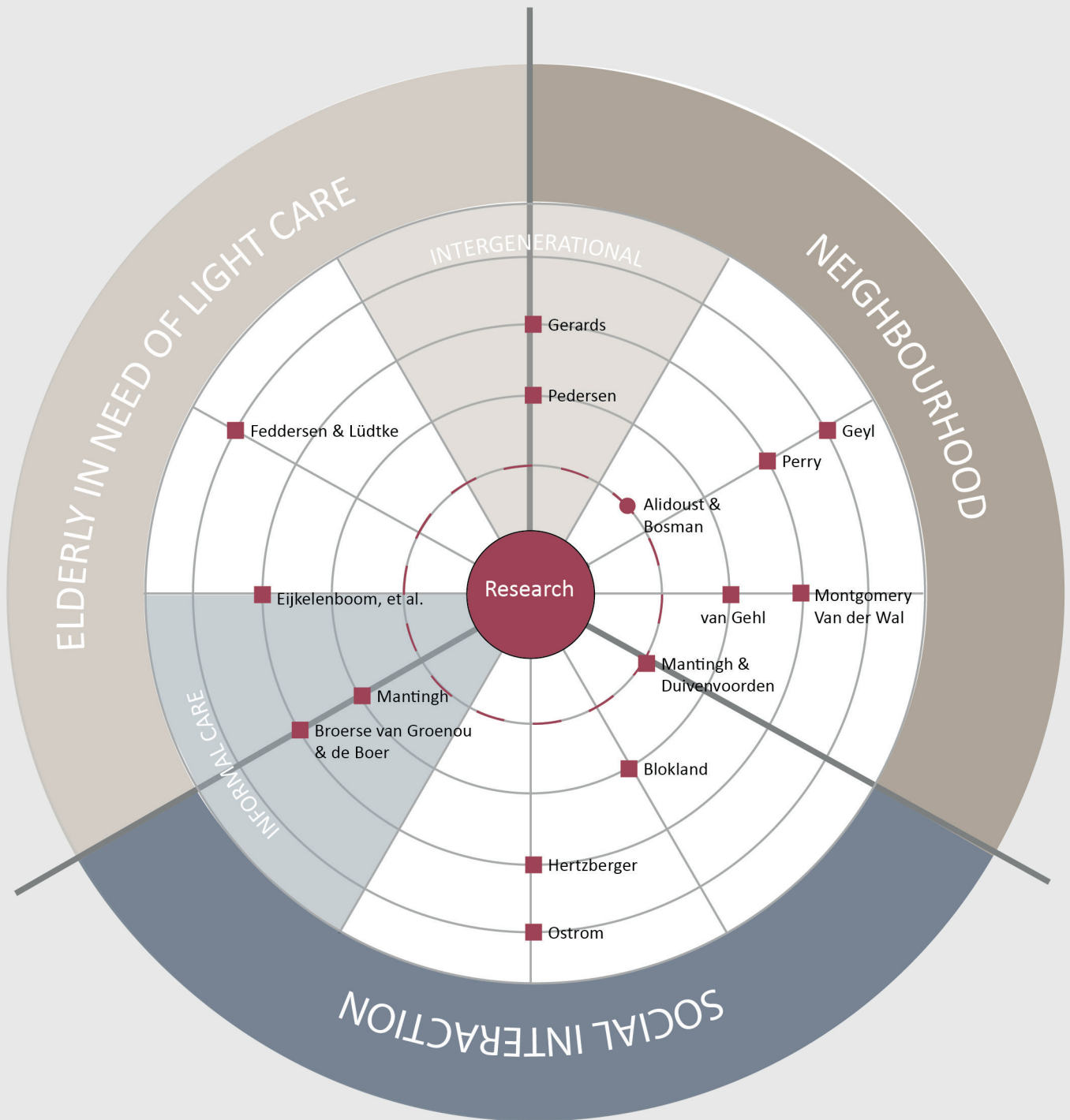


Figure 1.2 | Literature framework. Own work (K.Kleine Punte, 2022)

Lastly, we need to involve the relation between social interaction and informal care. A partner of Zijdekwartier Architecten, Mantingh (2021), affirms this connection. She states that by giving people space to encounter, they create an informal social network of neighbours who can support each other. In addition, several studies can be found about the theme of informal care, which is relevant according to the aging population. The Informal Care Model explains the factors that influence someone's intention to provide informal care. Elements such as the quality of the relationship and the potential of the social network are researched (Broerse van Groenou & De Boer, 2016). In the context of stimulating social relations between neighbours these elements are interesting for further research.

Neighbourhood

Last but not least, the neighbourhood, the place where the themes of social interaction and neighbours come together, have to be investigated. Alidoust & Bosman (2015) found eight neighbourhood features that influence social networks of the elderly. These features can be divided into characteristics of- and places in the neighbourhood and can be implemented in further research and translated in to architectural design. Older studies also yield interesting findings. In 1902, the *Garden City* was introduced by Howard. The concept advocated for self-sufficient cities surrounded by green belts. Later, in 1929 Perry designed the *Neighbourhood Unit* which was strongly related to the *Garden City*. The *Neighbourhood Unit* is diagrammatic planning model to create functional, safe and attractive neighbourhoods on human scale with a sense of community (Stout, 2022). The model was embraced for its community idealism and its purpose of promoting public

health and safety. Later, based on this model the 'Wijkgedachte' existed. The 'Wijkgedachte' translates to neighbourhoods that were considered as places where different people could live together (Geyl, 1946). In these neighbourhoods distance to facilities and the social network is taken into account, they are limited up to 500 metres. This distance is based on walkability and people consider these places as their own. The new ideas regarding the design of neighbourhoods was not just applauded. The young sociologist Van Doorn, was one of the first to question the *Wijkgedachte*. He wrote an essay in 1955 in which he wondered whether it is realistic to see the neighbourhood separately from the city (1946 *De wijkgedachte - Canon Sociaal werk Nederland, Details, z.d.*). The structures and ideas are dated although not less valuable. These ideas regarding the concept of a neighbourhood can be implemented in new forms. This is already happening in the redevelopment of some cities, also in the Netherlands. In some cities, the 15-minute city is part of the infrastructural policy in which all facilities are close by.

Shifting to another scale, knowledge organisation Platform 31 (Mantingh & Duivenvoorden, 2021), mentioned some features on the scale of the dwelling that may have an influence on social contact. The layout, the accessibility, the privacy, the safety and the flexibility of the dwelling have to be taken into account. Maybe even more important are transition zones, the zones between the building or the dwelling and the public space. According to van Gehl (2011) most interaction happens here. That is why the design of this space is of great importance. Montgomery (2015) and Van der Wal (2016) have investigated more about these zones.

2. RESEARCH

AIM, HYPOTHESIS AND QUESTIONS

Research aim

This study aims to find new ways in which architecture could contribute to a living environment where elderly in need of light care live together with different ages and households.

Having social interaction with your neighbours, caring for the unable and taking a moment to help should become the norm. Bringing back the neighbourhood feeling and giving aforementioned groups and households the space to complement each other will make the step from interaction to offering help and informal care smaller.

Hypothesis

Social interaction can be stimulated by architecture. Both the scale of the neighbourhood as the scale of the building complex, the dwelling and the interior have a positive influence. Subsequently, improved social interaction between elderly and neighbours will lower the barrier of providing informal care.

Research questions

The following main question will be answered in this research:

What architecture and built environment features can encourage social interaction in a living environment between elderly in need of light care and their neighbours?

The main question will be answered by using the following sub-questions:

1. What does light care mean in daily life and what does that mean for architecture on the scale of the dwelling, the building and the neighbourhood?
2. How can neighbours complement elderly in need of light care and what spatial needs are necessary for this?
3. How can architecture and the built environment stimulate social interaction between groups of different ages and households while remaining enough privacy?
4. What can we learn from existing communities where people of different ages live together?

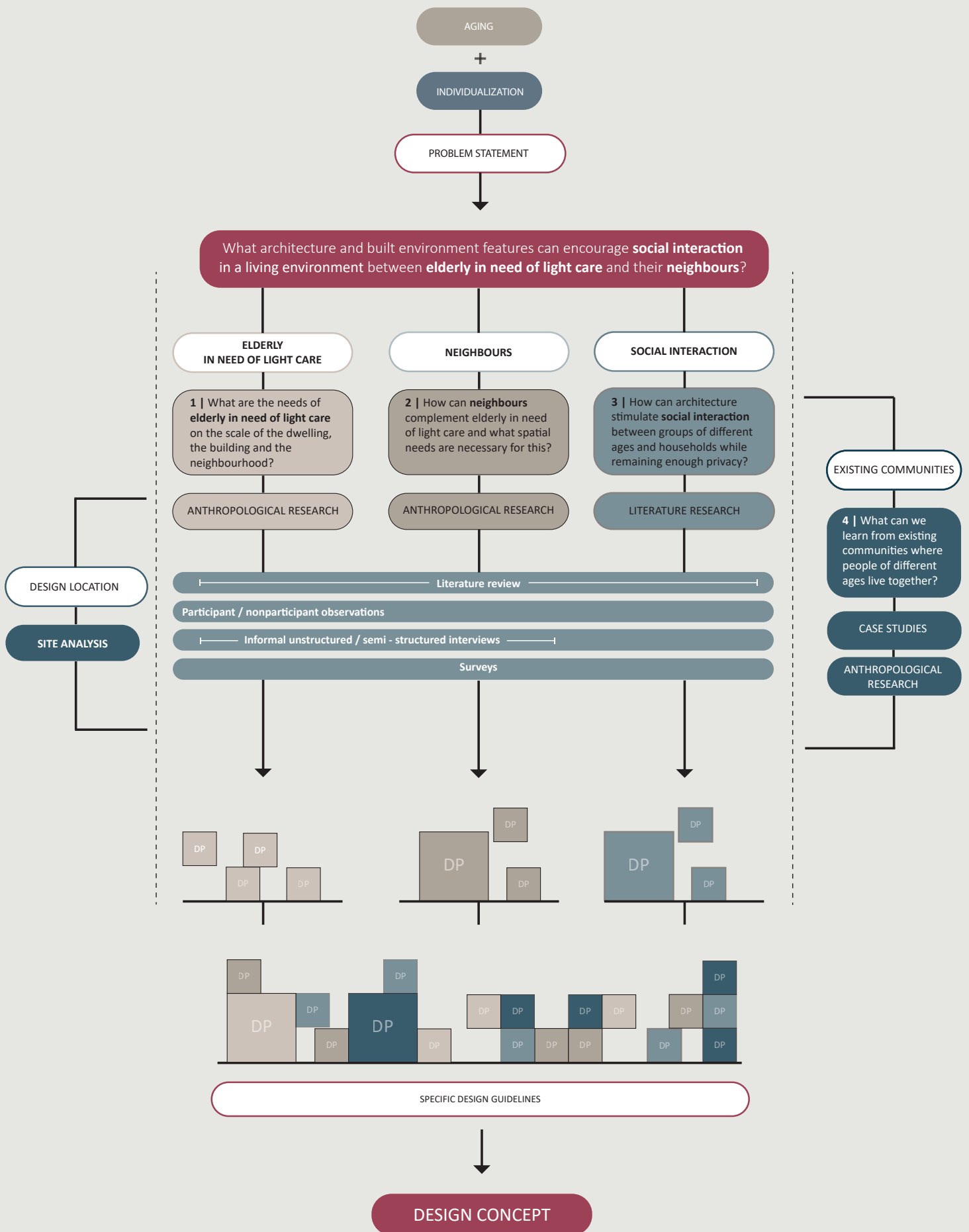


Figure 1.3 | Research diagram. Own work (K.Kleine Punte, 2022)

RESEARCH BOUNDARIES

The research is limited in scale and target group to the range below.

Scale

In the end, the design proposal will only focus on a building complex, included dwellings, transitions spaces and the area around and in between the buildings. The wider context will also be included, but only in a general plan with a maximum distance of 500 meters from the site (Geyl, 1946).

Target group

In the Netherlands, a care profile is an indication of the care needs that someone has. In case of the illnesses and limitations for elderly this indication is represented with VV1 t/m VV10. Elderly with a higher care demand (V4 t/m V10) are entitled to receive care in a nursing home, however elderly with lower care demands have to stay at home. The study will not include the elderly with the high care demand who need more assistance during daily life (column 4). This study will focus on the elderly in need of light care who cannot stay in a nursing home (column 2) and on people of all ages who do not need care (column 3).

	Project	
1	Hugo's tuin, Waaranders Heerhugowaard	Neighbourhood, Care and no care Intergenerational
2	Groene Mient , Den Haag	Communal housing project Intergenerational

Figure 1.4 | Chosen projects. Own work (K.Kleine Punte, 2022)

	No care	Light care	Heavy care
Age group	Elderly Starters Families Students	Elderly *	Elderly
System		Thuiszorg (WMO, Zvw) VV1 t/m VV3, (VV4)	WLZ (long-term care act) (VV4), VV5 t/m VV10
Needs		Vary between: - personal care - coaching - household	24-hour care in vicinity
Place		At home	Care institution (nursing home) / at home
	* Later in the study, a comparison will be made with other age groups in need of light care, to see if they have comparable needs and can be implemented in the design.		

Figure 1.5 | Problem statement. Own work based on work of VWS (2022) (K.Kleine Punte, 2022)

DEFINITIONS

Neighbourhood

A neighbourhood can be defined as a part of a municipality that is homogeneously demarcated on the basis of historical or urban features. Homogeneous means that one function is dominant, in case of this research the residential function (Centraal Bureau voor de Statistiek, 2022).

Elderly in need of light care

Elderly will be defined as people of 65 and older. Adding to that, elderly with a light care demand can be described as: elderly who can do a lot independently but they still need help and assistance every day (see research boundaries).

Neighbour

The term neighbour refers to someone who lives very close to you (Cambridge Dictionary, 2022).

Social interaction

The term social interaction will be defined as the description of Turner (1989): 'a situation where the behaviours of one actor are consciously re-organized by, and influence the behaviours of, another actor, and vice versa'. The term 'behaviour' is used in the broadest sense to also include non-verbal communication such as waving and eye-contact.

Informal care

Informal care will be defined as unpaid personal or domestic care provided to someone outside or within the same household (Verbeek-Oudijk, 2019). Additionally, informal care is provided on the basis of a social relationship and not on a professional basis like formal care (VWS, 2001).

Intergenerational

The term intergenerational can be described as involving persons of different generations, groups of people in a society with the same age (Cambridge Dictionary, 2022).

3. METHODS

ALGEMENE INFORMATIE

The methodology of this research consist of three different types of methods: literature research, anthropological research and typological research. Below is an more extensive explanation of how these methods will be used in this study. Figure 1.6 then explicates when which method will be used .

Literature research

To implement themes and principles into a final product they have to be defined and understood well, literature research could help. The literature provides more insight in the target groups and in the stimulation of social interaction, where anthropological and typological research could not suffice. Especially in chapter 4 *Social interaction*, the literature research makes a large share.

Anthropological research

In order to get more information about the daily life and the use of space by the target groups, anthropological research will be done. The needs of a group of people, can solely emerge when the designer really becomes part of the world of that specific group. Therefore, next to literature research, anthropological research is important to gather the right information. The anthropological research is executed by observations, interviews and surveys.

Observations

Observations will be done in 't Nieuwe Kampje, a residential care home in Loenen aan de Vecht where elderly, but also people of different age-groups live. Two types of observations participant and nonparticipant, will be used (Groat & Wang, 2013). For the participant observations there will be an active position in the daily routines of the elderly. There will be participation in daily activi-

ties, walks through the neighbourhood with the residents, coffee moments, small talks and visits of the rooms. For the nonparticipant observations there will be silently observed how and where the elderly live and interact.

Interviews and surveys

Regarding the interviews, semi structured interviews and informal unstructured interviews will be conducted. The informal unstructured interviews will be conducted with residents and caregivers of 't Nieuwe Kampje. Informal unstructured interviews can be seen as regular conversations about the subject, however they are very helpful in gathering information (Finesurrey, 2018). The interviews will be held with elderly people but also with residents of other ages who live there. This will gain more insights in the daily routines of elderly and the interaction between different age groups. To gain more insight in potential neighbours of elderly, surveys will be send to a range of family, friends and neighbours in varied neighbourhoods in Groningen and Delft. After that, semi-structured interviews will be conducted to get more in-depth information. The people that will be interviewed are part of different age groups and various compounds of households. This leads to a wider scope of the research and thus a more specific analysis of how different age groups want to interact with elderly. Lastly, informal unstructured interviews will be conducted with project developers of existing projects where elderly are living jointly with other groups.

Case studies

To study the influence of architecture on the degree of social interaction in a neighbourhood projects will be studied. Analysis of these cases give inspiration and techniques of how the guidelines, found in previous chapters, can be implemented in practice. An overview of possible projects has been made, based on the criteria, in figure 1.4 the most suitable projects have been chosen.

These projects are intergenerational with focus on social interaction. One of the chosen projects, includes also other target groups in need of care. This may provide interesting insights in overlapping needs between elderly and other age-groups in need of light care.

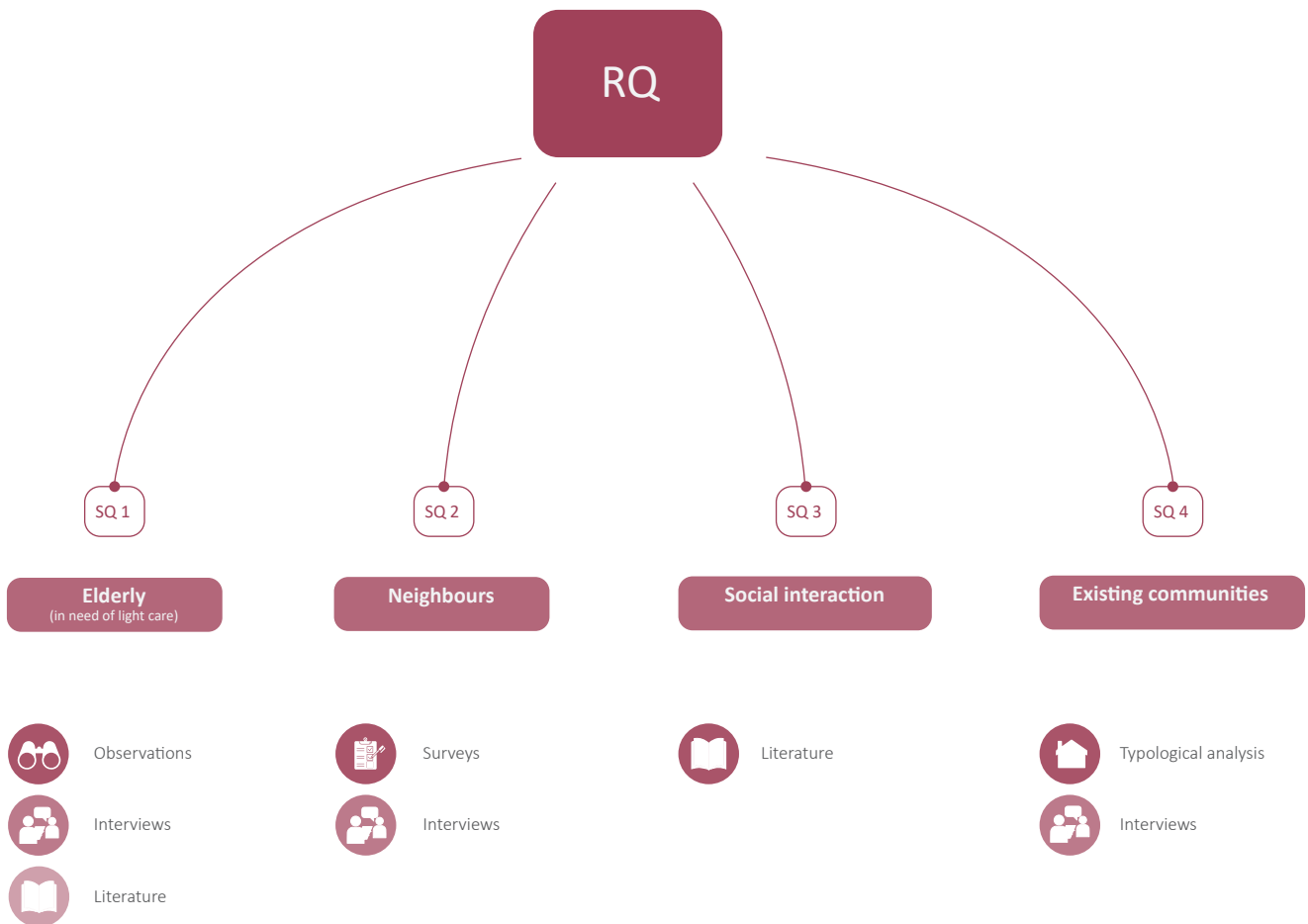


Figure 1.6 | Method per chapter. Own work (K.Kleine Punte, 2022)

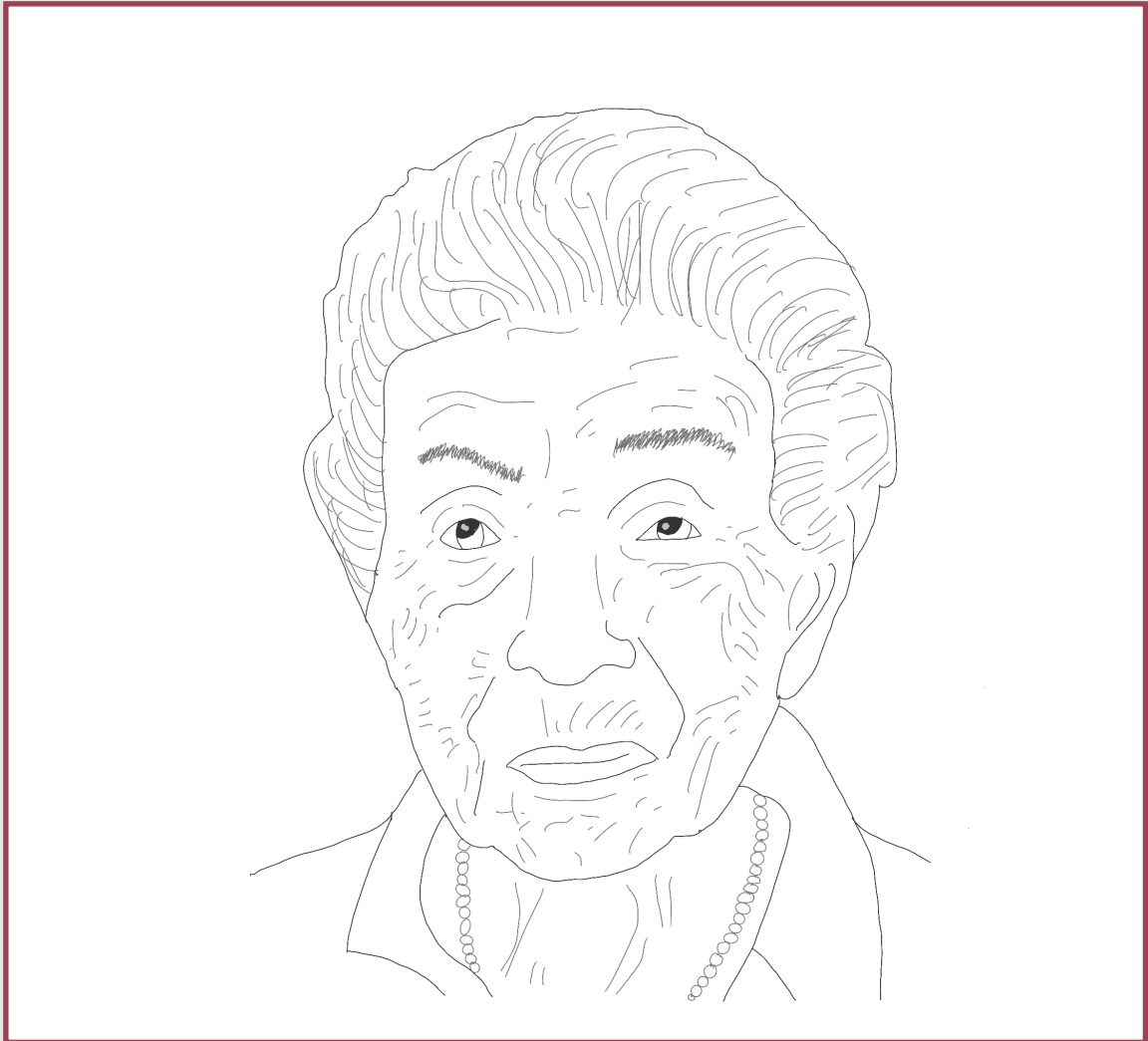


Figure 3.0| Sketch of an old woman. Own work (K.Kleine Punte, 2022)

02

THE ELDERLY

THE NEEDS OF ELDERLY IN NEED OF LIGHT CARE



This chapter is about the needs of elderly with a small care demand. The first paragraph is about the elderly themselves: who are they, what are their needs and preferences, what are their in competencies and qualities and when and with what do they need help. The next parts are about how the built environment can facilitate this. The scale of the dwelling, the building and the neighbourhood are incorporated to investigate as precisely as possible what the needs of the elderly mean for architecture. As described in chapter 1.3 (methods), this part of the research is executed by literature research and fieldwork.

1. THE PERSON ITSELF

THEIR PERSONALITY AND THEIR NEEDS

The fieldwork in Loenen shows some interesting aspects about the personality and the needs in daily life of elderly. This knowledge can be used as background information when designing for the elderly.

Pride

A remarkable characteristic that came to the fore a lot in the elderly in Loenen, is that they often want to be present and noticed. They want to help and do something that matters for others. The elderly take pride in being an active keystone in their communities, they like to be seen when helping. However the circumstances influence the amount of help and activity. The provided help consists mostly of short, social moments and little actions such as offering a biscuit or pour a cup of coffee. In addition to this feeling of pride when they contribute something, they also show pride for their belongings. Their belongings in literal sense as photos and collections of stuff. But also more figuratively, namely their memories and family members.

Non-commitment

If something is deemed safe and comes without a hard obligation the elderly are more likely to contribute to their communities. This also applies to undertaking social activities within their communities. They want to have the choice to participate, without having a reason to do so.

Safety

The last thing that came to the fore during the fieldwork is that the elderly attach great importance to the feeling of safety. The idea that there are others around them, even in the night, to

come to their aid if needed, calms them down. In line with this, they want to know where they stand and what awaits them. A rhythm in their daily life. This also gives them a sense of control and security.

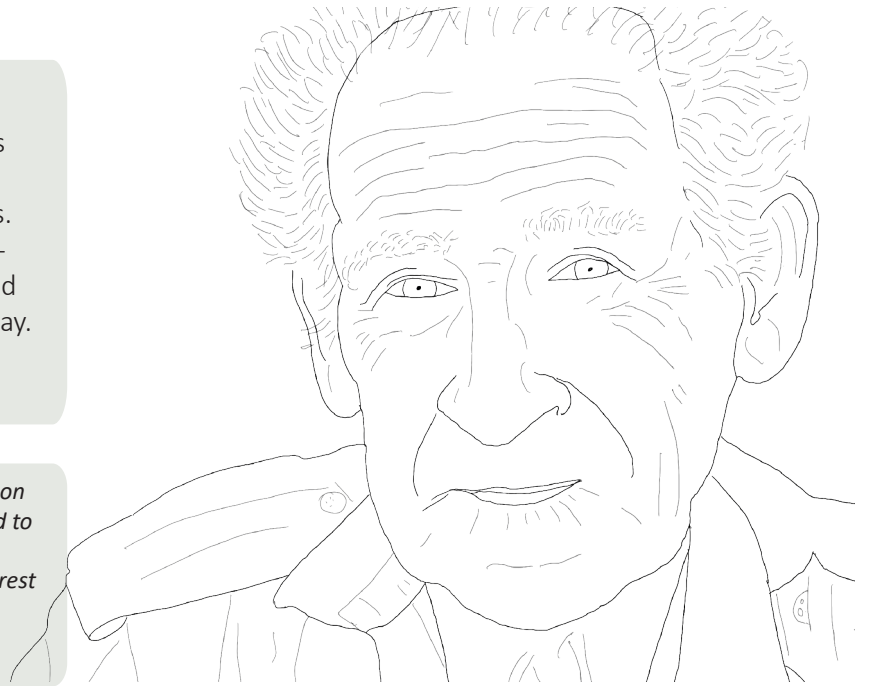
TWO OF THE RESIDENTS IN LOENEN

Mr. 'A'

Mr. 'A' is **89 years old** and has been living in Loenen for 6 months now. His daughter helps him every week with doing the laundry and doing groceries. Besides that he gets help with showering, the preparation of a hot meal and with getting in and out of bed every day. He is often present at the organized activities and the coffee moments.

"I love the interaction that I have here. A tap on my shoulder or a wave to the neighbor. It used to be different, in my old house. I had care in the morning and evening, but I was alone for the rest of the day!"

(Library in Loenen, November 2, 2022, 11:15)



Mrs. 'B'

Mrs. 'B' is **82 years old** and has been living in Loenen for about a year now. She is still very **independent**. In terms of help from 't Nieuwe Kampje, she gets her medicines every day and a hot meal four times a week. She is occasionally present at the coffee moments, but she is also very fond of her rest and privacy.

"The safety, the non commitment but the possibility to social activities make it a beautiful home"

(Own dwelling in Loenen, November 1, 2022, 15:15)



Figure 2.1 | Two of the residents in Loenen. Own work (K.Kleine Punte, 2022)

A DAY IN THE LIFE

Design guidelines for elderly housing can only be well developed with knowledge about current living conditions. How do the average elderly spend their day? What are their routines and with what do they need help? To get an indication of this, the daily schedules of the two previously introduced residents of 't Nieuwe Kampje are presented in figure 2.2 and 2.3. As well, the places where the residents are during the day are shown. The activities that are highlighted in blue are the activities in which the residents receive help. The pink colour represents the social activities.

Different needs

A difference is recognizable in both types of activities for both residents. First of all, Mr. 'A', needs more care and assistance while Mrs. 'B' is more independent. In fact, she will only be served a meal and her medicines during the day. There is also a difference in the amount of social activities that both residents undertake. Where Mrs. 'B' participates in two of the organized social activities during the day, Mr. 'A' seeks for moments of social contact. The interviews show that this non-commitment is much appreciated by the residents. Everyone is allowed to join, but withdrawing without reason is not frowned upon. This can be clarified with another example: residents can choose whether to eat in their rooms or in one of the common areas. Here, too, both residents make a different choice. This can be seen in the second diagram, where the locations where the residents are during the day are highlighted. Where she chooses to eat in her room because she felt tired, he decides to have dinner with some of the other residents.

From A to B

There are some other remarkable aspects to note. For instance, that there is a lot of social contact between the residents when they move in or around the building. This can be seen by the pink dots, in the diagrams of the places where the residents are during the day. When moving from the dwelling to a common space, these small unplanned moments of interaction arise in the transition and the circulation spaces of the building.

Four o'clock

In 't Nieuwe Kampje, an activity is planned every weekday afternoon between half past three and four o'clock. Soon afterwards, the residents withdraw to their own rooms. In general there is little or no movement from the elderly after this time, with some exceptions (for example small eating-groups in the common areas). Observations during the fieldwork show, that the residents say goodbye to each other after this last joint activity. They wish each other a nice evening and report that they will see each other again the next day. So, after four o'clock, there is little or no social contact between the residents in and around the building.

* The times in the schedule are rigid, in reality the schedule can be more adaptive and fluctuate a bit.

* It was not possible to join the whole day of Mr. Talk, so the scheme is a construction of the day of two persons with kind of the same care amount.

THE DAY OF MR. 'A'

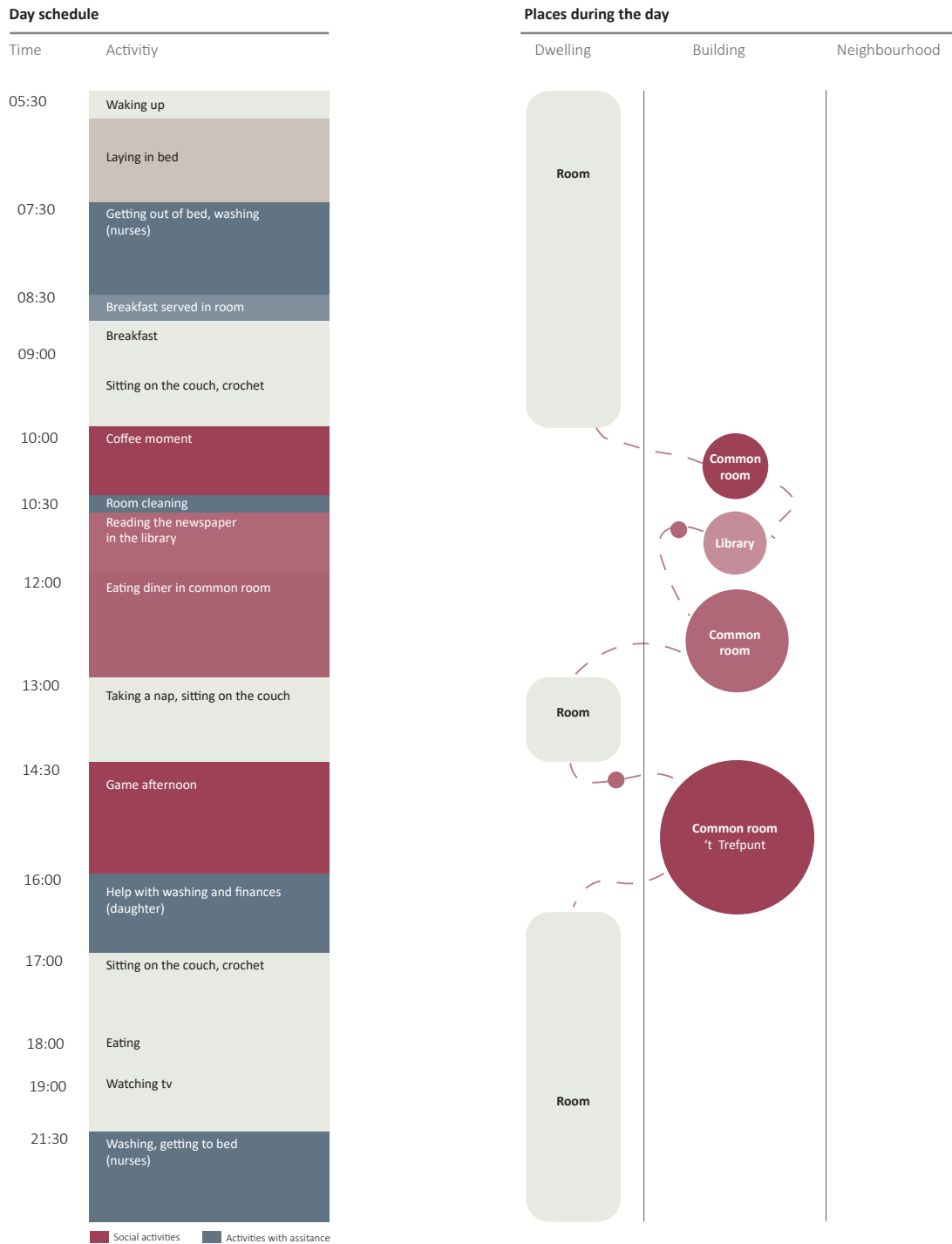


Figure 2.2 | A day in the life of Mr. 'Chat'. Own work (K.Kleine Punte, 2022)

THE DAY OF MRS. 'B'

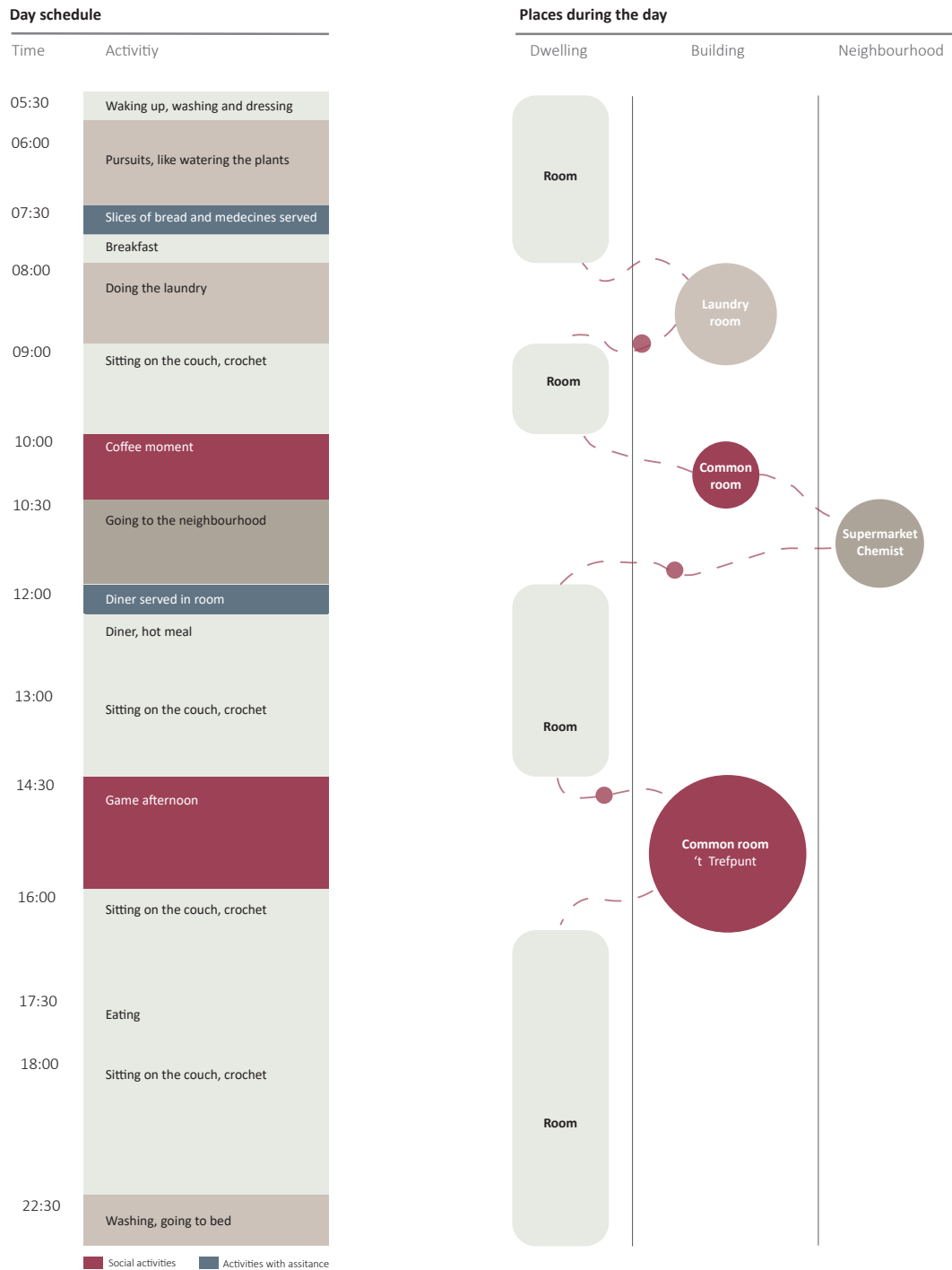


Figure 2.3 | A day in the life of Mrs. 'Flowers'. Own work (K.Kleine Punte, 2022)

2. THE DWELLING

The dwellings in Loenen are all 1- or 2-room apartments between the 27 m² and 40 m². Some of them have a private balcony or a small garden. The outcome of the fieldwork results in several recurring themes: personalization, storage space, bedroom, a view and private green area. Some of these themes are also mentioned and therefore endorsed by results from the survey conducted among the other elderly people.

Personalization

Over the years, the elderly have built up a sizable collection of things that are important to them. Examples are, collections of tableware, postage stamps, gained medals and prizes, or jewellery. In the dwelling shown in the picture on the right, a large amount of plants is displayed, but also quantities of pots and vases are collected on the ground. Such kind of exhibitions, can be seen in many dwellings of the elderly. Additionally, picture frames with photos of family and important moments in life are ample. The elderly feel a kind of pride in this, they are eager to show their photos and collections to visitors.

Enough storage space

As mentioned, elderly use a lot of space for collections and things that are amassed over the years. Another reason for the presence of enough storage space has to do with the mobility of the elderly. Some of them are using a wheelchair or a walker. On the floorplan of two dwellings in Loenen, it can be seen that a wheelchair and a walker are placed out of sight. When elderly only need their walker or wheelchair outside, they do not want to see it within their living space. A storage space is needed to organise this, otherwise the walker or wheelchair will be placed in other illogical places as the bathroom (figure 2.6)

Separate bedroom

Most dwellings in 't Nieuwe Kampje are small

apartments of 27m². The apartments have a built-in kitchen and a separate bathroom and storage-space. So the apartments consist of one room in which the living-room, the kitchen and the bedroom are. Despite that, it can be noticed that elderly want their bed out of sight, they want to separate it from the rest of the room. On the floorplan shown in 2.6, this desire is visible by the cupboard in the middle of the room. It marks a separation between the 'bedroom' and the living room. The observed separation of the bed, is confirmed by previous studies on the topic of housing for elderly. When the elderly are in their last phase of their lives, a view to the bed is confrontational, they associate their bed with dying (Jürgenhake, B. & Boerenfijn, P. (n.d.)).

View on greenery or on people

During the fieldwork residents were asked for their favourite spot in their room. Two examples of this are shown in figure 2.5 and 2.6. A remarkable thing is that all residents pinpointed a spot with the same characteristic, namely a place with a view to the outside. The elderly like to stare out of the window and see people outside come and go. Besides that, they especially like to have a view on a beautiful tree or on another green spot.

Private green area

Despite that a private outdoor space for care-related dwellings and dwelling with a living area smaller than 40 m² is not obligatory (Buitenruimte, Nieuwbouw | Bouwbesluit, 2012), most elderly people appreciate a private and safe outdoor place. They would like to be able to withdraw for a while and enjoy nature and being outdoors in peace. This was not only evident in the observations in Loenen. In an open-question from the survey conducted by other elderly people, 75 percent of the participants mentioned the outdoor space as the biggest asset of the house.

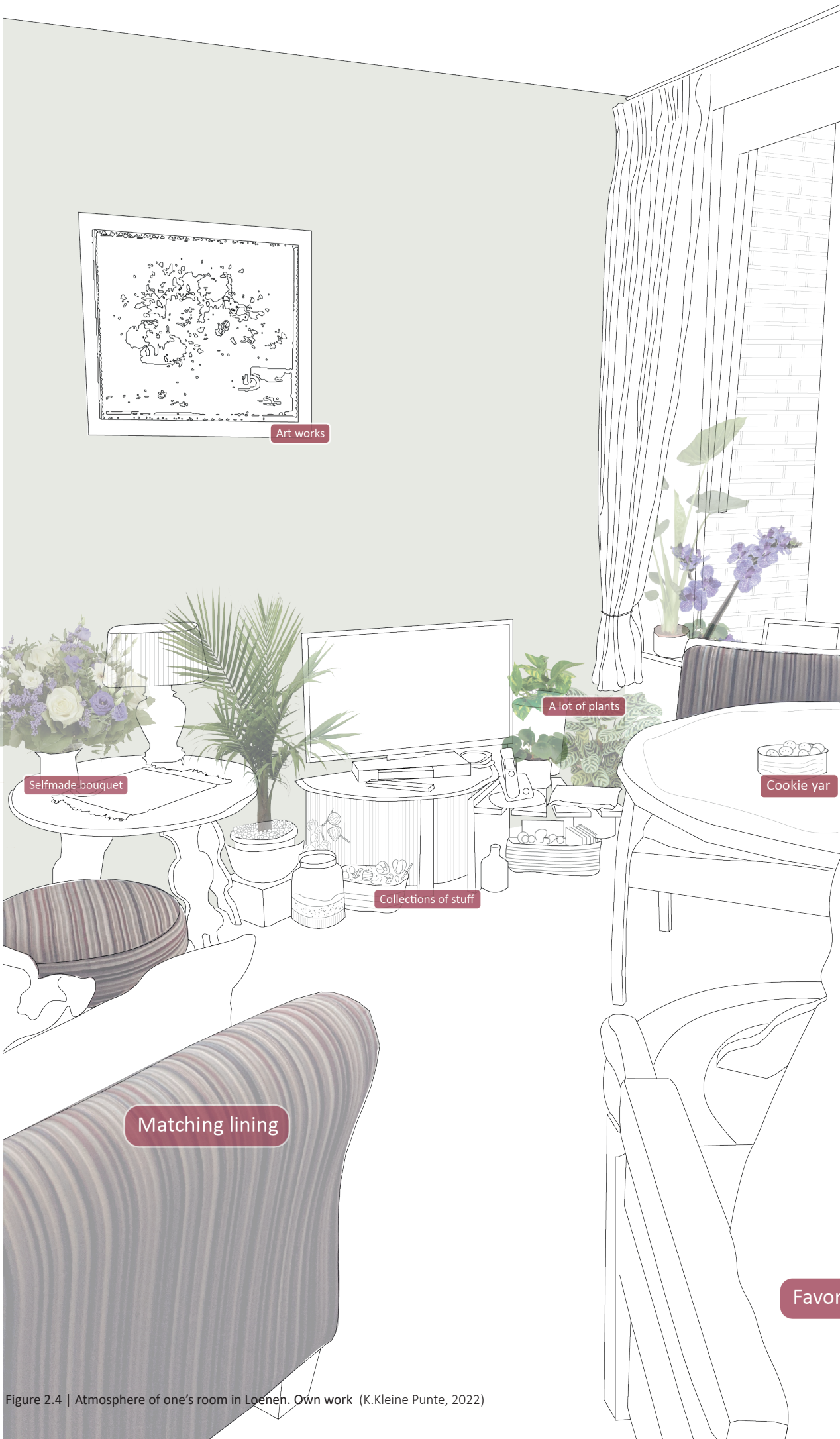
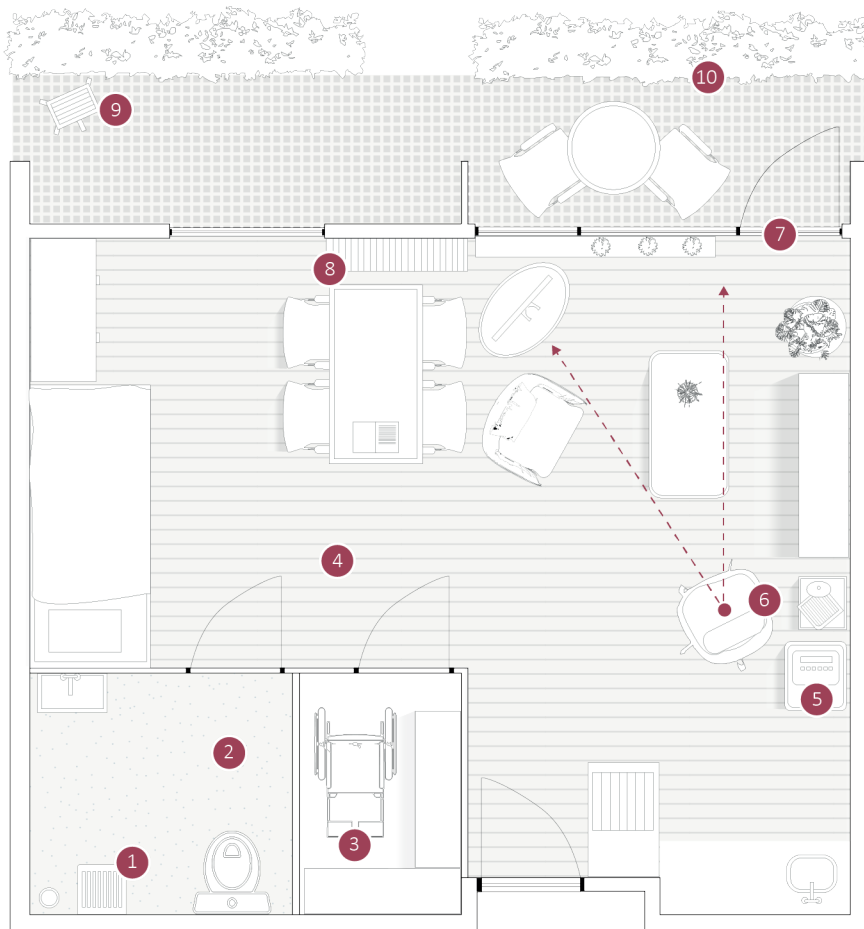


Figure 2.4 | Atmosphere of one's room in Loenen. Own work (K.Kleine Punte, 2022)

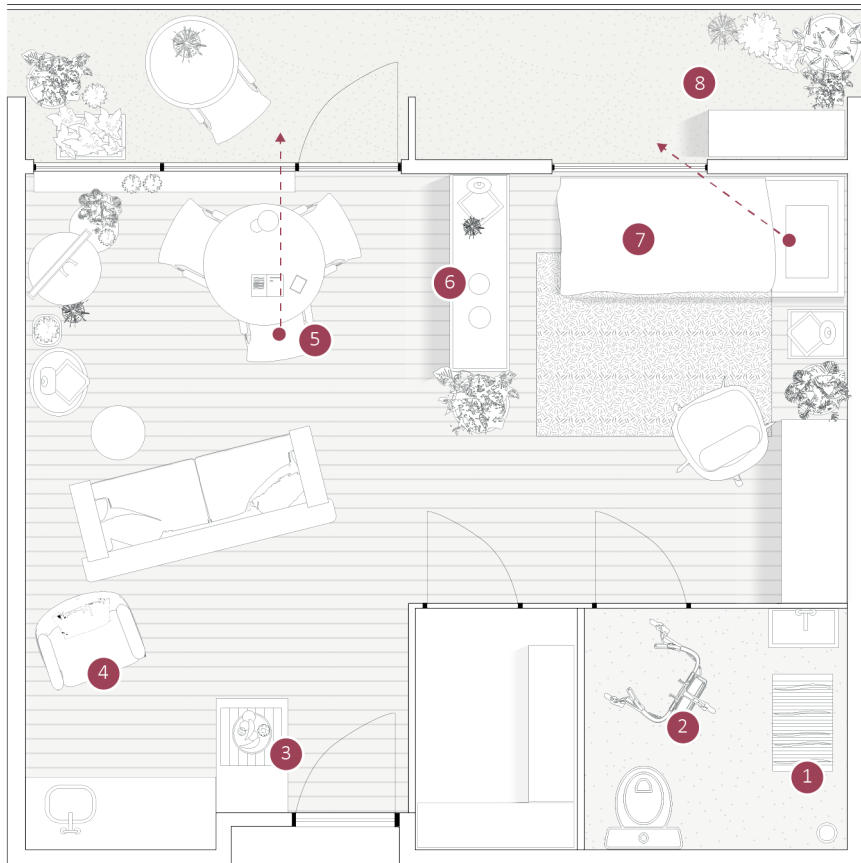
DWELLING ONE



- | | | | |
|---|---------------------------------|----|--|
| 1 | Folding chair for the shower | 6 | Favorite chair (view on window) |
| 2 | Slippery floor | 7 | Treshold too high |
| 3 | Big storage place for wheeli | 8 | Closet full of picture frames |
| 4 | Enough space to walk with w | 9 | Birdhouse |
| 5 | Air-fryer (used a lot during ev | 10 | Little garden is a big plus |

Figure 2.5| Layout one of someones room in Loenen. Own work (K.Kleine Punte, 2022)

DWELLING TWO



- 1 Laundry rack
- 2 Walker placed out of sight
- 3 Gas stove covered
- 4 Chair in the kitchen to rest
- 5 **Favorite chair (view on window)**
- 6 Division between sleeping and living
- 7 Bed view on window
- 8 Balcony is a big plus

Figure 2.6| Layout two of someones room in Loenen. Own work (K.Kleine Punte, 2022)

3. THE BUILDING

On the scale of the building, the fieldwork in Loenen shows some interesting observations about the transition zones in front of the dwellings and about the common areas.

Transition zones

In 't Nieuwe Kampje' in Loenen, there is a small personal space in front of every room (figure 2.7). This is the transition between the privacy of the home and the collectiveness of the building. This space consists of two small shelves that have a practical function (storage) but also offer space for personal objects that can be placed in front of the dwelling. The practical function means that medicines can be deposited here by the nurses, written messages or information for residents can also be placed here. Personalization of the shelves contributes to identity, ownership and recognition, although the residents also use the door itself to decorate the space. As a pleasant addition, some transition spaces are decorated according to seasons or special days. For example, the door of the room in figure 2.7 was decorated with streamers and balloons on the birthday of the resident in question.

Common and public spaces

What is special about 't Nieuwe Kampje in Loenen, is that there are several common rooms scattered throughout the building. There are five smaller spaces spread over both the ground floor and the first floor. These spaces all have an appealing name like 'Smulpot' (gourmand) or 'Trefpunt' (meeting point), so they can be clearly distinguished and recognized. On the ground floor there is also a larger space to be found, named 'Studio Idee'. This space is occasionally used for the residents, but the space

can also be rented for meetings of individuals and companies. Finally, there is also a public library on the ground floor. This stimulates integration and interaction between residents and people from the neighbourhood. During the fieldwork, research is done into the use, the layout and the atmosphere of these common and public spaces.

Use of the spaces

In figure 2.8 the use of the common and public spaces during a day are represented. The spaces are used in varying degrees at different times. Occupation and activity can be seen almost all day long in the library, other rooms are mainly occupied at specific times. The latter are usually used for planned activities and meals, they can also be reserved by the residents themselves and are sometimes private. Apart from these activities, the spaces are not often used. After four o'clock these spaces even look 'closed' (figure 2.12 and chapter 2.1 four o'clock). In contrast to these spaces, the library, is the place where a lot of unplanned interaction occurs. This social contact not only arises between the residents themselves, but also between residents and staff and between residents and people from the neighbourhood. Neighbours come to the library to borrow a book or to study, staff is running around to take care of the residents and the residents themselves cross the library during their daily walk or on their way out. These movements are shown in figure 2.9. During their walks through the building, the elderly often take a break at one of the tables in the library. They passively participate in the life of neighbours, fellow residents and the staff. Passive participation has often come back during the fieldwork as something the older people like.



Colour contrast

Birthday decoration

Personalization

Medicines

Painted brickwork

Figure 2.7| Atmosphere of the transition zone in front of the dwellings Own work (K.Kleine Punte, 2022)

Layout of the spaces

As mentioned before the building contains different small common areas. Before the building was renovated, there was just one big common space (nowadays Studio Idee). The advantage of this was, that the space was always occupied, if the elderly wanted to have social contact they knew they could find it there. A major drawback was that the dining- and coffee moments were very impersonal. Now, the elderly can choose to eat together someday with a small group in one of the rooms (volunteers make this possible). The elderly scoop up the food themselves and eat in a room with a kitchen (figure 2.12) Partly due to the small scale of the rooms a homely and warm ambience is created instead of an institutional atmosphere. Another aspect that has to be taken into account is the accessibility of the spaces. Almost all the elderly in Loenen walk with a walker or move around in a wheelchair. This sometimes creates difficulties in the small common areas. Stuff must be pushed aside or walkers are placed in the middle of the room as shown in figure 2.12.

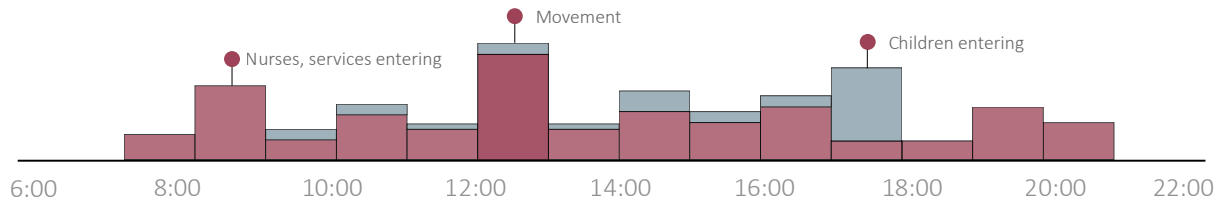
Lastly, the common rooms have a semi-permeable partition or an open connection with the corridor (figure 2.10 and 2.11). This allows the elderly, when they pass by, to look into the room and decide whether they want to participate or not. This visual contact ensures that participation remains non-committal and the elderly have an option to escape.

Atmosphere of the spaces

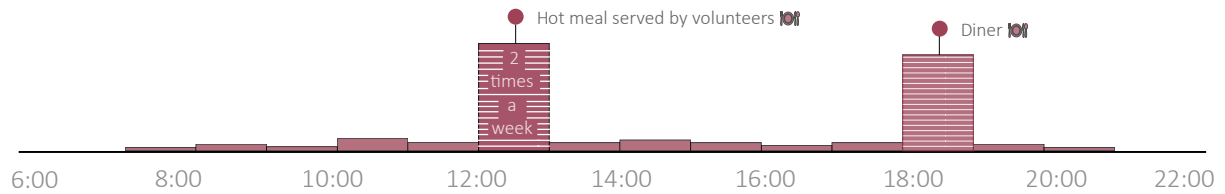
The ambience of 't Nieuwe Kampje is surprising and different from what most people expect at a residential care complex. As shown in (figure 2.13

and 2.14), there are many homely objects present in the common area. There are paintings on the wall, curtains on the windows and lots of plants in the window sills. In addition, a lot of light enters the room because of the big windows. Lastly, again the small scale of the spaces matters for the atmosphere of the common rooms. All these aspects ensure that the complex does not feel institutional.

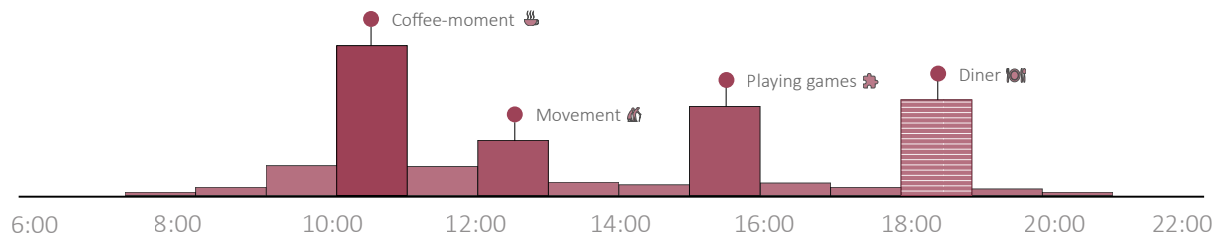
USE OF THE COMMON AND PUBLIC SPACES



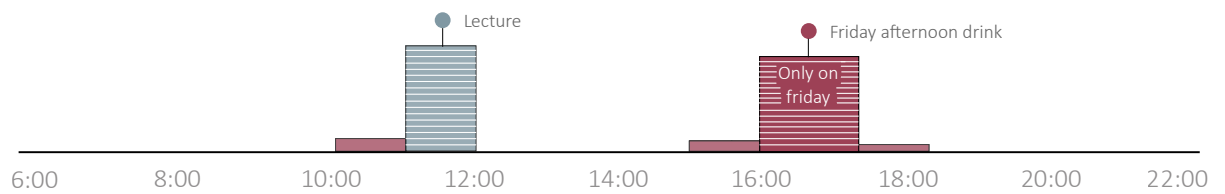
THE LIBRARY



THE 'SMULPOT'



THE 'TUINKEUKEN'



STUDIO IDEE

Occupation
 Sporadic occupation
 External occupation

Figure 2.8 | Use of the common and public spaces. Own work (K.Kleine Punte, 2022)

LAYOUT OF THE LIBRARY

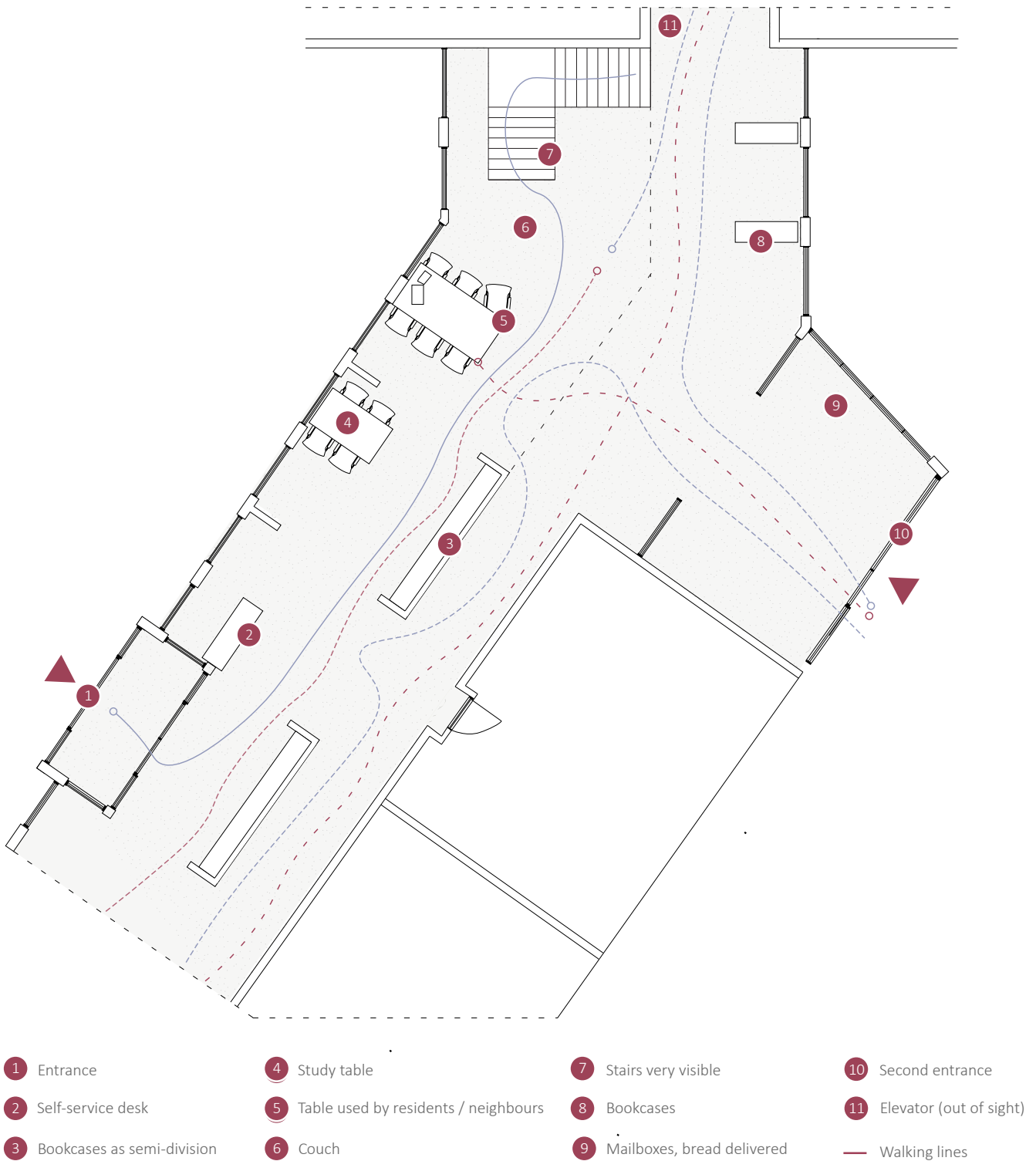
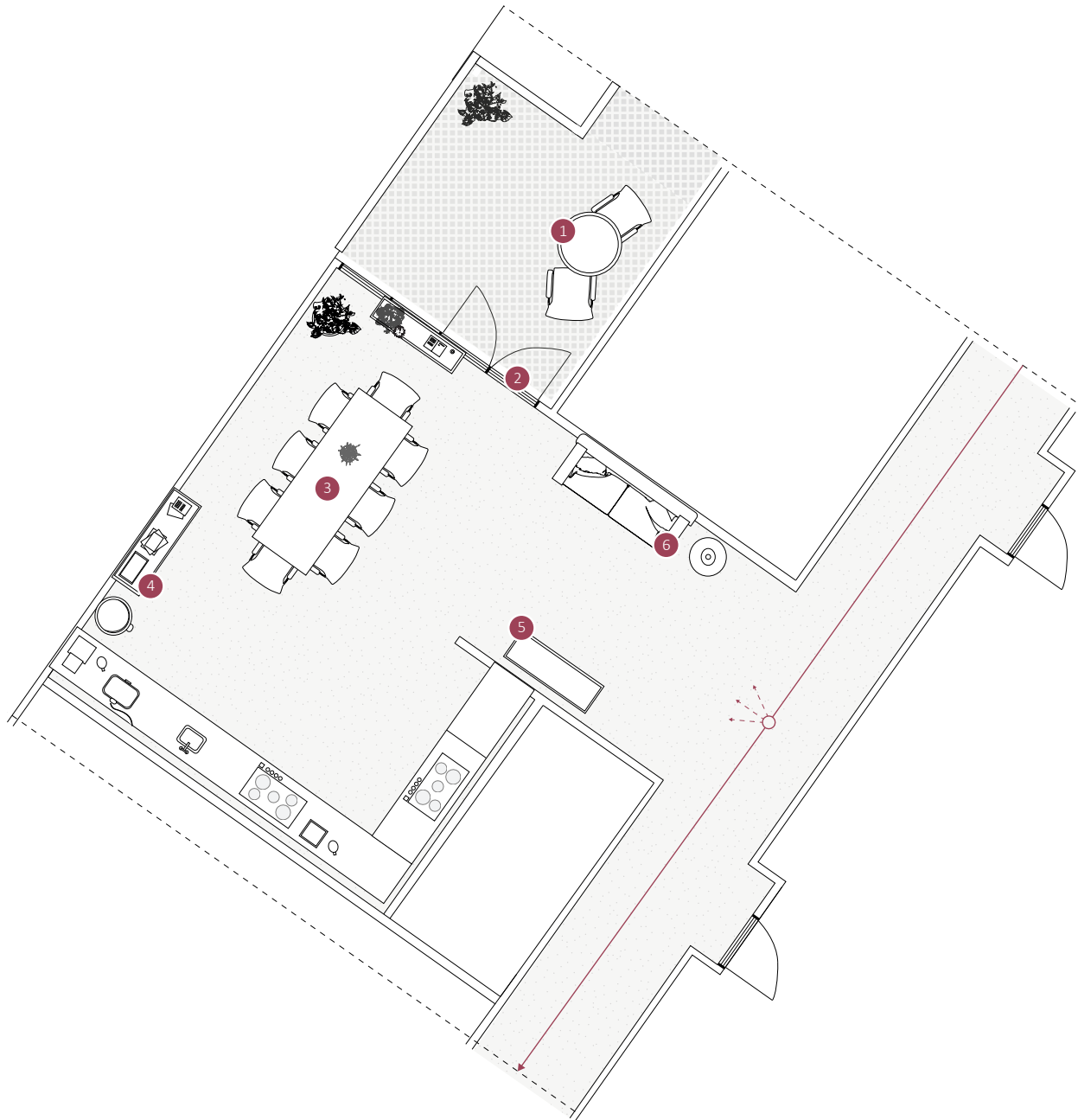


Figure 2.9 | Layout and walking flows of the library. Own work (K.Kleine Punte, 2022)

LAYOUT OF THE 'SMULPOT'



1 Balcony, mostly used by staff

2 Very high treshhold

3 Table for diners

4 Cupboard with magazines and games

5 Cupboard with vases, bowls and books

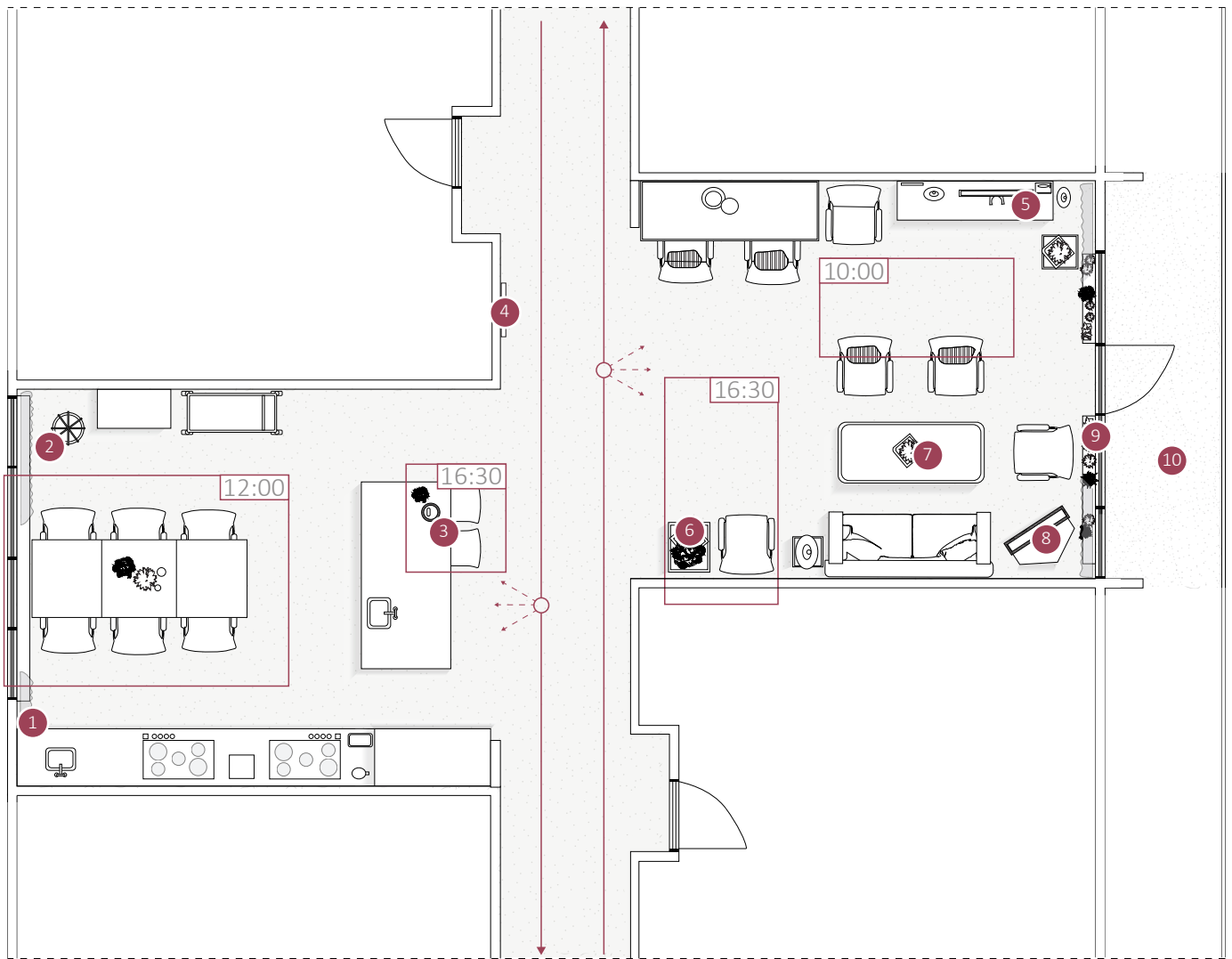
6 Couch

— Walking line

Visual accessibility

Figure 2.10 | Layout of the common room the 'Smulpot' Own work (K.Kleine Punte, 2022)

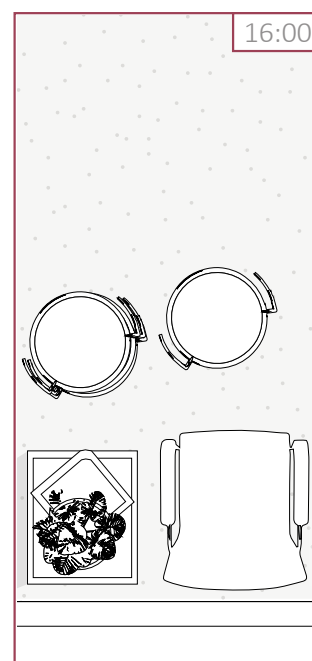
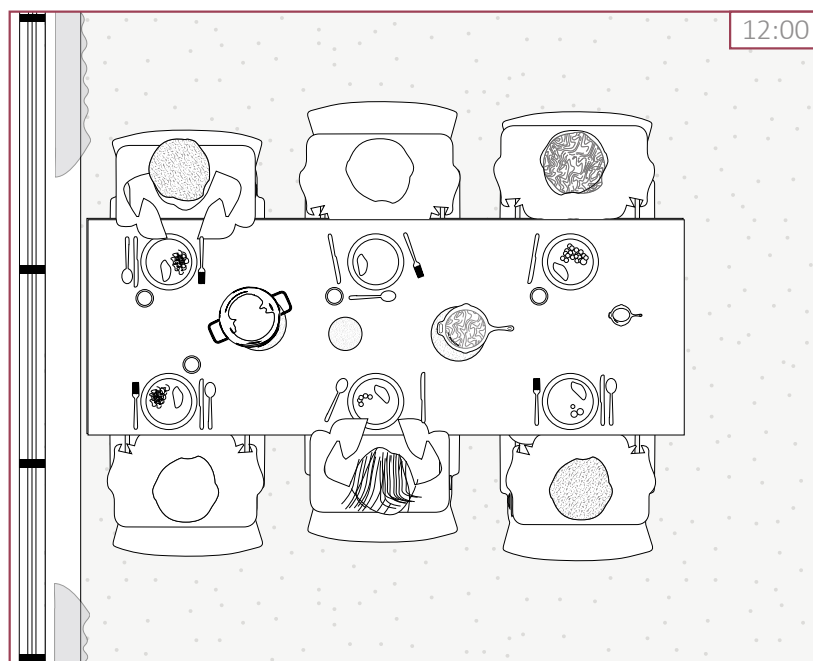
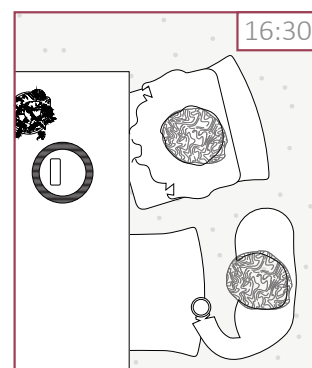
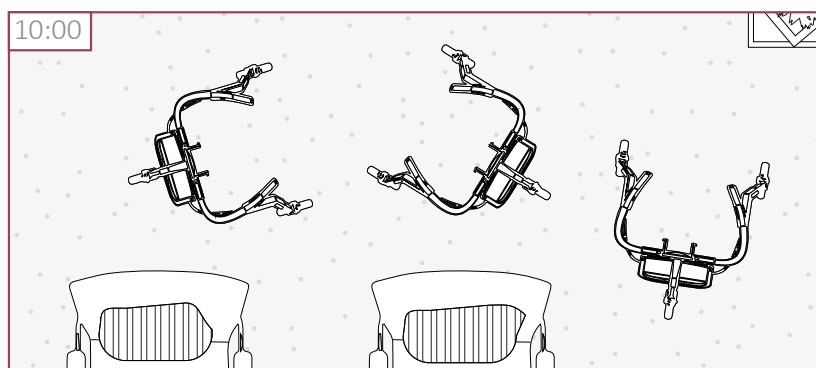
LAYOUT OF THE 'TUINKEUKEN'



- | | | |
|--|---------------------------------|-----------------|
| 1 Curtains | 6 Flowers | — Walking lines |
| 2 Coat rack with coats of employees | 7 Electric candles | ⊙ Visual acces |
| 3 Calender prominently displayed | 8 Fake chimney | |
| 4 Bulletin with notices (oa. activities) | 9 Windowsill with many plants | |
| 5 Television almost never used | 10 Balcony, not used very often | |

Figure 2.11 | Layout of the common room the 'Tuinkeuken' Own work (K.Kleine Punte, 2022)

ACITIVITIES IN THE 'TUINKEUKEN'



10:00 Walkers placed in the middle of the room

16:00 Stacked crutches, space seems closed.

12:00 Hot meal with a small group of the residents

16:30 Employees use the space to chat

Figure 2.12 | Activities in the 'Tuinkeuken' Own work (K.Kleine Punte, 2022)

ATMOSPHERE OF THE LIBRARY



Figure 2.13 | Atmosphere of the library. Own work (K.Kleine Punte, 2022)

ATMOSPHERE OF THE COMMON ROOM 'TREFPUNT



Figure 2.14 | Atmosphere of the common room Trefpunt. Own work (K.Kleine Punte, 2022)

4. THE NEIGHBOURHOOD

On the scale of the neighbourhood, several things can be concluded from the fieldwork in Loenen. Additional information is obtained from literature and the extra interviews and surveys. The results can be recognized in the themes: facilities on walking distance, recognition, small living environment, benches and smooth road surface.

Facilities on walking distance

As people age, their mobility declines. Most elderly who have poor mobility walk with a cane or a walker, some are even pushed in a wheelchair. Implicitly, great distances are not covered due to these mobility problems. In Loenen various facilities are located in the residential-care-complex itself, there are a hairdresser, a library and a physiotherapist. Besides that, there are a supermarket, another physiotherapist, waste containers and a druggist in close proximity of the building complex. There are many satisfied comments about this, despite their poor mobility the elderly still can go to the supermarket, or to other facilities, independently. Other studies into the living environment of the elderly confirm these observations. In a research of 'Planbureau van de Leefomgeving' is stated that the proximity of a supermarket, a doctor, a pharmacy and public transport stops are important in the living environment of elderly. The walking distance to these facilities is also an important criteria for most elderly, the distance should not exceed 500 meters (Daalhuizen, F., Dam, F. van, Groot, C. de, Schilder, F. & Staak, M. van der. (2017.).

Daily walks

Daily walks are an important part in the routines of elderly. The fieldwork in Loenen shows that most

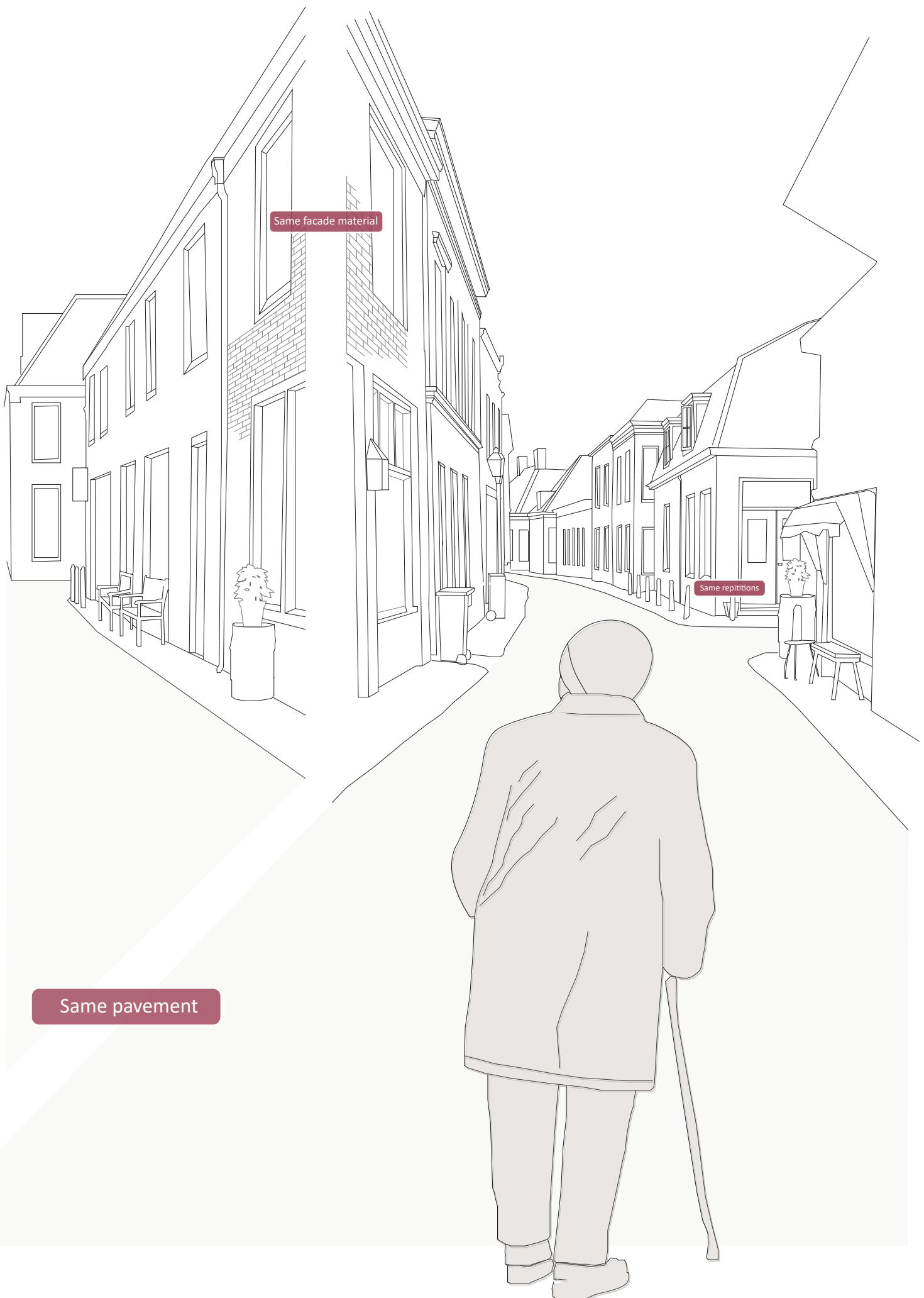
elderly stay, during these walks, close to the safety of home. A daily walk of most of the residents usually goes not further than a walk around the building complex or even just a walk around the roundabout on the site itself. The quality of the nearby living environment and the opportunities to take an easy daily walk, nearby the dwelling, are therefore of great important. While all staying close to home, the distances that elderly travel during their walks differ. Therefore the environment should provide different walking routes nearby the building. So that both the elderly who only want or can take a short walk, as well as the elderly who want to cover a long route, are motivated to go out.

Roundabout

As mentioned, daily walks were taken around the roundabout in Loenen. The roundabout also has another function, namely as kiss and ride place. Elderly people can wait in the entrance hall until a taxi comes to pick them up via the roundabout. In addition, goods can easily be delivered to the door of the complex.

Recognition

The fieldwork in Loenen shows that the elderly need points of recognition in a neighbourhood to orient themselves and to find their way. On the scale of the building this was seen in the personalization of the transition space between the dwelling and the hallway. In the centre of Loenen this is missing a bit. According to some of the residents of 't Nieuwe Kampje, all streets are looking the same. In a neighbourhood variation in the facade can ensure recognizability. This doesn't have to be big differences, but can be done by varying just a few variables as colours, materials, heights



Same facade material

Same repetitions

Same pavement

Figure 2.15 | The neighbourhood. Own work (K.Kleine Punte, 2022)

and depths. Research shows that varied facades also has advantages for children. Individual houses are better visible, which is conducive to a child's knowledge of his / her environment. The child knows who lives in a certain house. Additionally, used colours and materials may lead to better cognitive development (Van Duijn, 2004).

Benches

Long walking distances can be seen as a threshold for elderly to go out. Enough rest points will help the elderly. Therefore the placement of enough benches around the building block and in the neighbourhood is of great importance. What appears from the fieldwork in Loenen as well, is that the elderly like to passively participate in society. Benches offer a perfect solution for this. The elderly can rest and passively enjoy the society around them.

Smooth road surface

What appears from as well the fieldwork in Loenen as the fieldwork in the wheelchair in Delft, is that a smooth road surface is of great importance. Elderly people often have difficulty walking. They walk with a cane or a walker, or even use a wheelchair. Unevenness in the road surface, bumps, sidewalks and tree roots are all aspects that make walking or rolling more difficult (figure 2.16). This can prevent the elderly from going outside at all. This shows that a good road surface is necessary for the elderly to be able to go out safely.

ROAD SURFACE

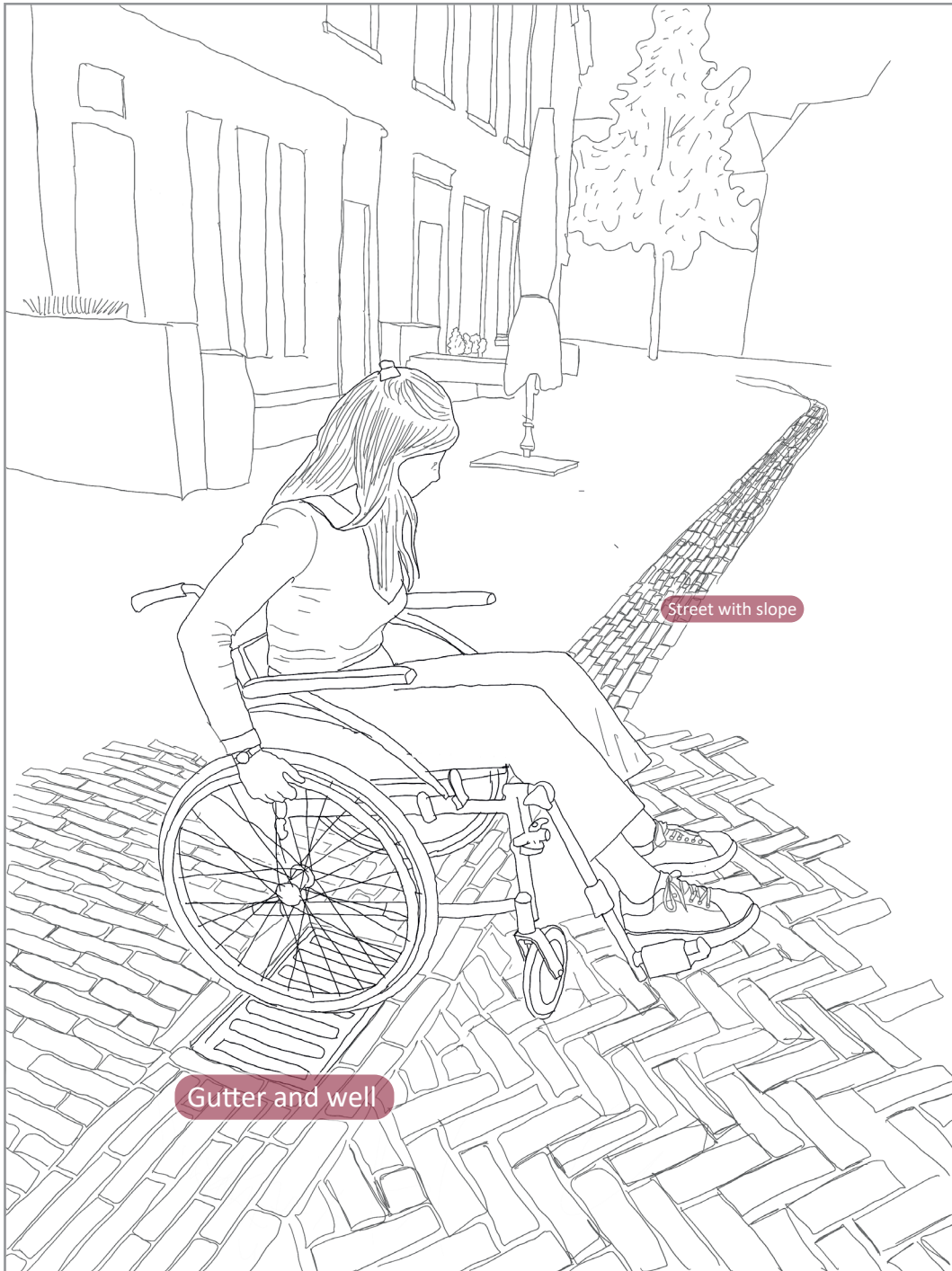
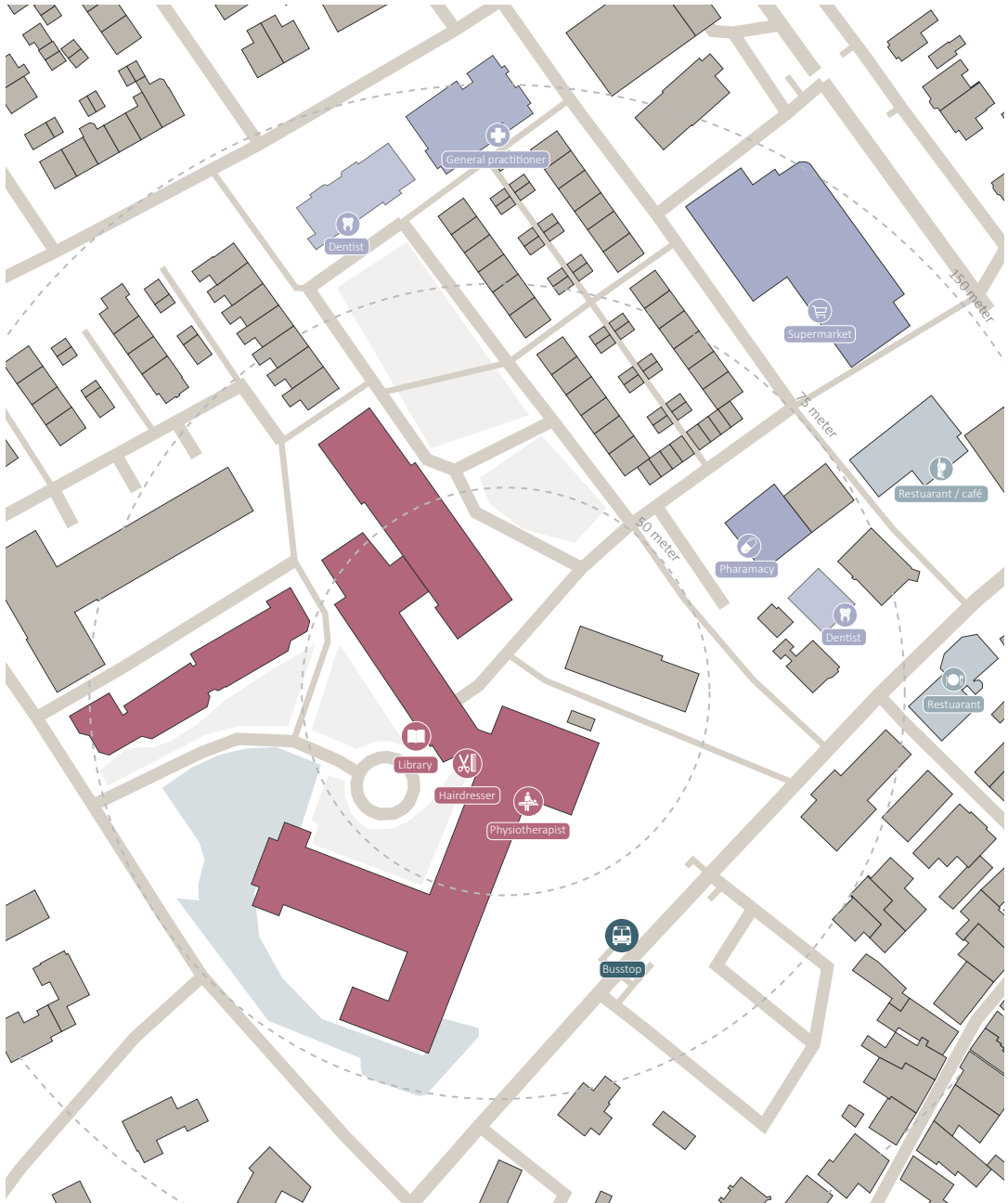


Figure 2.16 | Bad pavement. Own work (K.Kleine Punte, 2022)

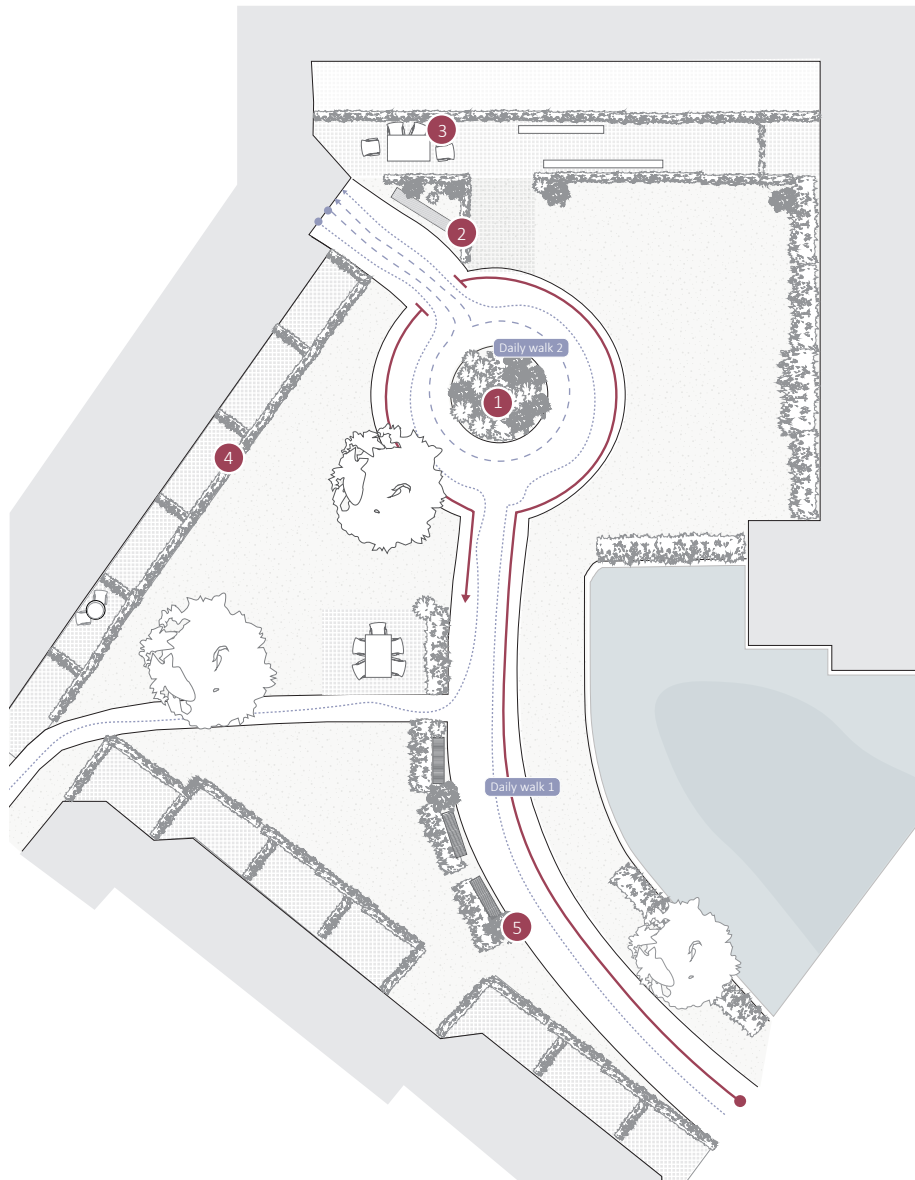
FACILITIES IN THE VICINITY



● Facilities inside the building complex ● Main functions ● Sub functions

Figure 2.17 | Facilities in the vicinity. Own work (K.Kleine Punte, 2022)

THE ROUNDABOUT



- ① Roundabout
- ② Low wall to sit on
- ③ Lunch spot of the employees
- ④ Private gardens
- ⑤ Benches
- 'Kiss and ride' route
- Standard daily walks

Figure 2.18 | The roundabout and daily walks. Own work (K.Kleine Punte, 2022)

5. CONCLUSION

THE ELDERLY

In this chapter, the sub question to be addressed was: “What does light care mean in daily life and what does that mean for architecture on the scale of the dwelling, the building and the neighbourhood?”

First it was investigated how the average elderly spent their day and what they need help with. The demand for care differs enormously from getting a person out and into bed completely to just giving the reminder to take medication. What most elderly people do have in common is that they need safety, recognition and (spontaneous) social contact. Although the degree of this need differs per person.

In the next paragraphs, the role of the built environment in this context have been researched. This started with an investigation into the dwelling itself. Enough storage space, a view on greenery or activity and the presence of a separate bedroom and a private outdoor space are important aspects that must be taken into account when designing for elderly.

Then, on the scale of the building (block), it was determined which elements are indispensable in a design for elderly with light care demands. The aspects are focused on social contact, because it appears from the research that the elderly have the most needs for this during the day. First, a common room is needed where the elderly can have social contact. Visual access to this space is additionally important here. Besides that it is necessary to create opportunities for passive participation and to add quality of stay at daily used functions and circulation spaces.

In terms of the neighbourhood, enough rest points, a smooth road surface, different possibilities for daily walks and points of recognition are essential.

Some of these mentioned aspects, that come from anthropological research correspond to aspects from the ‘Woonkeur’ (chapter 1.1 *Theoretical framework*), however those conclusion are approached from a more technical point of view.

The conclusions are translated into design guidelines, shown on the next two pages.

ELDERLY
DWELLING



1.1

ENOUGH STORAGE SPACE

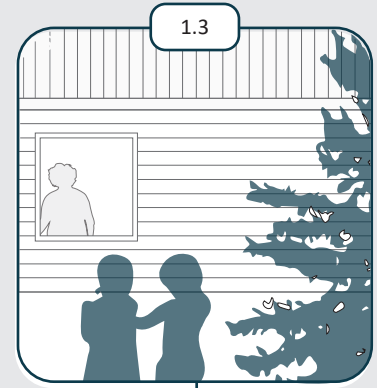
Enough storage space for all the things the elders have collected during the years and to place a wheelchair / walker out of sight.



1.2

SEPERATE BEDROOM

Seperate the bedroom from the rest of the functions in the dwelling, but with a direct connection to the bathroom.



1.3

SIGHT ON PEOPLE OR GREENERY

Good view from the dwelling of activity or on trees and plants outside.

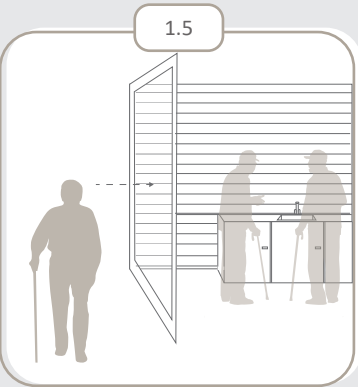


1.4

PRIVATE BALCONY OR GARDEN

The elderly like to have a private outside space, even if there dwelling is smaller than 40 square meter.

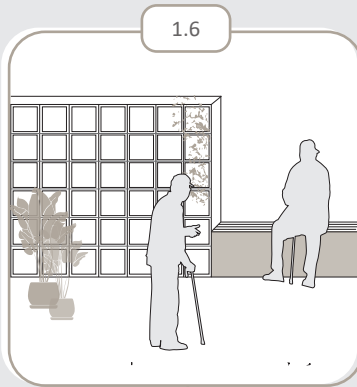
ELDERLY
BUILDING



1.5

VISUAL ACCESS

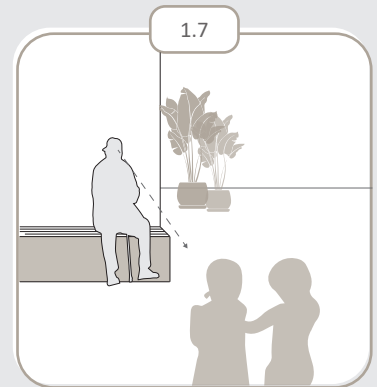
Elderly need the option to escape depending on who is present in a certain room. Visual acces to the room is needed so the person can observe and decide to join or not.



1.6

ADD QUALITY OF STAY

Add quality of stay (space, daylight, benches, etc.) to circulation space and daily used functions. That are the places where elderly bump into each other.



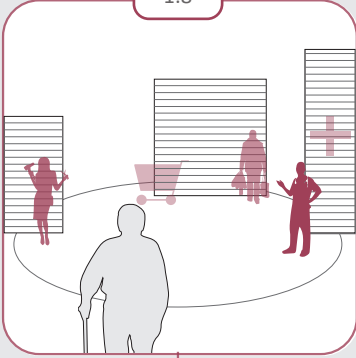
1.7

PASSIVE PARTICIPATION

Create opportunities for passive participation in common or public spaces.

ELDERLY
NEIGHBOURHOOD

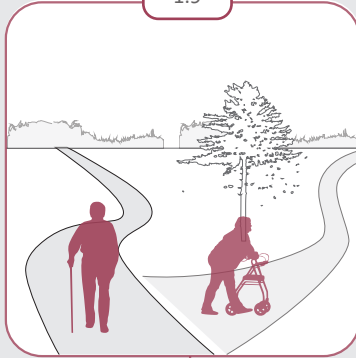
1.8



FACILITIES ON WALKING DISTANCE

Services such as a supermarket and health functions should be within a distance of 500 meters of the dwelling.

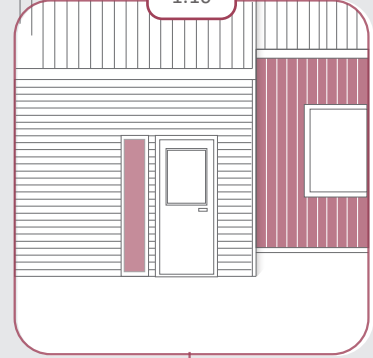
1.9



DIFFERENT WALKING ROUTES

Provide easy walking routes of varying distances around the dwelling or building complex.

1.10



SMALL VARIATIONS IN FACADE

Vary a few variables as colours, materials, heights and depths in the facade to create recognizability.

1.11



ENOUGH BENCHES

Place enough benches where elderly can take a rest or just sit and watch others participate in public life.

1.12



SMOOTH ROAD SURFACES

Create flat road surfaces without bumps so that this will not form a barrier for elderly to go outside for a walk.

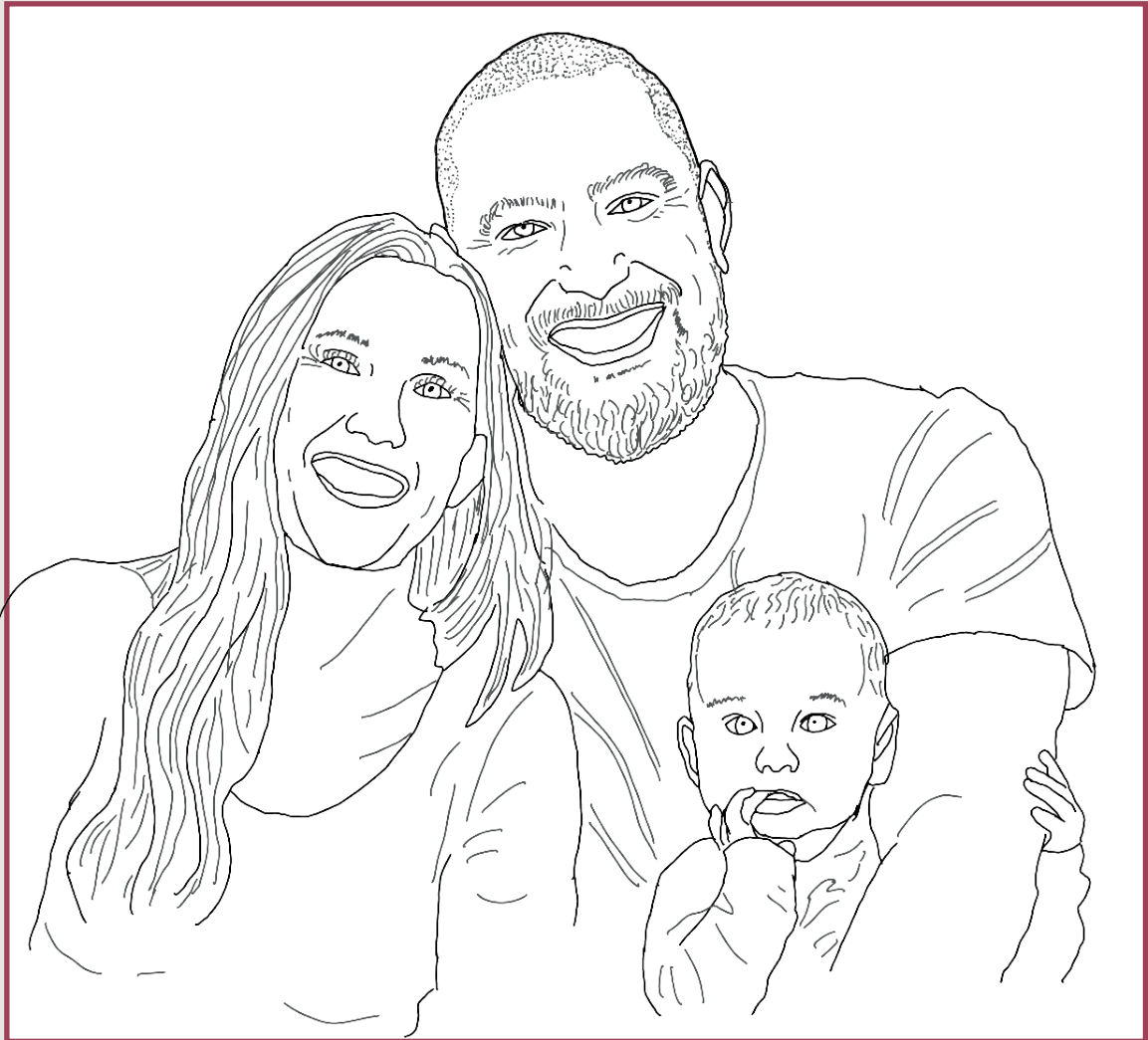


Figure 3.0| Neighbours. Own work (K.Kleine Punte, 2022)

03

THE NEIGHBOURS

HOW CAN NEIGHBOURS COMPLEMENT THE ELDERLY



This chapter is about neighbours and their competences to help people in need of light care.. The goal is to get more insight in their needs in relation to the elderly. How can neighbours complement the elderly and vice versa. This part of the research is mainly executed by anthropological research, namely surveys and interviews.

1. NEIGHBOURS

SURVEY

To get more insight in the needs and competences of neighbours in relation to the elderly, a survey has been conducted. The survey is ultimately completed by 39 people of different ages and different household compositions. The participants also live in different housing types such as row houses, apartments and detached houses. This provides a wide scope of neighbours' interest in relation to the subject. In figure 3.1 the most important results are presented, a more detailed overview can be found in appendix A.

Different age groups

The first thing that can be noticed from the results of the survey, is that most people want to live in the same street with people of different ages. Contiguously, of the people who want to do activities with their neighbors, most people want to do these activities also with neighbors from different age groups. A mix of people of different age groups in a neighborhood. So the survey shows that a neighborhood with a mix of people of different ages is preferred.

Shared facilities

The results of the survey show that 43 percent of the participants do not want to share anything with their direct neighbours. Other indicated that they want to share something if it is not at the expense of their own space. On a bigger scale almost all participants want to share extra facilities. Most mentioned facilities are a shared garden, a common room a horeca function and a playground.

Activities

At least 82 percent of the participants wants to do activities with their neighbours. What ac-

tivities they want to undertake varies enormously. Helping each other, cooking, sporting and gardening are activities which are mentioned the most. Which is further evident from the results, but also from deeper interviews is that these activities should remain voluntary.

Offering help

What appears from the results of the survey, is that almost all participants indicate that they want to help the elderly when there are no barriers preventing them from doing so. A lack of time was mentioned as a barrier for providing help by 23 percent of the participants. That is something that architecture cannot offer a solution to. However, 30 percent of the participants have no elderly or people in need of light care around and 37 percent has a lack of information (no idea who needs help and with what) to offer help. The living environment can respond to that by providing clear information and encouraging the elderly and neighbors' to come in contact. The latter will be discussed in detail in the next chapter.

SURVEY RESULTS

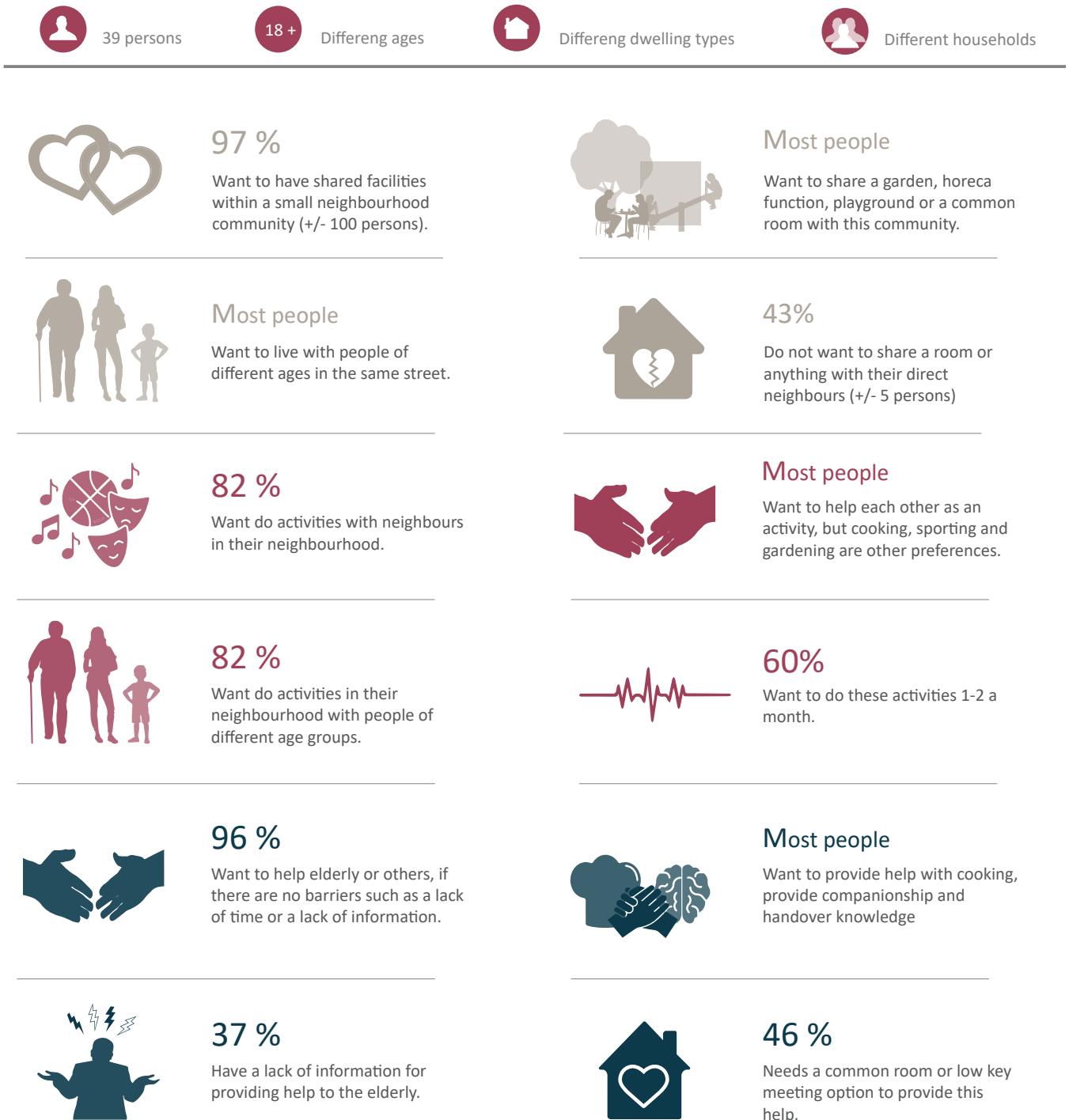


Figure 3.1 | Overview of the survey results (K.Kleine Punte, 2022)

LIVING OR HELPING IN 'T KAMPJE IN LOENEN

The previous paragraph examined what neighbours want to share and do with the elderly. Besides that it was researched how they are able to provide help and what architectural aspects are needed for that. In this paragraph this is discussed in more detail by means of in-depth conversations with some participants of the survey and some other residents and volunteers in Loenen.

Volunteers in Loenen

The fieldwork in Loenen shows that on several days during the week volunteers are doing activities with the elderly. Examples of these activities are playing games, an afternoon drink, music evenings and shared dinners. A group of approximately 12 volunteers ensure that this is possible on a weekly basis. The volunteers try to also involve people, of different ages, from the neighbourhood in these activities. Unfortunately, this has not yet led to a desired result. There is kind of a stigma attached to the elderly home. The motivation of most of the volunteers is to do something for society. A reintegration process was also mentioned as a reason to offer help.

Fellow residents in Loenen

In addition to the elderly, there are also few younger residents without care demand living in Loenen. These residents find it pleasant to live among the elderly because it gives them a safe feeling. They also appreciate the social contact and its non-commitment. Some residents occasionally eat or drink coffee with the elderly, where others retreat more often. Contact between this group of residents and the elderly is approachable since the residents meet each other spontaneously in and around the building. They know each

other, that feels familiar. As a result, in addition to the companionship, help is also asked more quickly for small household chores.

Other neighbours

The research following the survey has shown that most people want to provide help to others in need of light care but interact with them first creates a barrier. As an example a couple from Paterswolde is taken. The two people have considered cooking for an elderly neighbour, who seems to be struggling, several times. However, there is something holding them back. They do not have further interaction with this man, they do not know him personally while he lives on the other side of the street (Rimann, D., own communication, 2022).

Another example is about a couple in Amersfoort. They weekly cook for an old woman a few houses away. They know about her needs, because she often sits in her front garden where the couple walks by everyday (figure 3.2). The front gardens are faced to each other and to the communal garden. As a result, there is a lot of interaction between the neighbours (Own communication, 2022).

The difference between these two examples is that the couple in Amersfoort meet their neighbours in a natural way. These possibilities are missing in Paterswolde where the houses are facing away from each other. Besides that the private front gardens are never in use and there are no benches or meeting places in the area. This makes it more difficult to bump into neighbors spontaneously as in Amersfoort.



Figure 3.2 | Houses in Amersfoort. Own work (K.Kleine Punte, 2022)

5. CONCLUSION

In this chapter, the sub question to be addressed was: “How can neighbours complement elderly in need of light care and what spatial needs are necessary for this?”

First and foremost, it was determined that a living environment with a mix of people of different ages is preferred. An important basis from which neighbours may be able to complement the elderly and vice versa. People want to share extra facilities like a garden a common room or a horeca function together with these neighbours. They also prefer to do activities as cooking, sporting and gardening with each other.

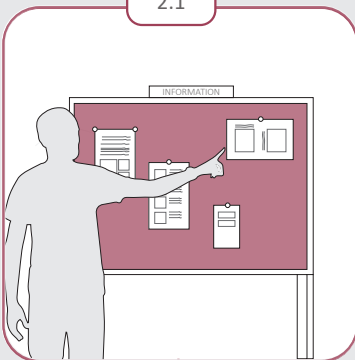
In terms of helping neighbours, it can be concluded that a lack of information is one of the biggest barriers that prevents people from offering help. Bringing neighbours in contact with each other and provide clear information may offer a solution.

Further research showed that improved social interaction between neighbours will lower the barrier of providing help to someone. The structure of a residential area determines how easily this interaction occurs.

The conclusions are translated into tangible design guidelines, shown on the next two pages.

NEIGHBOURS
OVERALL

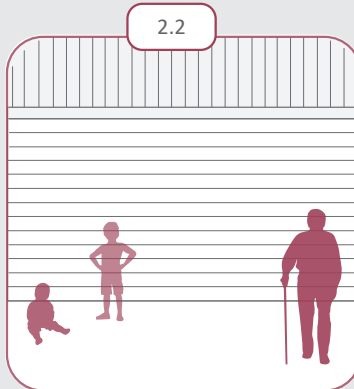
2.1



INFORMATION PROVISION

Clear information provision about who needs what kind of help.

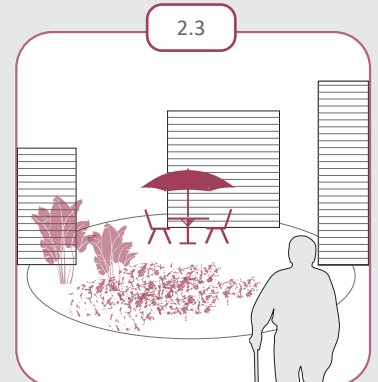
2.2



MIX OF DIFFERT AGE GROUPS

Ensure a mix of residents of different age groups in the same street within a neighbourhood.

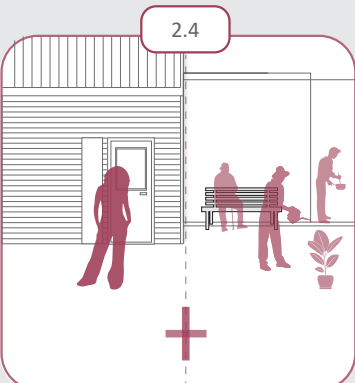
2.3



ADD SHARED FUNCTIONS

Add shared facilities as a communal garden, a playground or horeca function in a small neighbourhood

2.4



SHARED SPACES AS ADDITION

Common spaces should not be at the expense of the private living spaces.

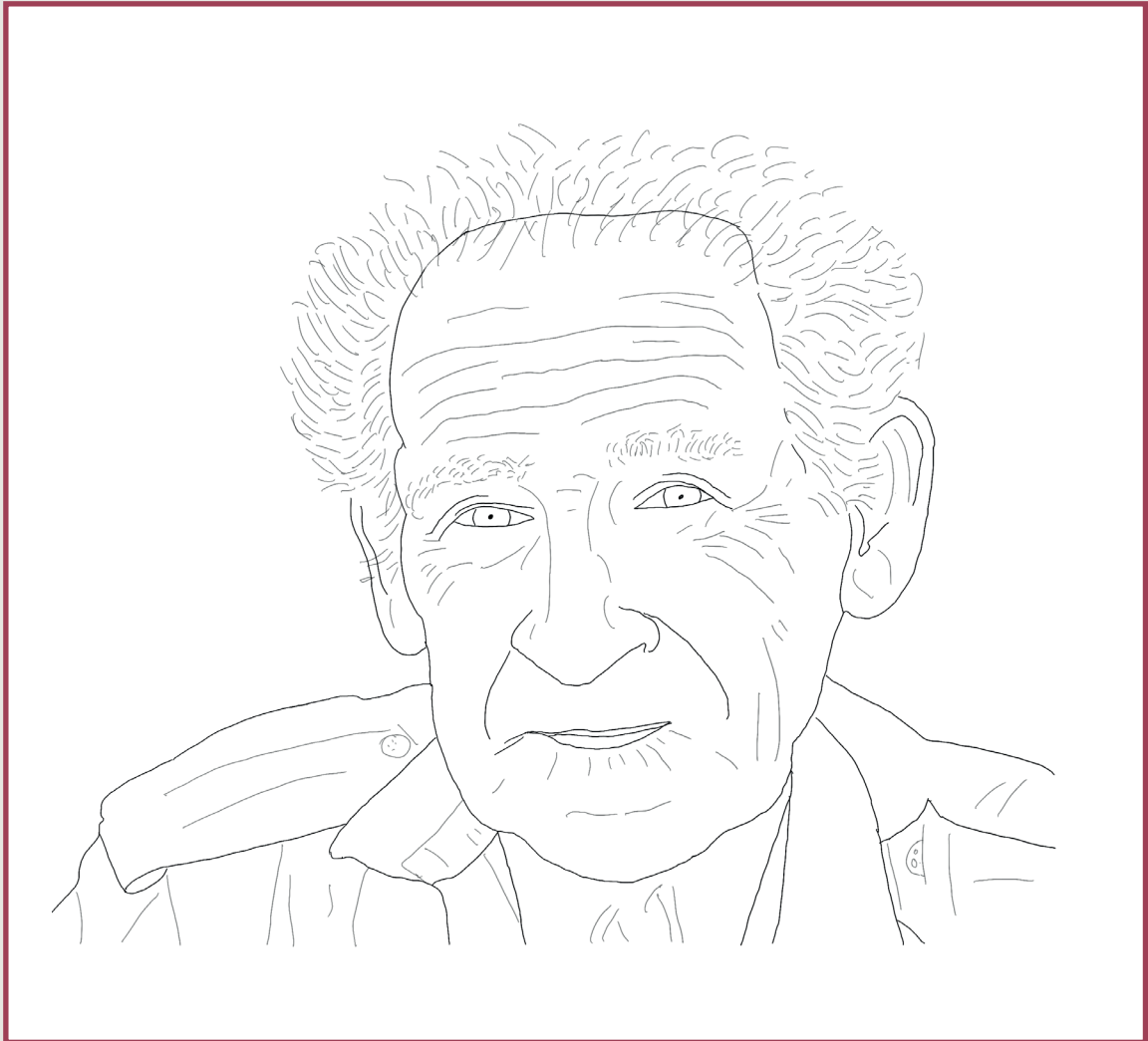


Figure 4.0| Own work (K.Kleine Punte, 2022)

04

SOCIAL INTERACTION

HOW CAN ARCHITECTURE STIMULATE SOCIAL CONTACT



This chapter is about how the living environment can stimulate social interaction between groups of different ages. The scale of the dwelling, the building and the neighbourhood are incorporated in this part of the research. The information will be provided by literature research.

1. THE INTERACTION ITSELF

AN INTRODUCTION

It has been proven in many studies that people have a fundamental need for social contact (Brinkgreve, 2021). Social contact can vary in form and intensity, from the simplest passive interaction to more complex lasting relationships. We cannot completely influence the extent to which people have social contact with each other, but we can provide the best conditions for a living environment to stimulate their interaction.

Architect and urban planner Van Gehl (2011) has made a scale of the varying degree of intensity of different contact forms. The modest, passive contacts, can be seen in relation to other forms of contact. Van Gehl advocates that even these contacts are relevant, as independent form of contact, as well as precondition for other more intimate forms of contact (Van Gehl, 2011). Sociologist Talja Blokland has the same point of view. She advocates encouraging small moments of encounters and distinguish this in weave and cross-link encounters (weven & verknopen). Weaving contains sliding past each other every day without the purpose of meeting. Whereas, cross-linking is about meeting and entering into more sustainable social relationships. Blokland also argues that both forms of interaction are important and cause certain effects in a neighbourhood (Blokland, 2008).

Even the most small encounters, accidental and unexpected, leave traces in a neighbourhood. Such sporadic encounters create trust, which in turn correlates with a higher appreciation of safety. When the frequency of these interactions increases, becoming a routine, it promotes the feeling of 'being at home' (Blokland, 2008). Blokland

(2008) uses the term public familiarity to explain this. People start to recognize each other and will be able to gauge others better while remaining the control of what information they choose to share. This creates a sense of trust, safety and 'at home'. Whether these encounters actually lead to more lasting relationships, where people find support, help and information, is mainly up to them. Public familiarity is the basis on which people have the choice to establish relationships with neighbours. The way to communication and connection with others is opened, space and architecture now only can help to maximize the opportunities for these sporadic encounters to grow.

Derived from the studies of Van Gehl (2011) and Blokland (2008), figure 3.2 is constructed. The relation between the intensity of contacts and the influence of the design of the living environment is explicated. Within certain limits, planners and architects can affect the possibilities for seeing, hearing and meeting each other. Opportunities that as well take on a quality on their own, but also become meaningful as a basis for other contact forms. The next paragraphs will explain, how the living environment can increase these opportunities on the three beforementioned scales.

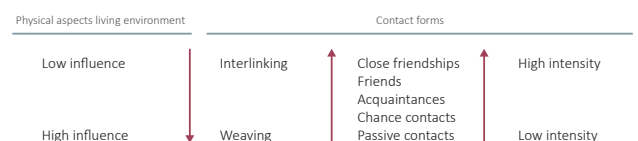
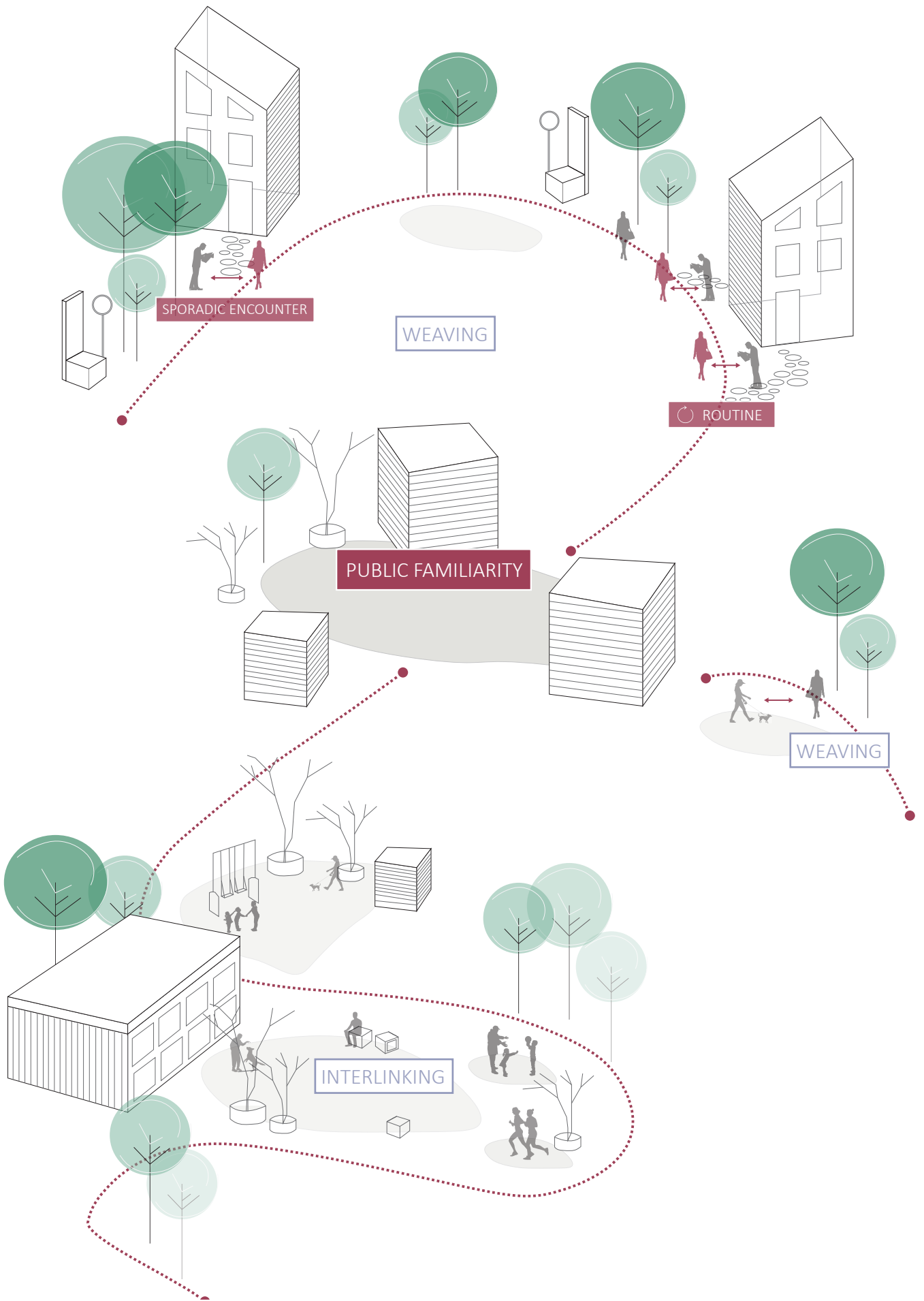


Figure 4.1 | Influence of the physical environment on forms of social contact. Own work (K.Kleine Punte, 2022) derived from Jan Gehl (2011) and Talja Blokland (2008)

Figure 4.2 | The Quality of sporadic encounters as starting point for more complex contacts. Own work (K.Kleine Punte, 2022)



2. THE NEIGHBOURHOOD

STIMULATING WEAVING

Sporadic encounters will hardly happen when people stay inside their private domain. People have to be stimulated to go out. According to Gehl (2011), this will happen in a lively environment, shaped by people and activities which take place in that environment. When an area feels safe and pleasant we tend to stay here longer and more often (Mantingh & Duivenvoorden, 2021). Modest dimensions, the subdivision of areas and traffic free zones are aspects that contribute to this.

Modest dimensions

The dimensions of spaces are important to encourage people and to extend the lengthening of their stay. Large and open spaces with a lack of clarity often feel unsafe and uncomfortable. While small spaces are perceived as warm and personal (Gehl, 2011). Besides that, seeing and hearing each other is more difficult at big distances (Mantingh & Duivenvoorden, 2021). Jan Gehl (2011) noted the dimensions of spaces that match our senses. Up to a distance of 25 meter one can recognize the feelings and moods of others. This is relevant in a social context. Furthermore, people can, relatively easily, have conversations within a distance of 7 meters (Gehl, 2011). So, these dimensions and measurements need to be taken into account when designing public and common areas.

Subdivision of spaces

To continue with the aspect of modest dimensions, Jan Gehl (2011) advocates the importance of dividing a residential area into smaller areas. The connection of several smaller spaces ensures a pleasant microclimate (Mantingh & Duivenvoorden, 2021). In addition, a structure is created with communal spaces on various sca-

les of privacy, which allows a movement from more private groups and spaces towards more semi-public and public larger spaces. It gives the residents a feeling of security and a sense of belonging to the spaces in the immediate living environment. Besides that, smaller groups and spaces make it possible to get to know the people in the area better. This all results in greater degree of supervision and responsibility for the public space and for the residents. Children may play outside more easy and elderly feel safe and protected outside their private home (Gehl, 2011).

Readability of spaces

A territory (neighbourhood, square, street), must be readable as a unit and distinguishable as a social environment to function as a common space of the residents. Dorst (2005) states that the meaning of a place and the manner of use has to be unequivocal. Also, the individual resident must be recognizable and to distinguish from passers-by and visitors. It has to be clear what public, semi-public and private space is. However, this do not have to be big physical barriers that prevent contact with the outside world. A change in the layout of the space relative to the surrounding area already provides a demarcation (Dorst, 2005).

Traffic free zones

As mentioned before, the level of interaction in an area can be stimulated by ensuring that more people use the space and by fostering longer individual stays outside the dwelling. The lengthening of the average time spent outdoors can be stimulated by traffic free zones. When people move on foot, they spend longer outside (slower movement), which increases the opportunities to in-

teract with neighbours or others. Even when cars are only parked 50 meters further from the front door, these valuable possibilities for social contact arise (Van Gehl, 2011).

Besides the fact that traffic-free zones ensure a longer stay outside, slow movement also provides more meaningful contact. If the speed of movement increases beyond walking or running speed, the possibility of perceiving meaningful social information declines. One can only catch a glimpse of others while in slow movements opportunities arise for contact in which the individual has time to experience, observe, pause and involve (Van Gehl, 2011).

Materiality

The materiality of public spaces has an impact on how people use them. People generally tend to avoid places that are neglected, poorly lit at night, enclosed and without supervision or sight lines. Public places with clear lines of sight, enough places to sit, a good wayfinding, enough lighting and optionally places with shelter from rain and sun on the other hand, are seen as attractive places (Hauderowich & Serena, 2020).

POSSIBILITIES FOR INTERLINKING MEETING SPACES

Despite the fact that the built environment can exert more influence on sporadic encounters, opportunities can also be created that promote the establishment of more sustainable relationships. Meeting spaces may support this if they have a multifunctional and self-evident character. A space will not be used when people are forced to meet, according to Blokland (2008). There needs to be a function for the space, because one needs a reason, other than pure 'meeting', to make use of such a space. In addition, the presence of different functions in a building or space together with simple logistic measures can increase the frequency of encounters.

Deep and low functions

In the same way that it is up to people themselves to make the choice to connect with each other, it is also their own choice to enter a public space or not. Safeguarding a place against inactivity, has the best chance of success when a certain function is added that not only enables activity, but also does not work without that activity (Hauderowicz & Serena, 2020). The places have a clear function, bring a logic with them and dictate certain behaviour. People have a reason, other than pure 'meeting', to make use of the space. In their book, Hauderowicz & Serena (2020), describe these functions as 'deep functions' while making a distinction with 'low functions' which do not have a specific function. To emphasize, 'low functions' can be lawns, trees and fountains. The place where public life occurs is where a mix of these low- and deep functions enmesh with each other. The intertwinement of these categorically different functions implies that different people are almost always interconnected (Hauderowicz & Serena,

2020).

Occupying space

The intermingling of people of different ages, characteristics and priorities could lead to conflicts. To avoid this people make accommodations by occupying a space only at certain times or taking up only a part of the space. Yet can the presence of others at that time diminish other people's confidence in entering the space. Especially people who feel vulnerable by virtue of age, gender or disability can suffer from this (Hauderowicz & Serena, 2020). Here again visual accessibility, as described in paragraph 2.3 (The elderly, building), is an important aspect to apply. People can decide, depending on who is occupying a space at that moment, whether they want to join or not. Visual accessibility applies not only in communal indoor areas, but also in public outdoor spaces.

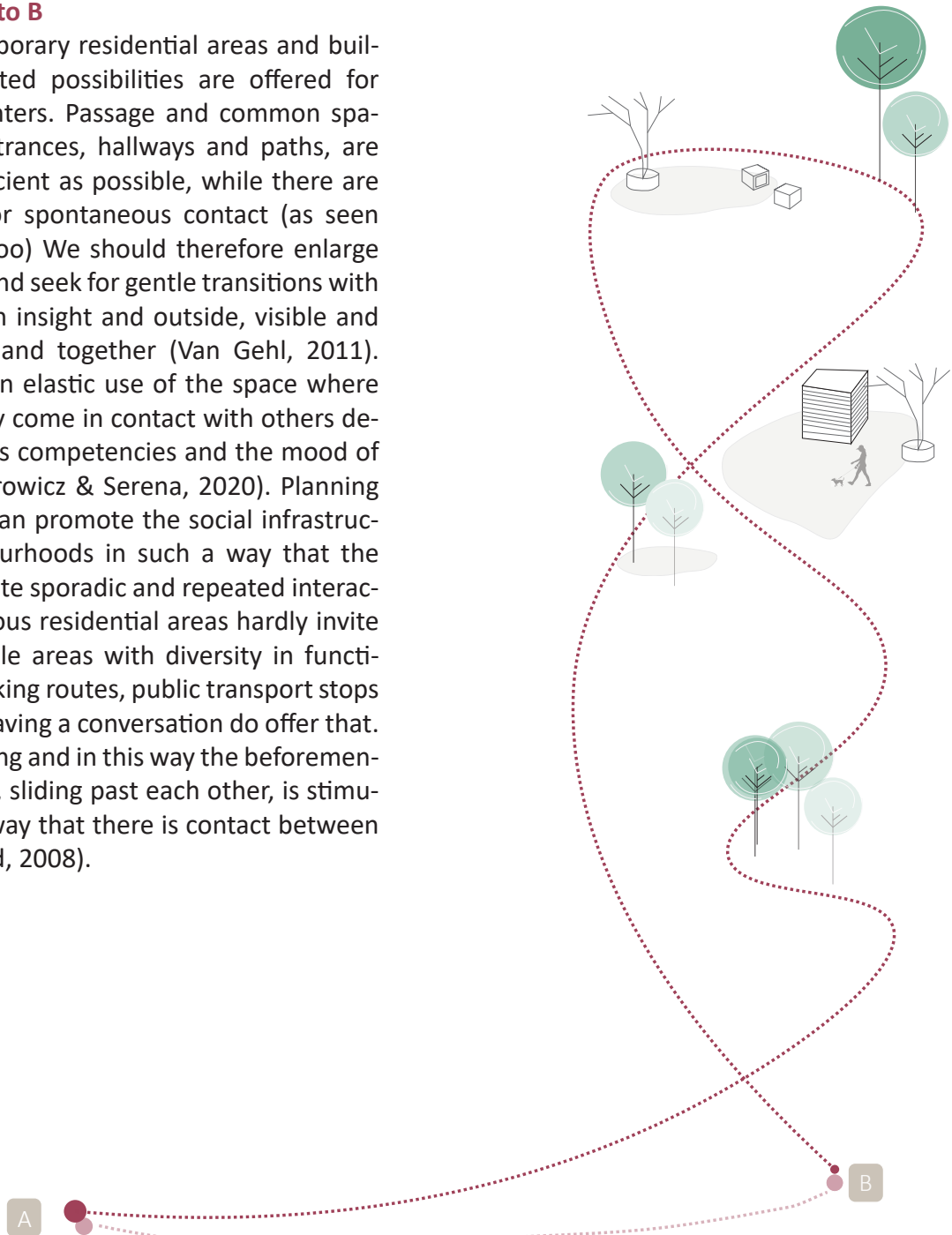
Accessibility

The accessibility of common rooms or areas is another aspect that matters. Generally, most of these spaces are accessed by separate doors or gates and thus are outside of daily cadences. These spaces demand the crossing of hard physical borders (Hauderowicz & Serena, 2020). A more inclusive approach is needed with flowing and gentle transitions which won't form a demarcation that prevents contacts with the outside world (Van Gehl, 2011). Adding to that, it is recommended to place the meeting spaces in the sight and along circulation spaces. As a result, residents walk past the spaces and see what is happening in a casual way (Mantingh & Duivenvoorden, 2021).

ROUTING TO THE BUILDING BLOCK

Routing from A to B

In most contemporary residential areas and buildings, only limited possibilities are offered for sporadic encounters. Passage and common spaces, such as entrances, hallways and paths, are designed as efficient as possible, while there are opportunities for spontaneous contact (as seen in chapter 2.3 too) We should therefore enlarge the thresholds and seek for gentle transitions with tension between insight and outside, visible and invisible, alone and together (Van Gehl, 2011). This will allow an elastic use of the space where we can gradually come in contact with others depending on one's competencies and the mood of the day (Hauderowicz & Serena, 2020). Planning and furnishing can promote the social infrastructure of neighbourhoods in such a way that the optimally facilitate sporadic and repeated interactions. Monotonous residential areas hardly invite 'small talks' while areas with diversity in functions, diverse walking routes, public transport stops and places for having a conversation do offer that. People are moving and in this way the beforementioned weaving, sliding past each other, is stimulated in such a way that there is contact between people (Blokland, 2008).



3. BUILDING (BLOCK)

In the previous paragraph it was stated that modest dimensions of spaces, the subdivision of areas, materialization and traffic free zones will create a lively environment where people tend to stay longer and more often (the way in which sporadic encounters start). On the scale of the building block, active facades, low building heights and benches with a view to activity will provide this.

'Active' facade

The facade is indispensable in facilitating outdoor stays (Gehl, 2011). Firstly, because people have a good view on the outdoor climate while their backs are protected. Secondly, because the facade can make outdoor stays more interesting. Colours, materials, details and rhythms will make an outdoor walk way more engaging than a monotonous facade. People are more likely to be tempted to go outside again. Gehl (2011) relates to this by introducing the 'active' facade, transparent facades with many and big openings. People tend to slow down and see what is happening inside. In addition to this, he states that facades need to have a vertical instead of a horizontal articulation. Distances seem to look shorter which makes the facade more interesting. Lastly, the facade of the ground-floor is most important. Peoples sight is focused horizontally and ground-floor facades are experienced more closely (Gehl, 2011).

Low building heights

Following on from the use of the senses, the building height is also important when designing for social contact with the elderly. As mentioned, peoples sight is focused horizontally and normal conversations can be held within a distance of 7 meters (paragraph 4.2). This applies when people

are on the same floor. When there is a height difference of 6,5 meters or more, people get trouble with this interaction. Especially when the senses are decreasing, which applies to many elderly people. However, for an average person it is possible to interact with people at a height difference of 6,5 meters. They are facing a major barrier at a height difference of 10 meters (Gehl, 2011). For this reason, low building heights are needed to enhance interaction between residents.

Benches

In chapter 2 (Elderly), the advantages of placing enough benches in the living environment has already been mentioned (guideline 1.4). To increase the use of these benches, it is important to place them with a view to surrounding activities. Gehl (2011) advocates that these benches are used more than benches with less or no view of others.

Meeting spaces

Also on the scale of the building block, meeting spaces should be implemented to support the establishment of more complex relationships. Especially for older people, public places nearby their houses are essential. They form a link between the dwelling and the wider-community through which a sense of connection with society is felt and interaction is established with people outside the home (Hauderowich & Serena, 2020). In terms of the multifunctionality, occupation, accessibility and materialization of the spaces, the same applies as the meeting places at neighbourhood level (paragraph 4.2).

THE THRESHOLD ZONE

Moving on to the scale of the dwelling itself, we first find an important place, in the context of social interaction, in this transition itself. This zone, between the dwelling and the closest living environment, can be called the threshold. It is the place that dwellers can appropriate and the place where they can drink a cup of coffee and have low-intensity contact with a passer-by. The extent and form of the threshold may vary and is crucial for how the transition between public and private space is experienced (Hauderowicz & Serena, 2020). The importance of a good layout of these spaces is once again emphasized by Van Gehl (2011). According to him, even most interaction is happening in spaces as the threshold. That makes sense, since people are within a familiar context and feel the protection and comfort of home (Hauderowicz & Serena, 2020).

Function of the threshold zone

As mentioned above, the threshold zone increases social contact with neighbours and passers-by, but it also amplifies the privacy of the home. The zone works as a buffer restricting the view inwards and allowing informal surveillance from the home. So it ensures that more privacy is guaranteed inside, while the encounters are given space in the transition zone outside (Mantingh & Duijvenvoorden, 2021). Lastly, residents can use the zone to showcase their identity by personalizing the space (Dorst, 2005).

Soft transitions

The threshold zone can consist of a front garden, a level difference in the sidewalk or another place in front of the door. To provide the residents a sense of safety and familiarity in their

zone, it has to be clear to passers-by that the zone belongs to the dwelling (Dorst, 2005). However, at the same time the threshold does not have to become a demarcation which prevents contact with neighbours. We have to seek for gentle transitions with tension between insight and outside, visible and invisible, alone and together (Van Gehl, 2011). This will allow an elastic use of the space where someone can gradually invite others, be invited by others and gradually come in contact with others depending on one's competencies and the mood of the day (Hauderowicz & Serena, 2020).

Connection with the dwelling floorplan

An easy and direct connection between a living space (kitchen or living room) of the dwelling and the threshold zone will increase its use. To emphasize, it is easy to wave to your neighbour while cooking, to chat with a passer-by when the doors are open or to make a cup of coffee and easily walk outside when the weather is good. Although these direct connections feel wonderful, ensuring privacy is essential. This will be discussed in more detail in the next paragraph.

4. THE DWELLING

TRANSITION ZONE

The dwelling, the most intimate place of the scales that have been passed. The place where privacy is most important, but where opportunities for forms of interaction can also arise at the same time.

Regulating privacy

Social interaction is only possible when residents can also arrange their need for privacy. Depending on their activity or their mood, residents more or less feel like having social interaction with their neighbours. The need for social interaction also varies from person to person. Therefore, the physical environment must not only offer opportunities to make social contact, but also to seek seclusion. If these possibilities for regulating privacy are lacking, social interaction will also be avoided (Dorst, 2005).

When a dwelling is zoned from public to private, this will provide opportunities to regulate the degree of contact with others. The front of the dwelling is in contact with the public space while the back is private with little view from other homes and public spaces. Additional options that enhance the nuanced privacy zoning system of the dwelling are a separate front- and backroom, sliding-doors, height differences and a front garden or transition zone (as mentioned in paragraph 4.3) as buffer (Dorst, 2005).

Sight lines

Sight lines from the dwelling to the public space are important for two reasons. The first reason is explicated by Jan Gehl (2011), he states that people will not use a space if they do not see it. Additionally, life in public spaces can be seen as a

self-reinforcing process. Individuals can stimulate one another, they tend to join (whether passive or active) if some activity is occurring in a public space. However, that requires the knowledge, and therefore lines of sight, that there is something going on first. The second advantage for the presence of sight lines to public spaces, is that it provides meaningful contact at a distance, especially for the elderly. They would like to have contact with other generations, but not necessarily in an active way. More precisely, older people like to passively involve in the daily rhythms of their neighbours from behind the window (Van Melik & Pijpers, 2017). Looking through the window is a routine, they stay in connection with the living environment, without draining energy outside (see also dwelling in chapter 2.4).

Life-resilient dwelling

If residents are settled in a neighbourhood and have their social contacts there, it is important that they can continue living there when they get older. Even when they need care or when they have difficulty walking the dwelling must remain suitable. Practical solutions such as no use of thresholds, a walk-in shower or a bedroom on the ground floor are applicable. Above all, flexibility of the home is needed in order to be able to meet the changing demand for housing and care.

5. CONCLUSION

SOCIAL INTERACTION

In this chapter, the sub question to be addressed was: “How can architecture and the built environment stimulate social interaction between groups of different ages and households while remaining enough privacy?”

First it was determined that there are different types of social contact. The built environment can exert more influence on stimulating sporadic encounters, which as well take on a quality on their own as become a meaningful basis for more sustainable contact forms.

Sporadic encounters will happen when people are stimulated to go out. A lively and safe living environment are needed for this. On the scale of the neighbourhood, modest dimensions, the subdivision of areas, traffic free zones and well materialized places are aspects that contribute to this. Despite the fact that the built environment has less influence on promoting the establishment of more sustainable relationships, meeting spaces may support these less impressionable forms of contact. It is necessary that they are placed along circulation spaces, are easy accessible and have a multifunctional and self-evident character.

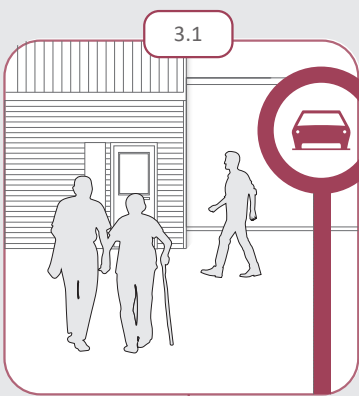
Furthermore, on the scale of the building block, it was researched that low building heights, an ‘active’ façade and enough benches with a view on activities will stimulate people to spent more time outside. Besides that, soft transitions between public, semi-public and private will increase social interaction.

Lastly, the influence of the physical environment on the scale of the dwelling was investigated. Li-

fe-resilient dwellings, sight on public spaces and a direct connection between in- and outside will increase social contact. But on the other hand is the dwelling the place where privacy is most important. If the possibilities for regulating privacy are lacking, social interaction will be avoided. Zoning the dwelling from public to private and adding a threshold space in front of the dwelling are solutions for maintaining enough privacy.

The conclusions are translated into tangible design guidelines, shown on the next two pages.

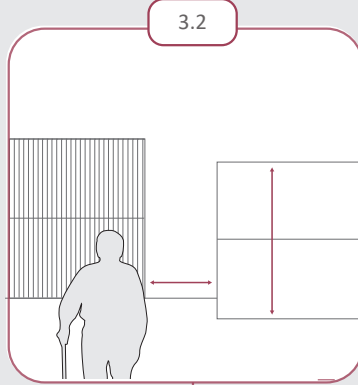
SOCIAL INTERACTION
NEIGHBOURHOOD



3.1

PEDESTRIAN ZONES

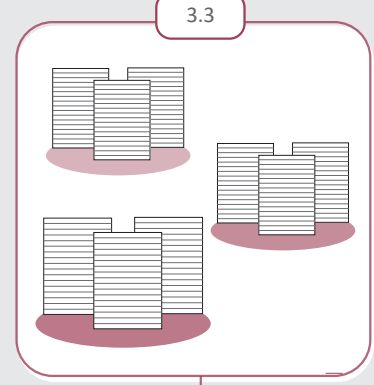
Provide pedestrian zones, this ensures a greater chance of interaction and more meaningful contact.



3.2

MODEST DIMENSIONS

Small spaces are perceived as warm and personal. Besides that seeing and hearing others is easier.



3.3

SUBDIVIDING THE AREA

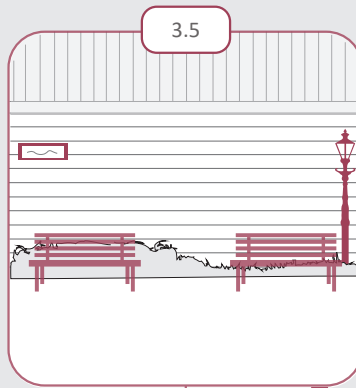
Divide a residential area into more smaller areas. It gives the residents a feeling of security and a sense of belonging.



3.4

READABILITY OF SPACES

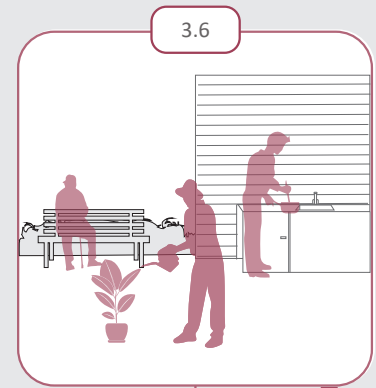
A clear and soft demarcation of spaces increases its use and improves the quality of stay. No hard physical barriers.



3.5

GOOD MATERIALIZATION

Spaces that are well materialized will be used more. Think of good wayfinding, places to sit, lighting and places with shelter.

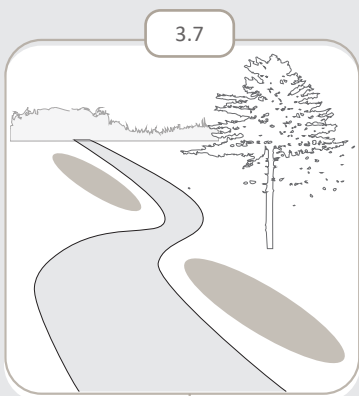


3.6

MULTIFUNCTIONAL MEETING SPACES

Provide meeting spaces with a multifunctional and self-evident character.

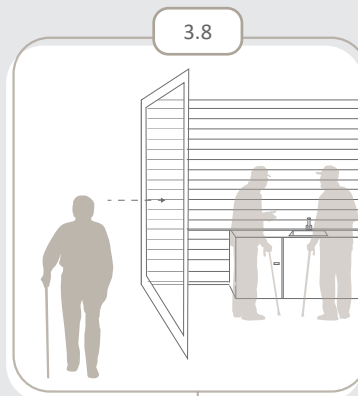
SOCIAL INTERACTION
BUILDING (BLOCK)



3.7

ENLARGE THE THRESHOLDS

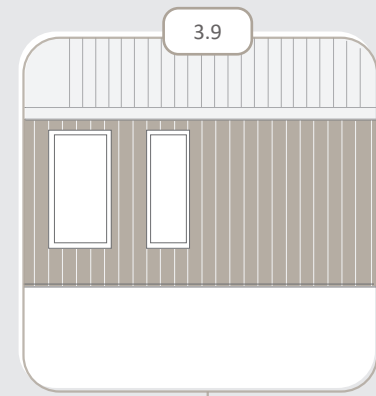
Enlarge the thresholds at passages and circulation spaces (entrances, paths). This offers opportunities for interaction.



3.8

VISUAL ACCES

Elderly need the option to escape depending on who is present in a certain room. Visual access to the room is needed so the person can observe and decide to join or not.

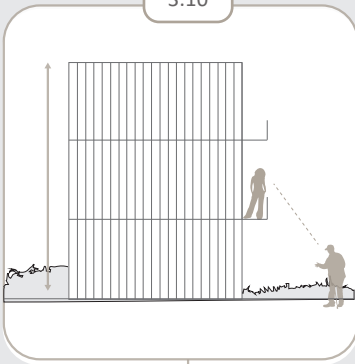


3.9

'ACTIVE' FACADE

Provide an 'active' facade, vertical articulation, many openings and big windows. This will stimulate activity outside.

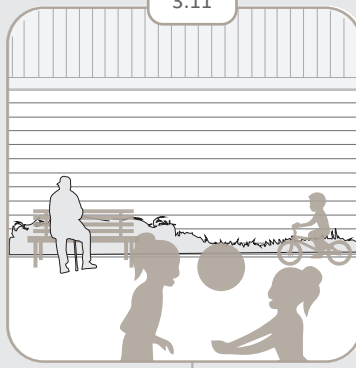
3.10



LOW BUILDINGS HEIGHTS

Building heights higher than 10 meters will be a barrier for contact. Conversations can be held up to 6,5 meters.

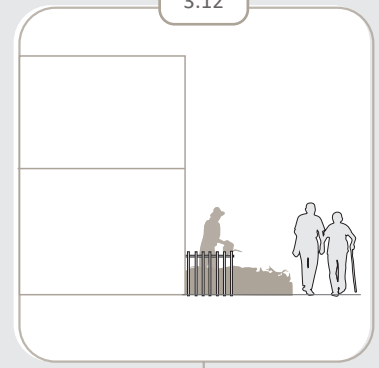
3.11



BENCHES WITH SIGHT ON ACTIVITY

Place benches with a view to activity in the immediate environment of dwellings. Place the backside against something closed.

3.12

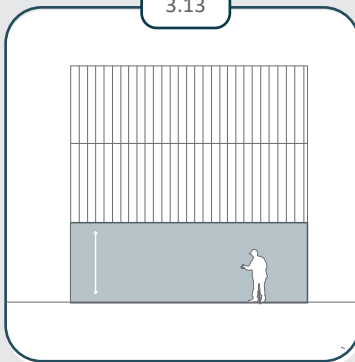


THRESHOLD SPACE IN FRONT OF EACH DWELLING

In the threshold spaces people feel the safety from home, therefore most interaction is happening here.

SOCIAL INTERACTION DWELLING

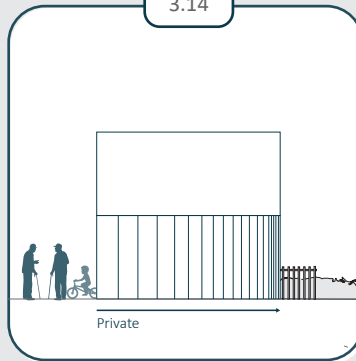
3.13



LIFE RESILIENT DWELLINGS

To maintain a social network, it is important that dwellers can continue to live where they live regardless a changing demand of care.

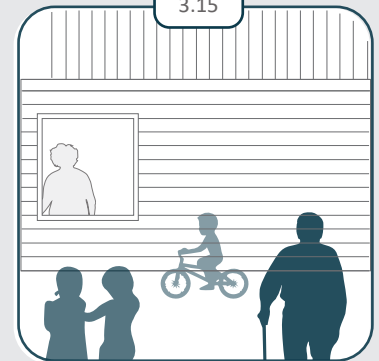
3.14



ZONING OF THE DWELLING

Zone a dwelling from public to private. Put rooms that need more privacy (sleeping-room for instance) behind.

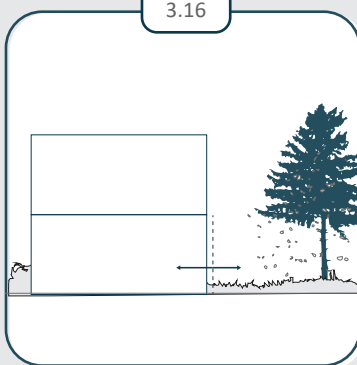
3.15



SIGHT ON PUBLIC SPACE

Create sight lines to the public or common space so elderly can gaze through the windows and people will be stimulated to interact.

3.16



DIRECT CONNECTION WITH OUTSIDE

Create a direct connection between a living space of the dwelling and the threshold space.



Figure 5.0| Own work (K.Kleine Punte, 2022)

05

CASE STUDIES

WHAT PRACTICAL EXAMPLES ARE THERE?



This chapter will study the influence of a living environment on the level of social interaction in reality. Existing projects, intergenerational and with focus on social interaction, will be studied. Analysis of these cases give inspiration and techniques of how the guidelines, found in previous chapters, can be implemented in practice.

1. AN OVERVIEW

In the Netherlands, more and more housing projects are being developed where looking after each other is the most important pillar. This is also known as 'Noaberschap' in the Netherlands. A social relationship within a community where help is provided where needed. In this paragraph, a few of these projects will be examined shortly and afterwards compared with each other (figure 5.2). All these projects are multigenerational, so people of different ages may live there. In the next paragraphs the most relevant projects will be investigated in more detail.

Groene Mient

The housing project Groene Mient consists of 33 (private) sustainable homes on a piece of land in the Vruchtenbuurt in The Hague. The guiding principles of the housing project are the equal social and environmental values of the residents. The houses are situated around a shared ecological garden, the Mient (Groene Mient, z.d.).

Hugo's Tuin

Hugo's Tuin is a housing project in Heerhugowaard. The project consists of 108 owner-occupied houses and 28 care apartments. It is an inclusive neighbourhood with shared in- and outdoor facilities. There is a mixed composition of residents; young and old and with or without care needs (C., z.d.).

Kastanjetuin

The Kastanjetuin is located in Zwolle. The project is developed by the same project developer as Hugo's Tuin. The concept is the same but instead of 136 dwellings, there are 50 dwellings of which 21 care apartments for assisted living. (Zwolle: Kastanjetuin. (z.d.).

't Eikpunt

In 't Eikpunt in Lent, the residents create a community in which the residents have the same vision. The project focuses on four pillars: sustainability, multigenerational, meditation and community (Woongemeenschap Eikpunt. (z.d).

Knarrenhof

Knarrenhof AA-hof is located in Zwolle. The concept is that elderly people live together around a courtyard and take care of each other. However, more variants of the 'Knarrenhof' are being developed in the country, also multigenerational option (Knarrenhof. (2023, 2 maart).

Kas & Co

Kas & Co is a housing project located in Utrecht. The project consist of 32 houses and apartments. Most houses have an extra studio space that can be used for informal care or atelier (KAS&CO-women Veemarkt; meergeneratie wonen | Utrecht. (z.d.).

Space S

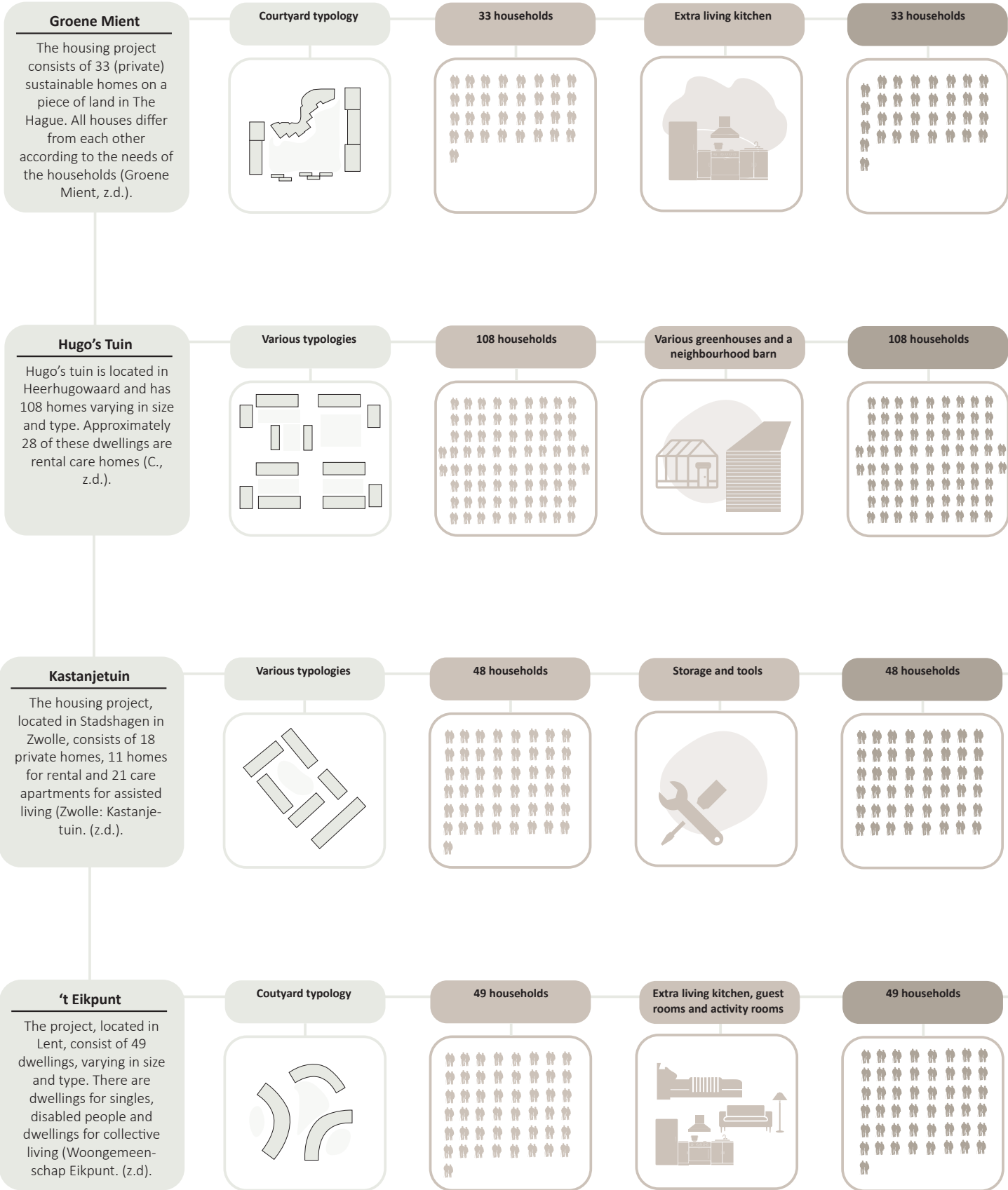
Space S is a big housing project of 402 dwellings. The dwellings vary in type and size. There are dwellings with an atelier, dwellings for singles and families and dwellings for assisted living (SPACE-S – Create your own. (2023, 25 februari).

Eva Lanxmeer

Eva Lanxmeer is an eco- neighbourhood in Culemborg of approximately 300 dwellings and households. The dwellings are scattered around different courtyards and the residents maintain the neighbourhood themselves (Lanxmeer – Onze ecowijk. (z.d.).



Figure 5.1 | Map with locations of the projects. Own work (K.Kleine Punte, 2023)



● General information ● Shared inside spaces ● Shared outside spaces ● Building features ● Residential groups

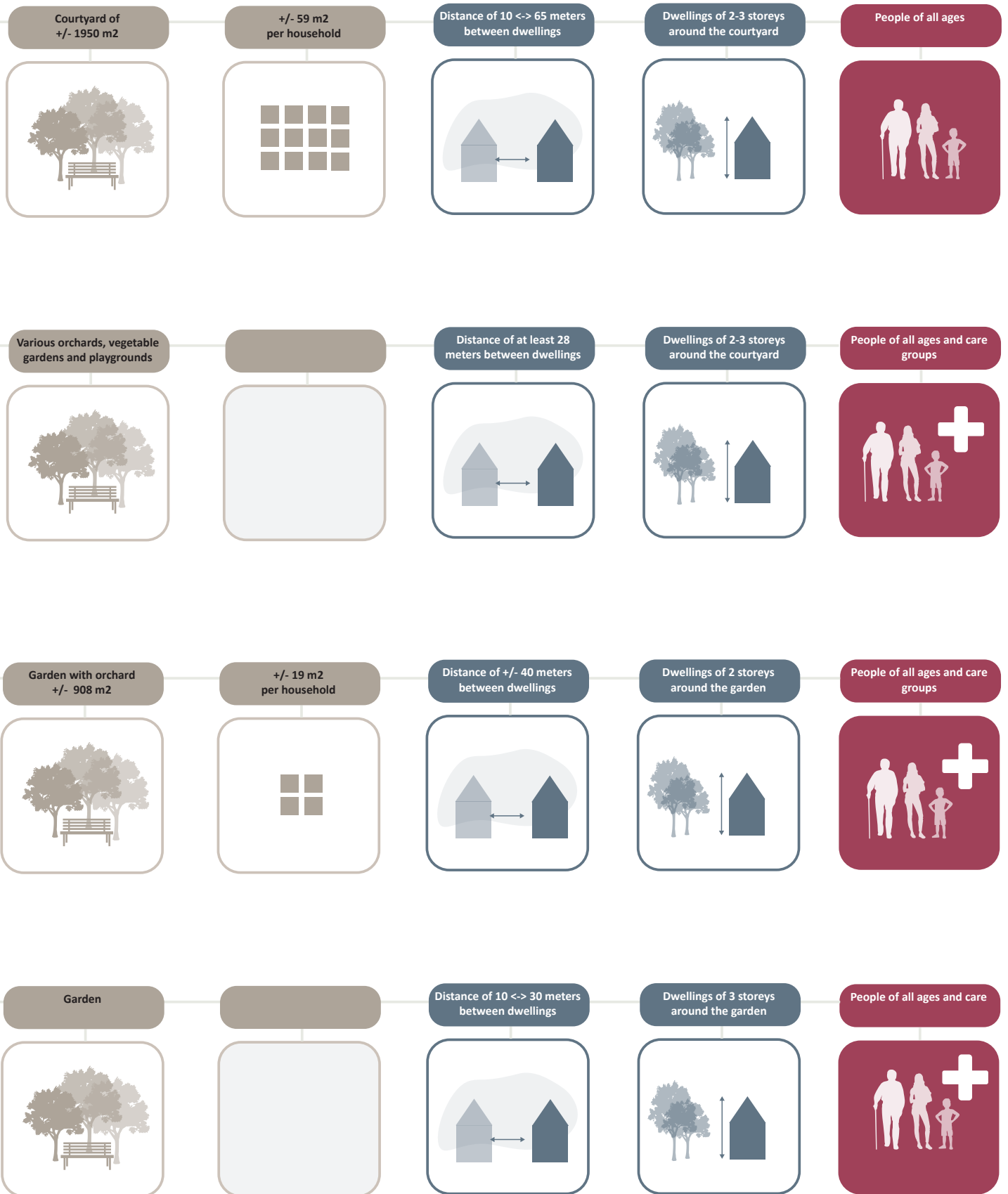
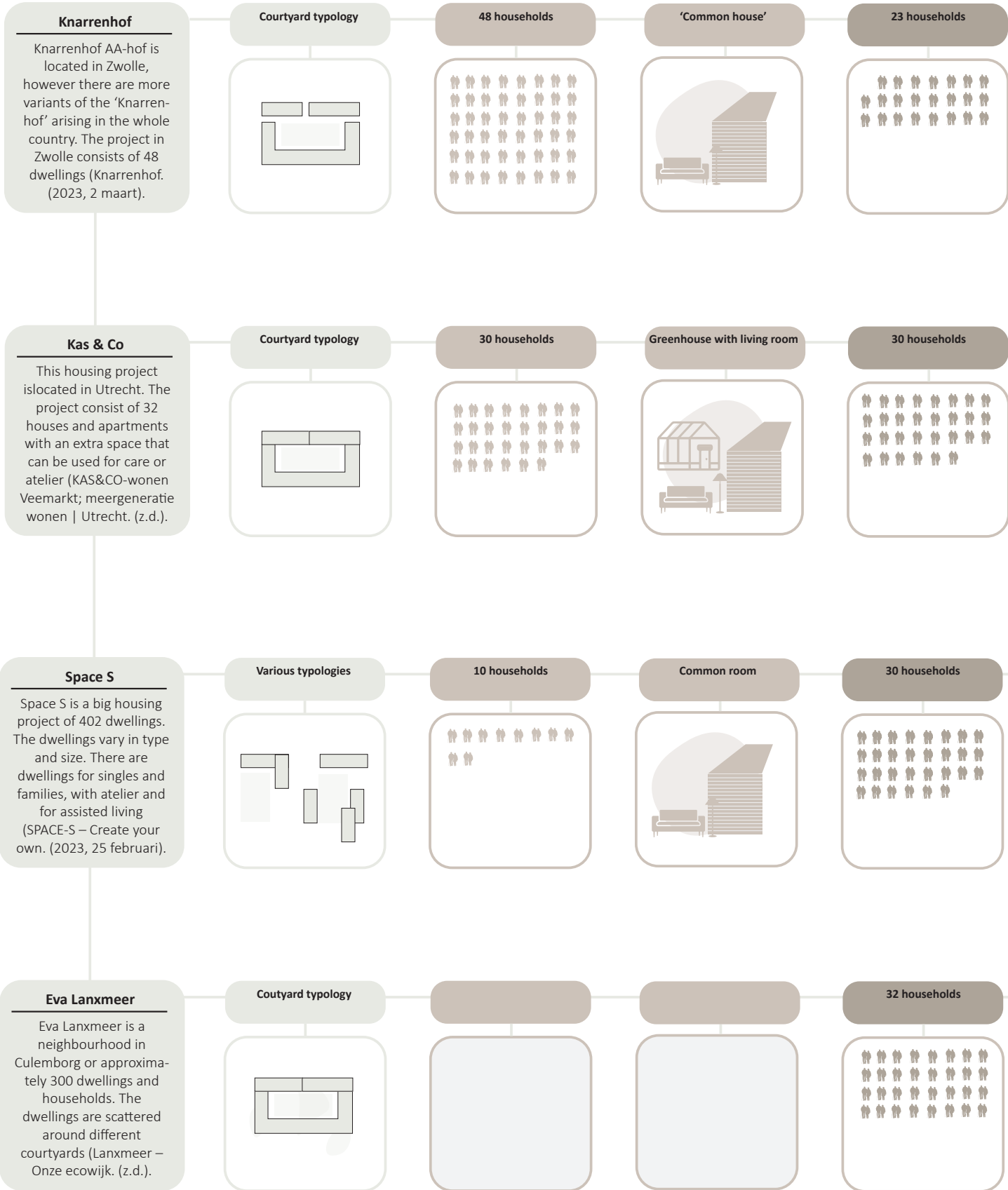


Figure 5.2 | Overview of the chosen projects. Own work (K.Kleine Punte, 2023)



● General information
 ● Shared inside spaces
 ● Shared outside spaces
 ● Building features
 ● Residential groups

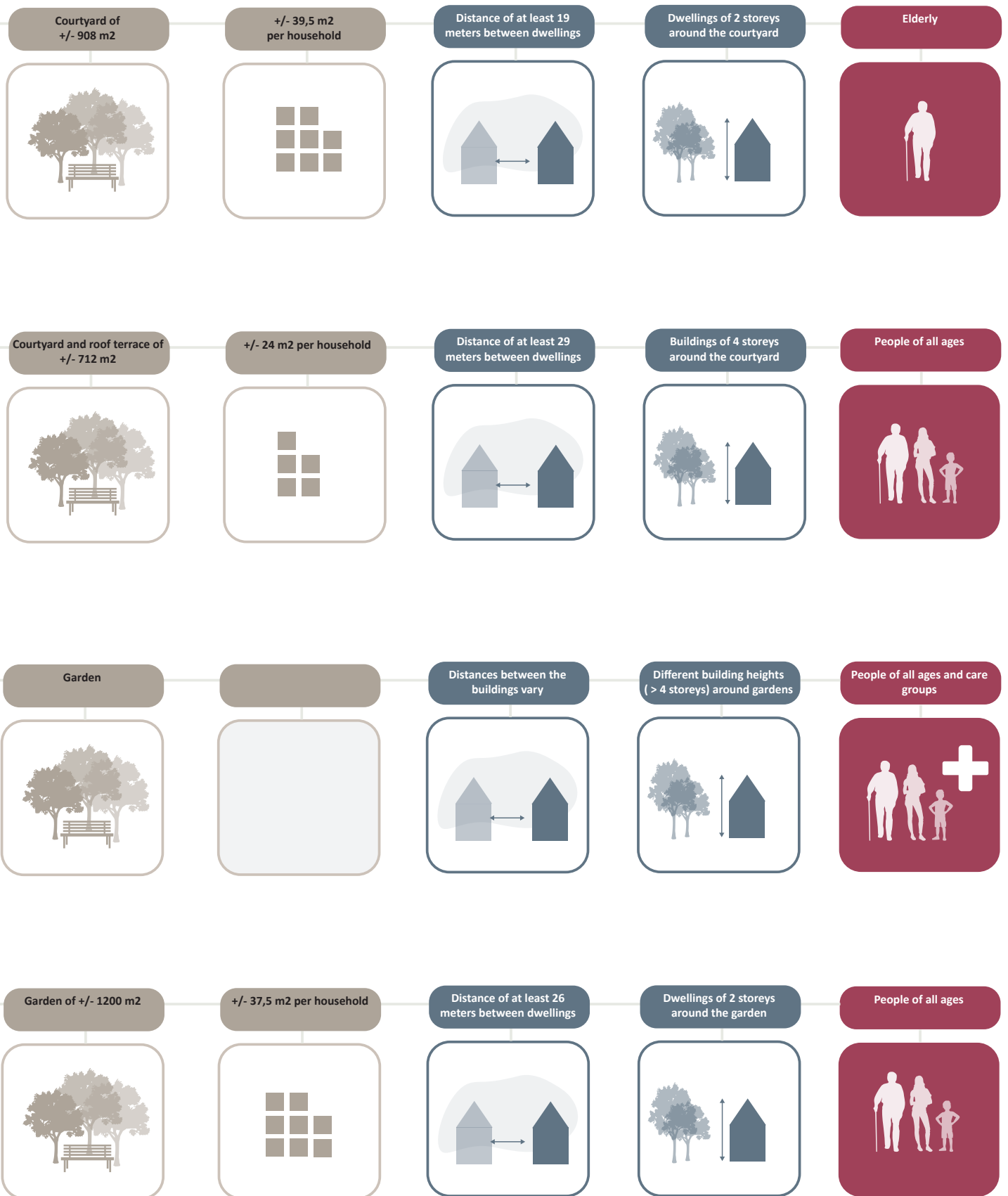


Figure 5.3 | Overview of the chosen projects. Own work (K.Kleine Punte, 2023)

2. HUGO'S TUIN

THE CONCEPT 'WAARANDERS'

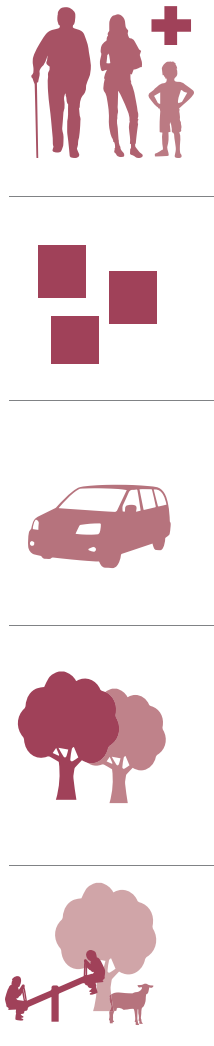


Figure 5.4 | Keypoints.
Own work (K.Kleine Punte,
2023)

The first project that will be discussed in more detail is *Hugo's Tuin* in Heerhugowaard. The project has an interesting and innovative vision towards aging and inclusiveness. Different groups of residents; young and old and with or without care demand, live together and meet up in an approachable way.

The housing project is part of the *Waaranders* concept, devised by *Cittanova*, a plan developer in Lelystad. *Hugo's Tuin* is one of three projects within the concept. It is currently under development. The first project (a smaller variant of *Hugo's Tuin*), the *Kastanjetuin* in Zwolle (see chapter 5.1 An overview) has already been realized. In the coming years, 'Waaranders-neighbourhoods' will be developed in more places in the Netherlands (C., z.d.).

going into this further, it is important to understand what the concept *Waaranders* actually is.

Small and inclusive neighbourhoods where people look out for each other is what the concept is particularly about. There is a **mixed composition of residents** in the neighbourhoods; young and old and with or without care needs, everyone has their place. The housing supply is adjusted to these different groups of residents. There are rental and owner-occupied dwellings, care apartments, life-time resilient dwellings and homes for assisted living. The mixed composition of residents ensures that there is always someone nearby to help. Helping and meeting each other comes naturally in the 'Waaranders'-neighbourhoods, as people are encouraged to go outside. There are various meeting places, such as **vegetable gardens**, playgrounds, orchards and shared indoor spaces. In addition, there are opportunities for **daytime activities** for those in need of care, within the neighbourhood itself. Apart from these social aspects, there is enough space in the neighborhoods to be on your own and to escape **social contacts** (C., z.d.).

The projects within this concept are being realized in different sizes (number of dwellings and shared functions), just what fits the location. With 108 owner-occupied houses and 28 care apartments, is *Hugo's Tuin* the largest variant so far.

In the following paragraphs, the architectural aspects regarding social interaction and (informal) care for the elderly will be discussed in more detail. The aspects are explained on the basis of the three recurring scale levels, the neighborhood, the building block and the dwelling. Before

Figure 5.5 (right) | Impression of *Hugo's Tuin*. Photo of website *Hugo's Tuin* (C., z.d.) edited by author (K.Kleine Punte, 2023).



2.1 THE NEIGHBOURHOOD

HUGO'S TUIN, HEERHUGOWAARD

To start with the biggest scale, the location of the project, the connection with the adjacent neighbourhood and the division of the dwellings into smaller clusters, will be explicated in this paragraph.

Location

The project is located in Heerhugowaard, on the edge of the city and surrounded by vast polders. According to one of the project developers, the location of a neighbourhood as Hugo's Tuin is of great importance (N. Ruijter, personal communication, November 12 2022). A location on the edge of a city near or in a nature reserve is particularly suitable. Existing facilities from the nearby city or district can be used by the residents while at the same time a green living environment is offered. At *Hugo's Tuin*, the shops and the centre of Heerhugowaard are within cycling distance. In addition, there is a school and a sports club nearby (C., z.d.). However, these facilities are somewhat more difficult to reach for residents who only travel on foot. In addition, the nearest bus stop is a fifteen minute walk away.

Connection existing neighbourhood

As described above, the location of a housing project to be developed is important, in particular the presence of an existing neighbourhood. In addition to the advantage mentioned, that residents can use the facilities of the existing neighborhood, there is also the possibility of attracting local residents to the project itself. In this way, elderly and people with a care demand can also mix with the neighborhood instead of being pushed away and excluded importance (N. Ruijter, personal communication, November 12 2022). In *Hugo's Tuin*

an animal meadow and picking gardens provide a connection with the existing neighbourhood. In addition, there are other functions within the community that provide a connection between residents, but that will be explicated in the next paragraph. In addition to the presence of animals, the *Kastanjetuin* also has a restaurant where residents naturally mix with the existing neighbourhood.

Clusters

The dwellings in *Hugo's Tuin* are divided into small clusters. The small scale gives residents a nice and safe feeling, and it makes it also easier to make mutual agreements and to get to know the residents (N. Ruijter, personal communication, November 12 2022). Within these clusters, green facilities, parking spaces, shared storage areas and play areas are spread throughout the neighbourhood (figure 5.7).

THE LOCATION OF HUGO'S TUIN

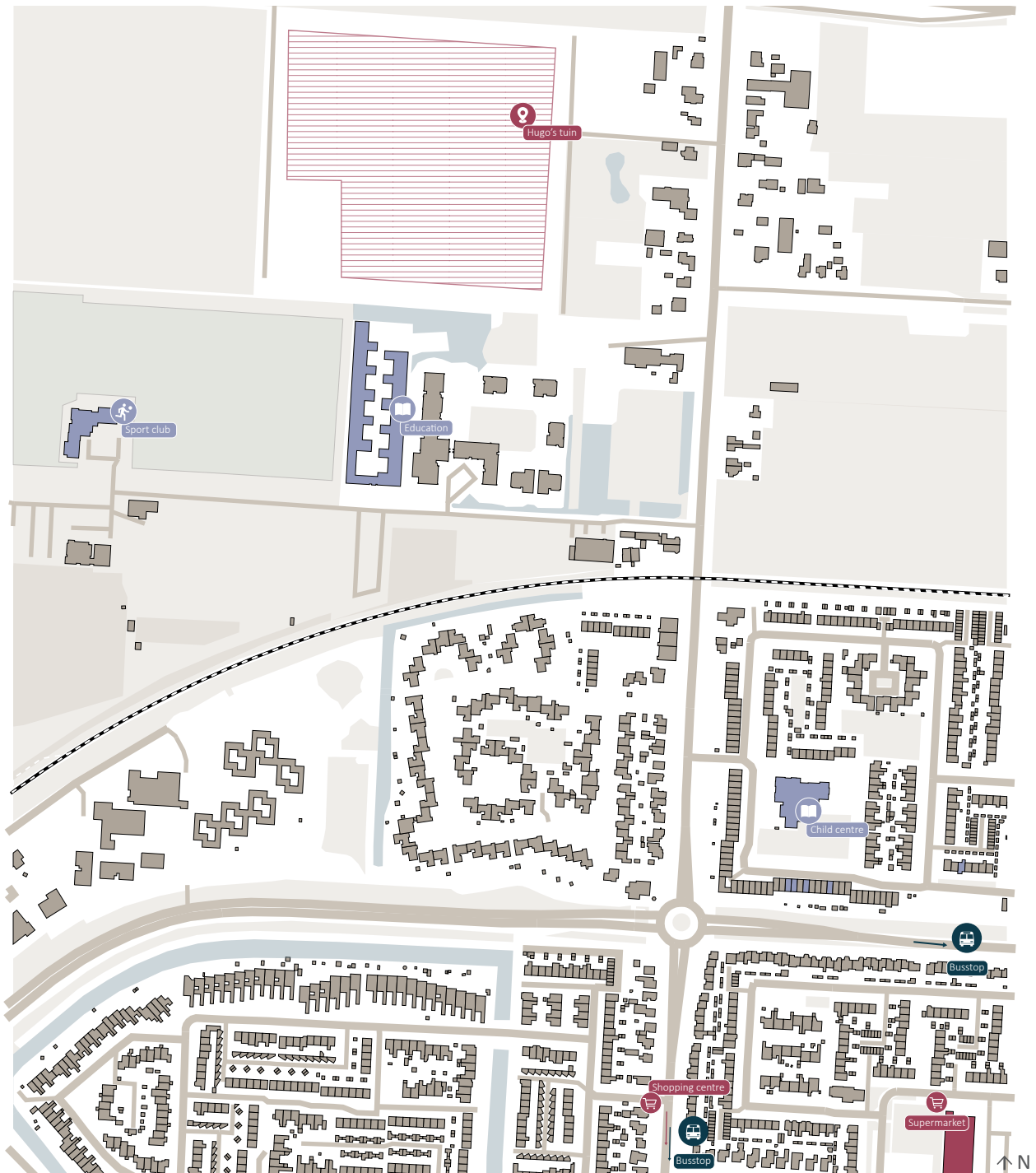


Figure 5.6 | Map with locations of the projects (scale 1:7500). Own work (K.Kleine Punte, 2023)

2.2 THE BUILDING BLOCK

HUGO'S TUIN, HEERHUGOWAARD

The neighborhood is divided into smaller residential ensembles (figure 5.7). This paragraph describes the important aspects of these clusters.

Greenery

Within the small clusters, several shared green facilities can be found. These green facilities are vegetable gardens, orchards, picking gardens and playgrounds (figure 5.7). Neighbours maintain the greenery together, they automatically have contact with each other while doing that and they are stimulated to go outside. In addition, greenery improves people's well-being (N. Ruijter, personal communication, November 12 2022).

Parking

The parking facilities are also divided into clusters. There are five places, on the edge of the neighbourhood, where people can park their car. People walk home from the parking lots, which in turn offers the chance to meet neighbours. It also stimulates exercise, which has a positive effect on everyone's health (N. Ruijter, personal communication, November 12 2022).

Paths

A network of small paths has been created around the houses. These paths invite people to take a short daily walk and meet neighbours. The paths run along the front and back gardens of residents, there are deliberately no high fences placed here so that contact between residents is possible (N. Ruijter, personal communication, November 12 2022). An example of one of these paths is shown in figure 5.9. Residents have a small private area to make their own, next to this is the public path where people can (accidentally) meet.

Positive health

Positive health is an important theme in the vision of *Waaranders*. We have seen the theme come up several times. The presence of greenery stimulates health and the parking clusters and the paths encourage movement. The concept of *Hugo's Tuin* focuses on what one can do rather than on what one cannot do. Another example in which this emerges is that small height differences are bridged with stairs of a few steps (with handrail), which encourages people with walking difficulties to take a few steps with the stairs (see figure 5.10).

MAP OF HUGO'S TUIN

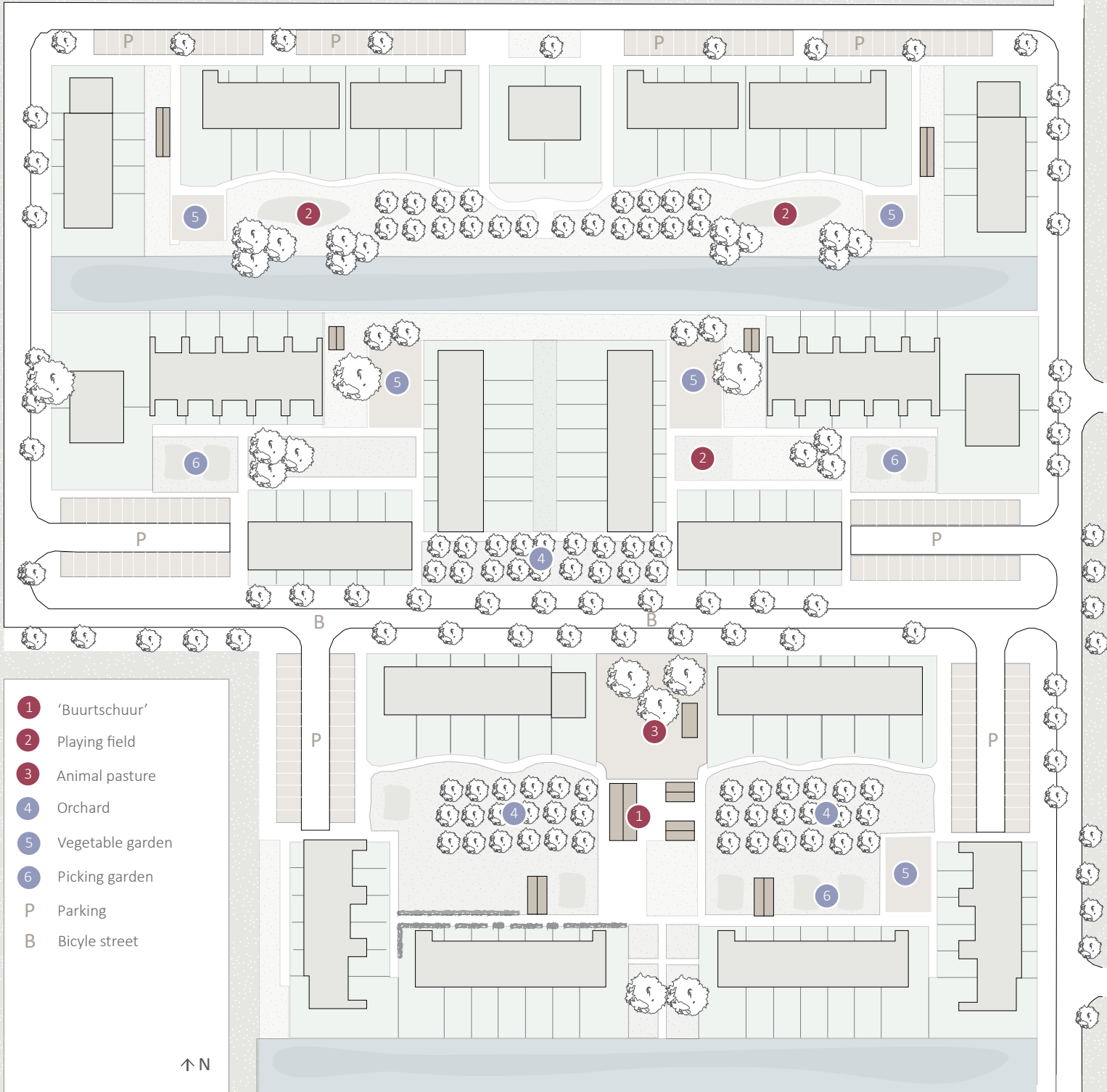


Figure 5.7 | Map with locations of the projects. Own work (K.Kleine Punte, 2023) based on map of *Hugo's Tuin* (C., z.d.).

2.3 THE DWELLING

HUGO'S TUIN, HEERHUGOWAARD

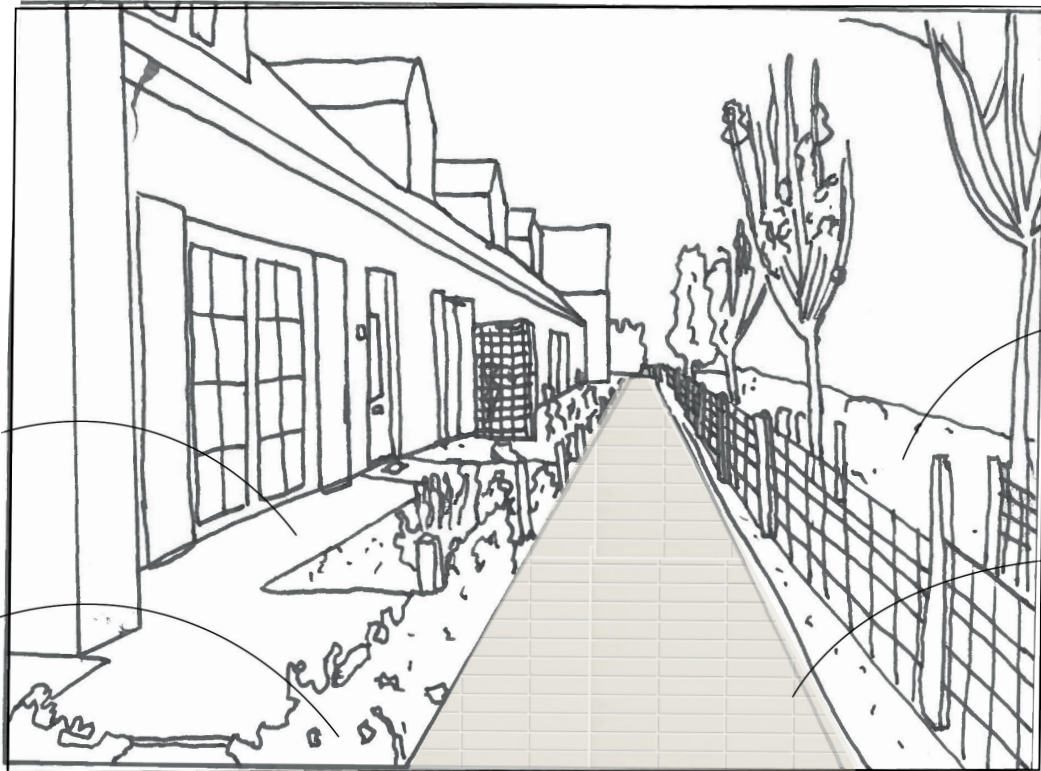


Figure 5.8 | Sketch of the soft transition between private garden public path. Own work (K.Kleine Punte, 2023)

The last scale level included in this study is the scale of the dwelling itself. Important aspects on this scale will be explained in this section.

Public and private

In addition to all the shared functions and aspects that encourage people to meet each other, it is important that people can also withdraw. All houses have a small private space in front of the house and a garden behind the house. As shown in the figure 5.7, some gardens at the back are enclosed by water where others are enclosed by a path, this brings another level of privacy per

dwelling. The divisions between the gardens have been designed from the start and often consist of half-height fences and hedges. The gardens that are situated on the waterfront have higher hedges as a separation, which guarantees more privacy in these homes (figure 5.11).

Soft transitions

The dwellings in Hugo's tuin often have a soft transition between the private garden and the public space around it. Half canopies, elevations, little stairs, and low hedges, as described above, make it vague whether you are

HUGO'S TUIN, HEERHUGOWAARD



Figure 5.9 | Sketch of steps and handrail which stimulate movement. Own work (K.Kleine Punte, 2023)

allowed in or not. An example of such a soft transition is shown in figure 5.8. The small garden flows smoothly into the public path.

Bath- and bedroom downstairs

As described in the first paragraph, hugo's tuin consists of different housing types. Some of these dwellings have an optional layout in which the bathroom and bedroom are placed on the ground floor (figure 5.10) (C., z.d.). As a result, people can continue to live in their home longer, which strengthens social networks in the neighborhood, people know each other better and longer.

GROUND FLOOR OF ONE OF THE DWELLINGS



Legend

- 1 Extra separate toilet
- 2 Small front garden
- 3 Living room
- 4 Bathroom on ground floor
- 5 Direct connection from bedroom
- 6 Bedroom on ground floor
- 7 Eating table
- 8 Extra storage / garage
- 9 Direct connection with garden

Figure 5.10 | Floorplan of ground floor of one of the dwellings. Own work (K.Kleine Punte, 2023) based on existing floorplan (C., z.d.)

IMPRESSIONS OF THE DWELLINGS



Figure 5.11 / 5.12 | Impressions. Photo of website Hugo's Tuin (C., z.d.) edited by author (K.Kleine Punte, 2023).

3. GROENE MIENT

DEN HAAG

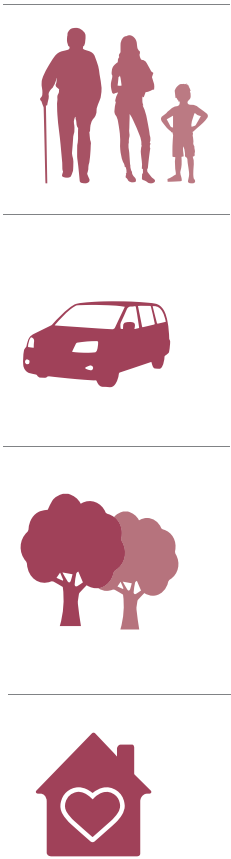


Figure 5.13 | Keypoints.
Own work (K.Kleine Punte,
2023)

Groene Mient is a completely different kind of housing project than *Hugo's Tuin* discussed above. An important difference is that *Groene Mient* is a residents' initiative. A group of residents has found each other in the same socio-ecological vision. Together they realized this housing project. Although the background of the project differs a bit from the background of the research, it is not less valuable to explore it in more depth. People of different ages live close together and share functions, which architectural aspects underlie this?

Groene Mient consists of 33 dwellings, of which 25 are ground-bounded and 8 are apartments. The houses are situated around a shared ecological

garden. A green small village is created in the middle of the crowded streets of The Hague. This 'small village' is an open community where people feel connected to themselves, to each other, to the neighbourhood and to nature (*Groene Mient*, z.d.). The connection with nature can be felt throughout the site, a green oasis opens up as seen in figure 5.14.

The social and architectural aspects of this project will be explained in the next paragraphs. Here again, the three scale levels, the neighborhood, the building block and the dwelling, will be the guideline.

Figure 5.14 (right) | Impression of *Groene Mient*. Own photo. Edited by author (K.Kleine Punte, 2023).



2.1 THE NEIGHBOURHOOD

GROENE MIENT, THE HAGUE

In this paragraph, the location of the project and the connection with the adjacent neighbourhood will be explicated.

Location

The residential project is located in the Vruchtenbuurt of the Hague. A quiet and friendly neighbourhood in the lee of the city. It is about fifteen minutes by bike to the centre of The Hague, but there are also plenty of facilities closer by (figure 5.15). Sportfields, green areas, horeca facilities and small shops can all be reached on foot. That is the advantage of a location in the city. Finally, the beach is also around the corner (Groene Mient, z.d.).

Connection existing neighbourhood

The residents of Groene Mient share a common room and a garden with each other. To stay connected with neighbours outside the community, other neighbours are also invited to events in the garden or in the common room (Visser, A. personal communication, November 12 2022). In addition, two residents of the Groene Mient have realized a chocolate shop at home. This also creates a connection with others outside the community.

THE LOCATION OF GROENE MIENT

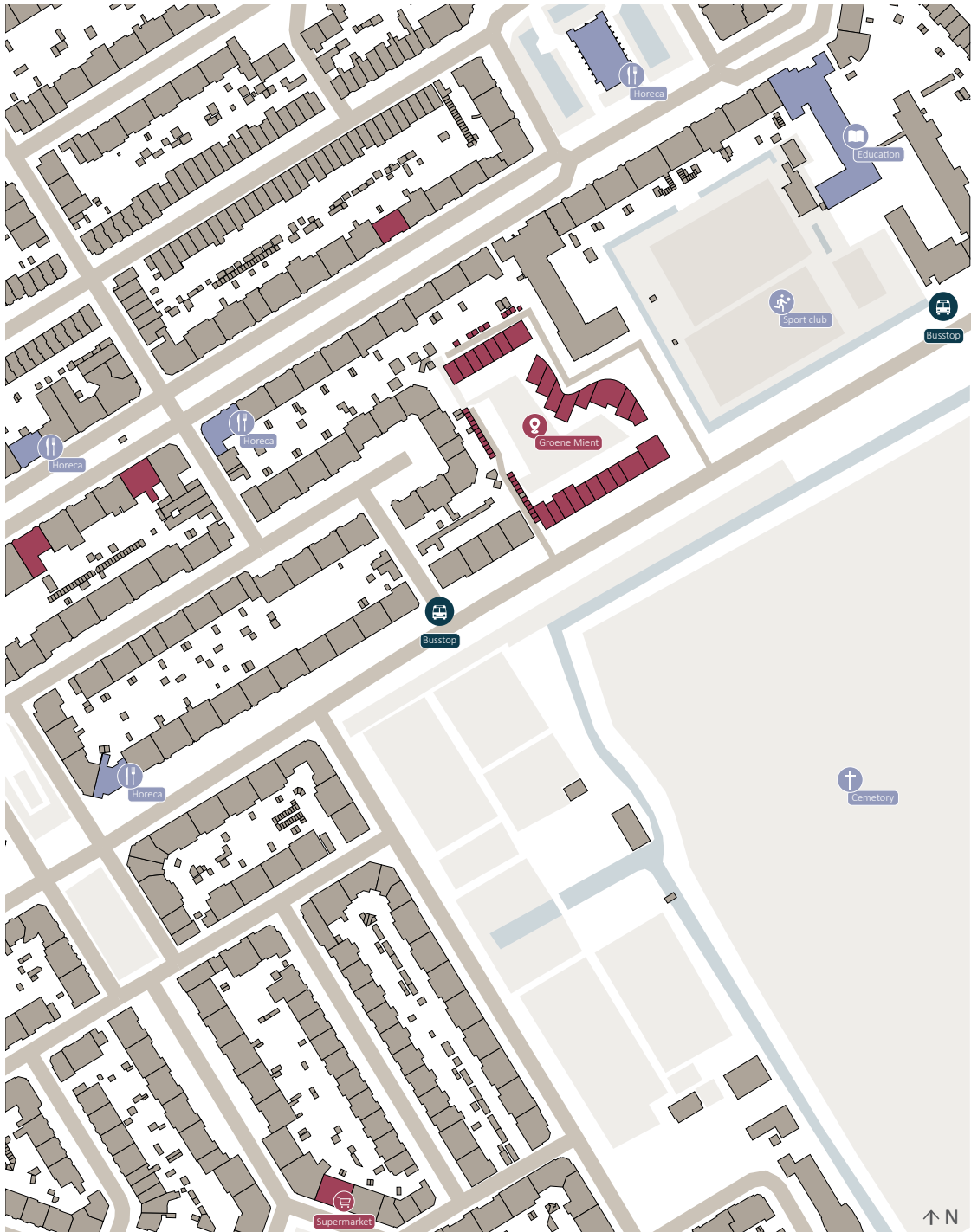


Figure 5.15 | Location of Groene Mient (scale 1:2500). Own work (K.Kleine Punte, 2023)

2.2 THE BUILDING BLOCK

GROENE MIENT, THE HAGUE

When zooming in on the building block, *Groene Mient* itself, the placement of the entrances and the shared facilities are important aspects that are highlighted in this paragraph.

Entrances

The entrances of the dwellings are all placed on the back of the dwellings, on the other side than the shared garden. When the residents do not feel like contact, they can easily leave the house at the back. However, the private outdoor spaces are placed on the side of the communal garden.

Greenery

As mentioned a few times before, the dwellings of *Groene Mient* are situated around a ecological garden. this garden contains many small paths, different types of vegetation and height differences, creating niches in the garden so that one always has a corner to retreat. Once a month a joint garden work day is held. Maintaining together creates bonding (Visser, A. personal communication, November 12 2022).

Parking

As in *Hugo's Tuin*, parking spaces have also been placed outside the residential area (figure 5.16). This creates a peaceful living environment where there is more space for nature. Not all residents regularly need a car, which is why there are shared cars for the residents on the parking spot.

Shared functions

In addition to the shared garden, the residents also share a common room with each other. This room has a kitchen and a sitting area. There is also a toilet, when people are working

in the garden they can easily use it instead of going home. The room is often used for meetings and committees, and there often is a meal together beforehand. Also occasionally festivities are held in the common area. Finally, the residents are allowed to give a private party there three times a year (Visser, A. personal communication, November 12 2022). The common area is placed on the side of the garden, so that the space does not cause a nuisance in all homes.

Taking care

Establishing and continuing to maintain a community like *Groene Mient* together, creates a bond. Residents in the *Groene Mient* look out for each other and help each other, they know what is going on with their fellow residents. To give an example, in the past a whole week of cooking was done for one of the residents who was having a hard time. The community picks up on this, they take care of each other (Visser, A. personal communication, November 12 2022).

MAP OF GROENE MIENT

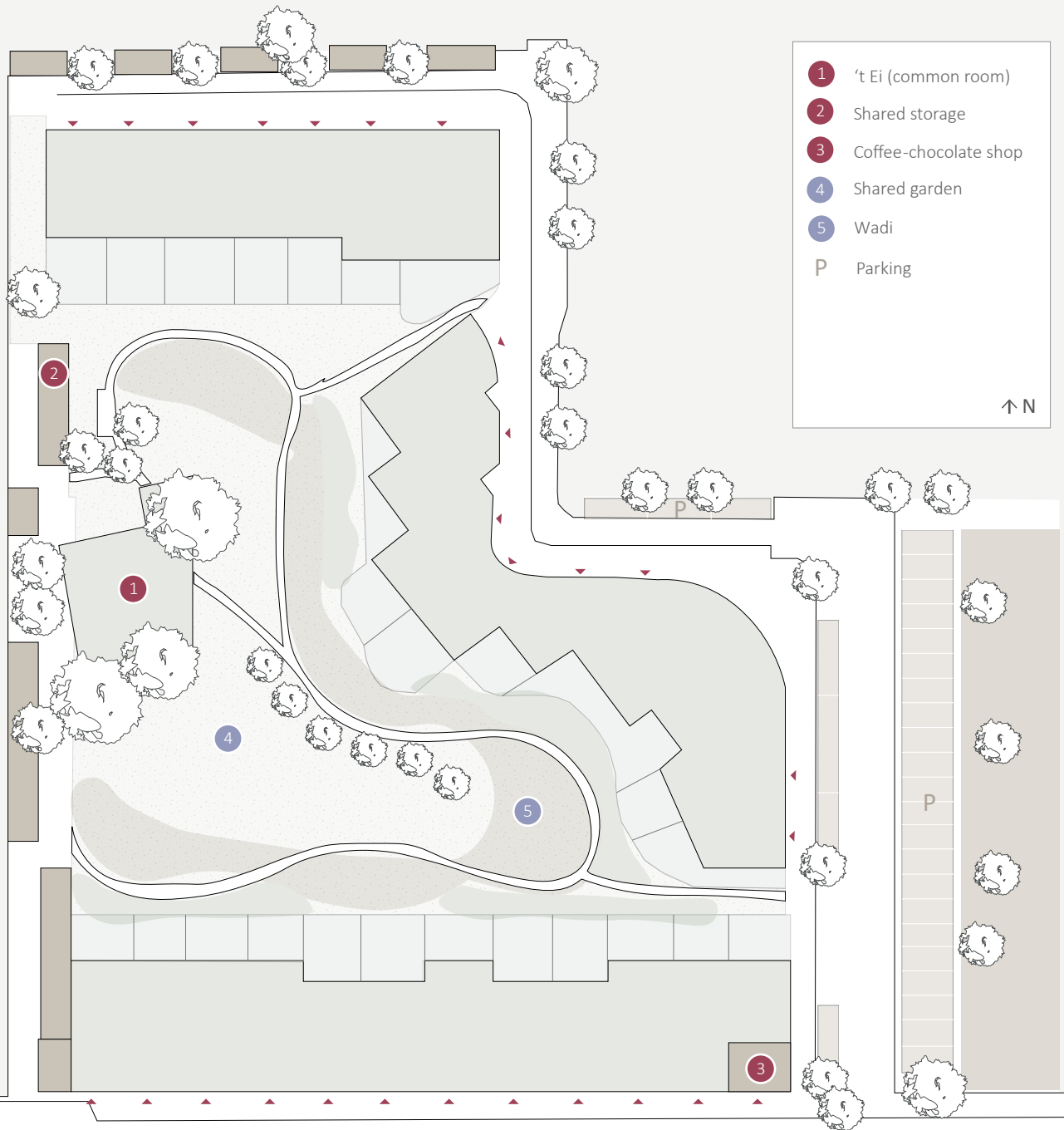


Figure 5.16 | Map of Groene Mient. Own work (K.Kleine Punte, 2023)

2.3 THE DWELLING

GROENE MIENT, THE HAGUE

The last scale level included in this study is the scale of the dwelling itself. Important aspects on this scale will be explained in this section.

Public and private

Every dwelling has a small private garden or balcony connected or with a view to the communal garden. Firstly, the planting of the communal garden provides shelter and thus privacy. In addition, the houses are staggered from each other in some places. This creates niches which offers more privacy. an example is shown in figure 5.17. The balcony of the house is somewhat set back from the house next door, which naturally regulates the need for privacy.

Soft transitions

Plants and small channels with bridges ensure that there is a soft transition between the private gardens and the shared space. This ensures that residents have a private place, but still maintain contact with other residents in a natural way.

Different dwellings

The residents have designed their own home together with an architect. As a result, there is a different floor plan behind every front door. One needs a large kitchen, while the other would like a bedroom on the ground floor. These different housing requirements result in staggering of the buildings and differences in facades. The architect has ensured that everything, despite the differences, has become a whole (Visser, A. personal communication, November 12 2022).

Materials

The facades of all dwellings consist of the same

two materials, wood and slate. However, the use of these materials differs per façade. One façade is almost exclusively made of wood, while the other façade has many details with slate. These differences make the houses recognizable and provide a lively atmosphere.

IMPRESSION OF THE DWELLINGS



Figure 5.17 / 5.18 | Impressions of *Groene Mient*. Own photos. Edited by author (K.Kleine Punte, 2023).

4. CONCLUSION

CASE STUDIES

In this chapter, the sub question to be addressed was: “What can we learn from existing living environments where people of different ages live together?”

First an overview was constructed of a number of such multigenerational living environments. What can be concluded from this overview is that many of aforesaid projects are designed on basis of a courtyard or variants of this. This is in line with the findings from previous chapters in which it was concluded, that there should be a view from dwellings to public spaces and greenery.

A second conclusion that can be drawn from the overview, is that these projects mainly consist of low-rise buildings. This also corresponds to a previous chapter (see chapter 4 social interaction), where it was concluded that buildings with modest dimensions will increase the level of social interaction.

In the next paragraphs two of the projects were investigated in more detail. Some principles, that were constantly repeated throughout the research, were clearly reflected in these two projects. To emphasize, the presence of shared functions and gardens, car free zones, a clustering of the dwellings, soft transitions between public and private and life-time resilient dwellings.

An aspect that appeared in both projects, but what has not previously emerged during the research, were the different dwelling types and floor plans that both projects have. The different dwelling types increase the offer and the needs of more people can be fulfilled. People will stay

longer in their homes.

A difference between both case studies can be found in the background of the projects. The second project is realised by the residents themselves. They have the same vision on socio-ecological level which strengthen the bond between the residents. Building and maintaining the community also ensures strong connections between residents. The first project also has the vision to strengthen social contact through joint maintenance of gardens, however the common background is missing here.

06

CONCLUSION

CONCLUSION

In this thesis, the question to be addressed was: “What architecture and built environment features can encourage social interaction between elderly in need of light care and their neighbours?”

First the preferences and the care demands of elderly people were researched. It can be concluded that these needs vary enormously among the elderly. What they do have in common is that they consider safety and social contact during the day to be of great importance. However, the amount of this varies per person. Accordingly, non-commitment is an essential aspect to take into account when designing for elderly.

Furthermore, the role of architecture and the built environment in terms of the elderly were investigated. Enough storage space a view on greenery or activity and the presence of a separate bedroom and a private outdoor space were considered as important aspects for a dwelling for an elderly person in need of light care. In or around a building(block) a common room with visual access, where the elderly can have social contact is needed. Additionally, opportunities for passive participation and a good materialization (quality of stay, benches, light, etcetera) of daily used functions and circulation spaces have to be realized. Lastly, at neighbourhood level, enough rest points, a smooth road surface, different possibilities for daily walks and points of recognition were considered as essential.

In the third chapter, the competences of neighbours with regard to elderly in need of light care were investigated. The focus was on how people could help the elderly, but also on what nei-

ghbours would like to share or do together with elderly. First, it was determined that a living environment with a mix of people of different ages indeed is preferred. An important basis from which neighbours may be able to complement the elderly and vice versa. Secondly, it was concluded that doing activities and sharing facilities as a garden, a common room and a horeca function are desired. Subsequently, it was investigated whether neighbours are actually able and willing to provide help to neighbours. It can be concluded that a lack of information is one of the biggest barriers that prevents people from offering help. Nevertheless, the intention to help others is present anyway. The solution is to bring neighbours in contact with each other and provide clear information.

In the next chapter it was investigated how the living environment can stimulate social interaction between groups of different ages. First it was determined that the built environment can exert more influence on stimulating sporadic encounters. This form of social contact will happen when people are stimulated to go out. Modest dimensions of spaces, low building heights, an active façade, the subdivision of areas, traffic free zones and well materialized places are aspects that will create a comfortable living environment where people tend to stay longer and more often. Additionally, meeting spaces will encourage more deeper relationships between neighbours. To increase the probability of using these spaces, it is necessary that they are along circulation spaces, easy accessible and have a multifunctional and self-evident character.

Lastly, the aspects in and around the dwelling which could stimulate people to go out and the aspects which encourage social interaction with neighbours were investigated. Lifetime-resilient dwellings, soft transitions between public and private, sight on public spaces and a direct connection between in- and outside are elements stimulating this. But on the other hand is the dwelling the place where privacy is most important. If the possibilities for regulating privacy are lacking, social interaction will be avoided. Zoning the dwelling from public to private and adding a threshold space in front of the dwelling are solutions for maintaining enough privacy.

The conclusions of the abovementioned chapters are translated in to design guidelines. These guidelines are divided into themes: the neighbourhood, the building(block) and the dwelling. An overview of these guidelines can be found on the next pages.

In the last chapter existing multigenerational housing projects were explored to see if and how they implement the researched findings. Most aspects as low-building heights, car-free zones, shared functions and a clustering of the dwellings where in line with the conclusions of previous chapters. Another remarkable thing was that the dwellings are arranged around a courtyard. The houses have a view of each other, which stimulates social interaction according to previous findings.

The results of this thesis are in line with the hypothesis that social interaction can be stimulated by architecture. Subsequently, improved social interaction between elderly and neighbours will lower

the barrier of providing informal care.

Conclusively, it is indeed possible to create a living environment where elderly in need of light care live together with people of different ages and households. A neighbourhood where caring for the unable and taking a moment to help is more normal. Architecture and the living environment can give aforementioned groups the space to do this more easily. However, the living environment has to be equipped in a way that they include most of aforementioned aspects.

Further research

A recommendation of the writer of this thesis is to investigate if there are similarities between elderly in need of light care and other target groups in need care. During the research and conversations with other students, some similarities have been found already between people with intellectual disabilities and elderly in need of light care. Both target groups have a great need for social contact. In addition, safety, a daily rhythm and wanting to remain part of society are important aspects for aforementioned groups.

From this thesis, it can be concluded that neighbours would provide help to every person with a minor care amount, not especially the elderly. Therefore, it would be interesting to explore how other target groups could be implemented in a design where aforementioned groups live together. How can these other groups in need of light care complement their neighbours and the elderly and vice versa.

DISCUSSION

The information from this study is conducted by anthropological research and literature research. The anthropological research consisted partly of a fieldwork week in an elderly home. The fieldwork week lasted only for one week which brought up some limitations. First of all, the residents of the elderly home could have behaved differently than usual. The residents have to get used to having students in their homes and need time to open up first. They may find it exciting or interesting, which may influence their behaviour. Besides that, assumptions have been made regarding activities. It is not possible to approach exactly whether these activities actually take place on a weekly basis. This could only be retrieved from conversations. Another comment regarding the anthropological research about the elderly is that the fieldwork, separate from a few conversations with other elderly people, only is done in one elderly home. It may be that other findings had emerged in other care homes. In addition, elderly people who do not live in an elderly home will also have other needs and preferences.

The reliability of this research has also been impacted by the writer herself. The focus of the writer was mainly on the positive aspects of a community living concept. As a result, the negative sides of an intimate society between people of different ages was sometimes somewhat underexposed.

The implementation of literature research has increased the reliability of the thesis. Findings from the anthropological research are recognized and argued by literature. However, most literature on social interaction was focused on humans in gene-

ral, not specifically on the elderly. Nevertheless, this thesis gives valuable insights in the use of architectural tools for the stimulation of interaction between elderly in need of light care and their neighbours in a living environment.

ELDERLY
DWELLING



1.1

ENOUGH STORAGE SPACE

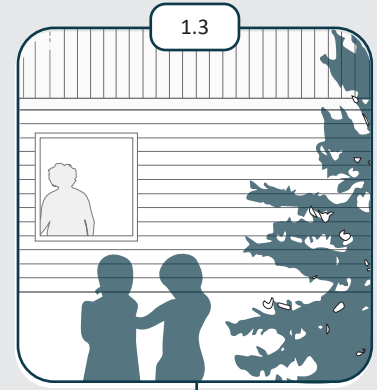
Enough storage space for all the things the elders have collected during the years and to place a wheelchair / walker out of sight.



1.2

SEPERATE BEDROOM

Seperate the bedroom from the rest of the functions in the dwelling, but with a direct connection to the bathroom.



1.3

SIGHT ON PEOPLE OR GREENERY

Good view from the dwelling of activity or on trees and plants outside.

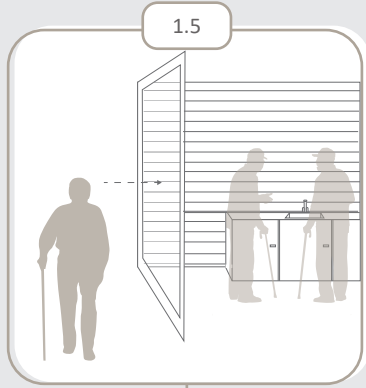


1.4

PRIVATE BALCONY OR GARDEN

The elderly like to have a private outside space, even if there dwelling is smaller than 40 square meter.

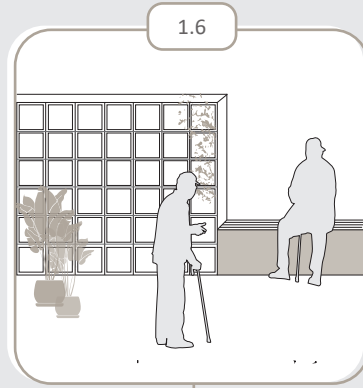
ELDERLY
BUILDING



1.5

VISUAL ACCESS

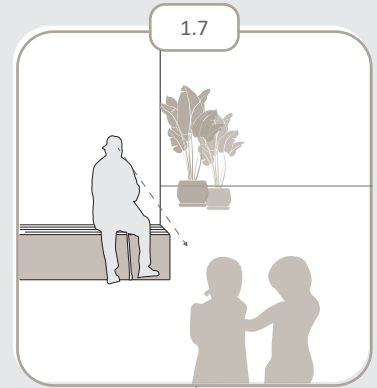
Elderly need the option to escape depending on who is present in a certain room. Visual acces to the room is needed so the person can observe and decide to join or not.



1.6

ADD QUALITY OF STAY

Add quality of stay (space, daylight, benches, etc.) to circulation space and daily used functions. That are the places where elderly bump into each other.



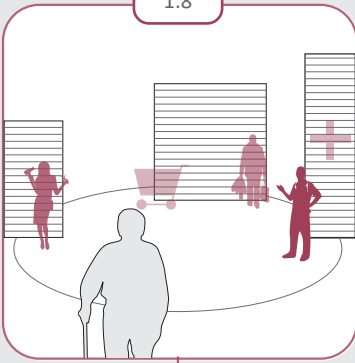
1.7

PASSIVE PARTICIPATION

Create opportunities for passive participation in common or public spaces.

ELDERLY
NEIGHBOURHOOD

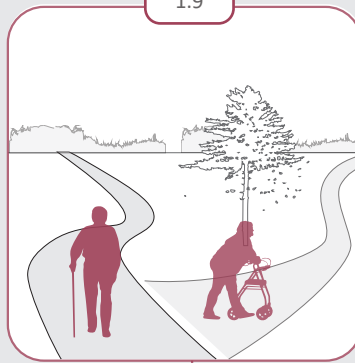
1.8



FACILITIES ON WALKING DISTANCE

Services such as a supermarket and health functions should be within a distance of 500 meters of the dwelling.

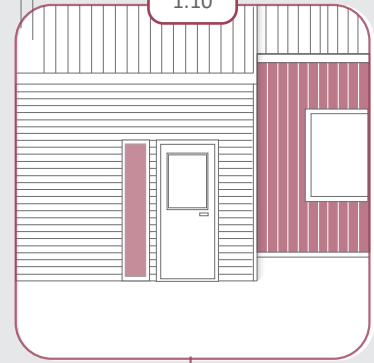
1.9



DIFFERENT WALKING ROUTES

Provide easy walking routes of varying distances around the dwelling or building complex.

1.10



SMALL VARIATIONS IN FACADE

Vary a few variables as colours, materials, heights and depths in the facade to create recognizability.

1.11



ENOUGH BENCHES

Place enough benches where elderly can take a rest or just sit and watch others participate in public life.

1.12

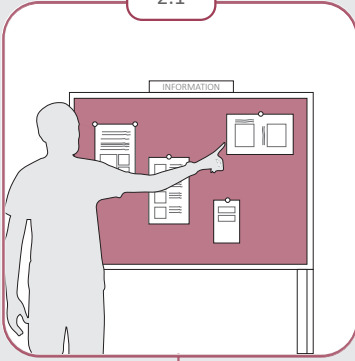


SMOOTH ROAD SURFACES

Create flat road surfaces without bumps so that this will not form a barrier for elderly to go outside for a walk.

NEIGHBOURS
OVERALL

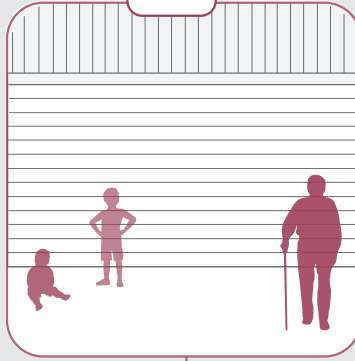
2.1



INFORMATION PROVISION

Clear information provision about who needs what kind of help.

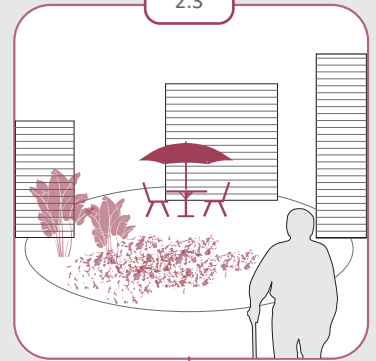
2.2



MIX OF DIFFERT AGE GROUPS

Ensure a mix of residents of different age groups in the same street within a neighbourhood.

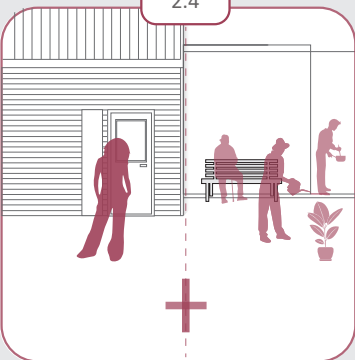
2.3



ADD SHARED FUNCTIONS

Add shared facilities as a communal garden, a playground or horeca function in a small neighbourhood

2.4



SHARED SPACES AS ADDITION

Common spaces should not be at the expense of the private living spaces.

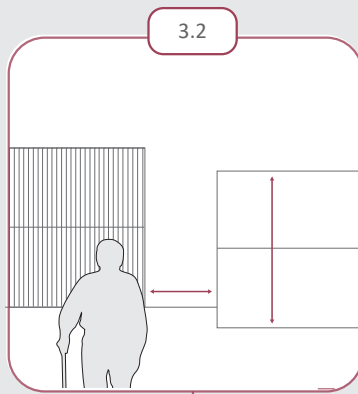
SOCIAL INTERACTION
NEIGHBOURHOOD



3.1

PEDESTRIAN ZONES

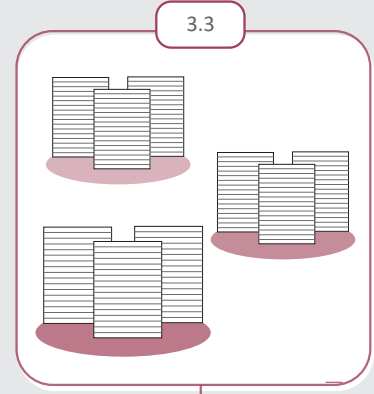
Provide pedestrian zones, this ensures a greater chance of interaction and more meaningful contact.



3.2

MODEST DIMENSIONS

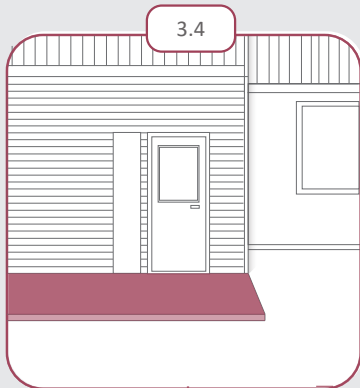
Small spaces are perceived as warm and personal. Besides that seeing and hearing others is easier.



3.3

SUBDIVIDING THE AREA

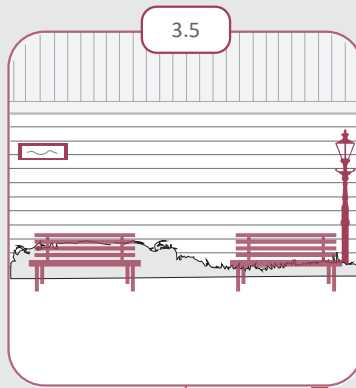
Divide a residential area into more smaller areas. It gives the residents a feeling of security and a sense of belonging.



3.4

READABILITY OF SPACES

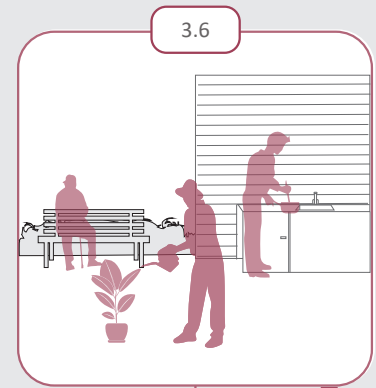
A clear and soft demarcation of spaces increases its use and improves the quality of stay. No hard physical barriers.



3.5

GOOD MATERIALIZATION

Spaces that are well materialized will be used more. Think of good wayfinding, places to sit, lighting and places with shelter.

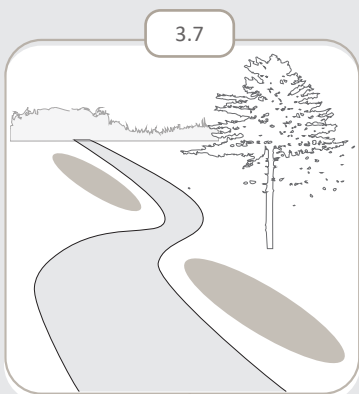


3.6

MULTIFUNCTIONAL MEETING SPACES

Provide meeting spaces with a multifunctional and self-evident character.

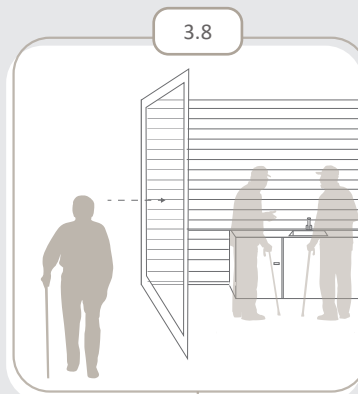
SOCIAL INTERACTION
BUILDING (BLOCK)



3.7

ENLARGE THE THRESHOLDS

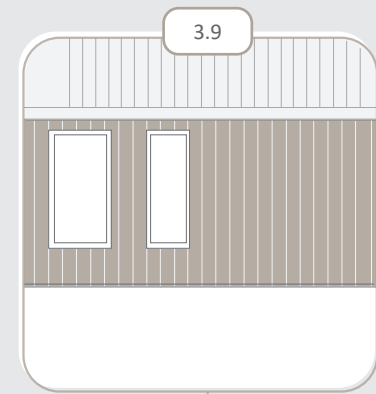
Enlarge the thresholds at passages and circulation spaces (entrances, paths). This offers opportunities for interaction.



3.8

VISUAL ACCES

Elderly need the option to escape depending on who is present in a certain room. Visual access to the room is needed so the person can observe and decide to join or not.

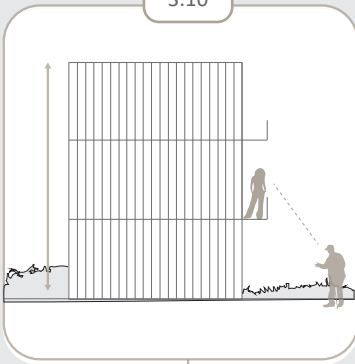


3.9

'ACTIVE' FACADE

Provide an 'active' facade, vertical articulation, many openings and big windows. This will stimulate activity outside.

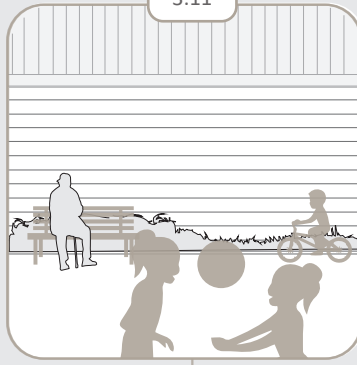
3.10



LOW BUILDINGS HEIGHTS

Building heights higher than 10 meters will be a barrier for contact. Conversations can be held up to 6,5 meters.

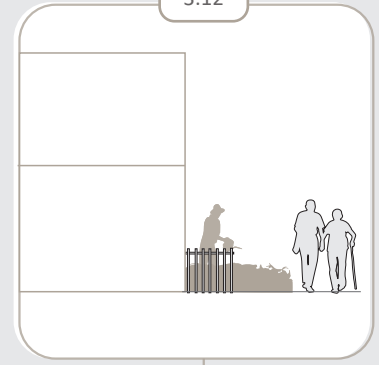
3.11



BENCHES WITH SIGHT ON ACTIVITY

Place benches with a view to activity in the immediate environment of dwellings. Place the backside against something closed.

3.12

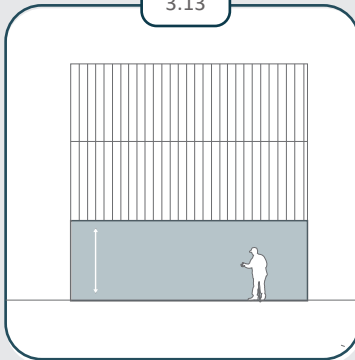


THRESHOLD SPACE IN FRONT OF EACH DWELLING

In the threshold spaces people feel the safety from home, therefore most interaction is happening here.

SOCIAL INTERACTION DWELLING

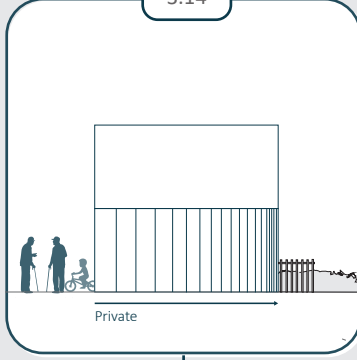
3.13



LIFE RESILIENT DWELLINGS

To maintain a social network, it is important that dwellers can continue to live where they live regardless a changing demand of care.

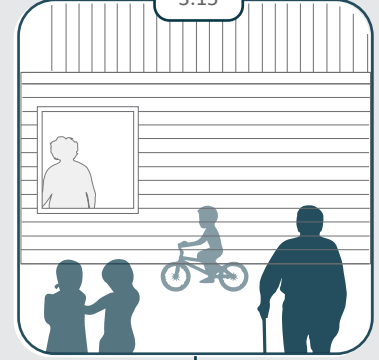
3.14



ZONING OF THE DWELLING

Zone a dwelling from public to private. Put rooms that need more privacy (sleeping-room for instance) behind.

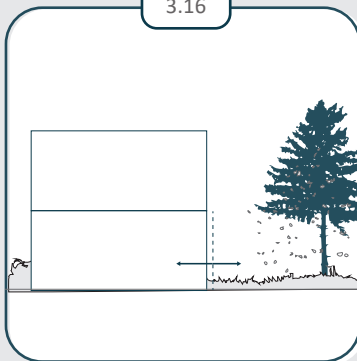
3.15



SIGHT ON PUBLIC SPACE

Create sight lines to the public or common space so elderly can gaze through the windows and people will be stimulated to interact.

3.16



DIRECT CONNECTION WITH OUTSIDE

Create a direct connection between a living space of the dwelling and the threshold space.

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A | SURVEY

3. Met welke leeftijdsgroepen zou u deze faciliteiten willen delen?

- Mensen uit mijn eigen leeftijdsgroep
- Mensen uit verschillende leeftijdsgroepen

4. Welke faciliteiten zou u met een kleine buurtgemeenschap willen delen? (+/- 100 personen)

- Tuin
- Gemeenschappelijke ruimte
- Gemeenschappelijke keuken
- Horeca
- Logeerfunctie
- Supermarkt
- Speelvoorzieningen voor kinderen
- Geen

Interactie

1. Wat vindt u van de woonomgeving in uw buurt? (kruis aan wat van toepassing is)

Denk hierbij aan pleintjes, groenvoorziening, inrichting van de straat.

Zeer onprettig 1 2 3 4 5 Zeer prettig

2. Hoe ervaart u het sociaal contact in uw woonbuurt momenteel? (kruis aan wat van toepassing is)

Zeer onprettig 1 2 3 4 5 Zeer prettig

3. Waar heeft u de meeste sociale interactie met uw buren momenteel?

- In huis
- In het park / gemeenschappelijke tuin
- Op straat
- Pleintjes
- Bij de supermarkt
- Anders, namelijk

4. Welke activiteiten doet u momenteel met uw buren?

5. Welke activiteiten zou u met mensen in uw woonbuurt willen doen?

- Tuinieren
- Koken en eten
- Sporten
- Films / tv kijken
- Sociale activiteiten (koffie drinken, etc.)
- Spelletjes spelen
- Creatieve hobby's (schilderen, knutselen, etc.)
- Elkaar helpen
- Geen
- Anders, namelijk...

6. Hoe vaak zou u deze activiteiten willen doen?

- Dagelijks
- 1-2 keer per maand
- 2-3 keer in de week
- Nooit
- 1 keer in de week

7. Met welke leeftijdsgroepen zou u deze activiteiten willen doen?

- Mensen uit mijn eigen leeftijdsgroep
- Mensen uit verschillende leeftijdsgroepen

A | SURVEY

Hulp bieden

1. Heeft u weleens herhaaldelijk hulp geboden aan ouderen of mensen met een lichte zorgvraag in u woonomgeving?

ja, namelijk

Nee

2. Zo nee, wat zijn de barrières die ervoor zorgen dat u niet bereid bent om deze hulp te bieden?

3. Wat zou u willen en kunnen doen voor ouderen of mensen met een lichte zorgvraag in uw woonomgeving wanneer deze barrières er niet zijn? (meerdere antwoorden)

(Helpen met) koken

Overdragen van kennis

Huishoudelijke hulp

Niets

Vergezellen bij activiteiten

Anders,...

4. Welke extra faciliteiten zijn hiervoor nodig in uw woonomgeving?

Gezamenlijke ruimte

Geen

Gezamenlijke keuken

Anders, namelijk

5. Hoe vaak bent u bereid om deze hulp te bieden?

Dagelijks

1 keer in de week

2-3 keer in de week

1-2 keer per maand

Opmerkingen

Hieronder kunt u eventuele opmerkingen of toelichtingen kwijt over de onderwerpen die in deze vragenlijst aan bod zijn gekomen.

Nummer van de vraag:

Nummer van de vraag:

Zou ik contact met u op kunnen nemen voor een verdiepend interview?

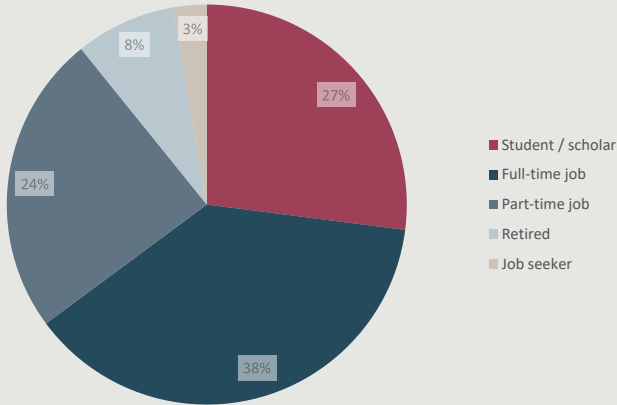
Ja, mijn telefoonnummer is:

Nee

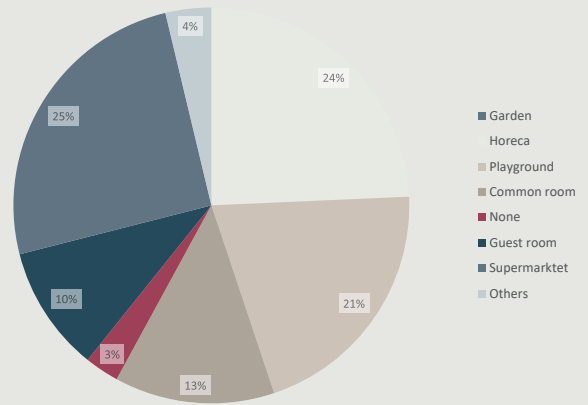
Bedankt voor het invullen!

B | RESULTS

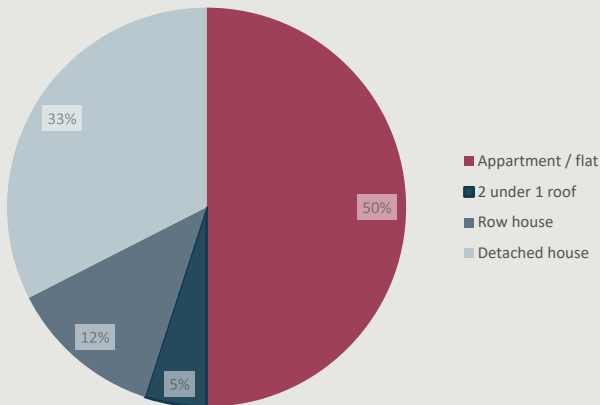
1. Main activity during the day



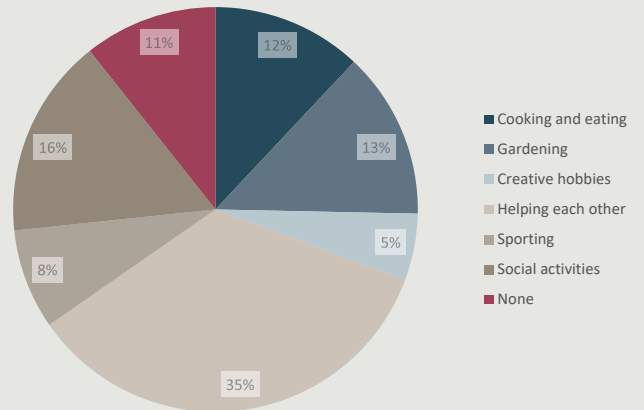
4. Shared facilities within a small community



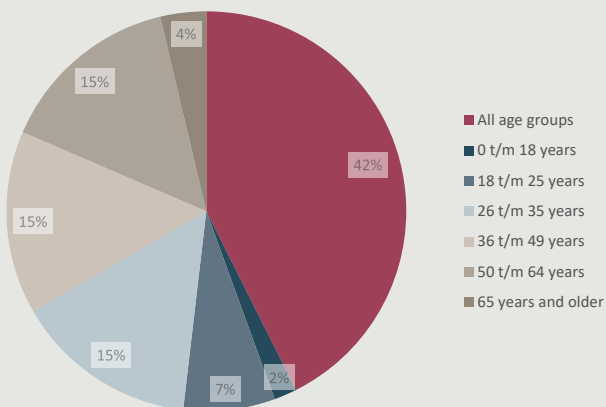
2. Dwelling type



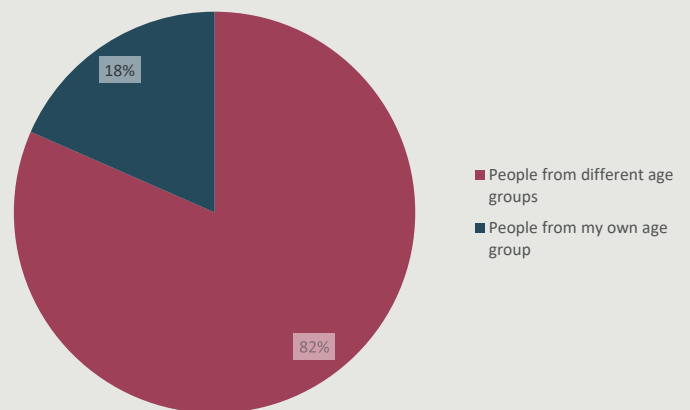
5. Preferred activities with neighbours



3. Age groups in the same street

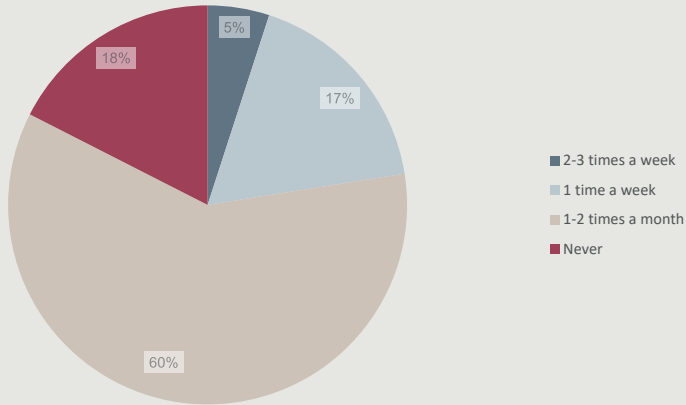


6. Preferred age groups for these activities

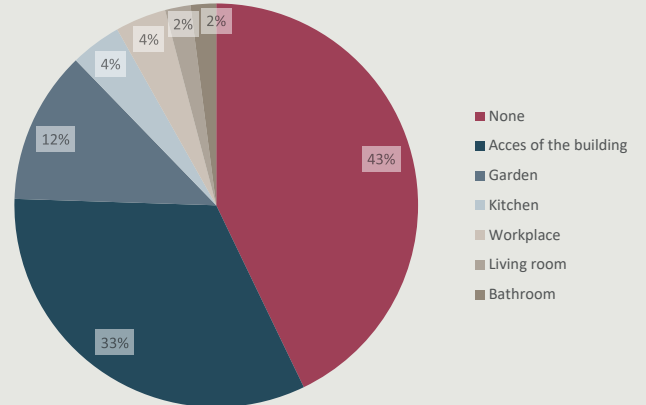


B | RESULTS

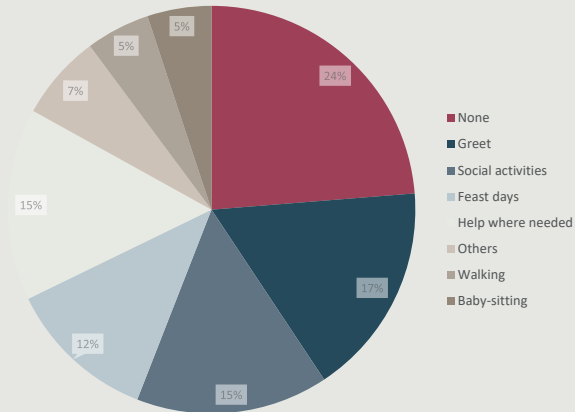
7. Frequency of these activities.



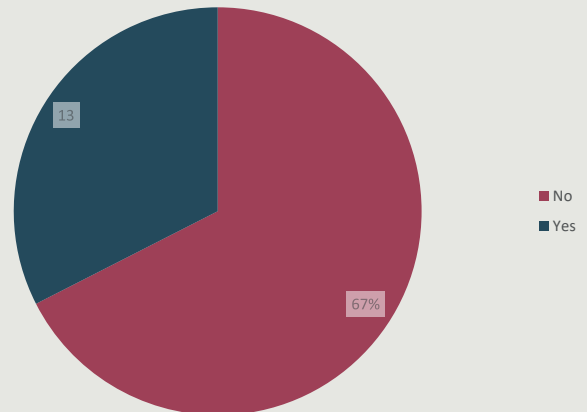
9. Shared facilities with direct neighbours



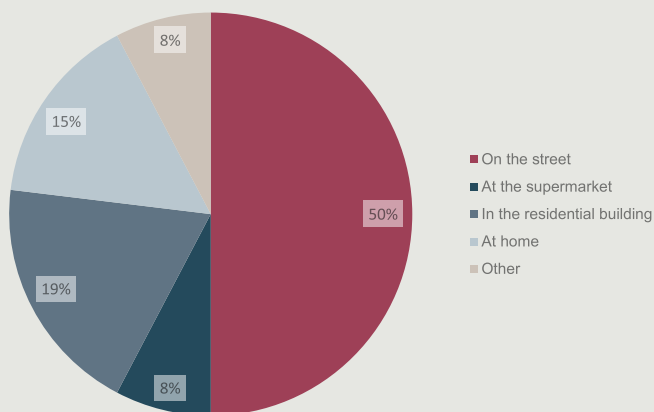
7. Current activities with neighbours



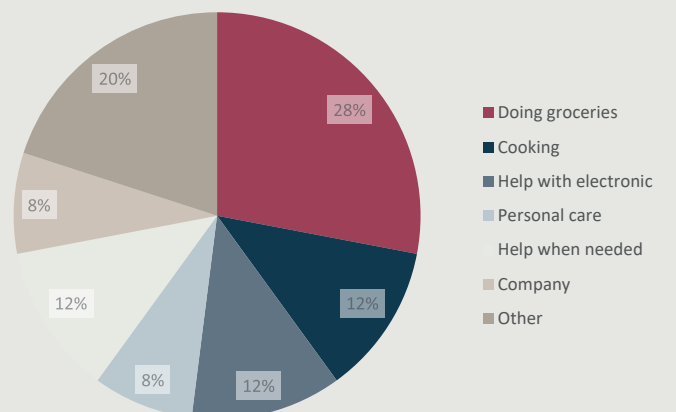
10. Repeatly offered help to people in need of care



8. Places of social interaction with neighbours (now)

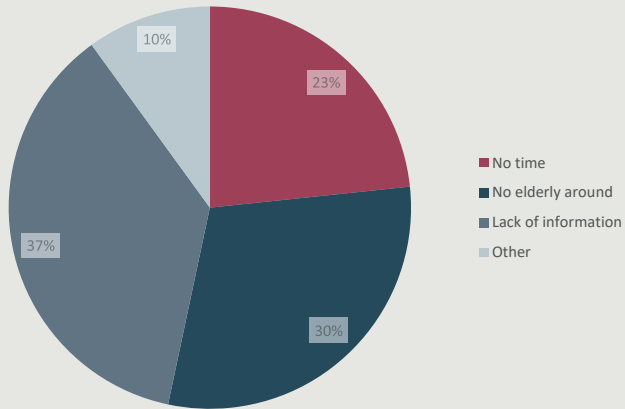


11. What kind of help did peolpe provided

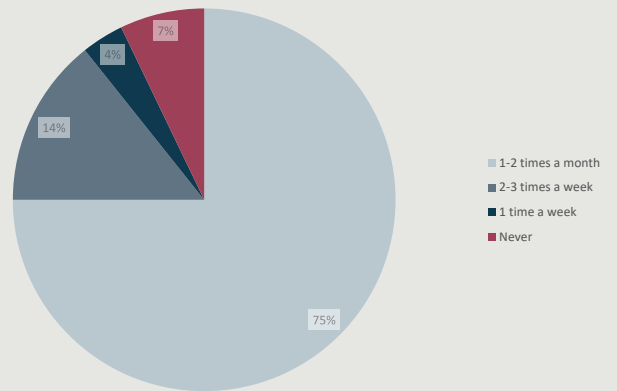


B | RESULTS

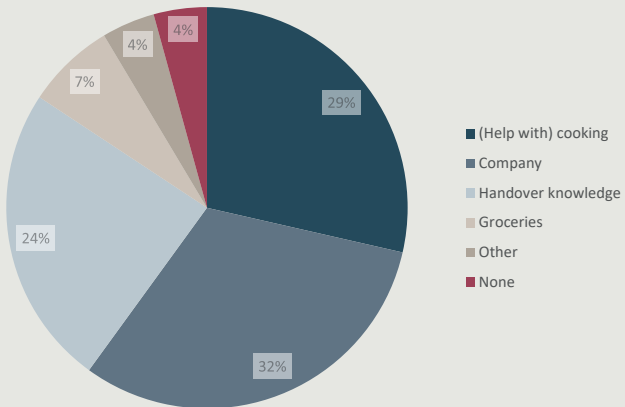
12. Barriers that prevent people from providing help



15. Preferred frequency of providing this help



13. Help that people want to offer when there are no barriers



14. Extra facilities that are needed for this

