RESEARCH

MSc 3/4 Designing for care

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AR3AD133 Designing for care

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DESIGNING FOR CARE

Observations, Analyses and Design tools

PREFACE

This research report is part of my graduation project from the master of Architecture at the Technical University Delft. As my graduation studio I have chosen for the Designing for care studio. I always have been interested in healthcare architecture and besides that, the topic is highly relevant in the world we live nowadays. The number of Dutch people over 75 will be twice as much in twenty years. There will be 2.5 million elderly living in the Netherlands in 2040. The so-called 'retirement homes' are closing and nursing homes will become more empty. Due to this fact we, as architects, must start to rethink the daily environment for our aging society. This is needed on different scales, so not only on building-scale but also on city-scale.

The Designing for care studio focuses on the topic of elderly in need of care. The existing elderly homes do not respond to the needs of the elderly of today, who want to be self-supportive and not excluded from society. How do we want to live when we need care and what kind of building and neighborhoods do we need to make that possible? That is the main question of this graduation studio. I searched for new concepts for dwellings and neighborhoods that include the vulnerable elderly in society.

I would like to thank my mentors within this graduation studio, Birgit Jürgenhake as my design mentor and Leeke Reinders as my research mentor for their tutoring and support during my graduation process. I found it special to see how much time they made for me and the interest they had in my work. The meetings we had brought my research and design to a higher level. They made me look at my own research and design from a different angle, and that brought an extra dimension into my work. Furthermore, I would like to thank Habion for making it possible to stay in one of their elderly homes for one week, the most fruitful week of my whole graduation project, and for the critical and useful feedback they gave during the evaluation moments. I also want to thank Jos Lafeber for the tutoring sessions concerning the building technology of my design. At last I would also like to thank my family and friends for their believe in me and the support during my study and especially during the graduation year.

Rosanne Alkema

Delft, 06-05-2019.

ABSTRACT

The problem

The aging society causes problems on three different scales. For cities in general, for the residential housing for elderly and for people who live (elderly) and 'work' (healthcare organizations) inside the buildings. The existing elderly homes as well as public spaces can not accommodate the growing numbers of elderly anymore. Due to the transitions in the elderly care policy there is need to rethink the architecture of home and living environments for elderly. We must think about new concepts for a more inclusive environment for elderly.

The previous elderly homes were very introverted and loneliness became a big problem among elderly. The contemporary elderly homes are being more extroverted, pushing/motivating people to live together in small groups. This is a shift from one extreme to another. It is important to find a balance between those two extremes and create a place for everyone.

In my opinion, we should start to approach cities from the perspective of an elderly as well. What do they need and what are their wishes? When searching for answers about what elderly want and need it is important to not only look at it on building-scale, but also to look at it from a broader perspective, the city. Because a city that is well-equipped for people who need care and support, provides a better city for everyone.

The goal

The goal of this graduation project is to come up with new concepts for elderly housing in the Netherlands. Our in my case, for the site in Harderwijk. The goal is to provide the city of Harderwijk with an urban structure where elderly can dwell, live and interact with each other and other target groups as well. The urban structure will not only provide residences but it will also become a vital network which prevents loneliness and creates a vibrant community. This new social ecosystem will put the elderly in the centre of society. Nowadays, the speed of the world is gigantic. Elderly get anxious, overwhelmed and overstimulated because of the fast pace and they will take a step back from society. That is where loneliness kicks in. In order to make elderly part of society again it is important to slow down the city to the pace of the elderly. Make them feel comfortable and safe, in that way you will motivate vulnerable elderly to go out again. So, in order to create an inclusive environment for elderly you need to start at the urban fabric. Only a building can not solve the problem, the whole urban network around it should be upgraded as well.

To find solutions for the problems I stated before, I came up with a couple of research and design questions:

- What does a city need to empower the aging society?
- How can the city participate in a well-equipped living environment for elderly in need of care?
- How can elderly become the cornerstone of society and how can architecture participate in that?

- How can architecture participate in the fact that elderly can become the most independent and the closest to their needs and wishes?
- How can architecture facilitate in the needs and wishes of different ‘types’ of elderly?

Research method

The answers on the questions mentioned above will be found on the basis of anthropological research and a supporting theoretic framework. The project all started with an anthropological research during the one-week stay in one of the transformed elderly homes of Habion, Huis Assendorp in Zwolle. During that week informal interviews and observations have been done. This anthropological research will be supported with literature which is written from different fields of expertise.

The anthropological and the supportive literature research will be translated in an analytical explanation. This analytical translation leads to a couple of design tools. These design tools will be used in the final design of this graduation studio. So, the fieldwork trip to Huis Assendorp and the supportive theoretic framework will be the base for the design decisions in a later stage.

The graduation project will be divided in three different scales; the environment, the building and the people. This scale distinction will not only be used during the research but also during the design process. So, the three different scales will be a common thread throughout the whole graduation process.

The results

The most important results of the anthropological and theoretical research will be described briefly below, divided in the three different scales.

1.0 The environment

The current environment functions as a catalyst for loneliness among the elderly. We should let the environment function as the opposite, so a living environment which functions as a safety net for loneliness. A motivator to go outside again instead of a catalyst. So, slow down the overall pace of the direct surroundings of the elderly home. Reduce thresholds such as sidewalk interruptions, add services such as shops, a hairdresser and a general practitioner within walking distance and create a diversity of small routes around the building with enough points of rest along the way.

2.0 The building

Visibility in relation to collective spaces is key. Make the collective spaces visible from the circulation area but provide in a certain way of privacy at the same time. Search for a balance between view and seclusion.

For the private rooms applies: create an open floor plan in order to make the resident feel in control about the layout of their private room. Moveable walls can be a good solution to get rid of all the different rooms in one apartment, it will create a smooth layout with a good overview of the apartment.

3.0 The residents

The fieldwork trip to Huis Assendorp confirmed the fact that there is not one type of elderly, something which you have to keep in mind when you start designing. The key is to find the balance between an introverted and extroverted living environment. In that way you can create a place for everyone. Find the perfect tension between privacy and inclusion. The research led to a couple of design tools which will be implemented in the final design for the site in Harderwijk.

Keywords
Elderly, encounter, loneliness, architecture, environment, social interaction, elderly care, empowerment, inclusion.

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INTRODUCTION

The change in regulations and the financial cuts in elderly care result in the disappearance of the traditional elderly homes because housing and care are now separated from each other. The government expect the elderly people to stay at home as long as possible. At the same we have to deal with an aging society. The changes in elderly care and our aging society causes a multi-scale problem. For **cities** in general, for the **buildings** which provide in residences for the elderly and for the **people** who live (elderly) and 'work' (healthcare organizations) inside the buildings.

The existing elderly homes as well as public spaces can not accommodate the growing numbers of elderly people anymore. Due to this fact and the transitions in the elderly care policy, there is need to rethink the architecture of home and living environments for elderly. We must start to think about new concepts for a more inclusive environment for elderly.

The previous elderly homes were very introverted and loneliness became a big problem among elderly. Those old-school elderly homes are slowly disappearing in the Netherlands and people start to rethink elderly living. One of the trends nowadays is that elderly should stay at home as long as possible, but one of the complaints about this trend is that this phenomenon also causes loneliness. On the other hand, there is a development going on towards more extroverted living environments. An environment where we start to push/motivate elderly to live together with each other in small groups. This is a shift from one extreme, the introverted elderly homes, to another, the extroverted living environments. In my opinion, it is important to find a balance between those extremes and create a place for everyone. In order to achieve this, we should start to approach this design topic from the perspective of the elderly. What do they need and what are their wishes? Start to find out what they really need and want instead of just 'guessing' what they need. When searching for answers on that question it is important to not only look at their dwellings, but also to look at the problem from a broader perspective, the city. Because a city that is well-equipped for people who need care and support, provides a better city for everyone (Oolbekkink, R. 2017, p.14).

The aging society also causes problems for the healthcare institutions. While the number of elderly in the Netherlands is growing rapidly, the Dutch government is cutting down on professional care for elderly. But we should face the fact that elderly people are in need of professional care. The thing is that the focus in previous elderly homes was wrong. The professional caregivers focussed on the 'taking care'-aspect instead of providing a nice living environment for elderly. This focus should be the other way around. Create a nice and well-equipped living environment for elderly where they can live as independent as possible instead of a hospitalized housing complex where the caregivers are pampering the elderly whole the time. Empower them instead of pampering them! That is where architecture comes in. Architecture should support in this new way of thinking.

Researcher Max Antoine Lalande Danciger states that "Architecture defines spaces. I don't believe architecture can define rituals, but it can set conditions for it, the same way a ski-piste doesn't define the mountain but creates the possibility of a

path from it" (Danciger, M.-A. L. 2019). So, architecture should support in the rituals of people instead of trying to change them. We should stop to force elderly to live in a way we think is best for them. We should start to investigate what they really want.

Research questions and goal.

The aim of this research is to find out in which way architecture can react on the changes as mentioned above. This led to the following questions:

- What does a city need to empower the aging society?
- How can the city participate in a well-equipped living environment for elderly in need of care?
- How can you create a living environment that suits every 'type' of elderly?
- How can elderly become the cornerstone of society and how can architecture participate in that?
- How can architecture participate in the fact that elderly can become the most independent and the closest to their needs and wishes?
- How can architecture facilitate in the needs and wishes of different 'types' of elderly?

Since this research serves as a base for the design phase, the outcomes of the research will be translated to design tools and principles. These design tools and principles will be implemented in the final design. The final goal of this project is to provide Harderwijk with an urban structure where elderly can dwell, live life and interact with each other but also with other target groups, because we have to get rid of hiding elderly in nursing homes, they should become part of society again. The urban structure will provide residences but it will also become a vital network which prevents loneliness and creates a vibrant community. This new social ecosystem will put the elderly in the centre of society.

RESEARCH METHODOLOGY

The project all starts with an anthropological research during the one-week stay in one of the transformed elderly homes of Habion, Huis Assendorp in Zwolle. During that week informal interviews and observations have been done. This anthropological research will be supported with literature which is written from different fields of expertise. Not only knowledge will be provided from the field of architecture, but also from urbanism, sociology and anthropology. The theoretic framework is mostly based on literature of Jan Gehl, Kevin Lynch, Herman Hertzbeger and Talja Blokland. The anthropological research and the supportive literature will be translated in an analytical explanation. This analytical translation will lead to a couple of design tools. These design tools will be used in the final design of this graduation studio. So, the fieldwork trip to Huis Assendorp and the supportive theoretic framework will be the base for the design decisions in a later stage.

The graduation project will be divided in three different scales; the environment, the building and the people. This scale distinction will not only be used during the research but also during the design process. So, the three different scales will be a common thread throughout the whole graduation process.

To conclude, The idea behind the graduation project is to literally unfold the process towards a final design. With the unfolding method is meant the act of slowly unfolding different panels and themes throughout the design process and during the presentations (image 1).

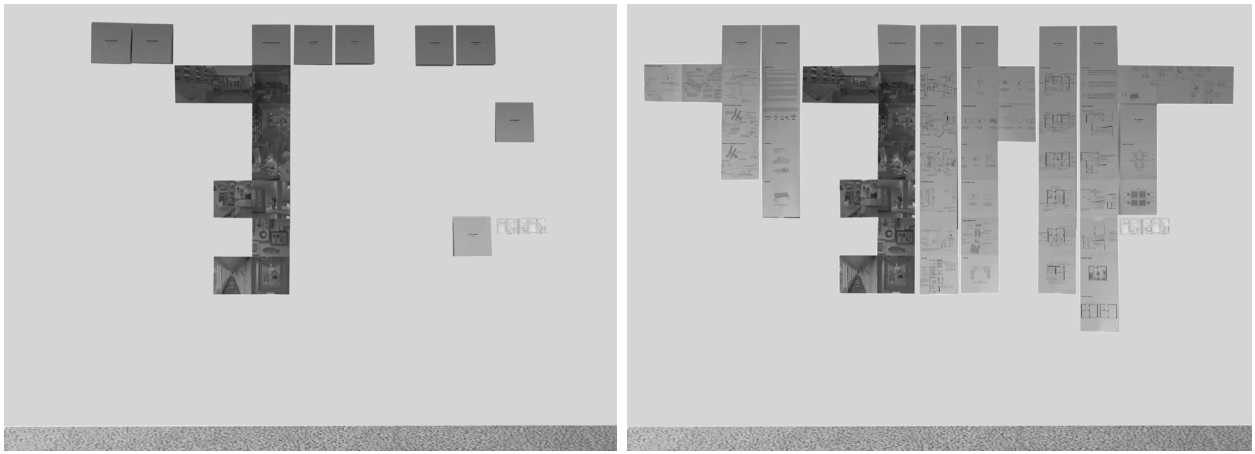


Image 1: P1 presentation panels; unfolding the process.

READING ITINERARY

The project is divided in two parts, based on three scales. Part one is about the anthropological research in one of the transformed elderly homes of Habion, Huis Assendorp in Zwolle, and the supportive theoretic research. The second part is about the final design for the project location in Harderwijk. Both parts are divided in three scales; the environment, the building (with a segregation of collective spaces and private spaces) and the people.
The findings of the anthropological research will be discussed briefly in the conclusion of this research booklet and it will bring the project back to its objective connection the found answers to the research questions. These findings and answers will function as a starting point for the final design which will be explained in the second part of this report.
At last, the reflection will give a personal insight of the process, the relation between research and design and it will review its relevance and position in a wider social context.

JUMBO
JUMBO
RR-779-B
JG-964-R
09-NPZ-2

ENVIRONMENT

Observations and analyses

Source: Lynch, K. (1990). Image of the City. London: The M.I.T. Press.

THE ELEMENTS OF THE CITY

During my stay in Huis Assendorp I did a couple of walks with different residents. They were all in a different state of mobility. Afterwards I visualized those walks, I draw down the route we took, the things the resident said and mentioned and the things I mentioned myself during those walks. I translated those observations to analytical drawings. For those analytical drawings I used the book of Kevin Lynch, *The image of the city*. The analyses finally led to a couple of design tools and principles.

According to Kevin Lynch the city can be classified into five types of elements: *paths, edges, districts, nodes and landmarks.*

Paths
These are the roads, canals, rails and sidewalks, wherever the movement of the user happens. For many people these are the most dominant elements in the representation of an area. People observe the environment by moving through it. Based on these paths the rest of the categories can be sorted.

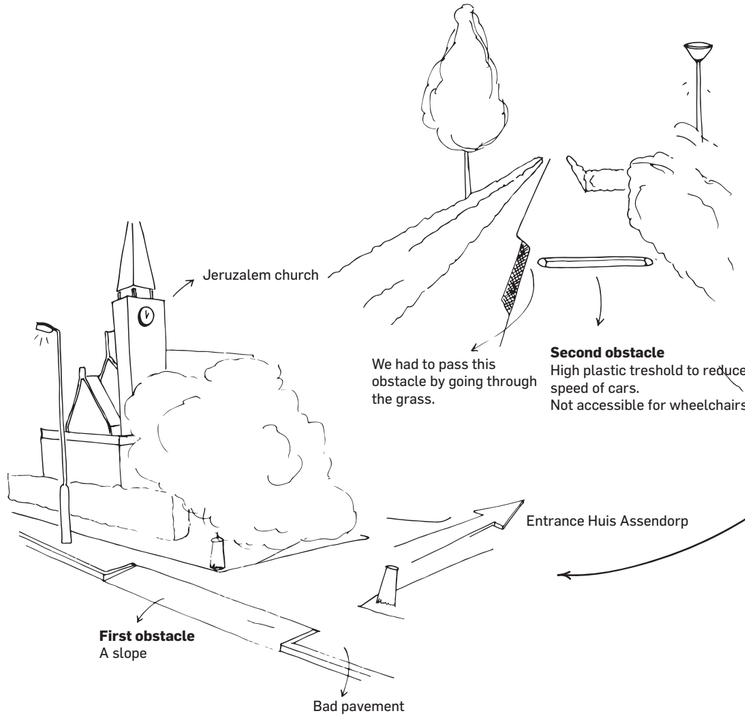
Borders
These are usual linear elements which can't be used as a path. These borders are separating two areas by using walls, coastlines and crossing rails. These borders are for many people important since it defines the size of the scope.

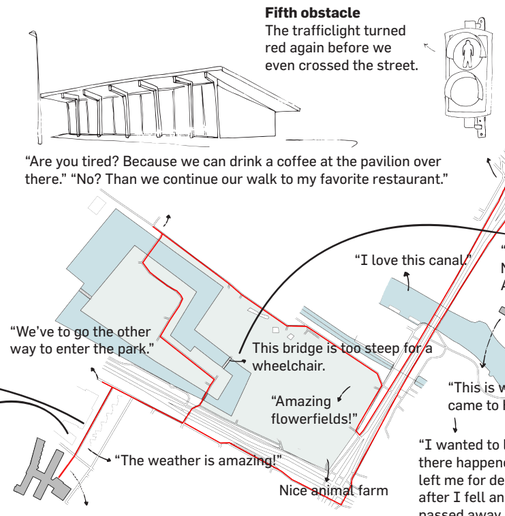
Districts
Districts can be defined as medium-sized parts of the city. People know 'they are somewhere'. This means this medium-sized part of the city has a character since the people can orientate themselves. Also, these districts give the people an orientation and reference point to the rest of the city.

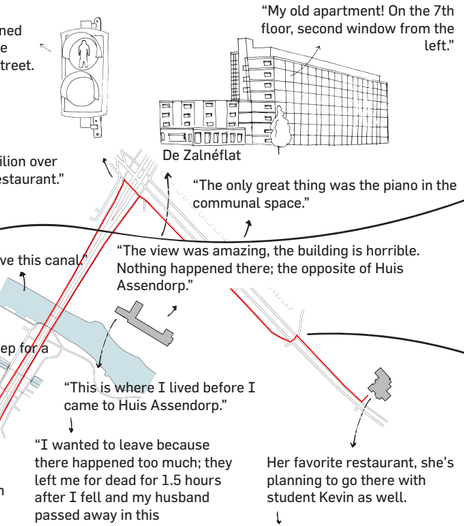
Nodes
These are spaces where people are able to go to and where they are focused on their starting point and their final destination. Primarily, these nodes are connections, intersections or points where one structure ends and a next one starts. Some nodes are the center of multiple areas. Mostly these nodes are the most recognizable elements in their environment.

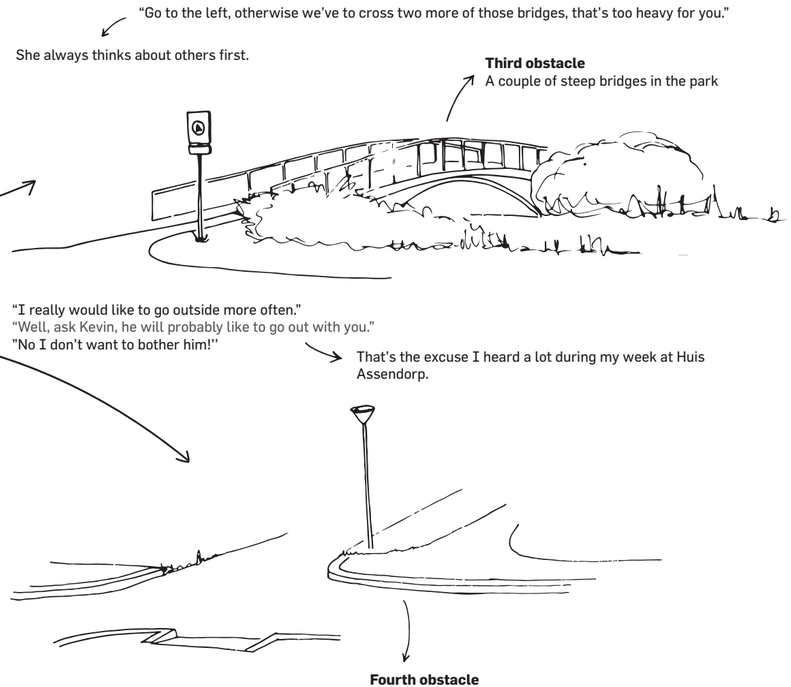
Landmarks
These are objects where people don't necessarily need access to go inside. These objects are elements in the city and sometimes can be noticed from a far range. Landmarks don't always have to be buildings, landmarks can also be defined as mountains, the sea or even the sun. Smaller landmarks can be defined as trees or plants. Even an empty space can be seen as a landmark (Lynch, K. 1960, p.41).

Those five elements are used to analyse the several walks, which can be foud on the next couple pages.

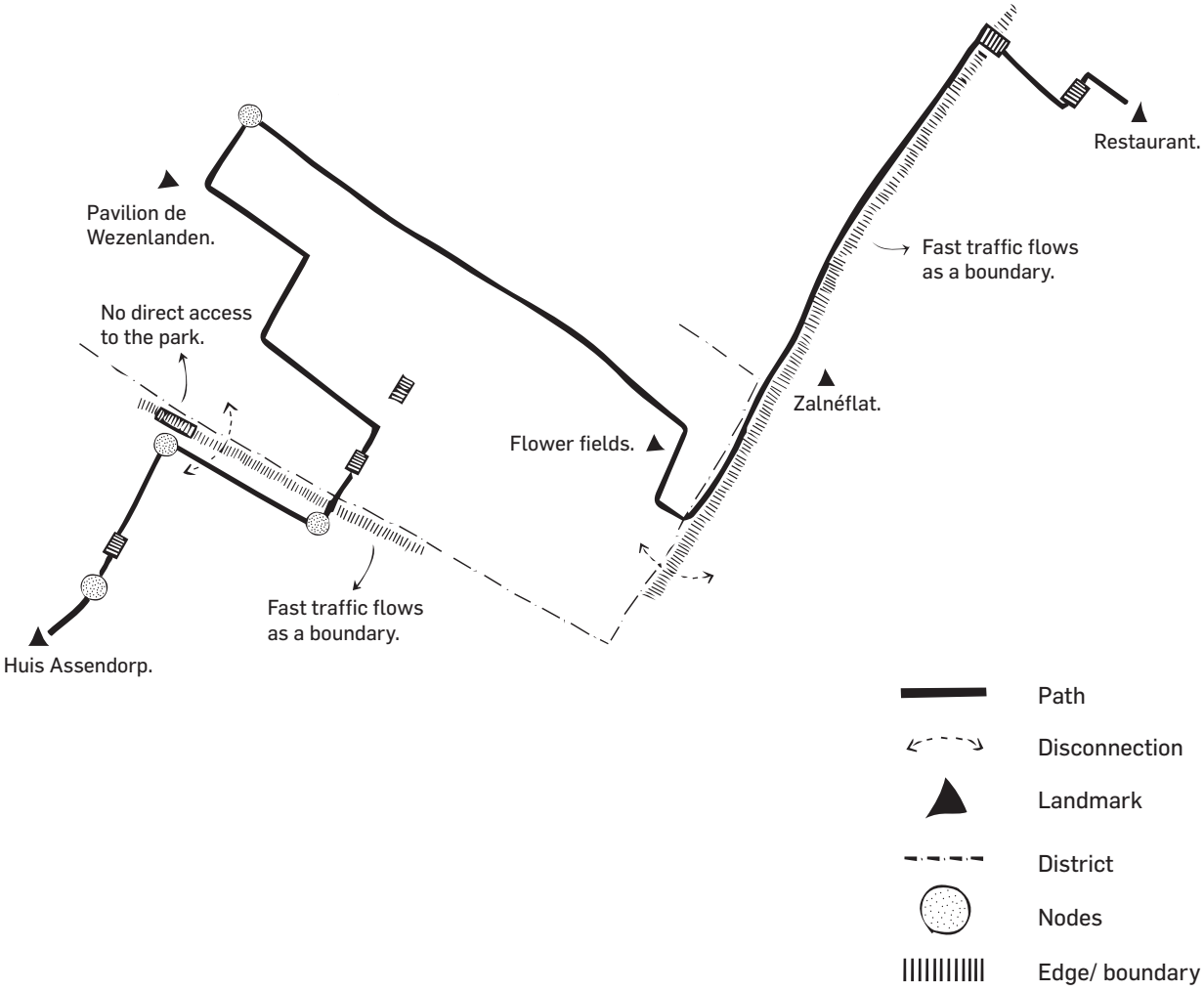

Jeruzalem church
We had to pass this obstacle by going through the grass.
Second obstacle
High plastic treshold to reduce speed of cars.
Not accessible for wheelchairs.
Entrance Huis Assendorp
First obstacle
A slope
Bad pavement


Fifth obstacle
The trafficlight turned red again before we even crossed the street.
"Are you tired? Because we can drink a coffee at the pavilion over there." "No? Than we continue our walk to my favorite restaurant."
"We've to go the other way to enter the park."
This bridge is too steep for a wheelchair.
"Amazing flowerfields!"
"The weather is amazing!"
Nice animal farm
"I'm so happy that you want to walk with me!"
"I'm not able to cycle alone on my tricycle anymore, and I'm only able to walk for 15 minutes with my walker, because of the pain in my back."

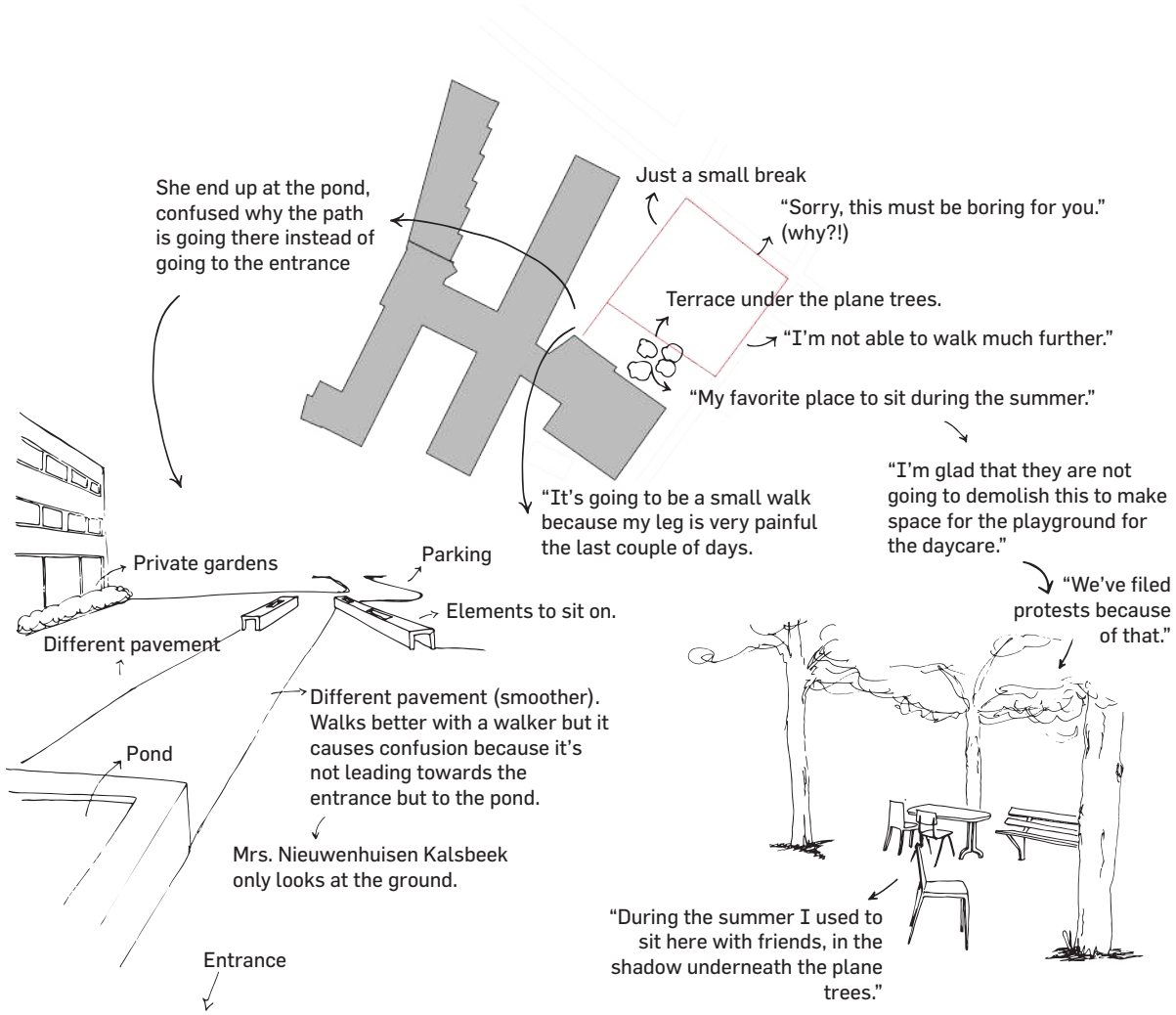

"My old apartment! On the 7th floor, second window from the left."
De Zalnéflat
"The only great thing was the piano in the communal space."
"The view was amazing, the building is horrible. Nothing happened there; the opposite of Huis Assendorp."
"I love this canal."
"This is where I lived before I came to Huis Assendorp."
"I wanted to leave because there happened too much; they left me for dead for 1.5 hours after I fell and my husband passed away in this apartment."
"Huis Assendorp is a better place to live! There is so much liveliness. The corridors in my previous home were always empty."
Her favorite restaurant, she's planning to go there with student Kevin as well.
The restaurant is not very wheelchair friendly. It's located on a hill.
"Are you strong enough to push me to the top of this hill?"


"Go to the left, otherwise we've to cross two more of those bridges, that's too heavy for you."
She always thinks about others first.
Third obstacle
A couple of steep bridges in the park
"I really would like to go outside more often."
"Well, ask Kevin, he will probably like to go out with you."
"No I don't want to bother him!''
That's the excuse I heard a lot during my week at Huis Assendorp.
Fourth obstacle
A lot of sidewalks without a slope.
This is a problem for people in a wheelchair

ANALYSIS

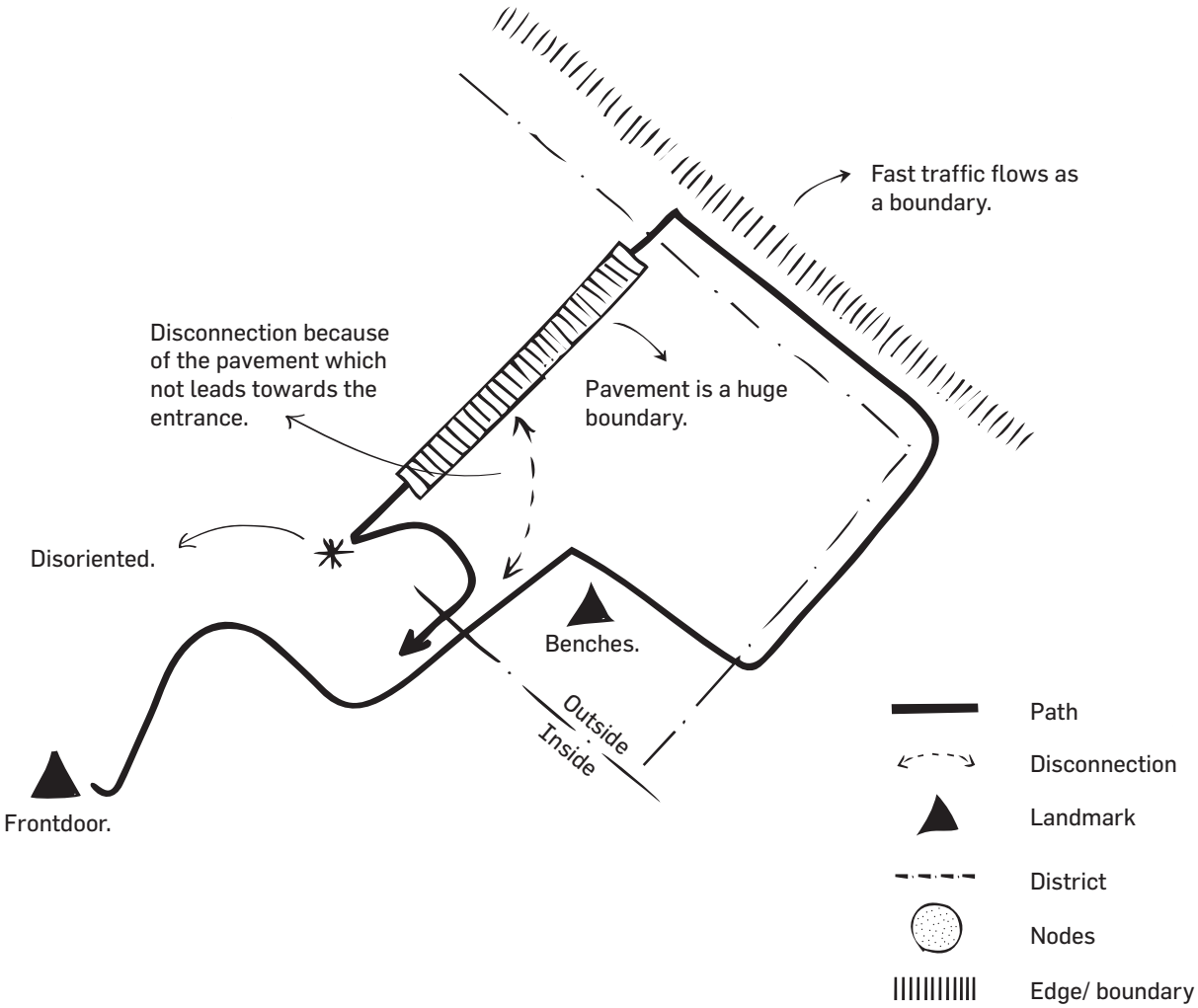

Restaurant.
Pavilion de Wezenlanden.
Fast traffic flows as a boundary.
No direct access to the park.
Zalnéflat.
Flower fields.
Fast traffic flows as a boundary.
Huis Assendorp.
Path
Disconnection
Landmark
District
Nodes
Edge/ boundary

A WALK THROUGH THE 'GARDEN'

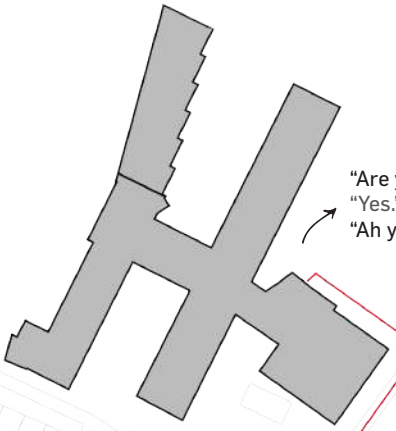


Total distance: 130 meter.

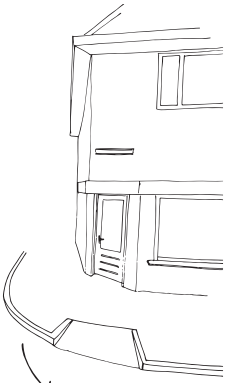
ANALYSIS


Fast traffic flows as a boundary.
Disconnection because of the pavement which not leads towards the entrance.
Pavement is a huge boundary.
Disoriented.
Benches.
Outside
Inside
Frontdoor.
Path
Disconnection
Landmark
District
Nodes
Edge/ boundary

A WALK TO THE GENERAL PRACTITIONER



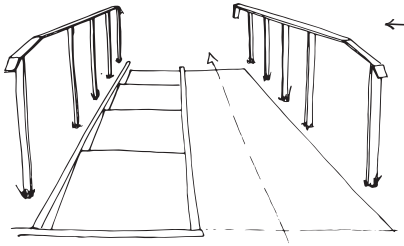
"Are you Rosanne?"
"Yes."
"Ah yes, I recognize your voice, let's go!"



Second obstacle
He needed some help to go up this slope.

"Just a small break, talking and walking is exhausting."

Mr. van Gaalen managed to do it himself by holding the handrail.



He only sees 15%

"Let me check if we need to go this way."
(stops on the middle of the street)

A small break.

"Let me check if we need to go this way."

A small break

"I can push you, that's no problem."
"No I want to do it myself, I need to train my legs because I want to get out of this wheelchair."

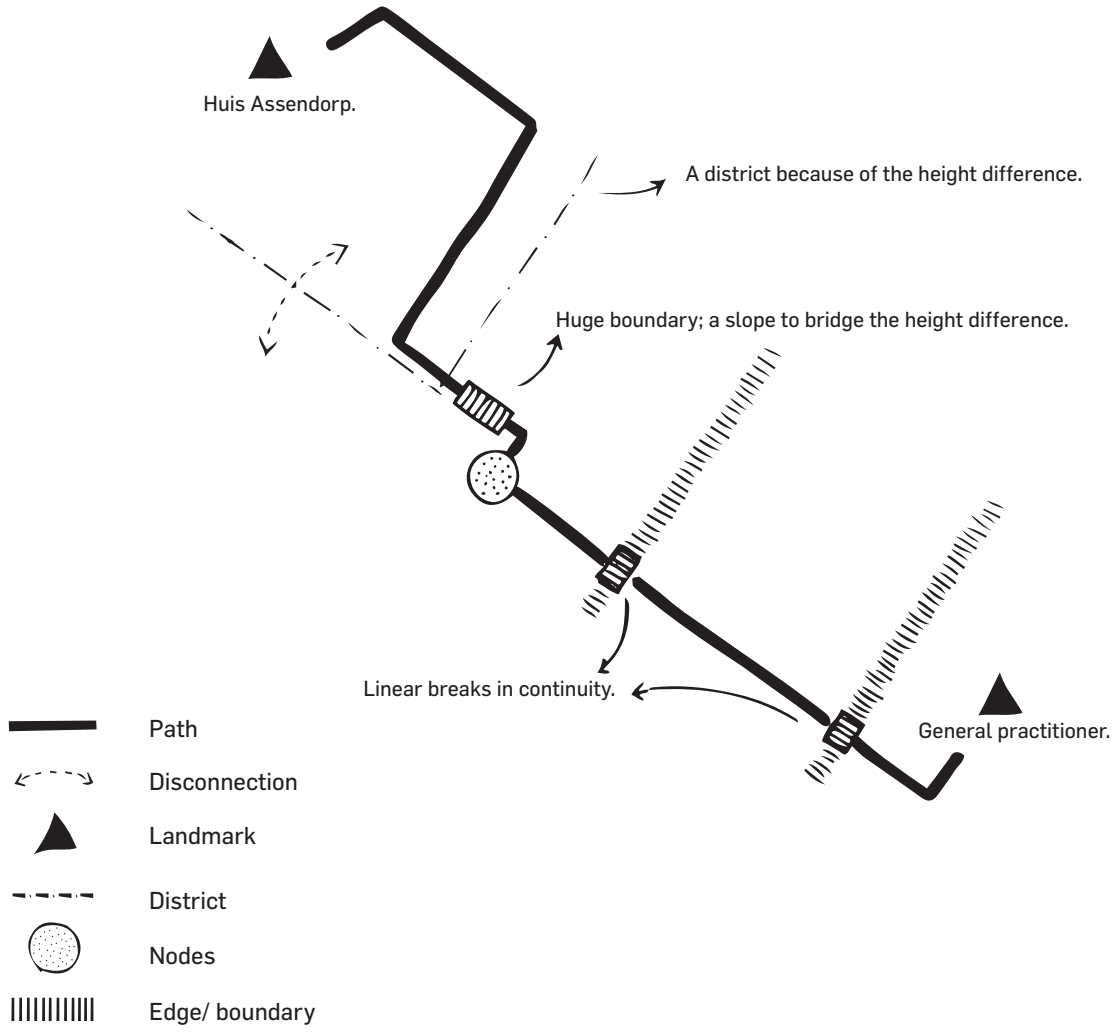
Which is possible

First obstacle
Steep slope

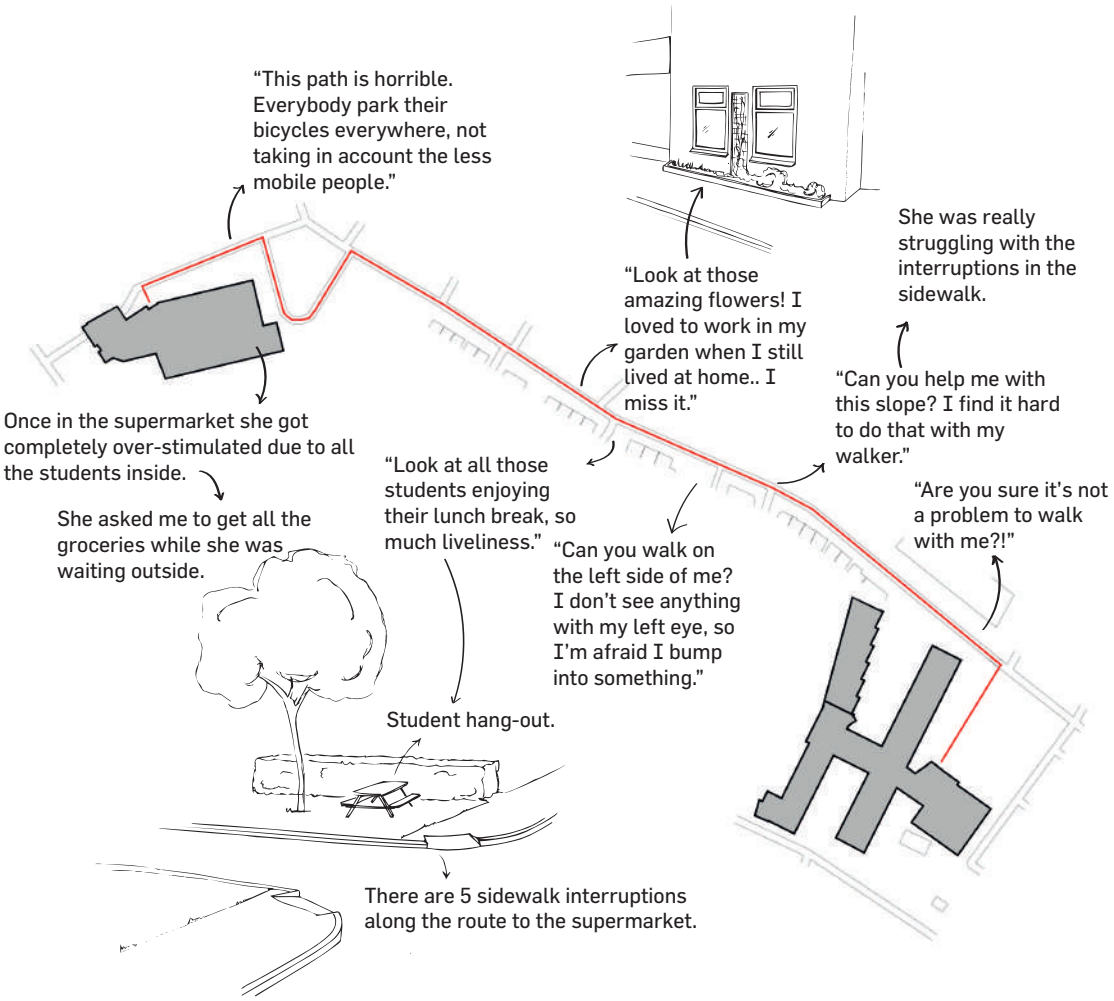
He doesn't want any help; he's being stubborn.

Total distance: 467 meter.

ANALYSIS

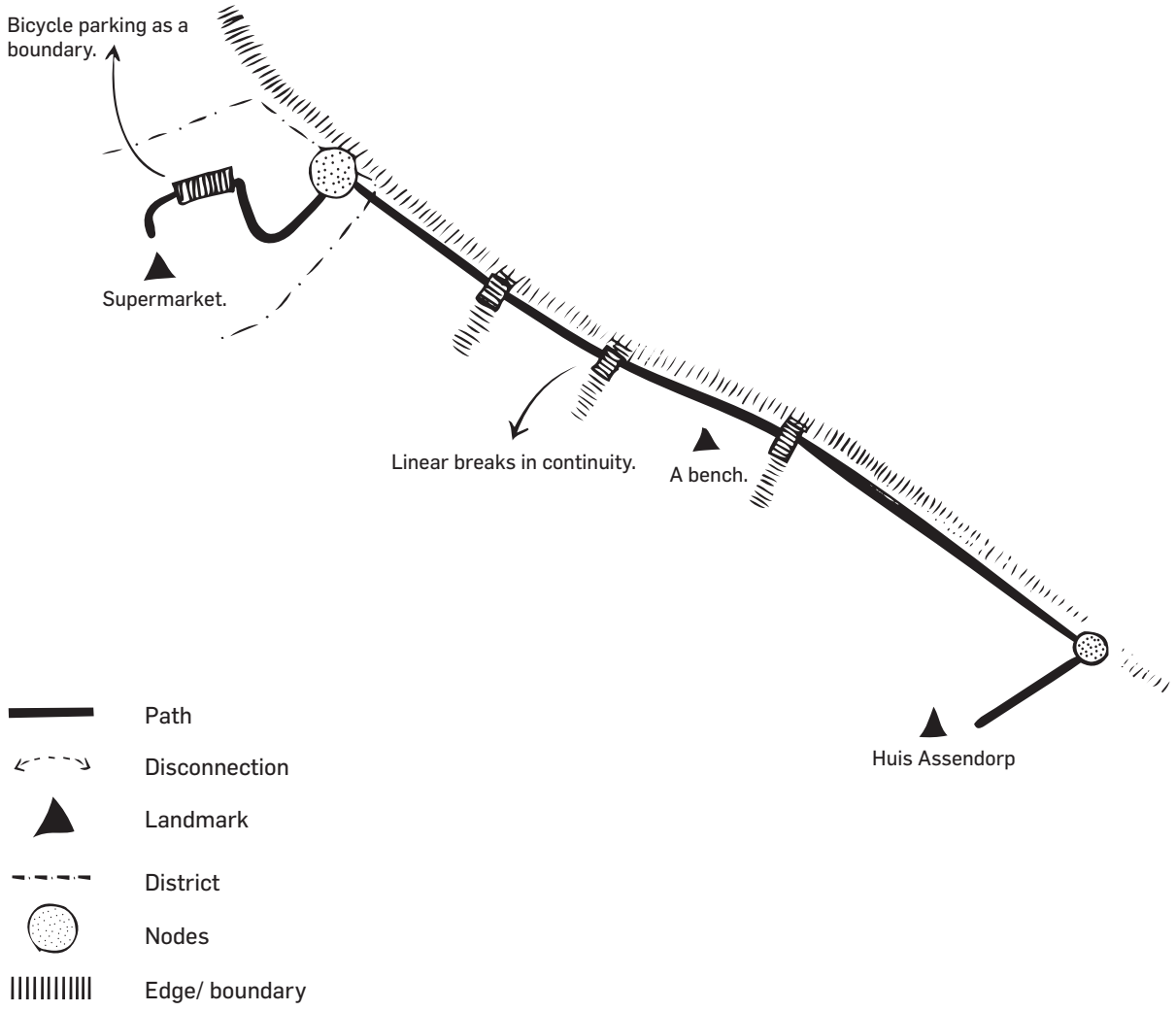

Huis Assendorp.
A district because of the height difference.
Huge boundary; a slope to bridge the height difference.
Linear breaks in continuity.
General practitioner.
Path
Disconnection
Landmark
District
Nodes
Edge/ boundary

A WALK TO THE SUPERMARKET



Total distance: 902 meter.

ANALYSIS


Bicycle parking as a boundary.
Supermarket.
Linear breaks in continuity.
A bench.
Huis Assendorp
Path
Disconnection
Landmark
District
Nodes
Edge/ boundary

FINDINGS

The findings and conclusions of my walks with the residents can be found on the next pages. I walked with a variety of people. Some of them were sitting in a wheelchair while others used a walker. While walking with all of them I found out that the focus is different for each person.

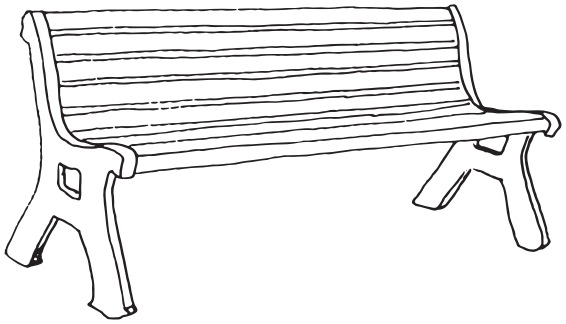
People in a wheelchair have different landmarks in the city as people who use a walker. People who use a walker are mainly focussed on the points of rest (benches) in the area. They are exhausted easily and they need a rest once in a while. People in a wheelchair have a broader range of sight and they mainly focus on buildings. All the buildings they mentioned are part of their past. They have a strong memory about those buildings/landmarks.

FAST TRAFFIC FLOWS ARE OVERWHELMING AND ELDERLY GET ANXIOUS BECAUSE OF THE PACE DIFFERENCE BETWEEN THEM AND THE CARS.

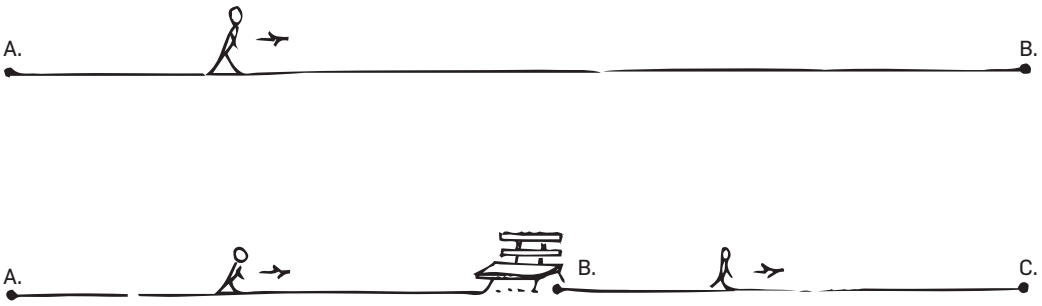
The overall conclusion is that the interruptions of their path, the sidewalk, is the biggest problem for elderly in the city. Most of the time are the sidewalks interrupted by big, busy streets. These fast traffic flows are overwhelming and elderly get anxious because of the pace difference between them and the cars. Another problem with the sidewalks around Huis Assendorp is that they are not even accessible for wheelchairs. They are too small or there are obstacles blocking the path. Also the traffic lights form a problem. They turn from green to red too fast for less mobile people, so they end up in a dangerous situation.

These findings are important for me to use in my design process for Harderwijk. The flow interruptions form a big barrier for elderly in order to go out of their house. One first step to make elderly part of society again is to get rid of these interruptions. **Make a smooth, safe and slow traffic flow for elderly.**

THE BENCH

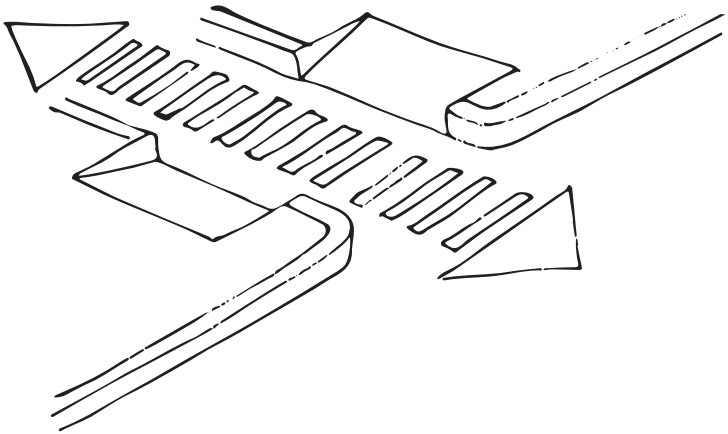


The urban bench.
The urban bench is a landmark for the people with a walker. They choose paths based on the points of rest (benches).



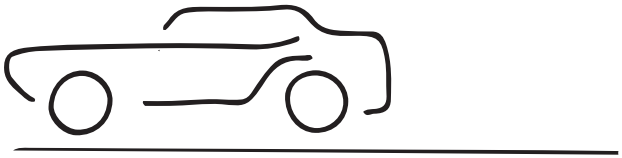
Long walking distances
Long distances can be seen as a treshold for elderly. Add some points of rest along the route.

FLOW INTERRUPTIONS



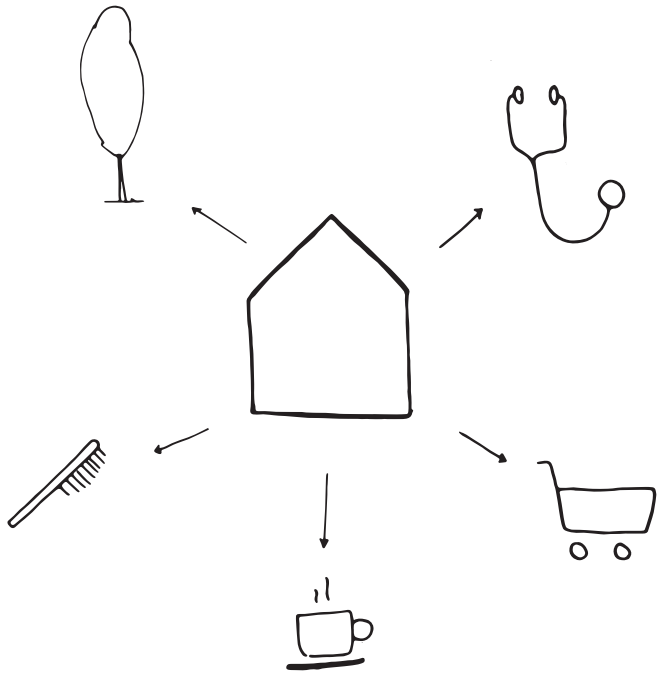
Linear breaks in continuity.
Fast traffic flows are interupting the sidewalks.

FAST TRAFFIC FLOWS



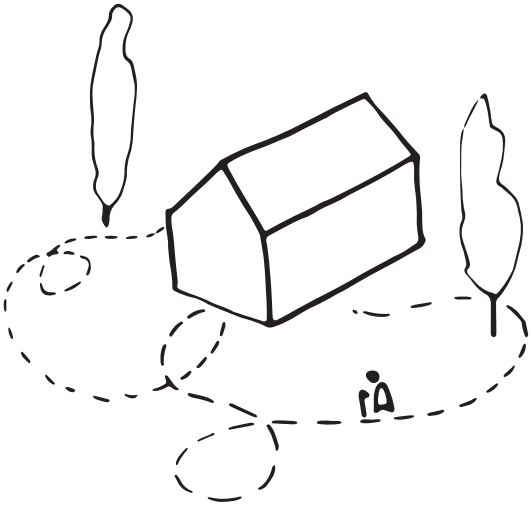
Fast traffic flows are a huge obstacle.
Elderly get anxious and stressed out of the fast traffic flows, such as cars. Avoid big and busy streets near an elderly home in order to make elderly feel safe in their neighbourhood and to motivate them to go outside.

FACILITIES

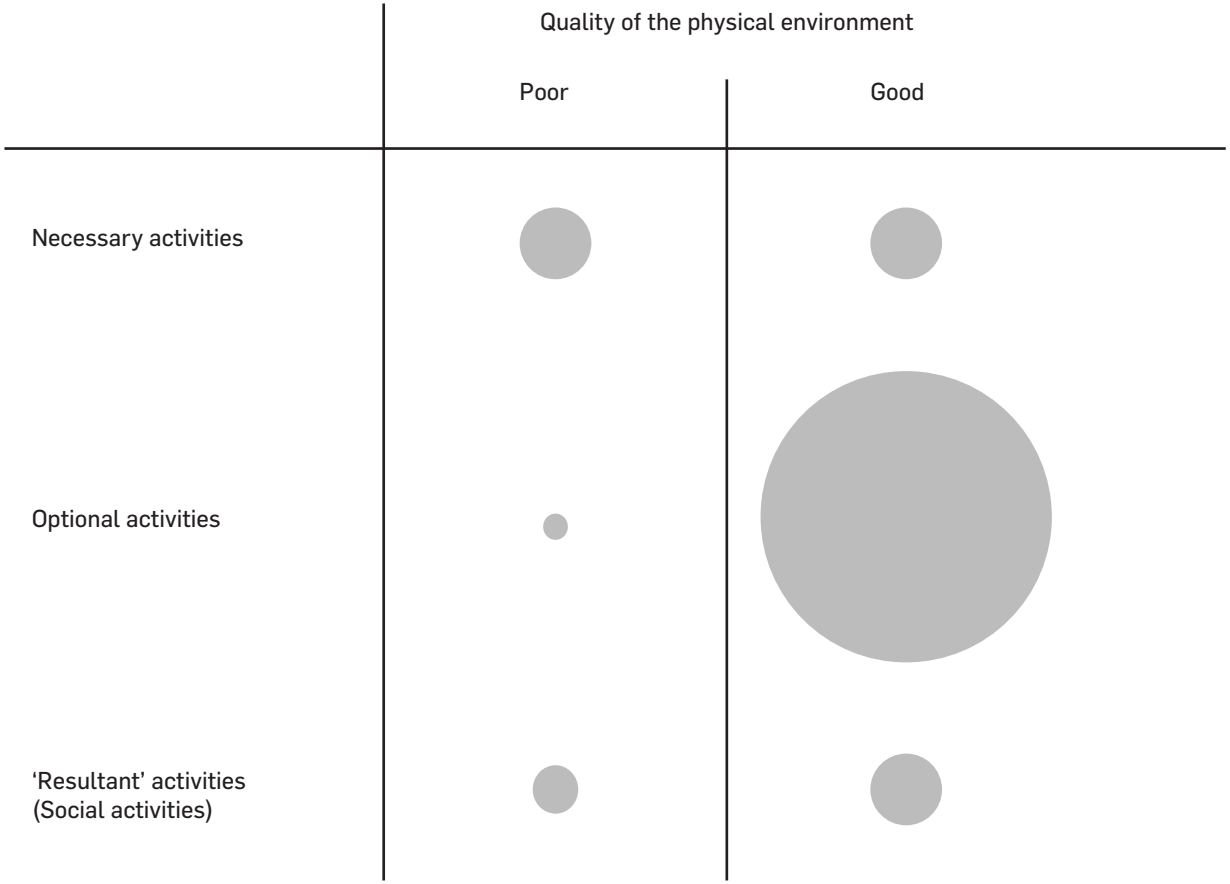


Services within walking distance.
Due to limited mobility, it is important that certain facilities are within walking distance of the residential building. Services such as supermarkets, health facilities and leisure functions should be in or nearby the building, preferably within a actionradius of 300 meter.

DAILY WALK



Walks around the building
Provide in differnt routes nearby the building. Give them all a different length and atmosphere to make it interesting and inviting for the people.



Source: Gehl, J. (2011). Life Between Buildings. Using Public Space. Washington: Island Press.

THE QUALITY OF THE PUBLIC SPACE

As mentioned before, to make a movement in elderly housing we should start with the environment. The pace of society is so fast these days that it is hard for the elderly to keep up with daily life. Changes in public space can slow down this pace and stimulate social encounter. This is not only important for the elderly but also for our generation. Due to social media and technology does it seems like that we are always in a hurry and stressed out, not looking out and taking care of our fellow human beings. What if you create a public space where all different target groups can meet, interact and relax in order to get rid of the individualism in our society these days. A slow oase in a busy environment, where we have attention for others instead of just focussing on ourselves.

Jan Gehl did a research about the influence of the built environment in relation to social interaction between people. This research showed that how more often people go outside their house, the more social encounter they experience. (Gehl, 2013, p.13)

But how can public space stimulate the people to go outside? When outdoor areas are of poor quality, only strictly *necessary activities* will happen. When outdoor areas are of high quality not only the necessary activities will tend to take a longer but also a range of *optional activities* will occur because the place and situation now invite people to stop, sit, eat, play and so on. This means that in areas of poor quality, only a bare minimum of activity will take place, while in a good environment a completely different spectrum of human activities is possible (Gehl, 2013, p.13).

The *necessary activities* are more or less compulsory, think about going to work, shopping, waiting for the bus, running errands and distributing mail. When talking about *optional activities* you can think about activities that are participated in if there is a wish to do so, and if time and place make it possible, such as taking a walk to get some fresh air, standing around enjoying life or sunbathing. These activities will only happend when the conditions of the public space is good enough.
At last, Gehl mentions the social activities, which are all activities that depend on the presence of others in the public space. These activities include children who are playing, having a conversation and passive contact, which means simply seeing and hearing other people (Gehl, 2013, p.13). According to Gehl, the social actives can be seen as resultant activities because they evolve from activities linked to the other two activity categories (necessary and optional activities). Social activities occur spontaneously. It is a consequence of people moving around in the public space. This means that social activities will happen more often when the conditions of the public space are good enough.

SO WHEN DESIGNING AN INCLUSIVE ENVIRONMENT FOR ELDERLY YOU SOULD NOT ONLY THINK ABOUT THE BUILDING, BUT START WITH THE ENVIRONMENT. BECAUSE THE PUBLIC SPACE HAS A MAJOR IMPACT ON PEOPLES PERCEPTION OF FEELING AT HOME.

Liever naar de Hema dan het wijkcentrum: ouderen willen niet constant aan hun leeftijd worden herinnerd

Ouderen drinken liever een kopje koffie bij de Hema dan in een wijkcentrum. Als ze anderen willen ontmoeten, geven veel ouderen de voorkeur aan ruimten die niet speciaal zijn bestemd als ontmoetingsplaats voor ouderen. Daar worden ze te veel aan hun leeftijd herinnerd.

Cor Speksnijder 30 januari 2018, 11:51

Beeld Arie Kievit

Source: Volkskrant (2018), Liever naar de Hema dan het wijkcentrum: ouderen willen niet constant aan hun leeftijd worden herinnerd. Retrieved from: https://www.volkskrant.nl/nieuws-achtergrond/liever-naar-de-hema-dan-het-wijkcentrum-ouderen-willen-niet-constant-aan-hun-leeftijd-worden-herinnerd

THE IMPORTANCE OF ENCOUTER

When looking at the social activities according to Jan Gehl, you can distinguish different ways of encounter. The planned encounter and the unplanned encounter. The unplanned encounter can be divided in sporadic and repeated unplanned encounters. These three ways of encounter all provide in a different kind of social need. Sociologist Talja Blokland calls this '*weven*' and '*verknopen*'. '*Verknopen*' is about long-lasting, sustainable, social relationships with others, while '*weven*' is about passing by on a daily basis without actually meeting each other (Blokland, 2008, p.28).

Talja Blokland mentions that it is not only about the long-lasting, sustainable, social relationships but also about the small encounter. The small encounters do a lot with the mental health of people. By just seeing others in the public space you will feel less lonely. Besides that, plazas, streets, bus stops where people meet each other, without choosing to, will contribute to 'feeling at home' (Blokland, 2008, p.17). The small encounters are important. They contribute to the fact of feeling at home at a place or neighborhood. It will make you feel more comfortable and safe.

So it is not only about active participating in the public space but also about being a passive participant. For example, joining the public life behind your window will already do a lot with the overall feeling of being part of daily life. You will feel less lonely by just seeing other people.

BY JUST SEEING OTHER PEOPLE IN THE PUBLIC SPACE YOU WILL ALREADY FEEL LESS LONELY.

I translated the findings of Talja Blokland her research into two collages which, for me, show the importance of public space in relation to encounters. You can find the collages on the next two pages.

The chance encounter

The environment should encourage spontaneous, casual encounters in the public space. In this way the plan responds to existential and social loneliness among different target groups. Accidental encounters contribute to feeling at home in a place.

"The public space as a place to stay; where we stroll, play or pass the time in company. "

Own interpreation of Talja Blokland her essay: Ontmoeten doet ertoe

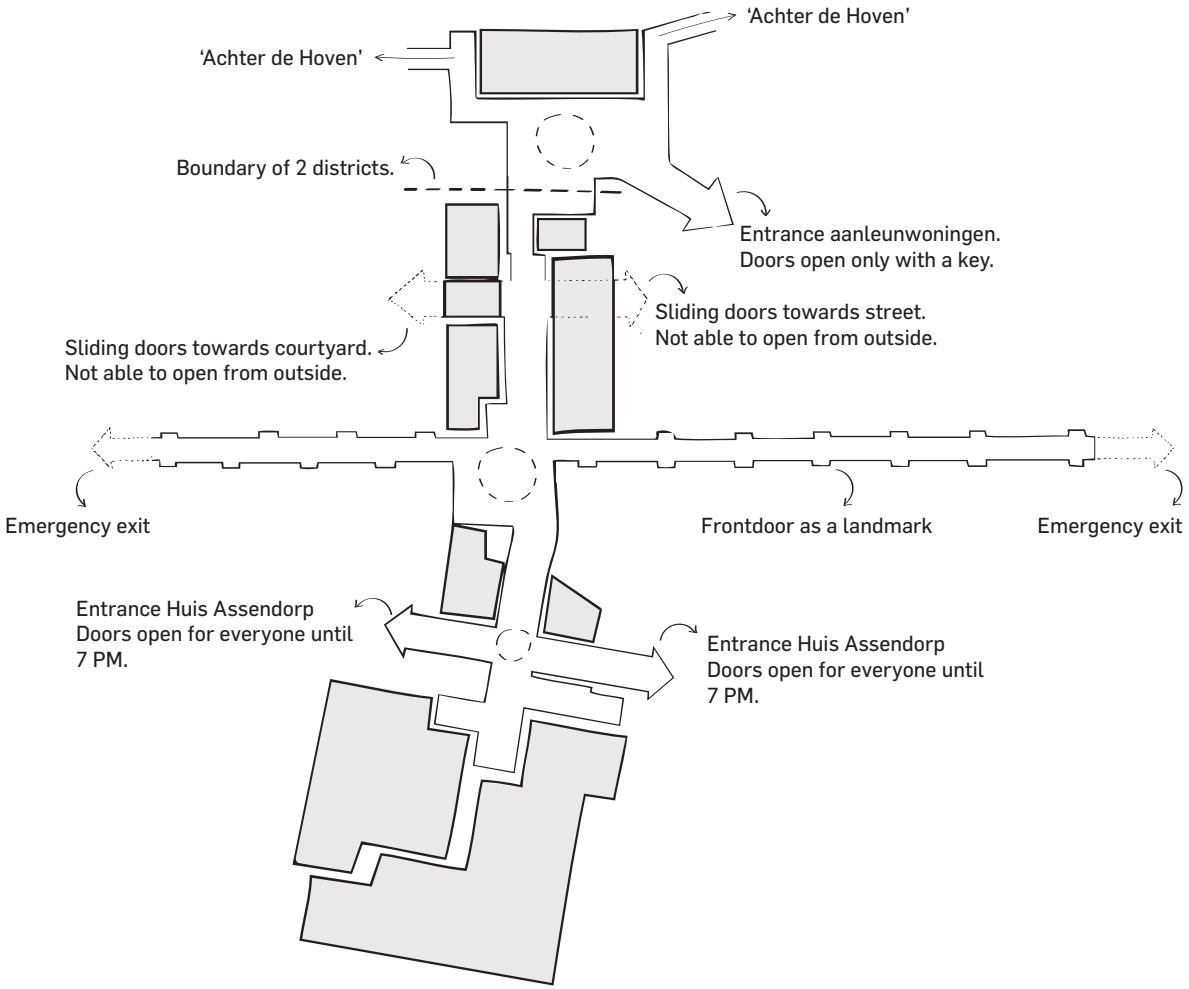
The public space as a living piece of art
The public space serves as a platform for the elderly. Always something to see from their private space, in that way they feel part of society, as passive participants.

Own interpreation of Talja Blokland her essay: Ontmoeten doet ertoe

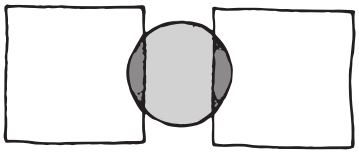
THE BUILDING

Observations and analyses

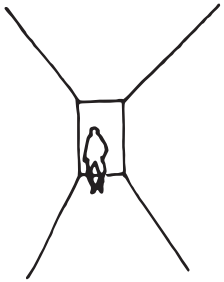
THE BUILDING AS A CITY



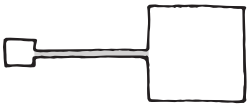
THE STEET/CORRIDOR



Spaces linked by a common space
Two (or more) spaces may rely on intermediary space for their relationship.

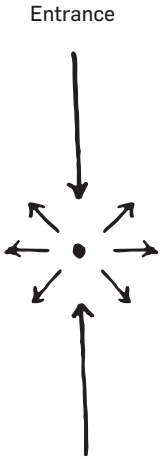


Enclosed
No view



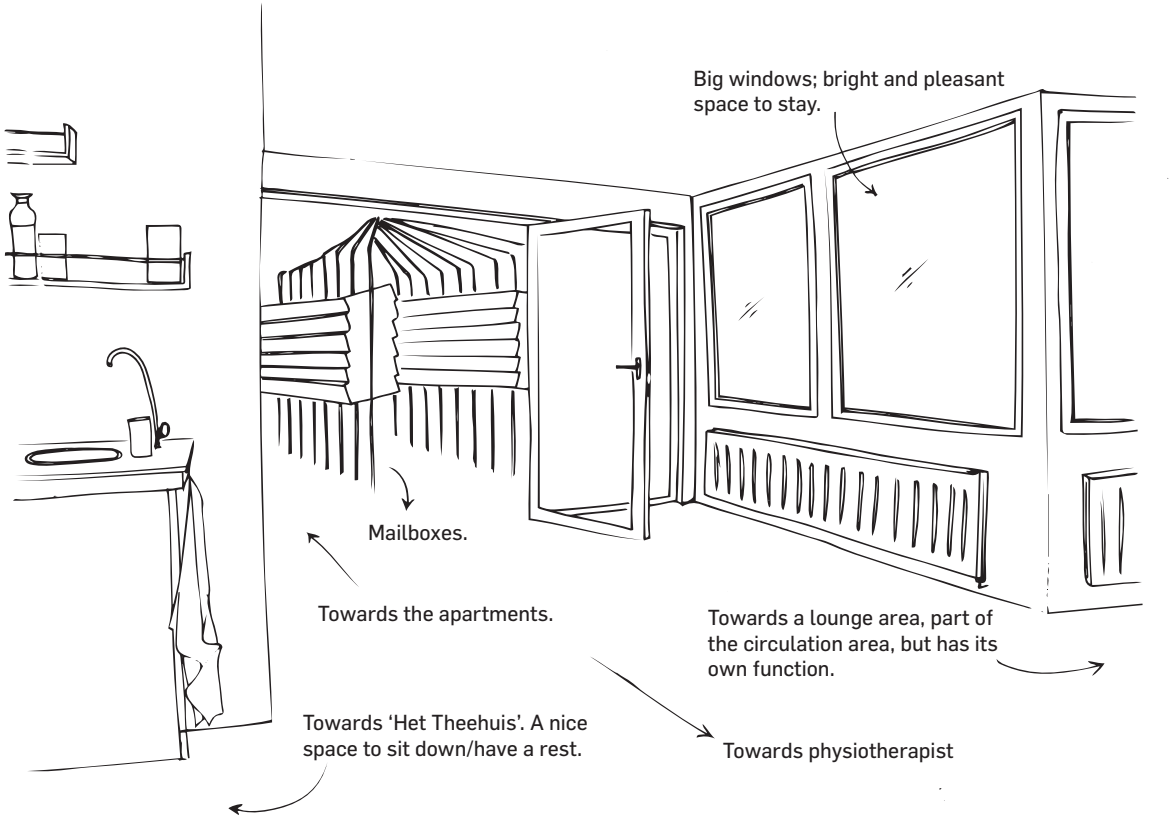
Corridor is the link between private rooms and collective/public spaces.

ENTRANCE AREA DE MOLENHOF

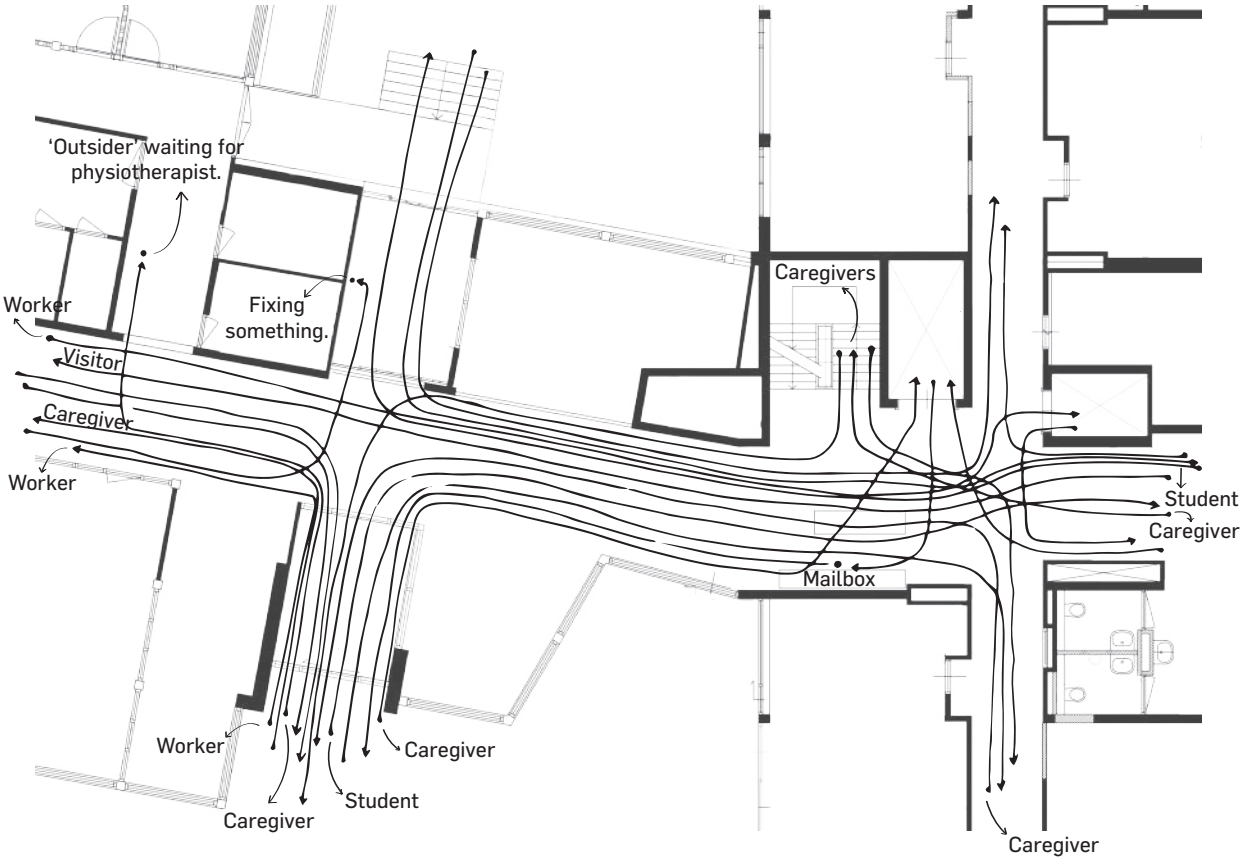


A space which connects various spaces.
↓
Public and private spaces.

ENTRANCE DE MOLENHOF



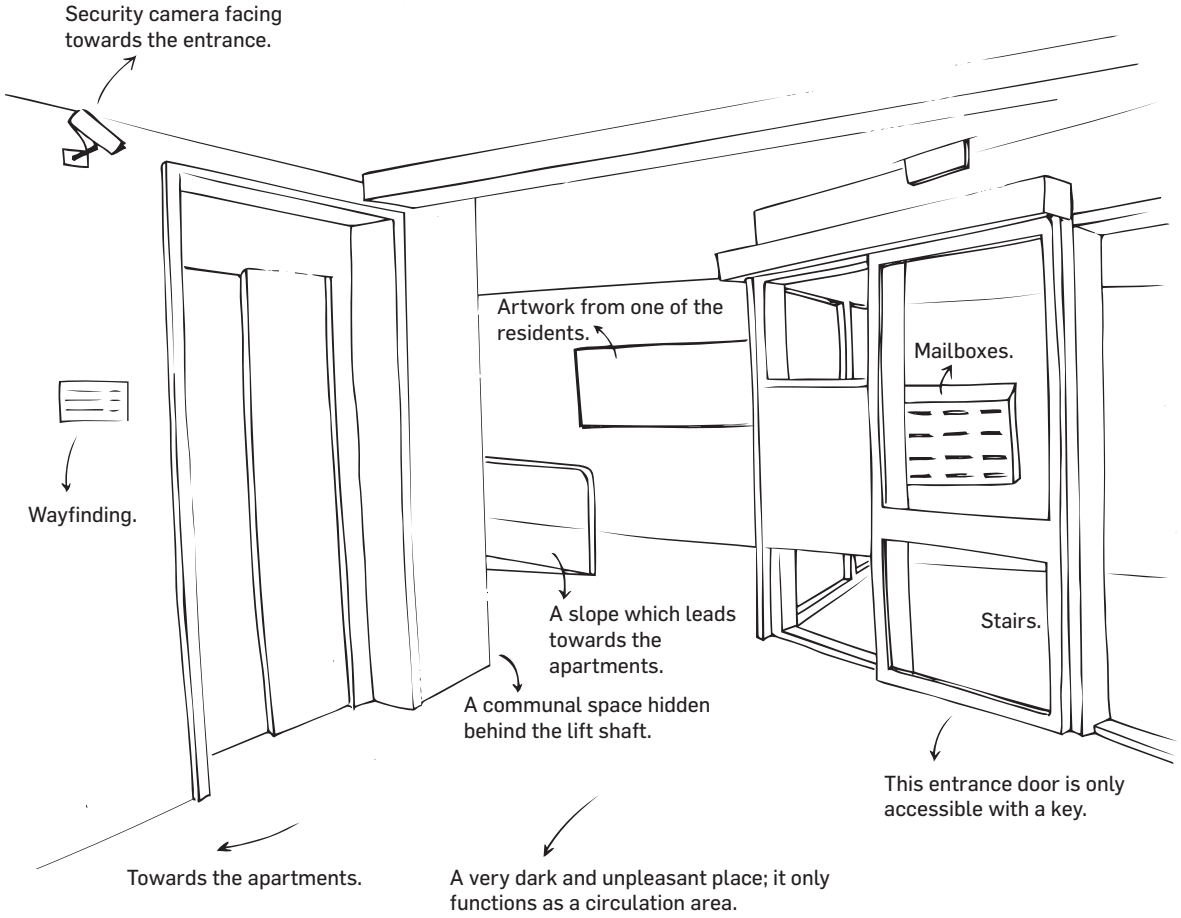
TRAFFIC FLOWS ENTRANCE



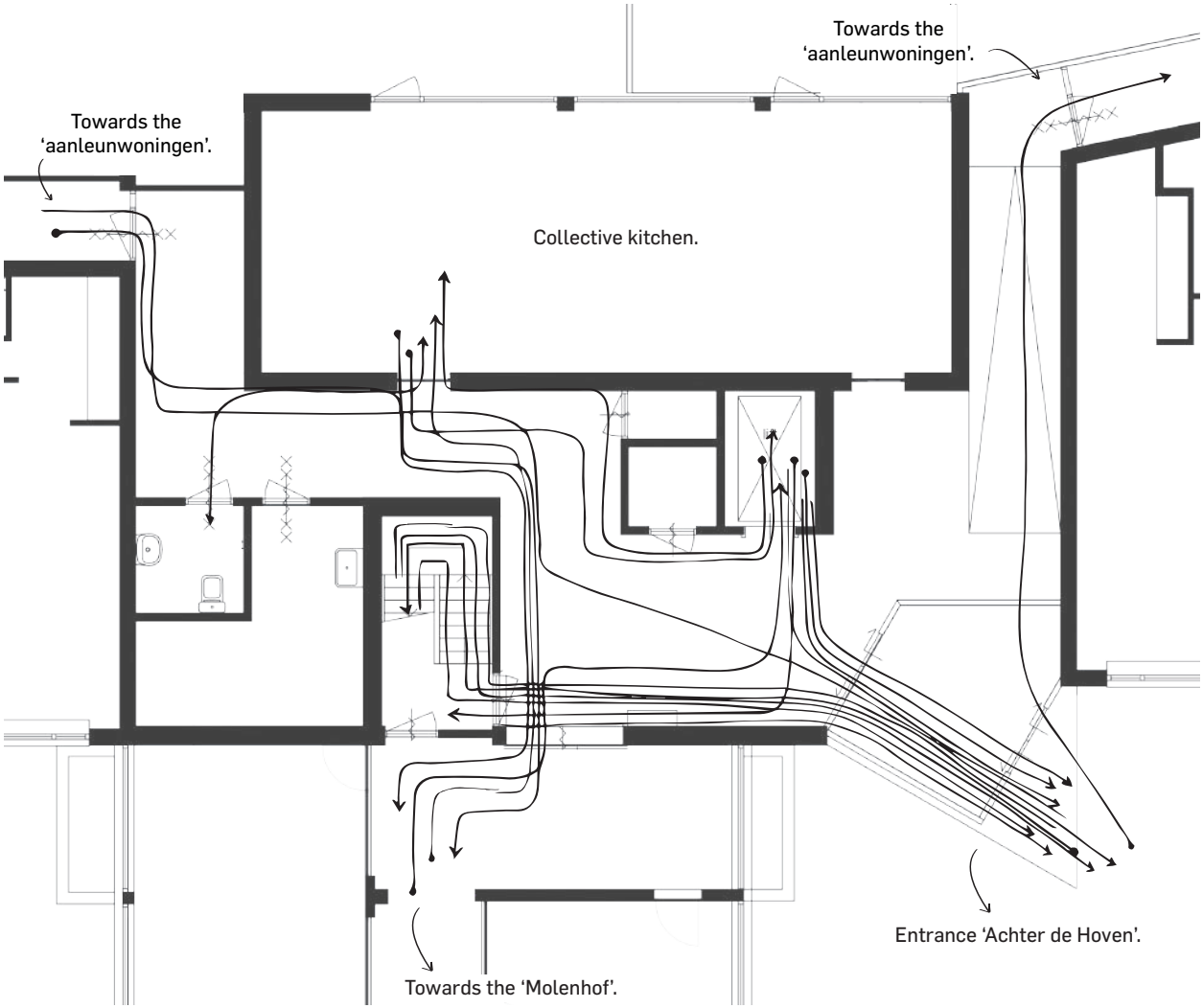
28 Vital people
2 People in a scootmobile.

The traffic flows at the entrance area of 'De Molenhof'. Monday 12-11 from 12.40-13.40 h.

ENTRANCE ACHTER DE HOVEN

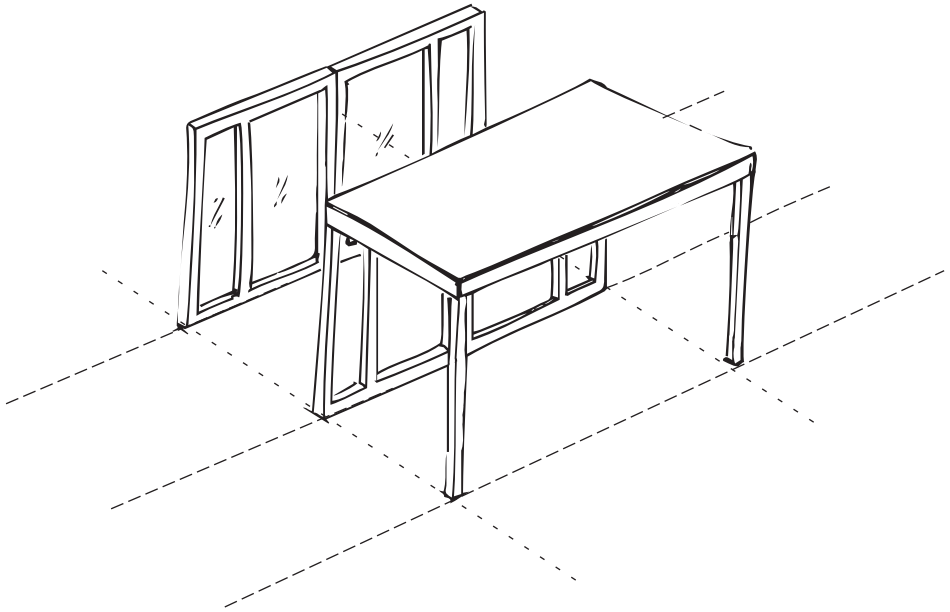


TRAFFIC FLOWS ENTRANCE



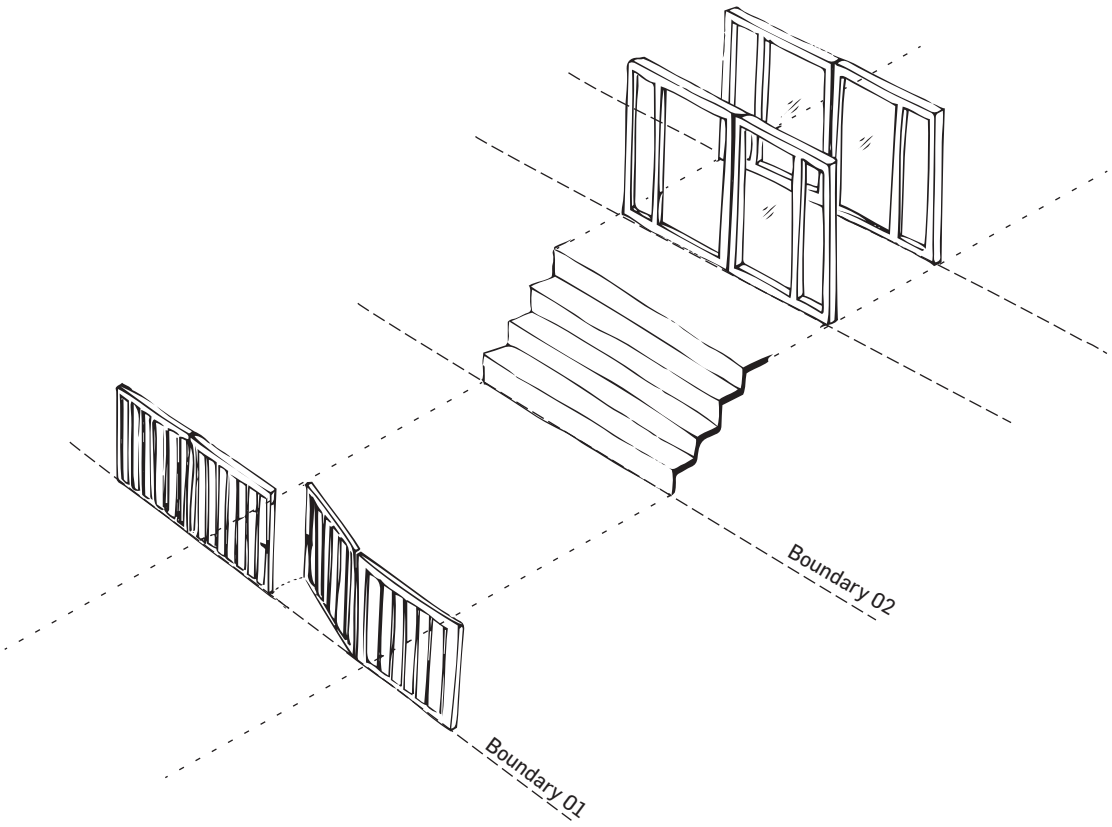
The traffic flows at the entrance area of 'Achter de Hoven'. Monday 12-11 from 12.40-13.40 h.

ENTRANCE ANALYSIS



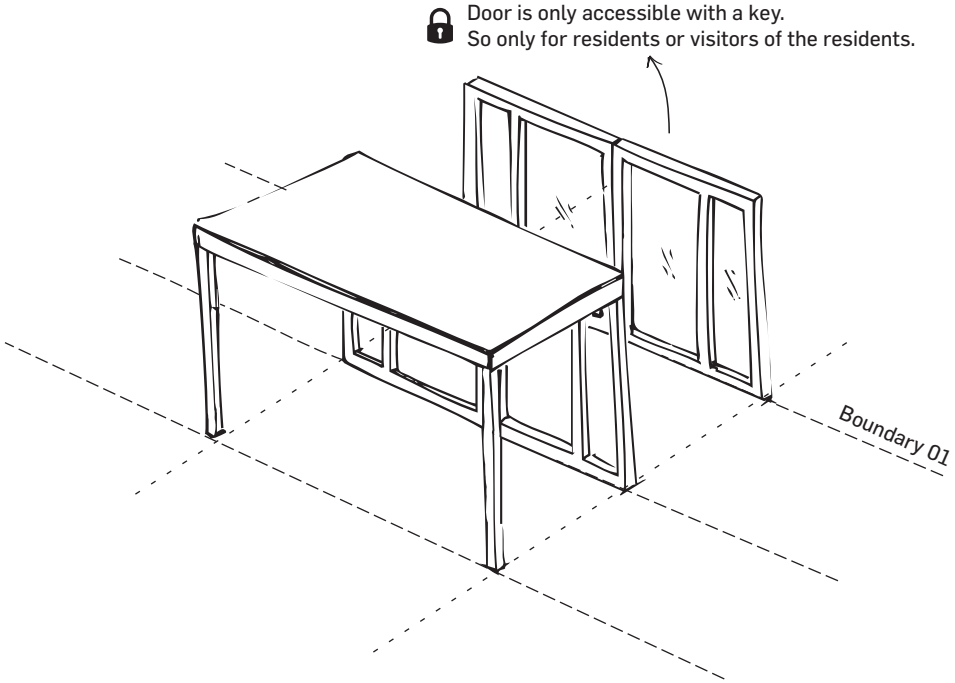
Main entrance 'De Molenhof'

ENTRANCE ANALYSIS



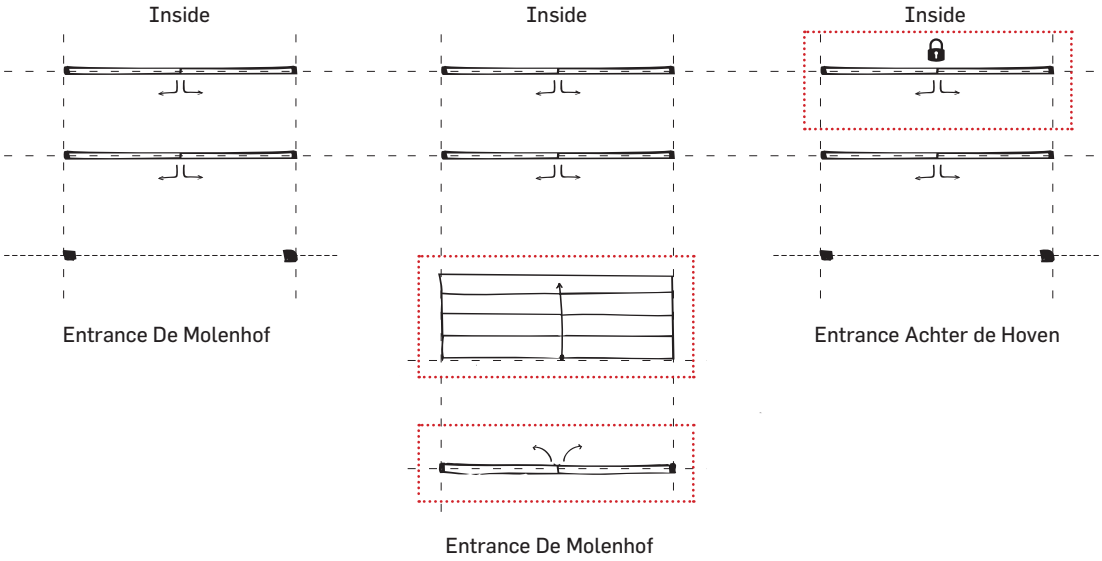
Second entrance 'De Molenhof'.

ENTRANCE ANALYSIS



Entrance 'Achter de Hoven'

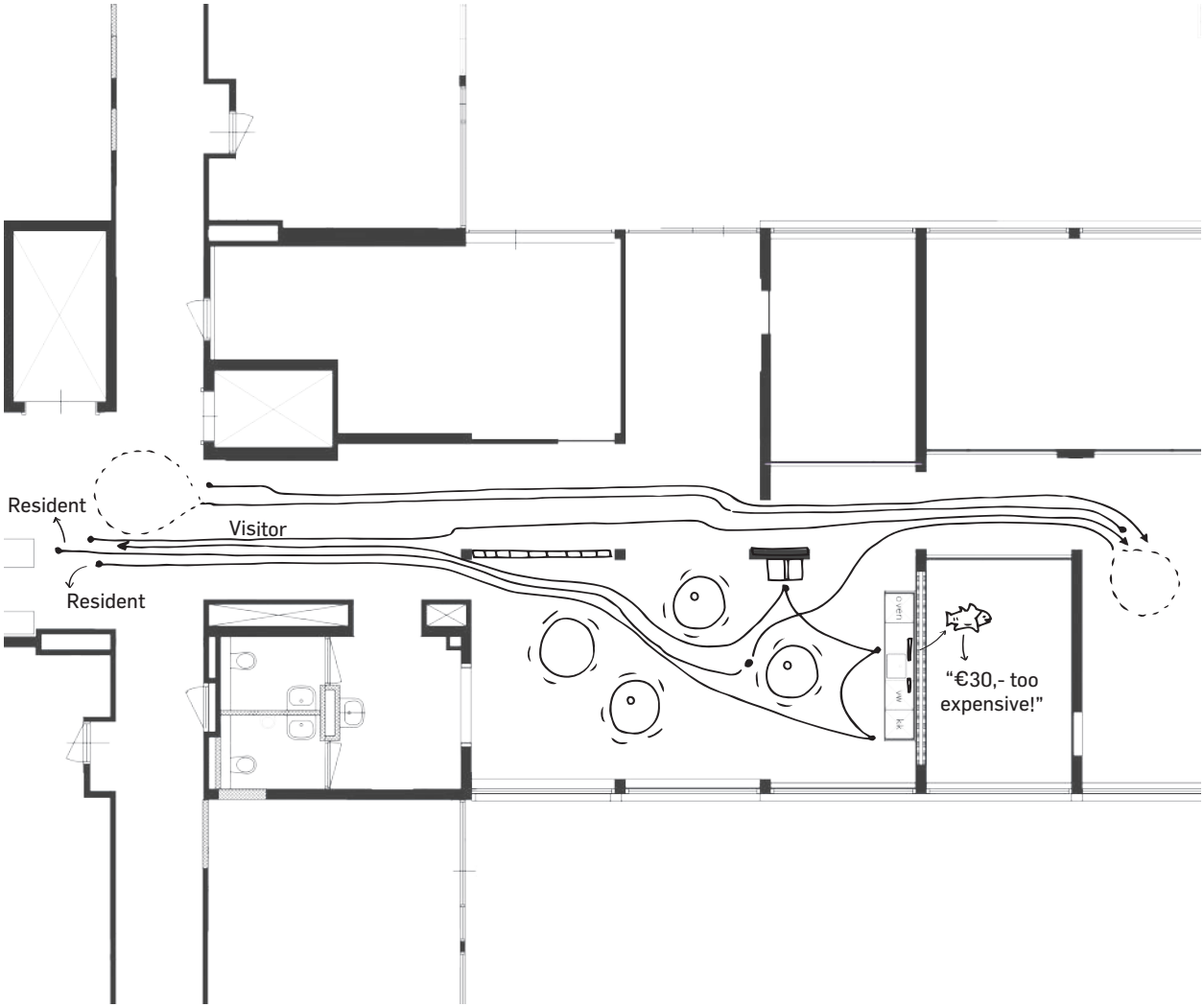
ENTRANCE COMPARISON



Entrance usage

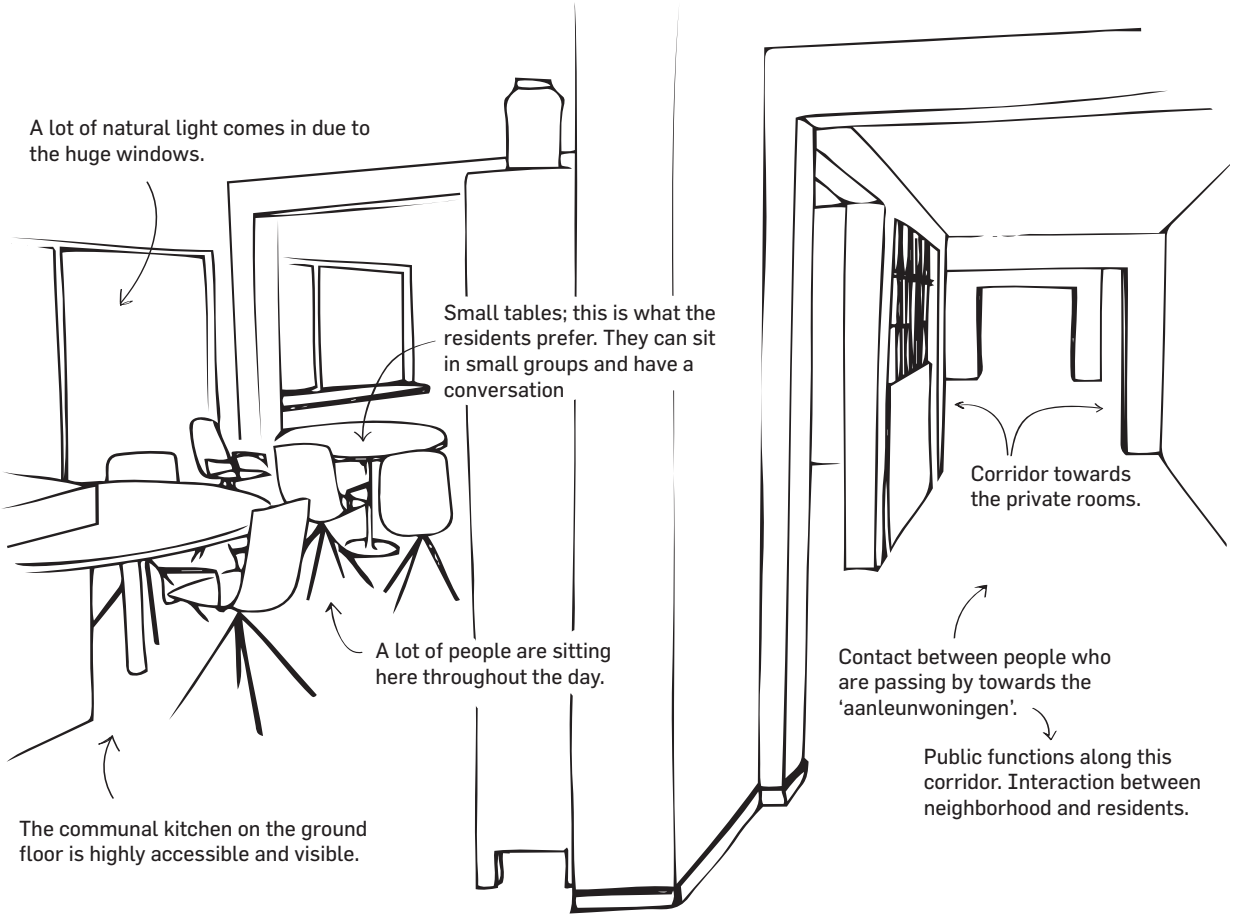
The different amount of users can be explained by the fact of the accessibility of each entrance. Especially the stairs in front of the entrance at the Molenhof is an important factor why that door is not used that often.

TRAFFIC FLOWS KITCHEN GROUND FLOOR

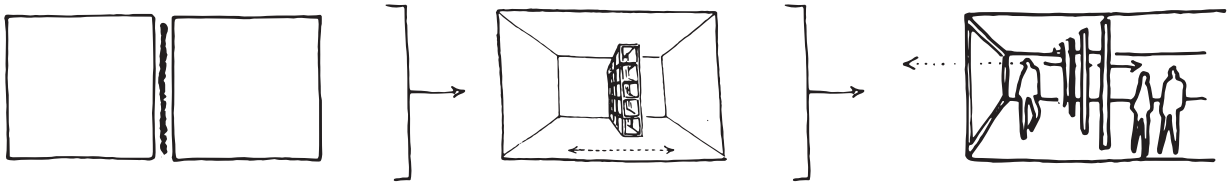


The traffic flows in and around the kitchen on the ground floor. Monday 12-11 from 12.40-13.40 h.

KITCHEN GROUND FLOOR



ANALYSIS

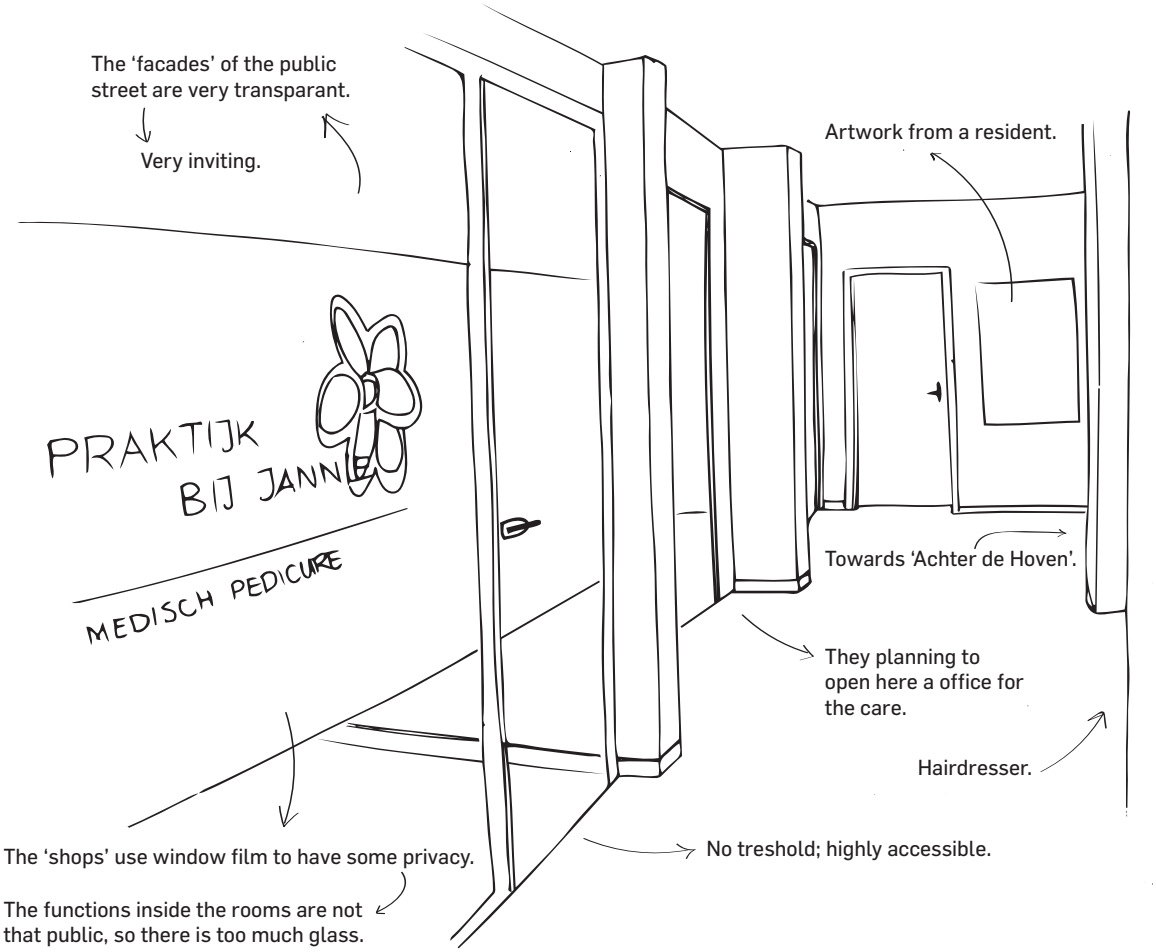


Adjacent spaces
Two spaces may abut each other or share a common border.

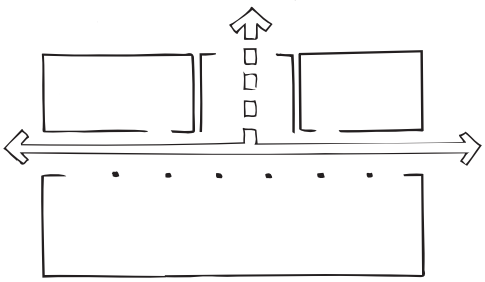
High degree of visual and spatial continuity between two spaces.

Open on one side.
Visual and spactial continuity with the space it links.

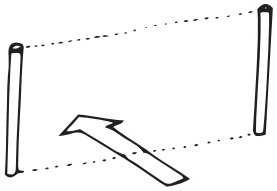
‘THE PUBLIC STREET’



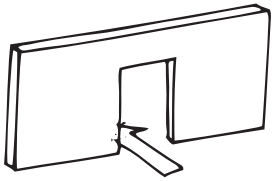
ANALYSIS



The pubilc street has a varierty of functions along it. Not only for the residents of Huis Assendorp but also for 'outsiders'.



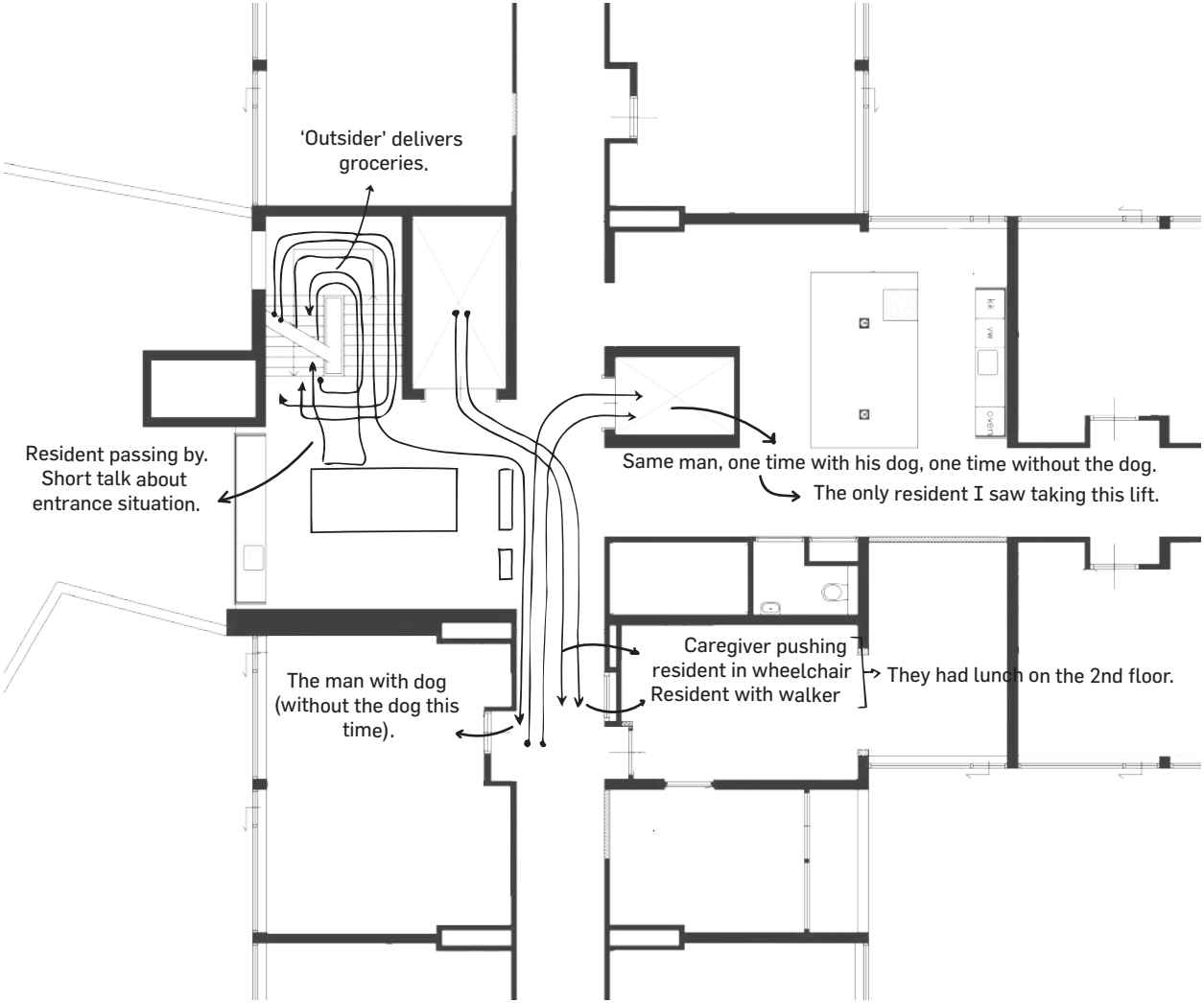
The 'entrance' of the communal kitchen.



The 'entrance' of the other functions along the public street. More closed off.

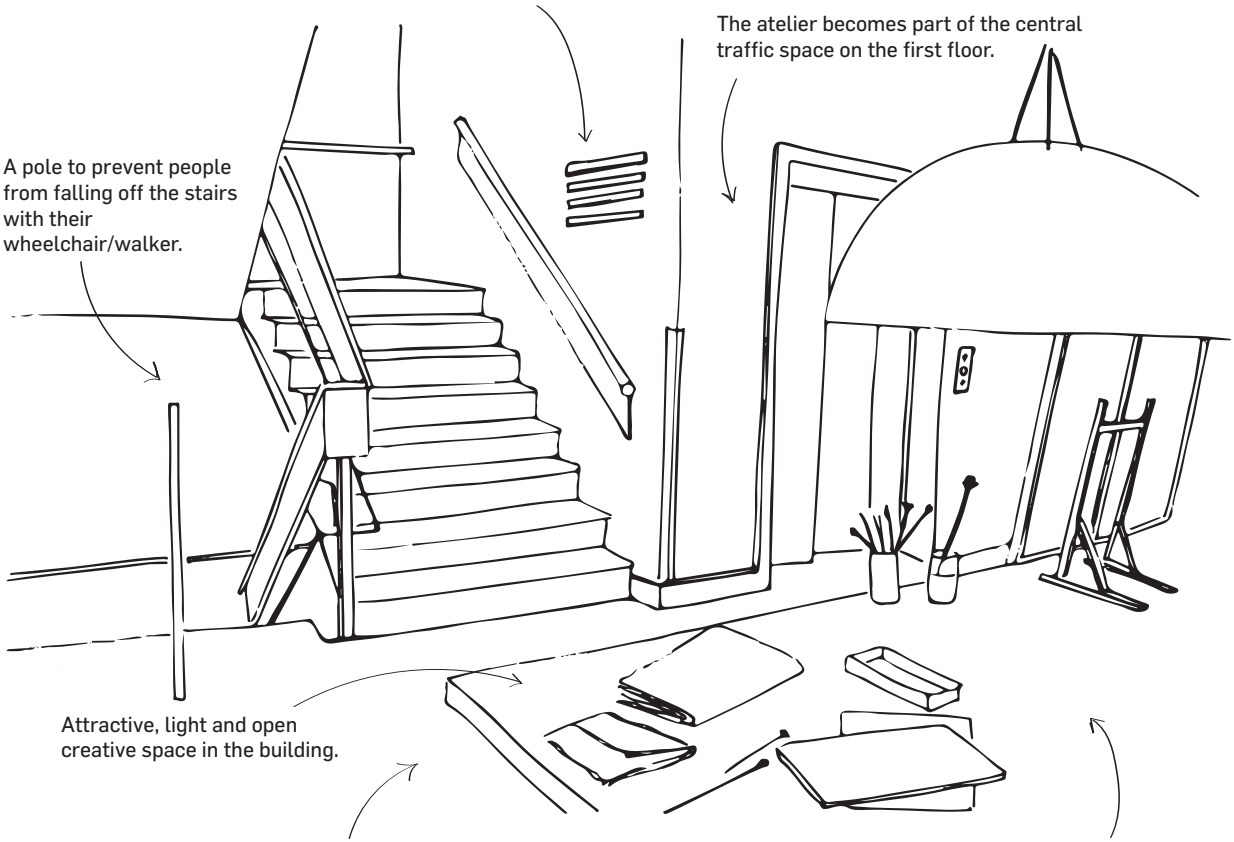
Source: Huis Assendorp barst van het schilderstalent! (2018), https://www.huisassendorp.nl/2018/09/01/tweede-blogbericht/

TRAFFIC FLOWS ATELIER

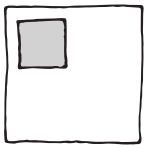


The traffic flows in and around the atelier on the first floor. Monday 12-11 from 12.40-13.40 h.

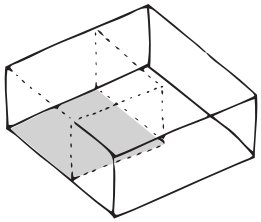
ATELIER


Wayfinding; a sign which tells you on which floor you are and where you can find the different communal spaces.
The atelier becomes part of the central traffic space on the first floor.
A pole to prevent people from falling off the stairs with their wheelchair/walker.
Attractive, light and open creative space in the building.
A lot of interaction between people passing by and the artists who are working in the atelier!
This space is used a lot. Also by people from the neighborhood.

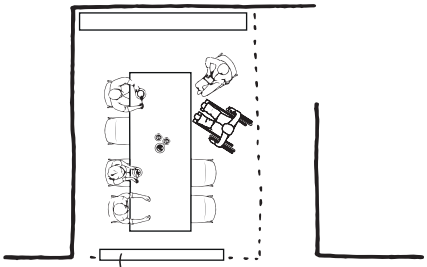
ANALYSIS



Space within a space
A space may be contained within the volume of a larger space.

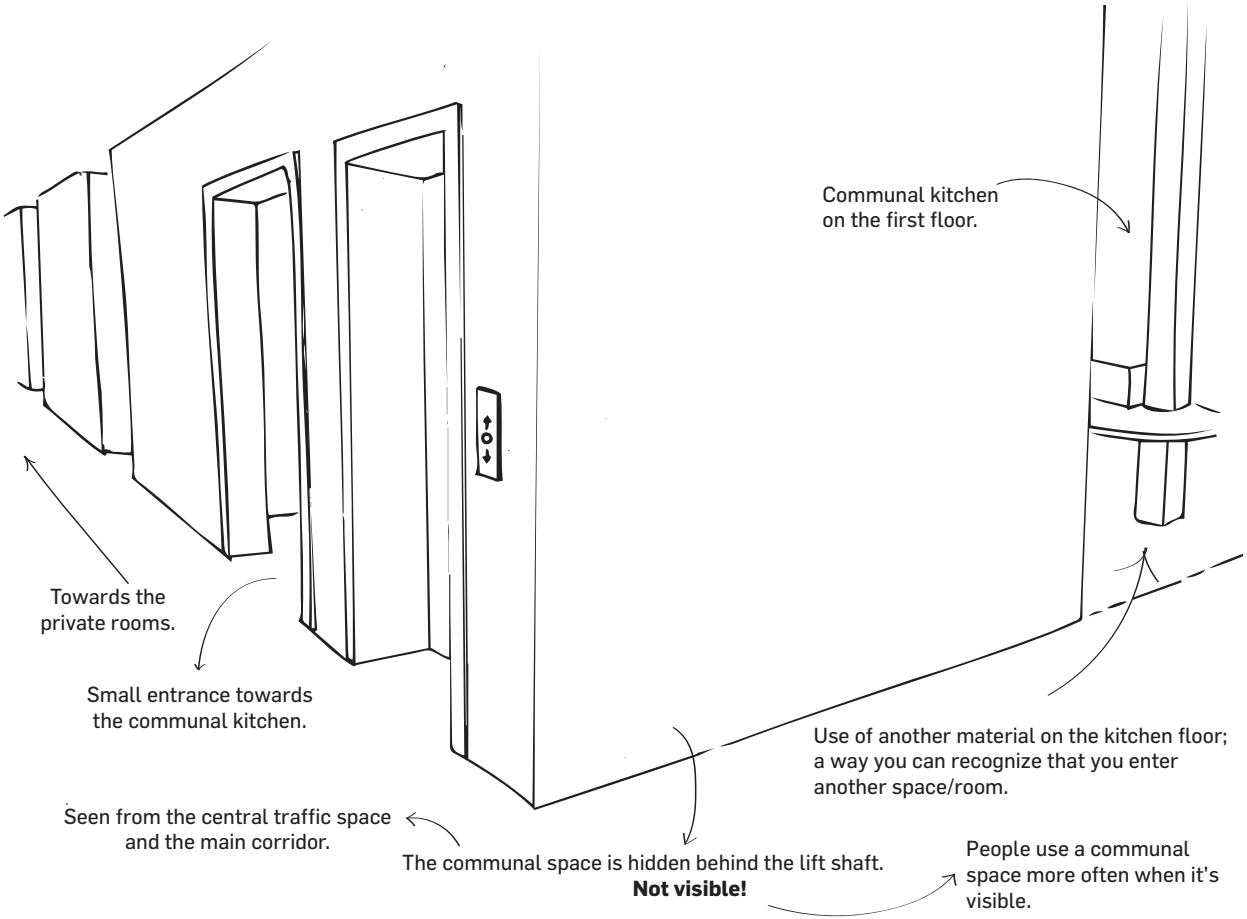


The atelier is part of the circulation area

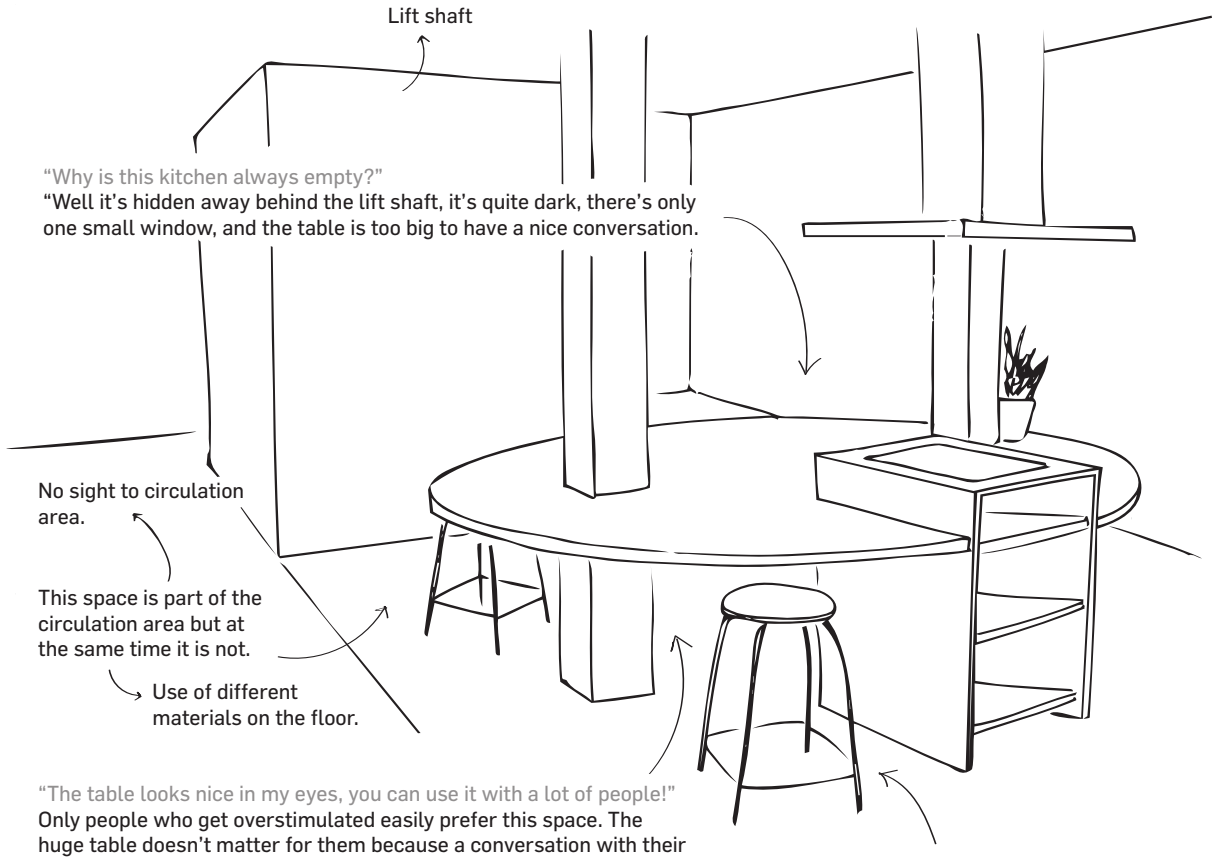


Optimal view and protection
Everybody who can still decide where they want to sit are sitting with their back against the wall.

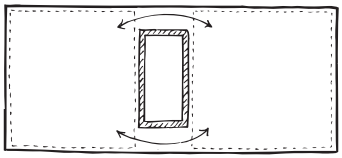
KITCHEN FIRST FLOOR



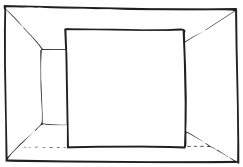
KITCHEN FIRST FLOOR



ANALYSIS

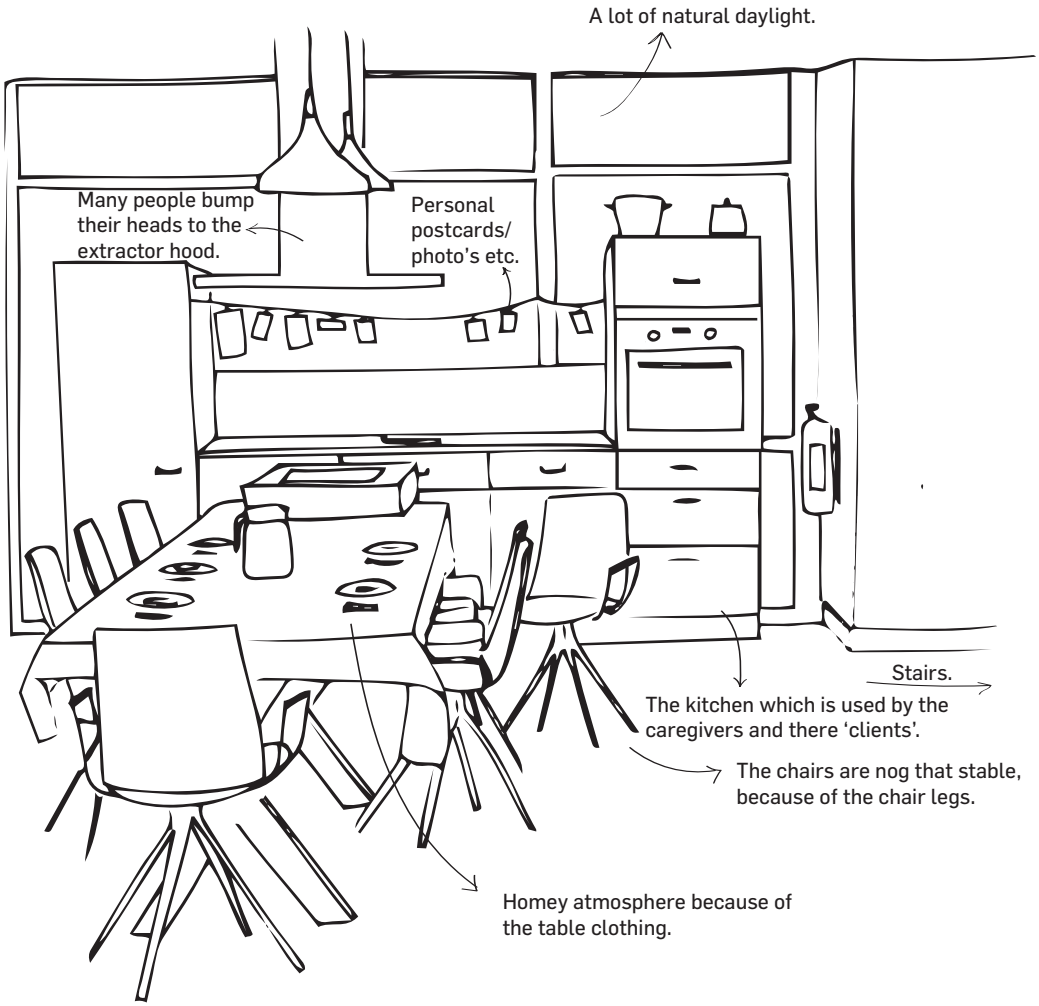


Adjacent spaces
Two spaces may abut each other or share a common border.

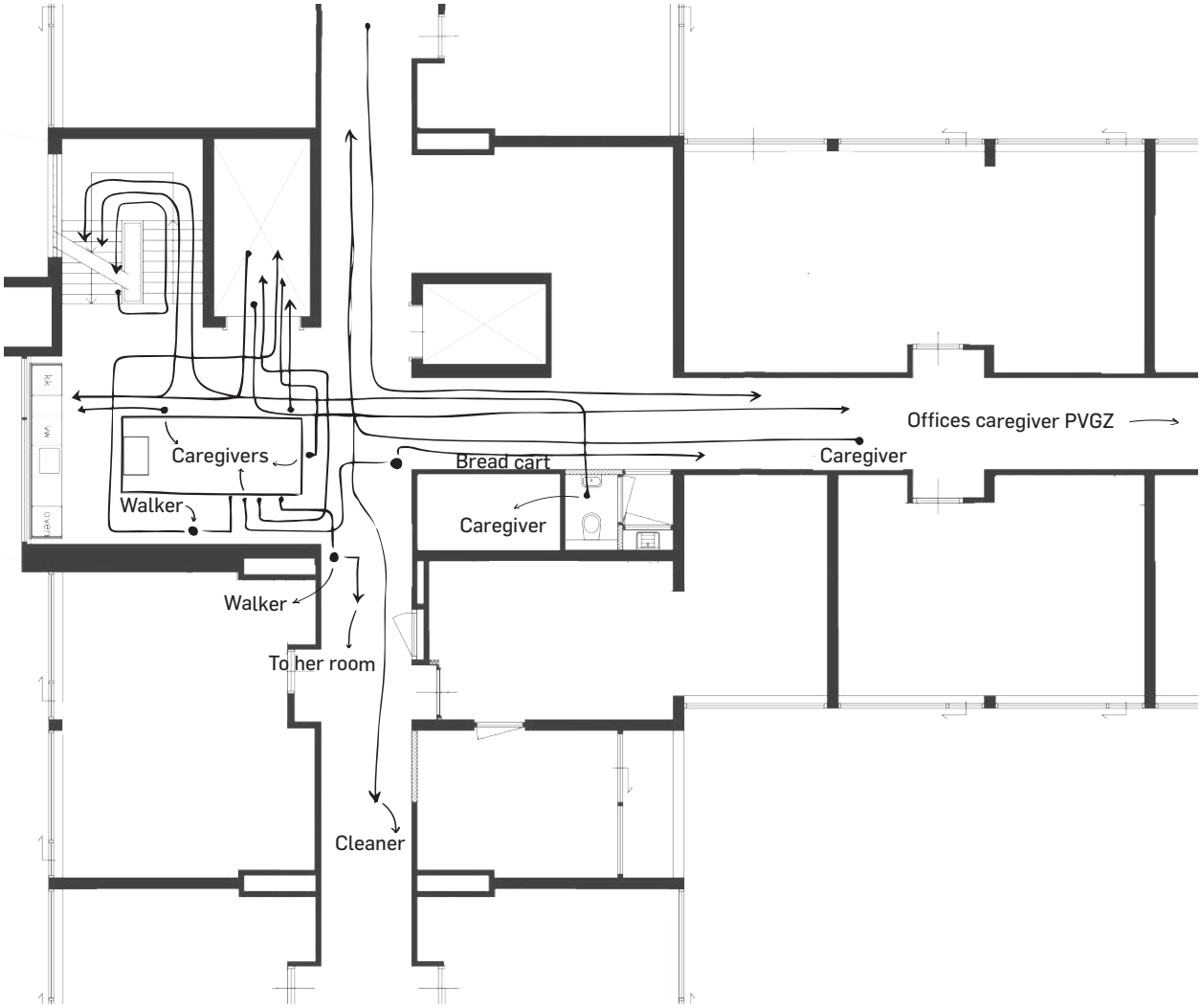


Limited visual and physical access due to a mass inbetween. This mass ensures the indivuality of each space, and it accomodates its differences.

KITCHEN SECOND FLOOR

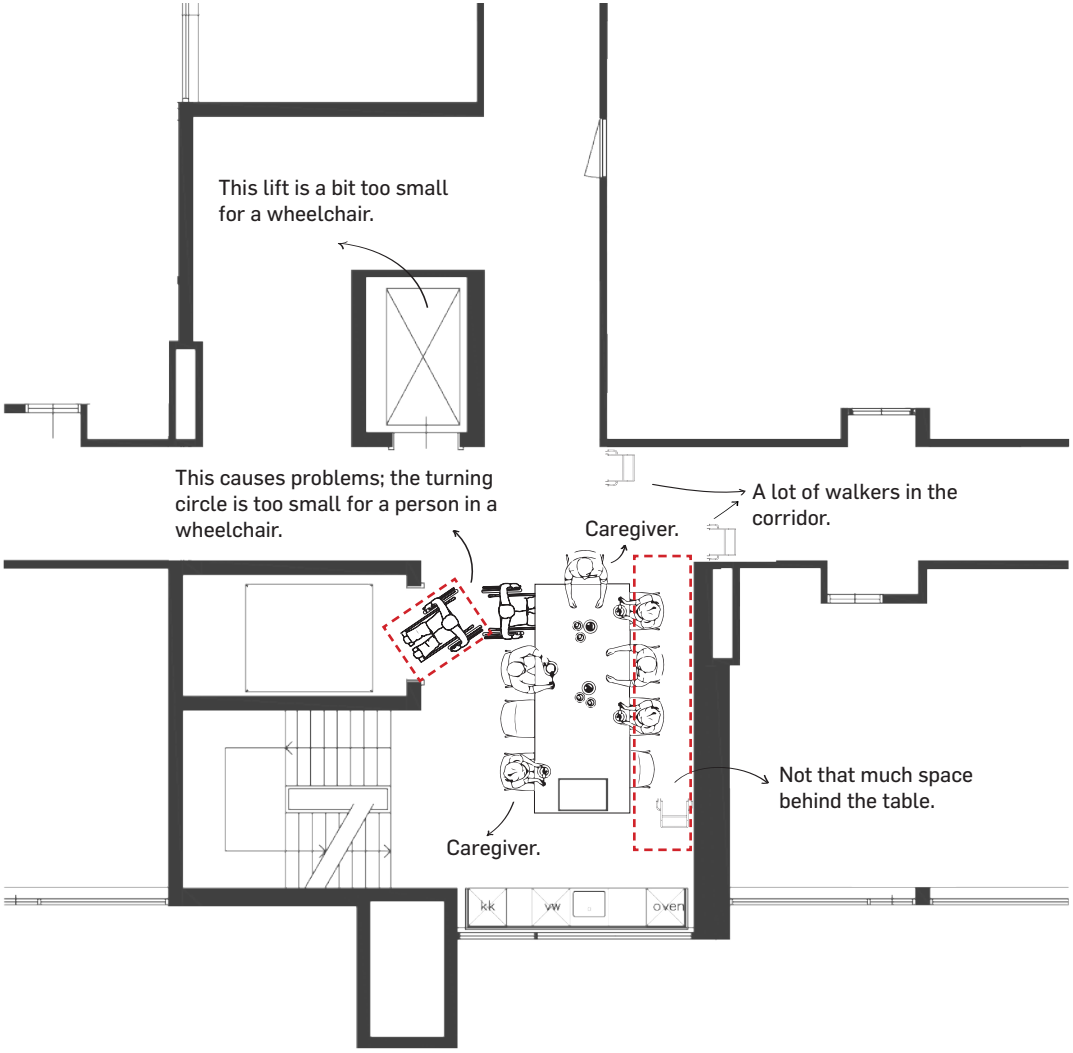


TRAFFIC FLOWS

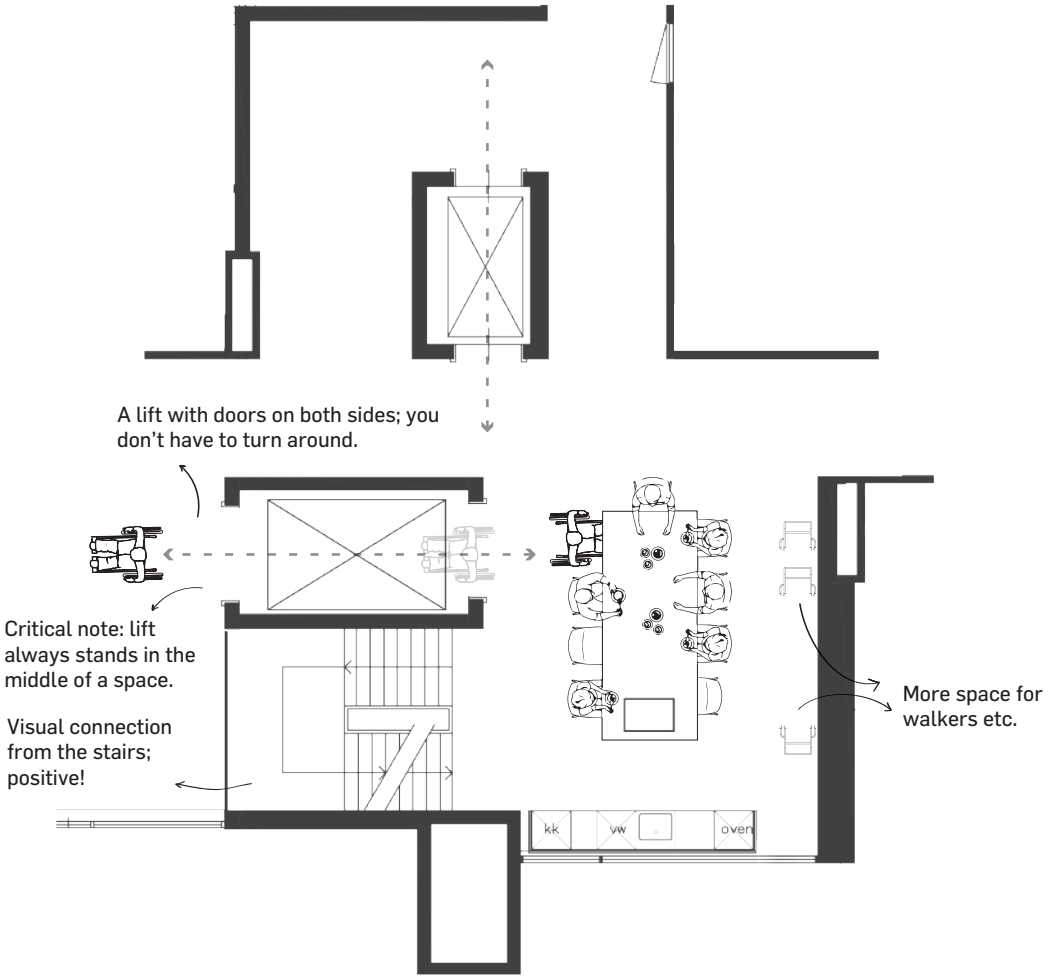


The traffic flows in and around the kitchen on the second floor. Monday 12-11 from 12.40-13.40 h.

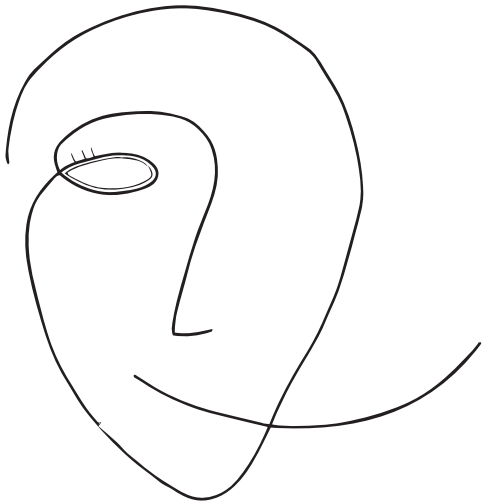
ANALYSIS KITCHEN SECOND FLOOR



DESIGN SOLUTION



FINDINGS



Visibility is key.
When communal spaces are visible people use it more often.
Also people who are passing by stop more often to have a conversation with the users of the communal space.

INCLUSION AND SECLUSION

A well known thing in the current elderly homes are the collective spaces. Mostly the big restaurants located on the ground floor. According to Hertzberger this is a social utopia. He says that spaces for 'social interaction' and other romantic, useless notions are invented by architects who believed they could simply predict the behavior of people (Hertzberger, 2005, p.214). He mentions that it is important to find a balance between openness and closedness in order to create well functioning collective spaces.

One of the things I found out during my stay in Huis Assendorp is that the collective spaces only were used when they are visible. Visibility will stimulate usage and occupation of spaces. On the other hand I spoke with residents who told me that they avoid the collective spaces by taking the emergency stairs to leave the building. Due to these observations you can see that the balance between openness en closeness is highly important in relation to collective spaces. How can an architect accommodate is this?

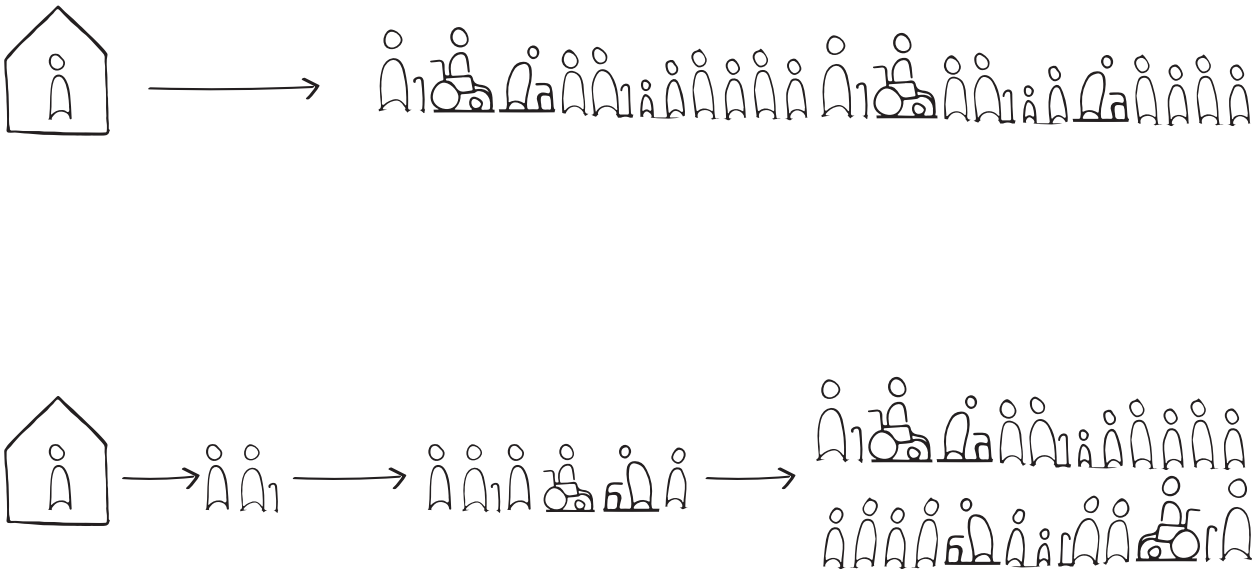
As an architect, it is important to give people a choice. Everybody is different, some people are more interested in social interaction than others. Create visible and open spaces in the buildings for those who like to be in bigger crowds, while at the same time you create more intimate spaces for the people who like to be more secluded.

An interesting shift is occurring in elderly homes. The old fashioned elderly homes were too focussed on the individual and loneliness became a big problem in these buildings. But the contemporary elderly homes are forcing the residents to live together, as small communities. They have a smaller private space, sometimes even without the possibility to make their own meal. In that way they try to push people to live together. You can recognize a shift from introverted elderly homes towards extroverted elderly homes. The key is to find a balance between these two phenomena. The user can choose to use the building as the architect designed it, but can also use it in their own way. An architect should not decide how the residents should live, but we should give the residents different usage options.

"WE MUST LOOK FOR THE RIGHT BALANCE BETWEEN VIEW AND SECLUSION. IN THAT WAY WE WILL ENABLE EVERYBODY IN EVERY SITUATION TO TAKE THE POSITION HE OR SHE WANTS IN RELATION TO OTHERS.

"We must always look for the right balance between view and seclusion, in other words for a spatial organization that will enable everybody in every situation to take in the position of his in relation to the others. The degree in which places are separate of open compared to each other, and the way in which that is done, lies in the hand of the designer. You can regulate the desired contact in a particular situation in such a way that privacy is ensured where that is required, while the range of vision of 'the other; does not become too restricted" (Hertzberger, 2005, p. 202).

PUBLIC-PRIVATE TRANSITION



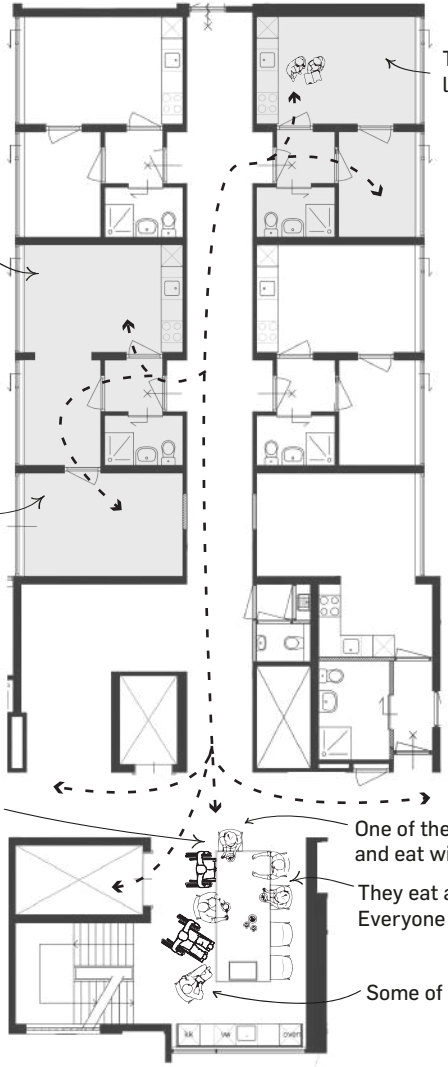
Smooth transition from private to collective spaces.

In the current elderly homes you find big collective spaces, dedicated to all the residents in the building. There is no smooth transition between your private space and the collective space. People get overwhelmed.

So add some extra capacity to get familiar with the other residents. First of all with your neighbour (shared balcony), next step will be with the residents of the same floor and finally a public space, accessible for everyone. In that way you can create your own amount of privacy in the building.

The difference between the self-sufficient houses and the 'elderly home' is clearly visible because of the care equipment in the corridors.

THE CARE



The office of the caregivers is located in an apartment.

Unrecognizable from the corridor. It has the same identity as the other apartments.

PVGZ will probably get the empty room near the kitchen on the ground floor.

Is this useful? Since the caregivers use the communal kitchen on the second floor to eat with their clients.

Another apartment for the caregivers, full of cleaning stuff.

It has no floors in it. It's completely empty

The laundry is collected by an external company

Another room full of laundry

The residents in need of care live through the whole building, together with the students and 50+ residents. All target groups are mixed together.

This is where the residents in need of care eat 2 times a day, together with the caregivers.

One of the students sits here a lot as well, to talk and eat with the elderly.

They eat almost everyday with 6 residents. Everyone sits on their 'own' chair everyday.

Some of them need help.

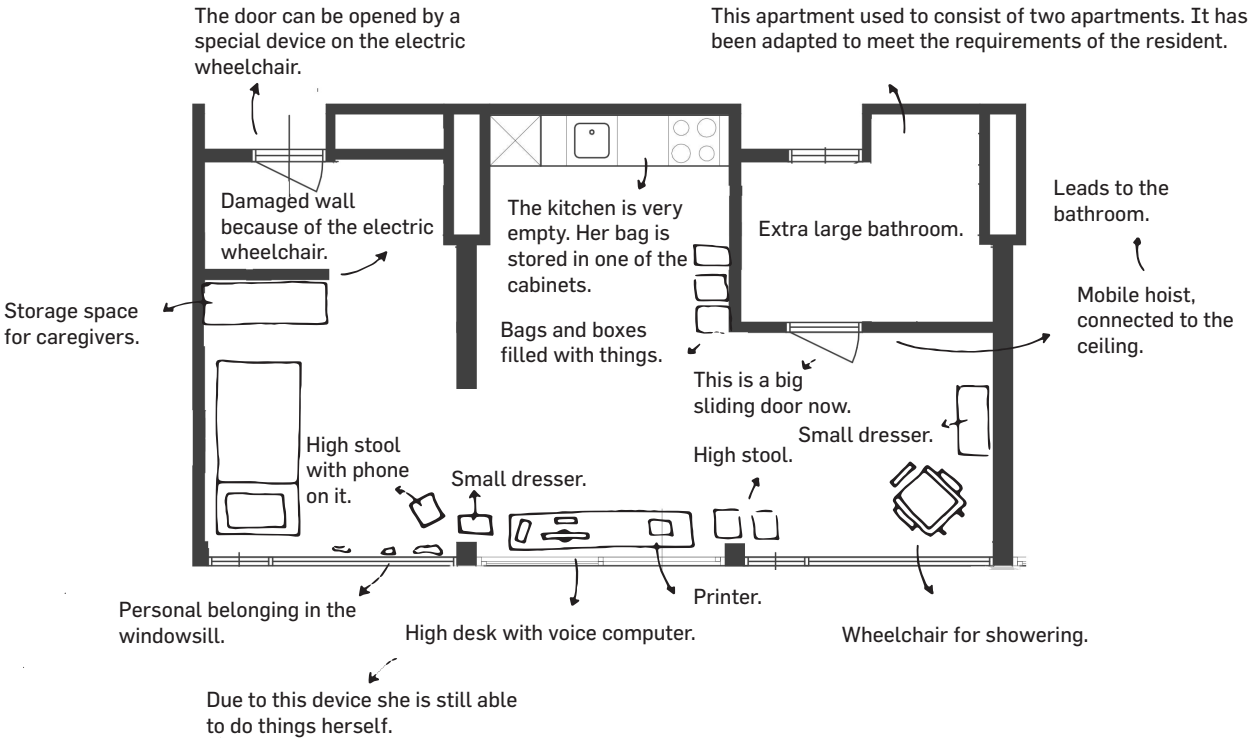
ANALYSIS

Background
The caregivers are not very visible in Huis Assendorp.
They move around behind the curtains.

PRIVATE ROOMS

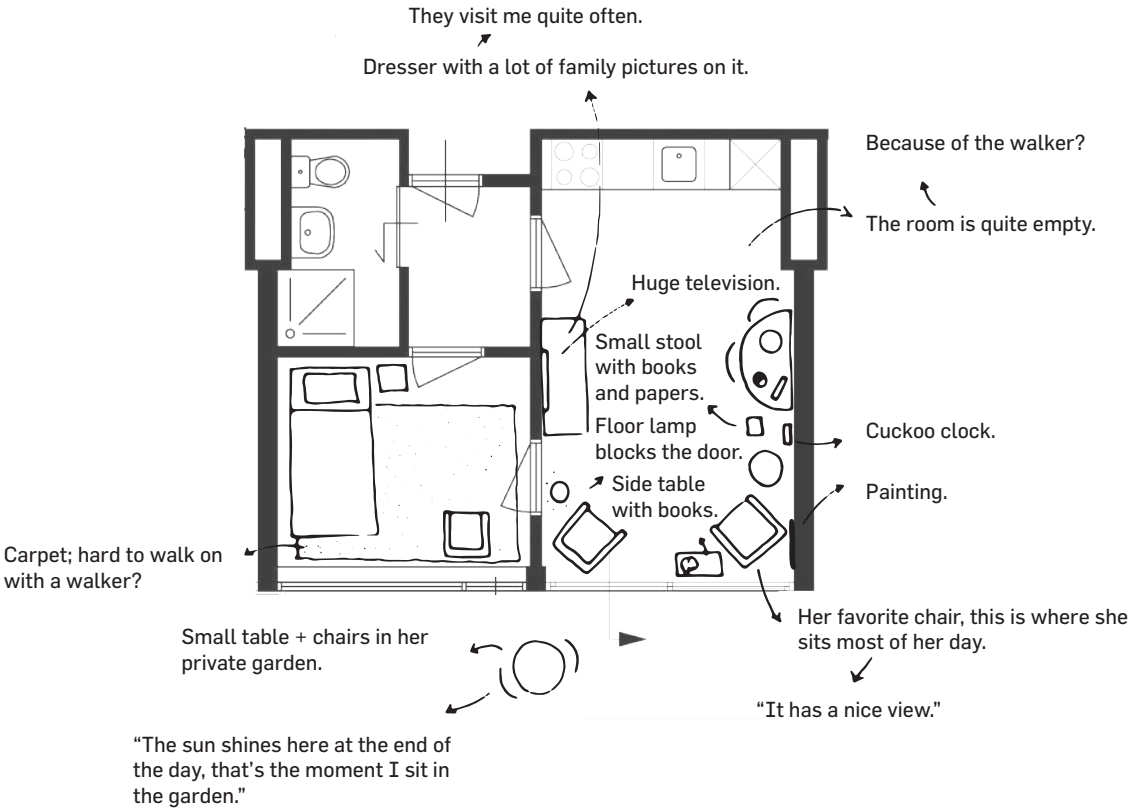
Observations and analyses

INTERIOR



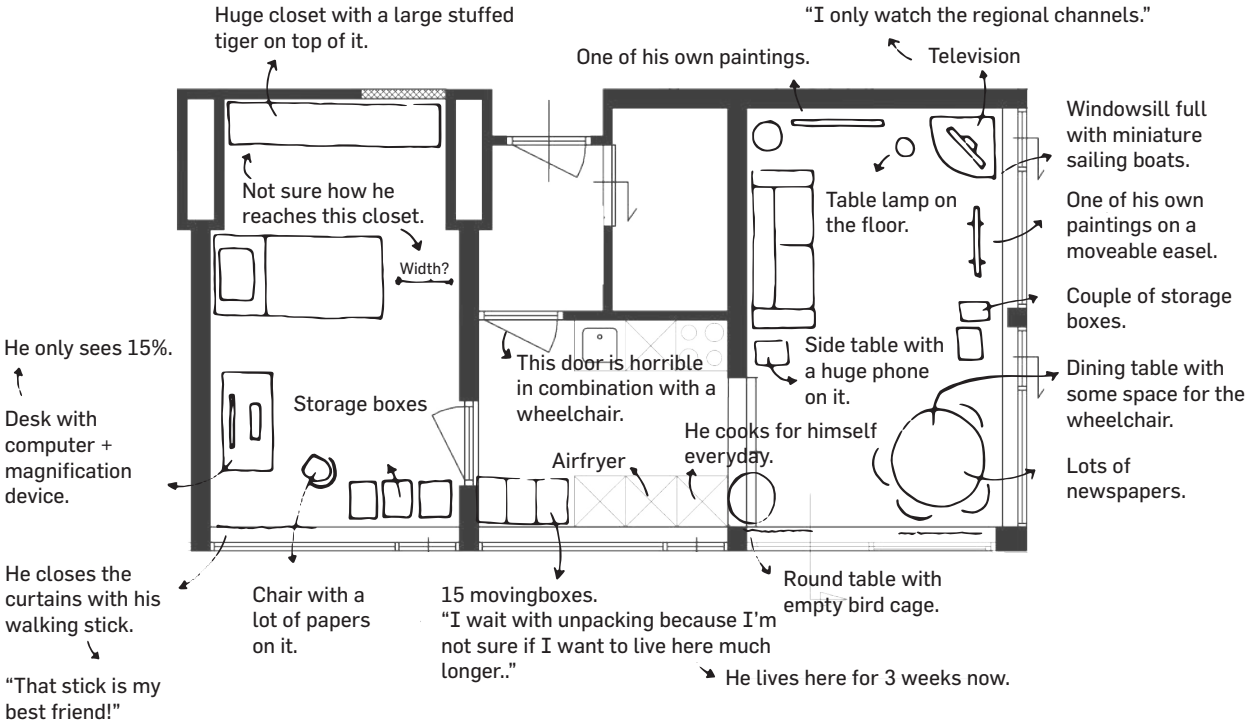
This resident sits in an electric wheelchair (age unknown).

INTERIOR



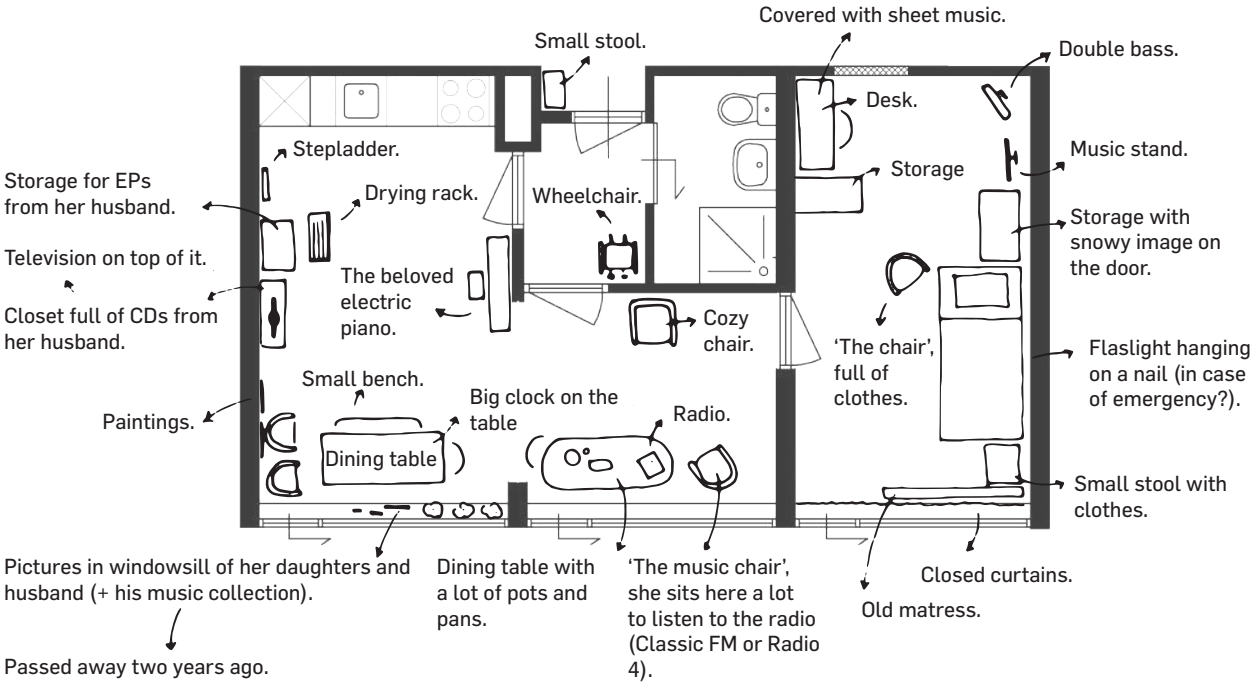
This resident is 94 years old and uses a walker.

INTERIOR



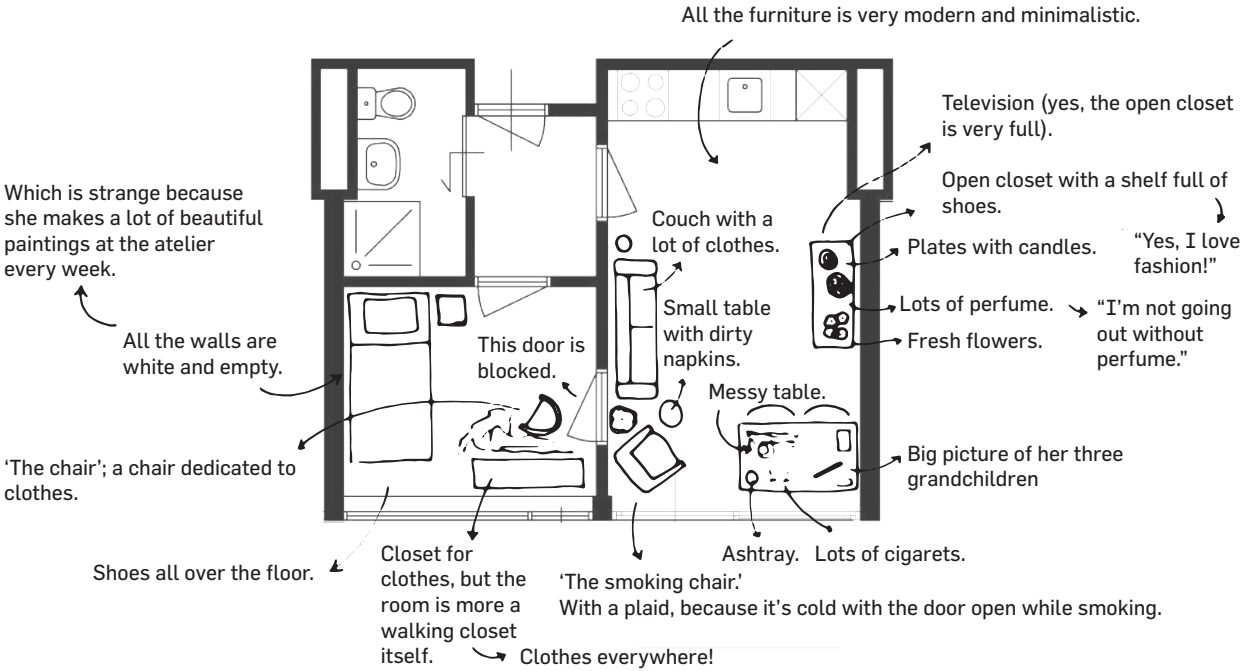
This resident is 77 years old and sits in a wheelchair.

INTERIOR



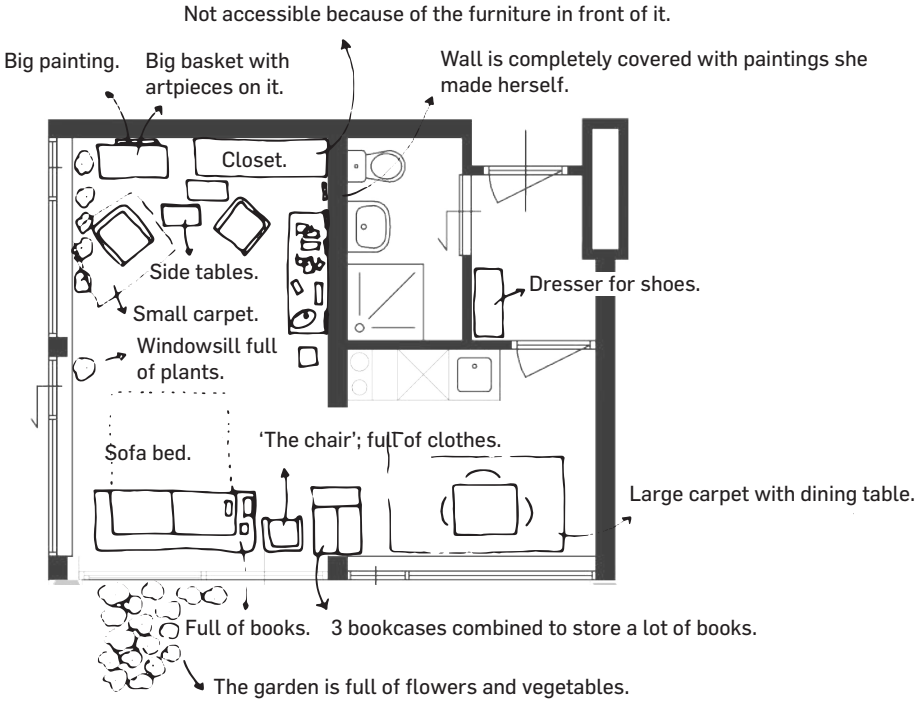
This resident is 88 years old and uses a walker or a wheelchair (for long distances).

INTERIOR



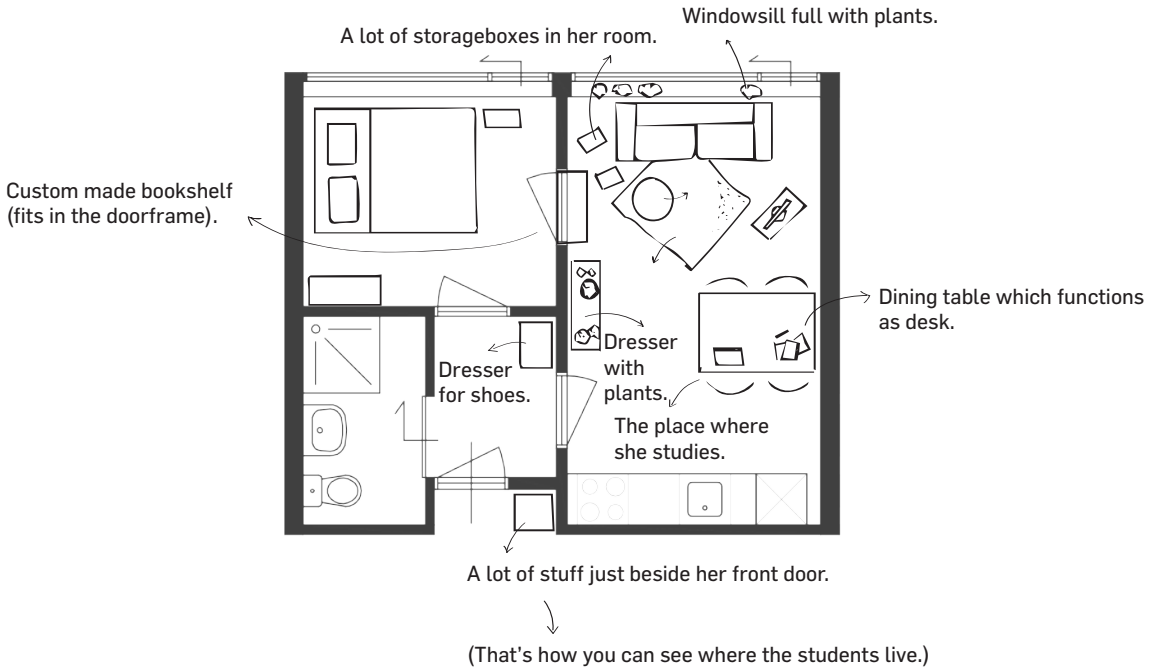
This resident is 66 years old and uses a walker.

INTERIOR



This resident is 57 years old and completely vital and fit.

INTERIOR



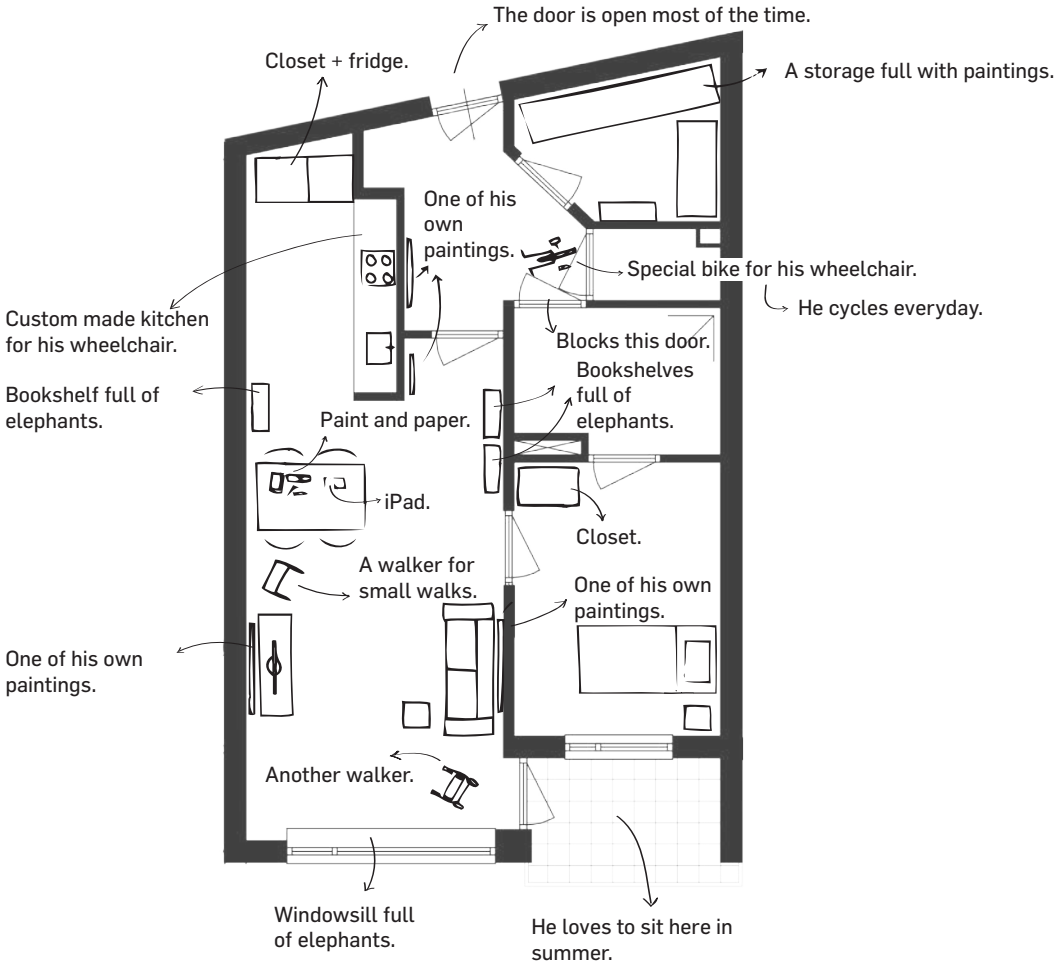
This resident is 26 years old and completely vital and fit.

INTERIOR

This resident is 23 years old and completely vital and fit.

Source: 'Een dag uit het leven van Lourens' (2018), https://www.huisassendorp.nl

INTERIOR



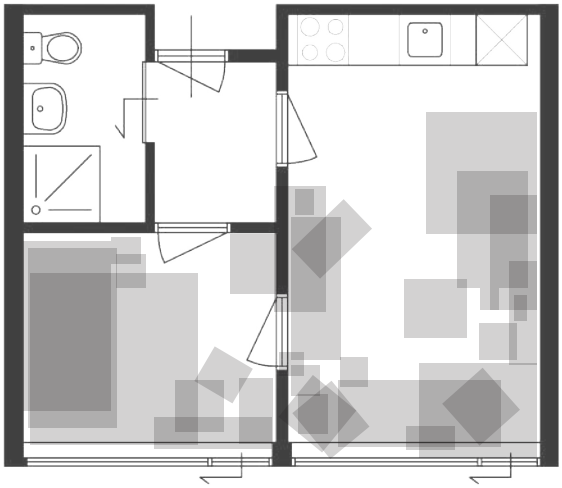
This resident is 62 years old and sits in a wheelchair and lives in a self-sufficiënt house.

ANALYSIS

Window view

A striking aspect is the fact that the less mobile inhabitants place a chair right next to the window. In that way they are able to enjoy the world, even if they can not go out anymore. It makes them feel alive, they can see the changing nature and weather. While younger, vital inhabitants place their couch or chair with the back facing the window. They become less interested in the nature because they can easily go outside to feel and experience the world.

ANALYSIS

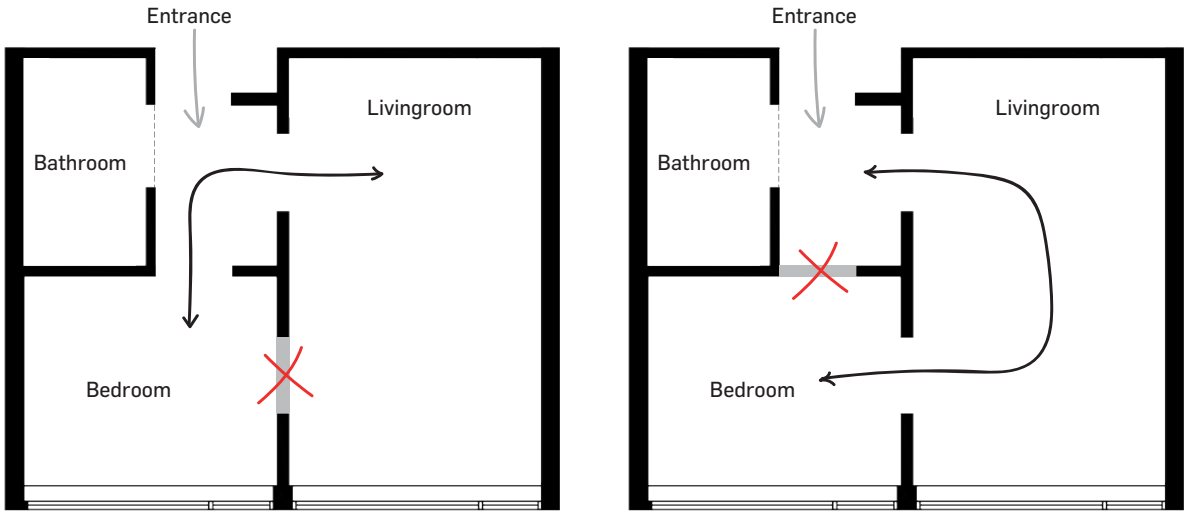


Furniture layout

Looking at the interior of different residents it becomes visible that everyone gives their own apartment identity by adding their own personal belongings. Some people put more belongings in their apartment than others. In general it can be concluded that the apartments are big enough to dwell in. The amount of stuff inside an apartment is not only determined by capital or taste but also by how vital the inhabitants are. The inhabitants in a wheelchair set up their apartment in a more spacious way because of the space they need to move around in a wheelchair.

By placing the apartment layouts on top of each other you can see that all the residents use their walls to place furniture against.

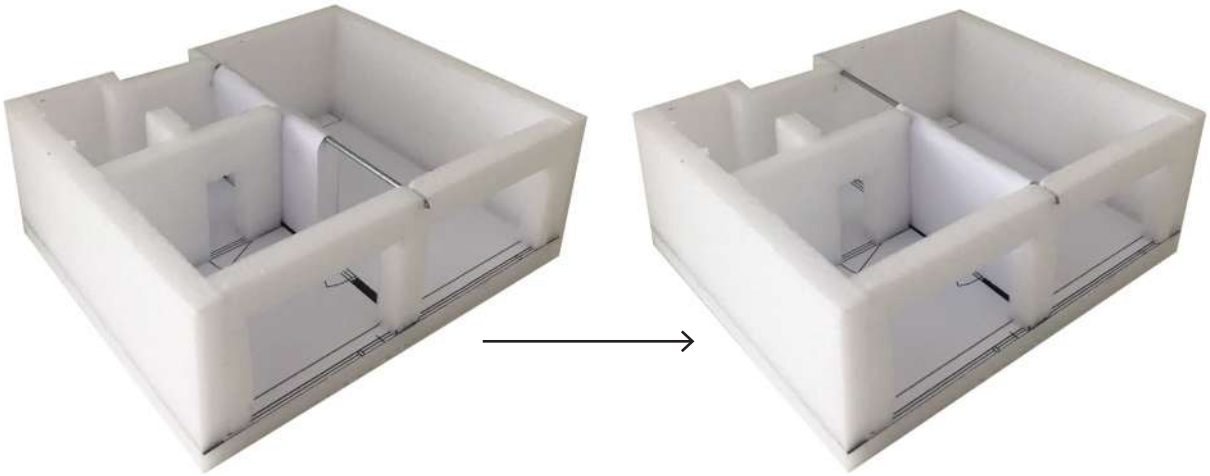
ANALYSIS



Door placement

Due to the optimal use of the walls almost all the residents of the small apartments (like shown above) block one of the two doors which lead to the bedroom. Most of them block the door between the living room and the bedroom, only the younger residents, students, block the door from the hall to the bedroom. They create one spacious studio. By blocking the door towards the bedroom you leave the bed out of your sight. The bedroom is mostly be seen by elderly as a piece of furniture which relates to illness.

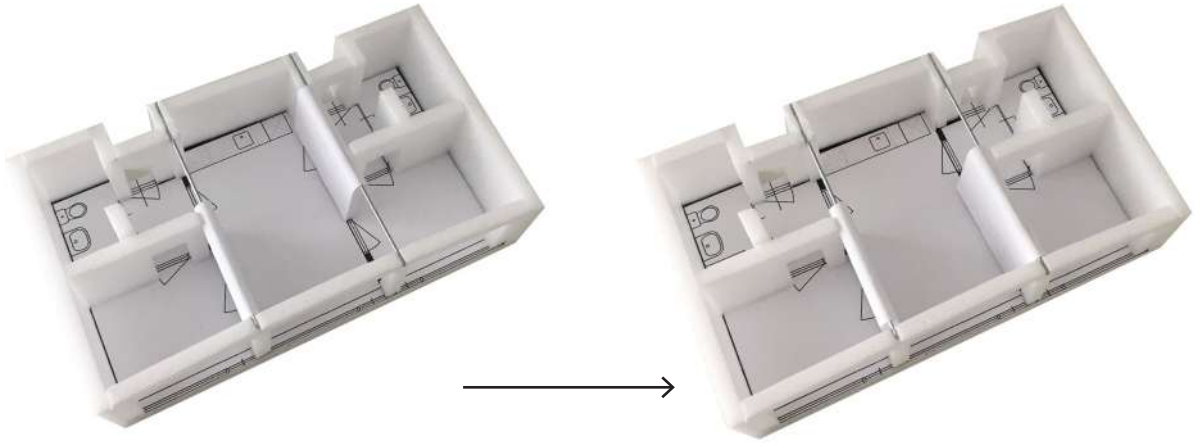
CHANGEABLE APARTMENT LAYOUT



Adaptable apartment layout

What if the resident can decide their apartment layout? Possibility to connect your bedroom and living room or to close it off; by movable walls. A possible solution for the door blocking analysis.

SHARED LIVING



Changing apartment layout

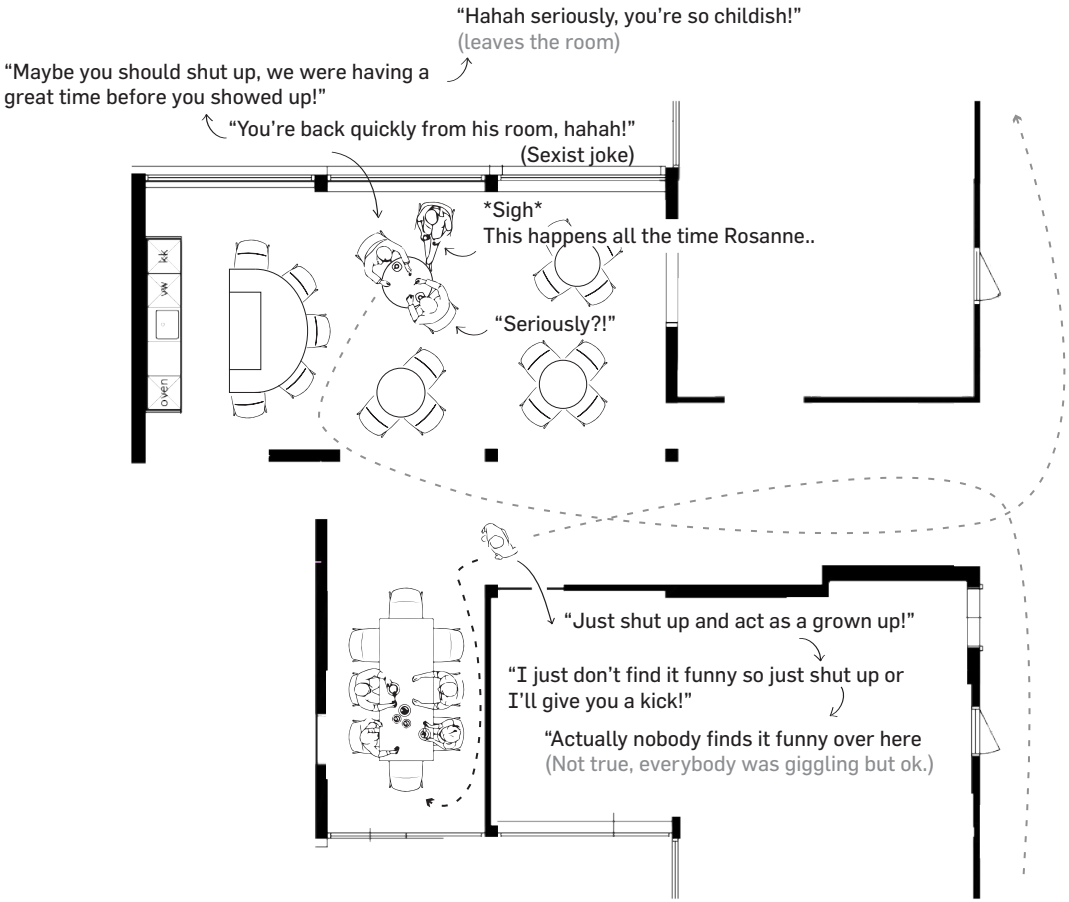
What if you can share youre living room and kitchen with your neighbour, whenever you want? A shared living space which can be closed off from the bedroom when you want to be alone.

PHILIPS
SCHUBERT
Fantasie
für Klavier zu vier Händen
G. HENLE VERLAG

THE RESIDENTS

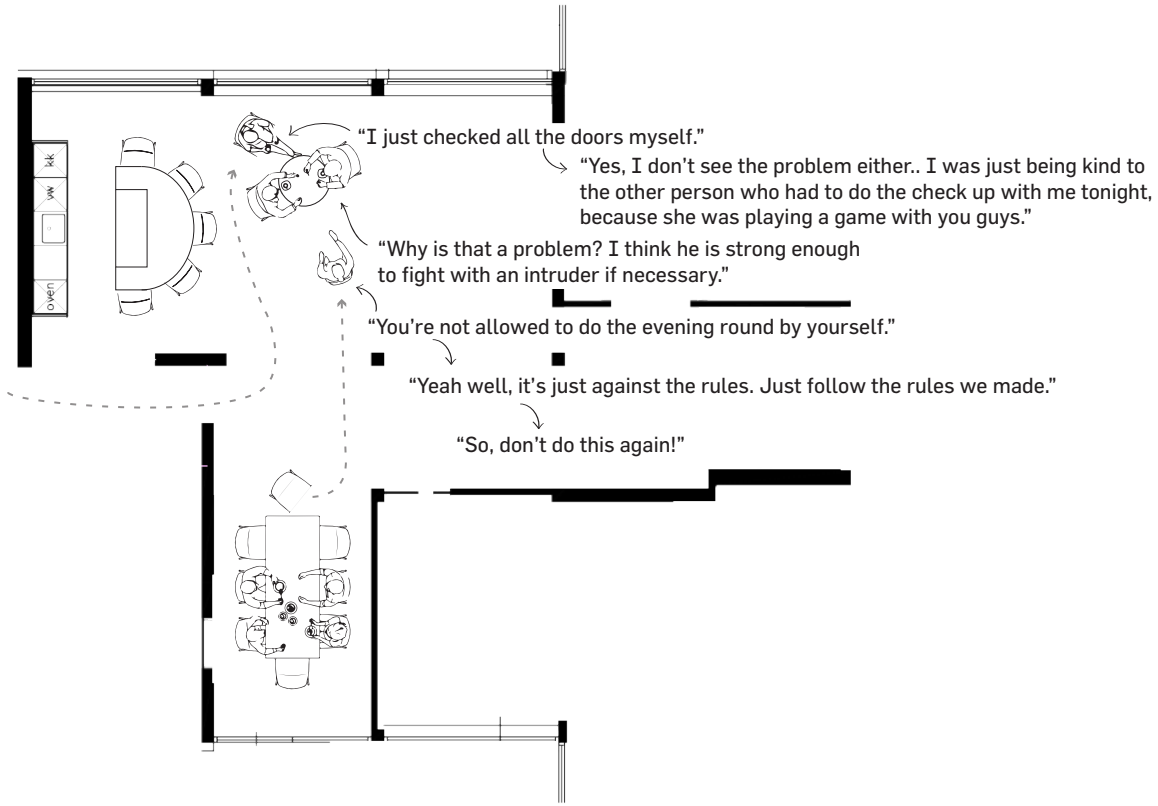
Observations and analyses

CONFLICT MAPPING



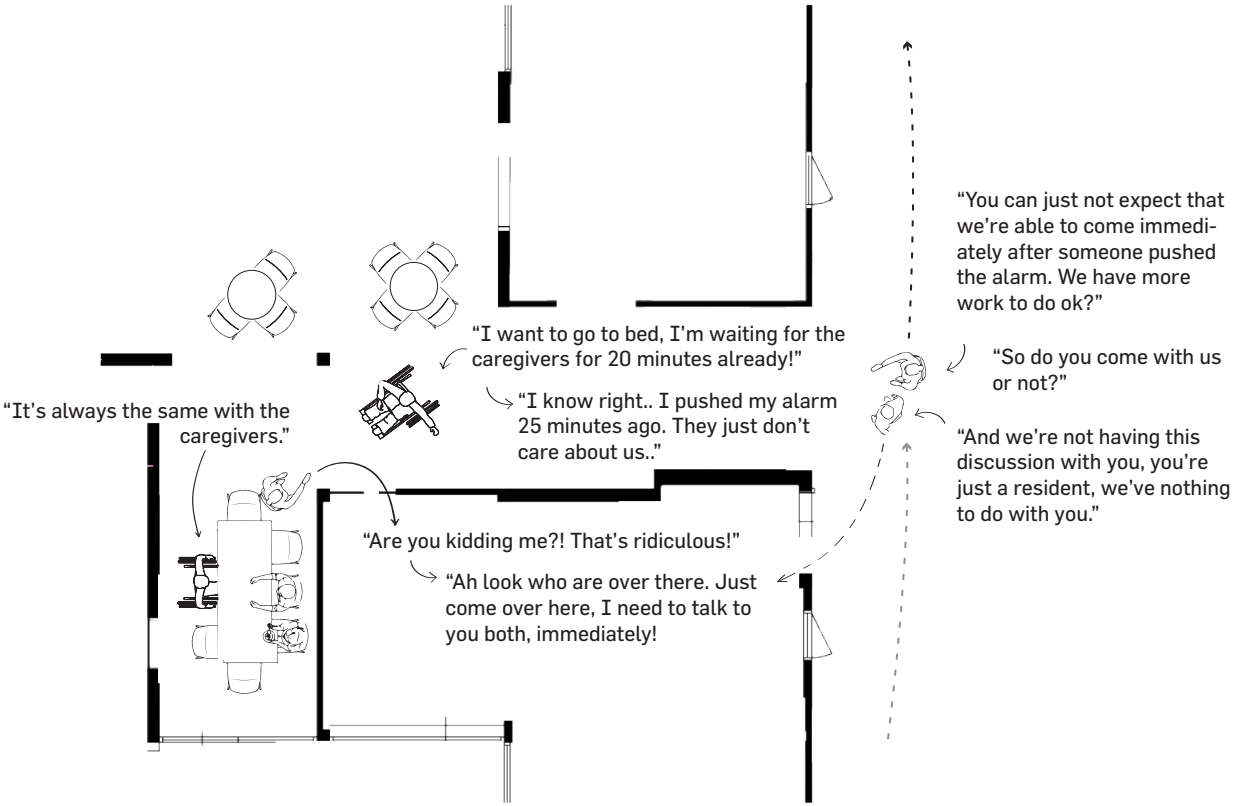
A conflict between two residents.

CONFLICT MAPPING



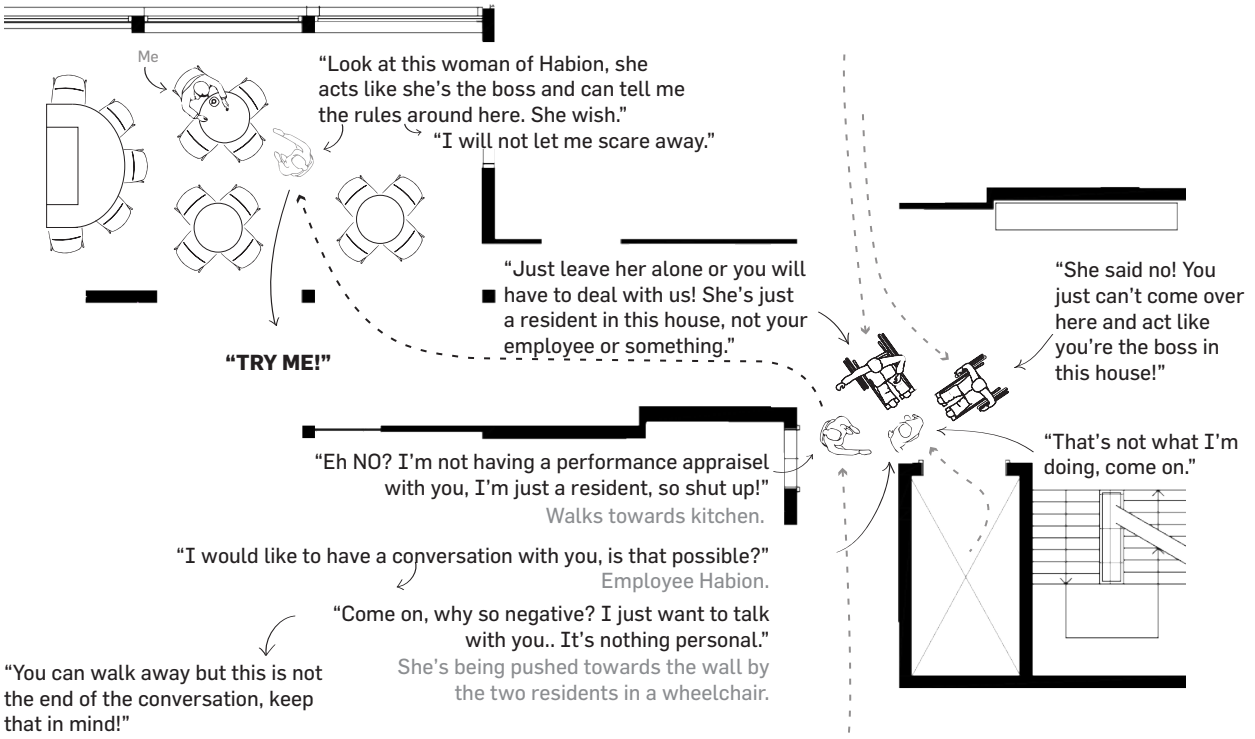
A coflict between two residents.

CONFLICT MAPPING



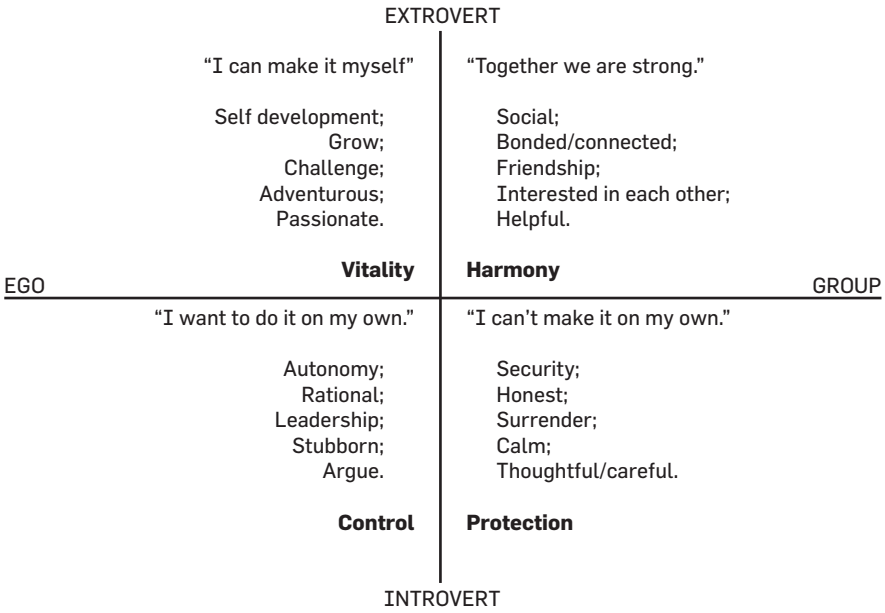
A conflict between a resident and the caregiver PVGZ.

CONFLICT MAPPING



A conlfict between a resident and Habion

ANALYSIS



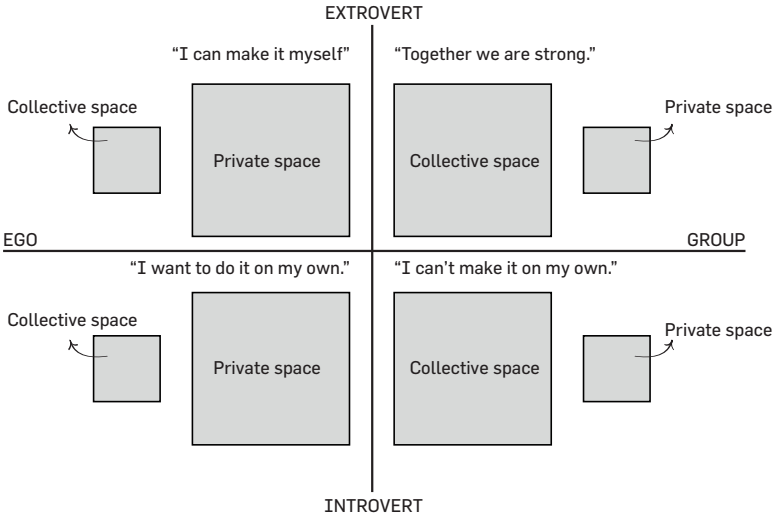
Source: https://www.2by4.nl/avada-portfolio/assisted-living-eltheto-rijssen/

During my stay in Huis Assendorp in Zwolle I mentioned a couple of 'fights'. Conflicts between the residents and the caregivers, conflicts between the residents and Habion but also conflicts between the residents themselves. This raised the following question:

'Why are there so many conflicts in this place?'

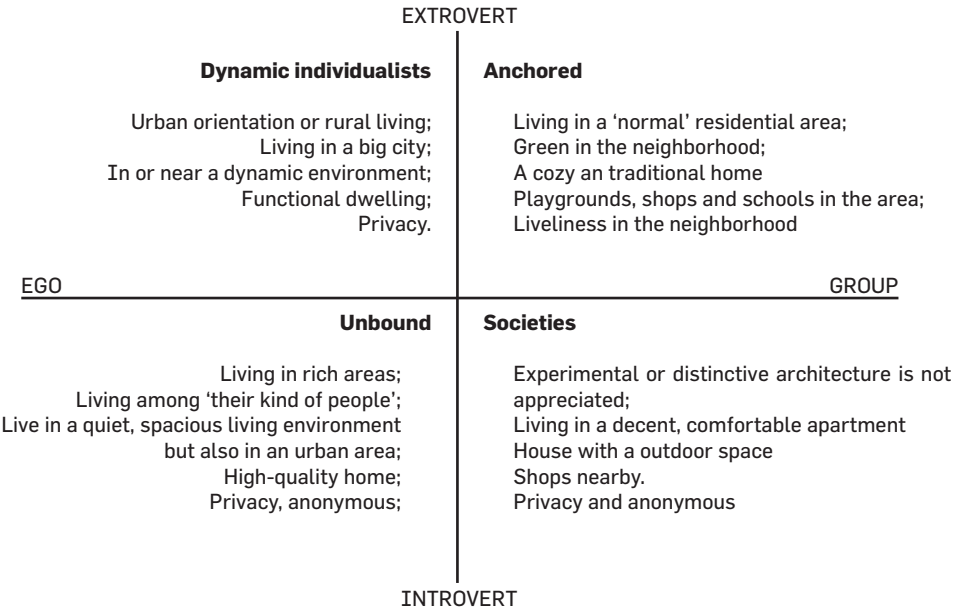
When you look closer to the residents of Huis Assendorp you can see that there are a lot of different people. Students, people around the 50 and elderly (>65). They all have different needs and wishes. This does not always go well. By analyzing the residents of Huis Assendorp I found out that you can categorise them in 4 groups: *the extroverted ego, the introverted ego, the extroverted group and the introverted group*. Each group has different needs and wishes. People not only have to respect each other but they also need a space which will align with their personality. This means that you need to take into account that when you create a community-like building, you have to design for *every type of person* in order to create a good living environment.

SPATIAL TRANSLATION



All the different personalities in one building also have different needs architectural-wise. This is translated in a very abstract diagram. The main difference between the introvert and the extrovert is the amount of privacy they prefer. Introverted people prefer a private space, so they would like to have a bigger private room than the extroverted people. Extroverted people like to live with others and would choose the collective space over their private space.

But also when designing the private spaces you need to keep in mind the needs and wishes of different people. Give them a choice concerning their apartment layout. So an open floorpan would be a good solution to give the resident the opportunity to decide where they want to sleep for example. Also for the collective space you need to take into account the four group typologies. Even if the introverted people would prefer their private room above the collective space you still need to take their wishes into account.



Hammouch, M. B. (2007). De toepasbaardheid van leefstijle, p.31. Delft.

LIFESTYLE CHARACTERISTICS

Hammouch wrote a research about the relationship between lifestyles and physical home and living environment characteristics. One of his findings during his research is the fact that each lifestyle has different priorities concerning their living environment. The smart agency company is using the same four lifestyles as I mentioned above; *the extroverted ego, the introverted ego, the extroverted group and the introverted group.* They finally came to a model where the wishes and needs of each group concerning their living environment becomes visible.

The research is based on interviews in different places and neighborhoods. The overall similarity is that 3 out of 4 lifestyle groups find privacy highly important. This is an important finding to keep in mind when you start designing. The private rooms should be designed in a way that the resident feels safe and anonymous inside the building or even in the neighborhood. Another finding is the location of the dwelling of different lifestyle groups. Some of them prefer a rural area while others prefer a lively, urban area. How can you find a balance between this?

This research showed me that everyone has different priorities according to their living environment and dwelling. During the design process I want to take that into account and come to a masterplan and design which provides characteristics for every lifestyle group. It is important to keep the different lifestyle groups in mind while working on different scales (environment, collective spaces, private rooms and so on).

KEEP THE FOUR LIFESTYLES IN MIND WHILE DESIGNING IN ORDER TO CREATE A SPACE FOR EVERYONE.

Honig's kookboek

CONCLUSION

This chapter will summarize the most important findings which came out of the research. The research is divided in three scales; the environment, the building (with a subdivision between collective and private spaces) and the residents. Out of each scale came a couple of striking conclusions. All these findings have spatial consequences who need to be taken into account during the design process. These spatial consequences will not only be used during my own design process, but they can also be used as recommendations for other architects.

1.0 The environment.

An important finding during my stay in Huis Assendorp is the fact that in order to make a change in elderly care and housing we need to start with the environment. We should think beyond the building because the changes need to start way before the front door of the 'elderly home'.

THE ENVIRONMENT AS SAFETY NET FOR LONELINESS.

One of the biggest problems among elderly is loneliness. Their lives shrink extensively in the last years of their life. Most of them spend their days between the four walls of their home. What if you reduce the threshold between their home and the environment? In that way you motivate them to participate in daily life again. The overall feeling of the vulnerable elderly in Huis Assendorp is anxiety in relation to the surroundings of their home. Their overall pace is too slow to keep up with the daily life outside their home. Cars are passing by, travel lights turn from green to red too fast and their reduced sight ensures the lost of overview in their environment.

The conclusion out of this observation is the fact that the environment functions as a catalyst for loneliness among the elderly. We should let the environment function as the opposite, so a living environment which functions as a safety net for loneliness. A motivator to go outside again instead of a catalyst.

So, slow down the overall pace of the direct surroundings of the elderly home. Reduce thresholds such as sidewalk interruptions, add services such as shops, a hairdresser and a general practitioner within walking distance and create a diversity of small routes around the building with enough points of rest along the way. This 'slow' area will not only facilitate a space for vulnerable elderly, but for all different target groups. Create a place where you can enjoy nature, where you can escape from the fast pace of daily life and where you can forget your busy schedule for a while. This is something we should do more often because the pace of daily life grew extensively the last decennia.

This 'slow area' for everyone will ensure the fact that the city comes to the elderly instead of the other way around. We need

to face the fact that elderly are less mobile, and it becomes harder for them to go out towards the city, so bring the city and the people to them instead. Make the elderly stand in the middle of daily life, instead of putting them away in a closed-off elderly home at the outskirts of the city.

2.0 The building.

2.1 The collective space.

What you often see in the current elderly homes is the rough transition between the private apartments and the collective spaces. There is no smooth transition, you go from your own space to a big collective space which you share with all the residents of the building. The step from the private units to the collective space is too big. So, create a smoother transition so that people can get familiar with the other users of the building. For example, from a private unit to a shared balcony with your direct neighbor, from shared balcony to a collective area which you share with the people who live at the same corridor, from there on you move to a collective space which you share with the residents who live on the same floor, the next step will be a space which you share with the residents of the floor above or below you and finally you will come in the public space which is accessible for everyone. In that way the residents can choose their degree of privacy instead of just pushing them into a big collective space for everyone.

Another finding is the fact that a collective space needs to be visible in order to stimulate the use of the space. Hidden collective spaces stay empty, like the kitchen on the third floor in Huis Assendorp. The most important motivation to go to a collective space is to meet and speak with other residents. When the collective space is hidden away people will not see you sitting there and the whole idea of a collective space as a space for encounter disappears. But at the same time there needs to be a balance between view and seclusion. As Hertzberger mentioned: ‘search for a spatial organization that will enable everybody in every situation to take the position of their own choice in relation to others’ (Hertzberger, 2005, p.202). So make the collective spaces visible from the circulation area but provide in a certain way of privacy at the same time.

MAKE THE COLLECTIVE SPACES VISIBLE FROM THE CIRCULATION AREA BUT PROVIDE IN A CERTAIN WAY OF PRIVACY AT TE SAME TIME.

2.2 The private rooms.

One of the striking findings during my stay in Huis Assendorp is the fact how proud the residents were of their own room. They were all inviting me to show me their space with so much pride. While I was visiting those rooms I found out that everybody is using their room in a complete different way even if the apartment layout is the same.

You can see a big difference between the less mobile people and the younger residents. The elderly who do not come outside that often place their chair right beside the window to see the birds flying around and to see the weather and seasons changing overtime. By placing their chair in front of the window they feel part of society, they feel alive. The vulnerable elderly see their window with the public space behind it as a living piece of art. They spend their days watching the outdoors. While people who are still capable of going out whenever they want place their chair or couch with the back facing the window.

Looking at the interior of different residents it became visible that everyone gives their own apartment identity by adding their own personal belongings. The amount of personal belongings depend on the mobility of the resident. When the resident uses a walker they set up their apartment in a more spacious way because they need more space to move around. In general can be concluded that the apartments are big enough to dwell in.

Due to wish for the optimal use of the walls almost all the residents block one of the two doors which lead to the bedroom. Most of them block the door between the living room and the bedroom, only the younger residents, the students, block the door from the hall to the bedroom. They create one spacious studio. By blocking the door towards the bedroom you leave the bed out of your sight. The bedroom is mostly be seen by elderly as a piece of furniture which relates to illness.
All these findings will be taken into account during my design process, they will form an important base for my final design. The main conclusion of this research is that an open floor plan is important in order to make the residents create a space in the way they want it. It gives them a feeling of being in control of their own living environment.

CREATE AN OPEN FLOOR PLAN IN ORDER TO MAKE THE RESIDENT FEEL IN CONTROL ABOUT THE LAYOUT OF THEIR PRIVATE ROOM.

3.0 The residents

The fieldwork trip to Huis Assendorp confirmed the fact that there is not one type of elderly. During that week I witnessed a lot of conflicts inside the house. You place a lot of different people in one building and you force them to live together, of course this causes conflicts. But how can architecture reduce those conflicts?

You can categorise the residents in 4 types; the extroverted ego, *the introverted ego, the extroverted group and the introverted group.* Each group has different needs and wishes. People not only have to respect each other but they also need a space which will align with their personality. This means that you need to take into account that when you create a community-like building, you have to design for every type of person in order to create a good living environment.

The more extroverted people give less about their private rooms and will spend more time in the collective spaces while the more introverted people care a lot more about their private room. But even the introverted people in the building need social contact, but they will probably need less of these social moments, and they will feel more comfortable with smaller groups instead of big crowds. So the collective spaces should be designed in such a way that they provide in a certain amount of privacy and openness which is desirable for everyone.

During my design process I want and need to keep in mind that people have different needs. Do not design for one type of elderly, like how the contemporary elderly homes are designed; pushing people to live together. But find the right balance between an introverted and extroverted living environment.

THE BALANCE BETWEEN AN INTROVERTED AND EXTROVERTED LIVING ENVIRONMENT IS KEY TO CREATING A PLACE FOR 'EVERY TYPE OF ELDERLY'.

What is next?

As you can see, a lot of important findings came out of my research, which are very fruitful for my final design for the site in Harderwijk. Each one of the findings will be used a as starting point for further development of my design. The design process of this development can be found in part two of this booklet. It will show the design process, divided -again- in the three different scales: *environment, the building and the residents*.

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