



Housing for the young retirees

Housing for the young retirees

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Introduction



Introduction

1.1 Introduction

Something everyone needs is a home. Not just a house, a building but a place where they feel themselves. Either alone or with others. The search to a place that people can call home is something that is not easy. Everyone has different wishes and ideas and currently the search to the house that would fit people's needs to be made a home is being halted in the Netherlands. For years the Netherlands has dealt with a housing problem. There are several factors that make up the housing problem in the Netherlands. The main problem is that there is a too small number of appropriate houses available in the Netherlands (Langenberg, 2022). There is a big mismatch between the houses that are available and the target groups that are looking for them. The target groups are also changing. The number of households that consist of one person have grown with 10% between 2014 and 2021. That is double the amount of the growth of the households consisting of 2 people. Together they are the groups that have grown the most.

Building new residential buildings it is hard, if almost impossible to create a type house that will fit everybody's wishes. All people of all walks of life and ages. Because right now the natural flow of houses is not moving as freely as it used to. In 2021 the NOS did a study with the municipalities to create a collective view of what their opinion was on the origin of the housing crisis. The most named cause with 55% was that the older citizens are staying in their houses and not moving. One municipality responded with their view on the solution of the housing problem: "As soon as [the elderly] move, the housing circulation will be started up again." (NOS, 2021). This housing circulation has not been moving naturally for years. Usually in the Netherlands the elderly would at a certain point in their life move to a care home. But due

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to budget cuts, the Dutch government cut off the state funding for care homes which led to a rapidly decreasing number of places in the care homes (Movisie, 2015, p. 6). Because of this, the elderly have to keep living at home longer and the houses that they would usually open up with the elderly moving, stay occupied. But according to a study done by CBS (2022) by building new houses, the natural flow of houses will be started up again. In 2020 70.000 new houses were built in the Netherlands and the people that moved to these new houses left 60.000 houses on the market again. From these 60.000, 31.000 houses were bought by new households and became the first shackles in the natural flow of houses.

This problem that the elderly have nowhere to move to is also enlarged by the fact that the amount of elderly is rising in the Netherlands. Currently there are 3,5 million people over the age of 65 and this number is estimated to rise to 4,8 million in 2040 (NOS, 2022). With the elderly more at home, now the problem arises that the home care providers do not have enough employees to properly service each household. The care therefore is minimized and the employees have to rush to get to the next house to tend to their next patient (Radar, 2021). This is not beneficial for the people who have to provide care, but also the elderly that are receiving the care. The home visit of the care is for some people also a potential for social interaction. According to a study done by CBS (2016) it shows that the people above the age of 75 are the loneliest people in the Netherlands.

A solution for the lonely elderly and the pressure on the home care system could be solved by moving all the elderly together and then basically recreating the care homes. But the motivation to move is low for people who are over 85. There is a slightly higher percentage of people between the ages of 65 and 85 that are motivated to move, but there is an even bigger chance with the age

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group below this. Between the ages of 50 and 65 the amount of people that have moved has grown (RIGO, 2018). These numbers show that the willingness to move is not to be found among the older part of the 'elderly' group. The reasons to move for the elderly diminish the older they become (Post, H. E. Et al., 2012, p. 67). They prefer to stay in the neighborhood that they know and have lived in for a long time (Iecovich, E., 2014, p. 2). But there is potential for the 'younger elderly'. With the retirement age currently at 67 in the Netherlands, this group is moving towards the next step in their lives. It is a point of time in their lives that they have their future in front of them, open with possibilities since they are not tied to a job anymore. This gives the opportunity to attract these 'young retirees' with interesting housing that would motivate them to move so that they can help in opening the natural flow of housing again.

So for this group the young retirees there needs to be a solution that creates new, accessible housing that they can decide to move to around the time that they retire. This gives them the possibility to settle in a new neighborhood and build up a new life with the new gained time after their retirement. But the question then is, what kind of houses are these people looking for and what is it that could motivate them to move? Because the numbers now tell us that not many people in this stage of their lives are moving.

To find the answers to these questions the following research question is proposed:

How to create architectural spaces that would benefit the interaction between young retirees and motivate them to move?

This research will be based upon literature studies, interviews, and case studies.

Introduction



Figure 1.1 - Location of the project in relation to Rotterdam. Retrieved from: [google.maps.com](https://www.google.com/maps)



Figure 1.2 - Location of the project in relation to surrounding area. Retrieved from: [google.maps.com](https://www.google.com/maps)

Introduction

1.2 - The design assignment

This research is done parallel to a design assignment for the technical university of Delft where we as students are tasked with designing a plan that aims to incorporate both industry and living. The location is to be found to the west of Rotterdam in the Keilehaven. Here a plot has been assigned to us students to develop our project. It first started with a master plan developed with a group of three students. The masterplan then would be divided in order for the students to have their own building. The research done by each student would support the design of their building.

The type of industry we chose as a group to incorporate into our project is a clothing recycling facility. We chose this type of industry because of the enormous waste there is in this industry. Between the years 2000 and 2015 the production of clothing doubled in size (Ellen Macarthur Foundation, 2017). In 2019 the total amount of new textile articles that were bought into the Netherlands was 646 kilotons. But because of the linear way clothing is used, the waste in the Netherlands was 554 kilotons that same year (CBS, 2021). The linear usage of the fashion comes from the current system of 'fast fashion'. Styles are only popular for short amounts of time, are priced at a low rate and the quality of the clothing is often lacking. This results in the disposal within a year of more than half of the amount of 'fast fashion' that has been produced in that same year (Ellen Macarthur Foundation, 2017). These disposed clothing either mostly incinerated, donated or sold in secondhand shops, depending on the quality.

The effect this industry can have on the location is first and foremost the creation of jobs within the recycling factory. But it can have a positive impact on the city

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of Rotterdam as well. The textile articles that were mentioned before are not just clothing. They implicate all objects made of textile, for example the bedding that is used in hospitals and hotels. Close to the location is the Erasmus MC hospital. A place where they need plenty of bedding and uniforms for the staff. With their ambition to reuse more materials, the products that this industry can provide would help to get them a step closer to decrease their carbon footprint (Erasmus MC, 2021). With also the location so close to the hospital, the carbon footprint is even smaller since the transportation is very short.

1.2 - The masterplan

The recycling stages of textiles can be summarized in 3 stages:

- Sorting
- Shredding
- Spinning

In our masterplan the three stages are divided over three industrial buildings that are placed in a checkerboard pattern(see fig. 1.3). The residential buildings are placed in an opposite checkerboard pattern. By doing this we wanted to create a balanced mix between the buildings for housing and for the industry. Between the buildings there are three squares and these squares all have a mixed boarder with residential and industrial buildings. To open up and make the industrial process more visible, the facades of the industrial buildings are worked open towards the "industrial route" through the masterplan.

In the section of the masterplan one can see that there is a transition of heights from the towers next to the road building down to the buildings next to the waterside. To bring all the buildings together there are a few horizontal lines that are to be accented throughout the project.

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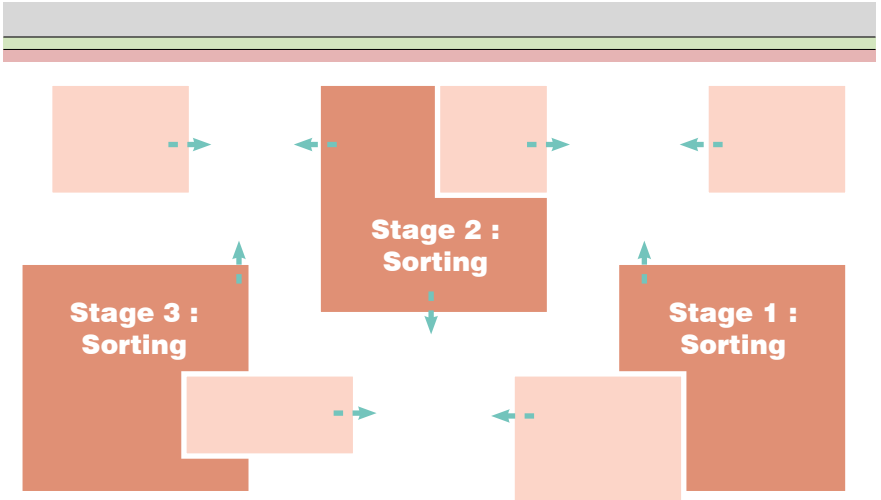


Figure 1.3 - Masterplan design

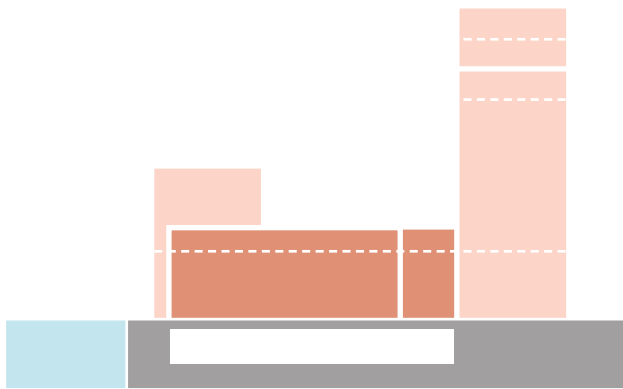


Figure 1.3 - Masterplan section

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1.3 - The sorting phase

There are two ways to sort the clothing, it can be done manually or automatically. For our facility we chose the automatically sorting system, this is done because of the higher speed in which the machine is able to sort and the more specific groups the textiles can be sorted in. The machine that can be used for this process is the FiberSort (figure 1.5).

In figure 1.6 the process of the FiberSort is summarized. The first step is the clothing being brought in to the facility in bales or big bags with trucks. The clothing is first gathered in the collection bin to the left. From here the textiles are moved one at the time up to the FiberSort. Here two arms grab the clothing and place them on the assembly line. First they are scanned with a NIRS (Near Infra-Red Spectroscopy) scan and then a RGB camera. The NIRS detects the type of fiber in the textile, the RGB camera analyzes the color composition of the textile (Valvan, 2022). The textiles move then down the assembly line and with the use of pressured air the textiles are blown into carts.

The FiberSort can sort the textiles into 45 different categories. The aim is to sort 16.000 kg of clothing a day. This is the amount of clothing that can be shredded in a day. One FiberSort machine can sort 900 kilogram of clothing in an hour (Fibersort - Wieland Textiles, 2022). To be able to produce that amount three machines are necessary to run every day for an seven hour day.

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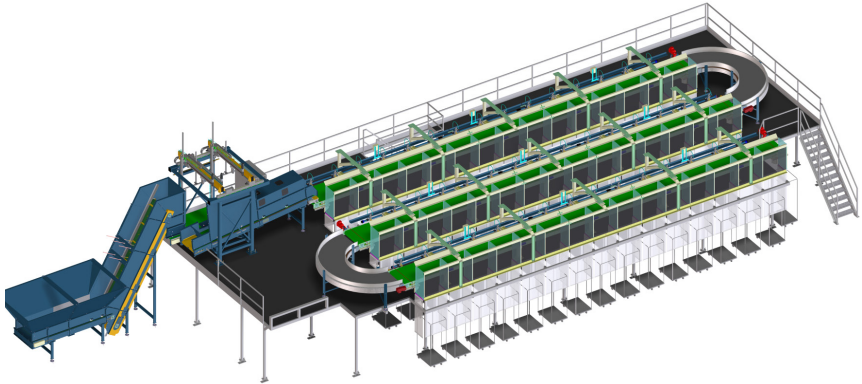


Figure 1.5 - the Fibersort, developed by Valvan baling systems. Retrieved from <https://www.fibersort.eu/>

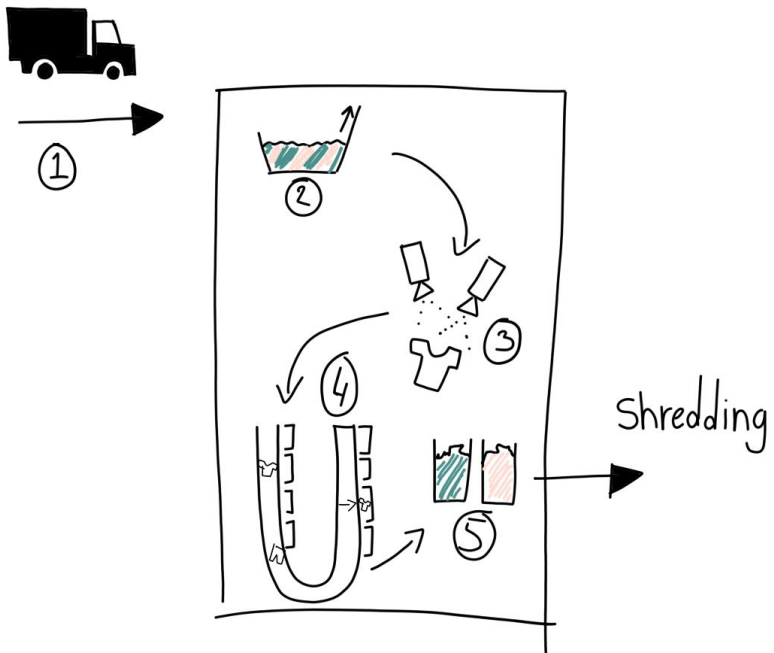


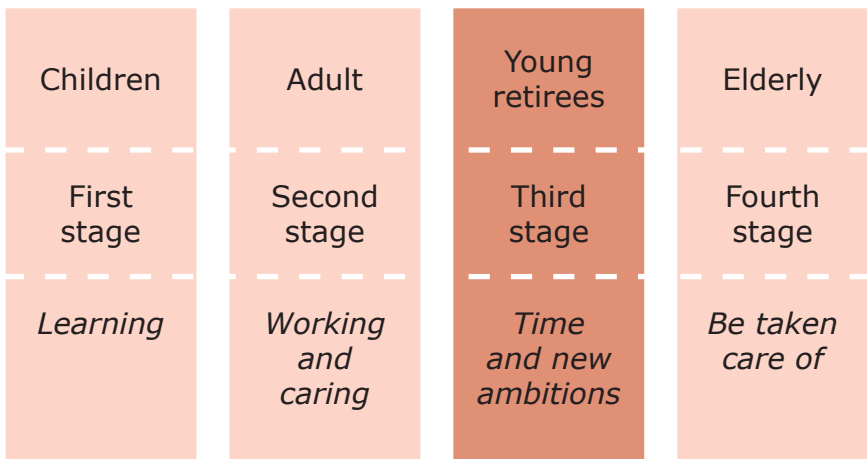
Figure 1.6 - The process of the FiberSort

The young retirees

2

The young retirees

In the introduction there was a short introduction into who the young retirees are. They are not to be confused with people who have retired at a young age, but rather people who are in the stage of their life where they are either considering retirement or have retired. They are at the beginning of a new phase of life. Usually, one has three phases to life: youth, adulthood and old age. Respectively: Learning – working (men) / caring (women) – resting and be taken care off (RVS 2020). But this is an old way of looking at life. Back then it was all dependent on certain ages what went on in your life. From 21 one was an adult, from 65 one was retired and quickly moved to a phase where they were cared for. It was in black and white. But people only need to receive care later in their life. This moves up the “starting age” of the people in the care stage and this creates a gap between the “working” stage and the “be taken care of” stage. This gap can be closed with a new third stage: time and new ambitions.



In this stage people often quit working and start enjoying life, since their ambitions change in this stage. They don't have to focus on work or on bringing in money. These people are still vital and have a lot of free time that they can fill with activities that they like (Prettig Blijven Leven, 2023).

The young retirees

The purpose of one's life is no longer black and white, your age does not specify what you are doing or should be doing in your life. It has turned into shades of gray. One person is not like the other, people have different ideas how they want to spend their time and gradually move to the "old age" stage of their life in their own speed.

This development to the last stage can be experienced in many ways, but there are three topics that are important to most of the young retirees. People want to be autonomous/independent, be connected to others and have a sense of purpose (RVS, 2022). But to get to these points is not as easy for everyone and it gives different sides and experiences to the third stage. After retirement the leading purpose that a lot of people had for a long time, work, is falling away. Not only their purpose falls away with this, but also the contacts they had through their work. With growing older comes also the risk that people's abilities mentally and physically will decrease (Dohmen, 2018). And looking towards the fourth stage of life, where the young retirees will eventually go there is also a big risk of becoming lonely. In the Netherlands the elderly above the age of 75 are the loneliest people in the country (CBS, 2016). That is why living with like-minded people can be important. The social contacts should not only be sought within a home. The neighborhood or the building one lives in is just as important (Wiles et al, 2011).

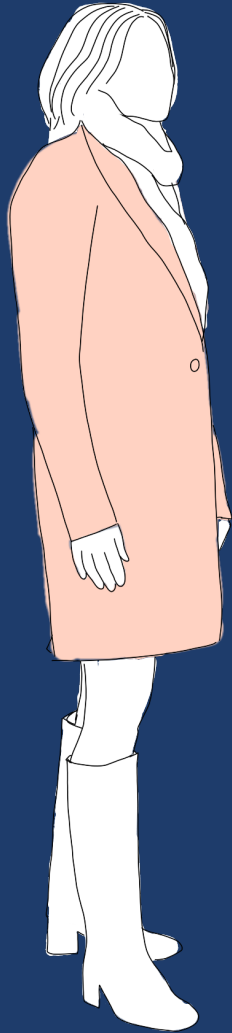
In 2018 the central bureau of statistics (CBS) in the Netherlands has done research on how many people are currently living in the Netherlands that could fall under the term young retirees. In 2018 there were around 2,4 million people, but this number is expected to grow up to 3,2 million people in 2040.

The young retirees

2.2 - Interviews

To understand the young retirees better, two interviews have been conducted with a couple and a single woman that fall into the category of young retirees. The interviews were conducted to understand these peoples view on their lives and how that translates to the homes they are living in or looking for.

Ms Baker



Ms Baker

2.2.1 - Interview : Ms Baker

The first interviewee is Ms Baker (name changed for her privacy). She is 61 years old and lives alone in an apartment in Alphen aan den Rijn. Miss Baker is still working full time but is at the end of a 10 year long project. That means that within half a year she will not have any work anymore, but to the question what she wants to do with her time she replied:

“I have no idea. I would like to keep working, but not indefinitely. Perhaps in a reduced capacity so I have more time to spend on doing things for me, you know? I love walking and being outdoors, so perhaps more time dedicated to myself. But I still really like to be able to look back on the work that I have done and to say: that is something I have done. I don't want to lose that yet”. She has just moved into this apartment in 2022 after going on a search for a new place to live since she was about to turn 60. This milestone age made her focus and think of the future and what this would mean for her. The biggest thing was her retirement that was creeping closer and looking at the house she was currently living in, she wondered if that was the place she saw herself grow old in. It was a row house built with some others in a small courtyard like setting. This courtyard was the last connected to the road, so it was a very quiet place to live. But since she was living there alone, during the covid pandemic she realized it was too quiet for her liking. The second thing was when the energy transition became more of an important topic. This would mean her house needed to be disconnected from the gas and her appliances needed to be replaced. This was a rather large investment, also being alone it would add a lot to her plate. Considering the points of getting older, the quiet environment and the energy transition, she decided that she would rather go out looking for a new place to live.

Ms Baker



Figure 2.1 - Schematic representation of ms Baker original house location

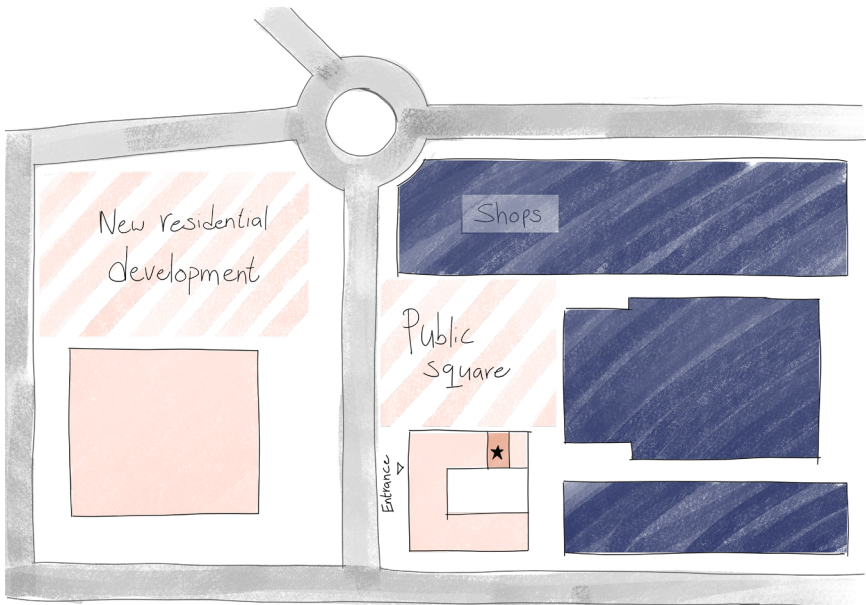


Figure 2.2 - Schematic representation of ms Bakers new apartment location

Ms Baker

Previous living situation

In figure 2.1 is a schematic representation of the terraced house that Ms Baker was living in. It was at the end of a street in a small courtyard setting. The only people that came here were the people that are living in these homes, so there was not much activity during the day. And the view out of the window was to a car park, so it was not a very inspiring view. During Covid she was more at home and began to notice the neighbors more. One elderly woman to one side and a Polish family to the other. The difference between her life and the Polish family was something that became apparent during the lock down. The family was loud and with a language barrier it was not always easy to deal with it. The elderly woman on the other hand was very nice, but was not very enthusiastic about investing in a renovation of the roof or the facade. And with living in a terraced house these elements need to be done collectively. These irritations started to build up and together with her planning her future she slowly made the decision to start looking for a new house.

Wishes for new house

Ms Baker had 5 main points that she looked for in her apartment. She wanted it to be spacious (100 m²) with a lot of light, since that is what she had grown accustomed to in her previous house. The apartment needed to be close to facilities for when she would be older and less mobile. The option of health care was not a separate consideration in this choice. By happenstance there was a health care center one street over from her new apartment, but they did not take on new patients anymore. So even if it would have been a criteria, it would not have been possible to receive care there. The third point was that the home needed to be close to the

Ms Baker



Figure 2.3 - Ms Bakers new apartment

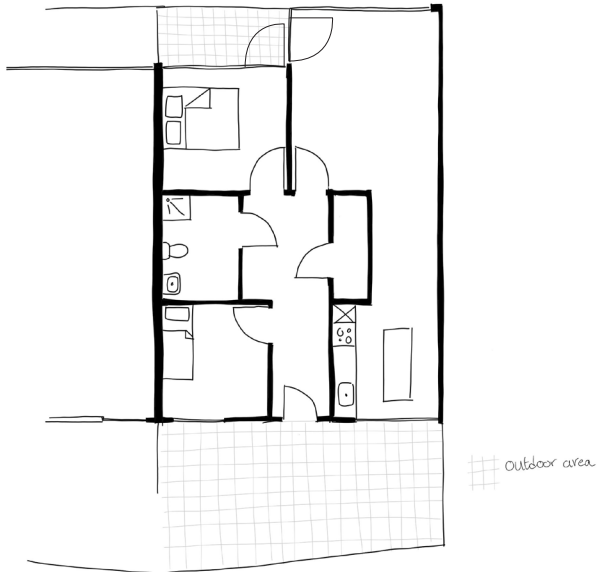


Figure 2.4 - Schematic floorplan of Ms Bakers new apartment

Ms Baker

public transport, for when she would not be able to drive her car anymore. The forth point for ms Baker was that she wanted a newly built apartment with all the newest technological advances already built in. She does not want to have to invest in new installations as long as she lives here. The last point was that she would be able to grow old in this apartment. She did not want to do this investment and have to move out in a few years because she could not live in the apartment with a walker or wheelchair.

Location

With the points that she wanted she started looking in the city Alphen aan den Rijn, this is the city where she grew up in and knows many people. The travel distance for her to meet up with people would be a lot less and with an eye to the future it would also be easier to meet people when she became older. There were a lot of projects that were going to be built, so she had a lot of choices. The first apartment she looked at was in the new construction on the other side of the road (figure 2.2.), but she was not able to get this apartment after she wasn't selected. Her broker then mentioned the apartment in the block on the other side of the road. It was delivered a year before, but the elderly couple living there wanted to move back to a terraced house finding the space to small and missing the garden. The broker sold the houses when they came on the market and knew that Ms Baker would make a good fit with them.

The apartment (figure 2.4) is 95 m² with two bedrooms, a spacious bathroom and a living room and kitchen combined. The entrance of the apartment is on the front balcony. This is a space shared with the other apartments and also serves as a space to meet and chat with the other residents. This space is also a place to

Ms Baker

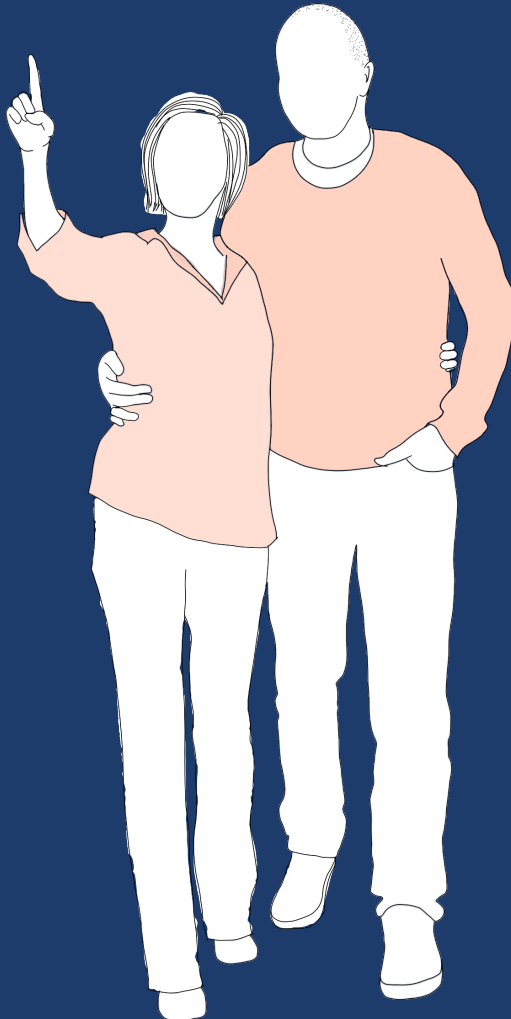
personalize the outside of ones apartment and make it more recognizable. The glass wall in the kitchen can be slid open to the balcony. The second balcony is next to the bedroom and is accessible through the bedroom and the living room. With big windows in the living room and bedroom the wish for a light filled apartment was met. The view out of her apartment is onto a small square surrounded by a small shopping center. Different activities are organized here during the week, including a weekly market. During the hot days of summer there is a water sculpture in which children like to play, which is another form of entertainment.

The layout of the entire apartment is also suitable to move around with a walker or a wheelchair if the time should come that Ms Baker would need that.

Ms Baker has regular contact with her neighbors in passing and during the home owner association (VVE) meetings. But the neighbors were not a factor for her decision to move to this apartment. She clearly stated that the house was leading, whether she would fit in with the neighbors was not of importance to her when selecting her apartment. Ms Baker is also not looking for a lot of social interaction with her neighbors. But there are smaller things that they will do for each other. When she first moved in she had a technical problem with her boiler and her neighbor was immediately prepared to help. Also when she went on holiday the neighbors had no problem with looking after her cat.

Ms Baker

Mr and Mrs Visser



Mr and Mrs Visser

2.2.2 - Interview : Mr and Mrs Visser

The second interview was with the couple Visser (names changed for their privacy). Mrs Visser is 56 and Mr Visser is 64. Both still working, but only 4 days in the week. Their children have moved out a couple of years ago and they realized that the house that they are currently living in is much bigger than what they both need. The house they are living in, is a typical Dutch terraced house. Since there is nothing wrong with the house they are living in, they don't have the hurry to find something else. They do not have a deadline to find something new, they just keep an eye on the houses that are becoming available and hope that eventually there will be one that speaks to them. But since the house they are now living in is not suited for them to grow old in, there is a small sense of urgency in finding a new place to live.

The house that they are looking for is a single story apartment with an elevator and with the possibility to park bikes and cars in a safe space. Since this is the last time they are planning to move, this apartment should be a place where they can actually grow old and if necessary also receive care.

Mr and Mrs Visser

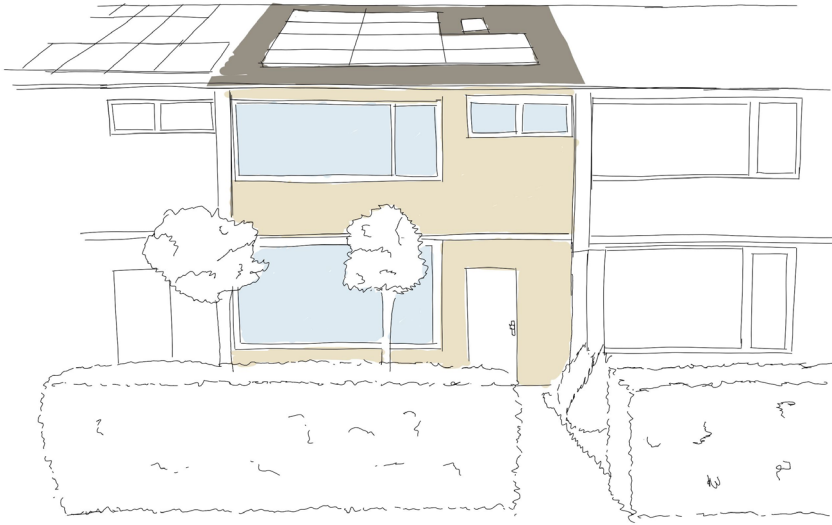


Figure 2.5 - Terraced house of Mr and Mrs Visser

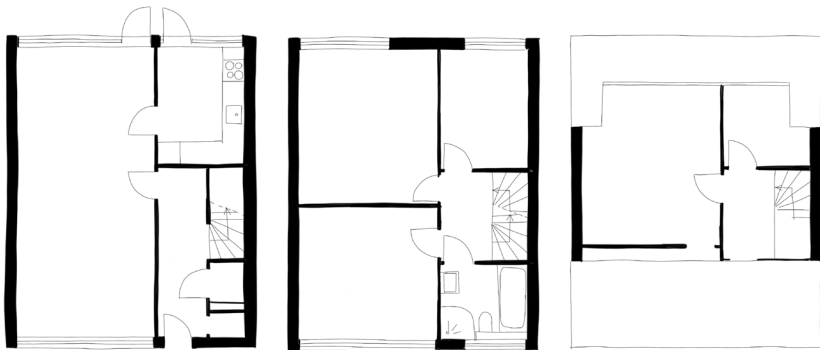


Figure 2.6 - Schematic floor plan of Mr and Mrs Vissers terraced house

Mr and Mrs Visser

Current living situation

To the left here is the house the couple Visser are currently living. It is a typical Dutch terraced house with neighbors on either side. They have a garden to the front and the back. This is not something they put a lot of value to. They enjoy that they can sit outside, but the up keep of the garden is not something that they would call a hobby. This is then also not an element they are looking for in a new apartment or something that they will miss when moving to an apartment.

The reason they do not see themselves growing older in this house is mainly due to the stairs in the house. There is no possibility to fully live on the ground floor. But the other reason they want to move out of this house is the fact that the house is too big for the two of them. Since their children have moved out they are not using all of the rooms in the house and the attic is even redundant. The fact that next to them there is a family of six living in the same house is a reality check for this couple. The couple even let the family use their storage box since the two of them could store their own possessions easily inside their house. They realize, also with the house search of their own children, that there is a real need for the types of houses that they are now living in. This need for space and the fact that they have so much and not even use everything sparked the decision to move.

Mr and Mrs Visser

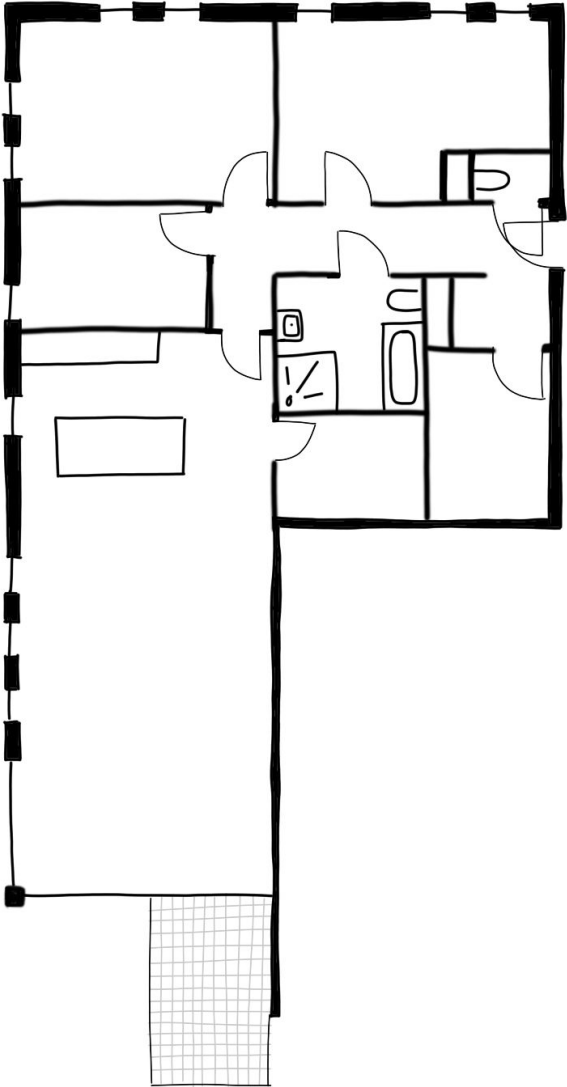


Figure 2.7 - Schematic floor plan representation of potential apartment for Mr and Mrs Visser

Mr and Mrs Visser

Wishes for new house

During the interview with the Mr and Mrs Visser, we also discussed the type of apartment they are looking for. They were able to give a very concrete example of an apartment they personally considered buying, but sadly it was just out of their price range. They are looking for an apartment to buy and their budget is €500.000,-. The home they are living in now is also a house they have bought, so the switch to buy another house is not as big.

The floor plan to the left is a indication of the type of apartment they are looking for. They are looking for an apartment with 2 toilets and 2 bedrooms, one as a bedroom and the second one as a study. A spacious storage unit is important and a place to store their bikes and car. Preferably the apartment is new, or very recently finished because they want all the technical aspects of the building to be up to date. They are now investing in a new apartment and want to be able to live here for the rest of their life. So having a renovation already in sights is something they do not want. They want to be relieved of the obligation to having to renovate the apartment.

Location

For the apartment they are looking in the same village as they are currently living in. This is not a must on their wish list for their new home, but they do not want to move far away from this village. The outskirts of the city is also a possibility, but not in the center of the city. The neighborhood is very important to them and the type of people living in that neighborhood. Their specific future neighbors is not an element they are selecting the house on. They do want to be close to public transport in order to easily get into the center of the city.

Mr and Mrs Visser

Both Mr and Mrs are still working, but at 64 years old the retirement of Mr Visser is coming closer. In the past the couple has done a lot of charity work for the church or different associations that they were involved with, either as a member or through one of their children. Mrs Visser thinks that when she will retire she will start up again with the charity work. She would love to work a couple of days a week in a retirement home. Mr Visser is not yet really clear on what he wants to do with the time he will gain after retirement. He currently is active as administrator of the table tennis organization.

Together they share a love for walking and biking, so they have named that the location of the building and its connection to the areas surrounding it needs to be good and safe. Close to a big park or nature reserve where they can walk and bike is also a preference.

When asked if there were parts of a house they would be open to sharing with others, they were not really enthusiastic. Perhaps the washer and dryer, but they prefer to own their own appliances. The kitchen is a place for them to connect and talk with each other, this would not be a commodity they would want to share with others. They referenced Mrs Vissers parents, who are living in an apartment building with predominantly elderly people. In this building there is a communal space in which different activities are organized for the neighborhood. Examples are the card club, the chess club or a diner or lunch for people of the neighborhood. Mr and Mrs Visser like the concept of such a space they personally would want or select their apartment on. They rather have a nice garden with different sitting area's that is maintained by the VVE (association of owners).

The young retirees

2.3 - Conclusion

The young retirees are a group of people that will quickly grow in the next couple of years in the Netherlands. Their lives are about to change when they will grow into the third stage of their lives. This third stage is in between the "adult" and "elderly" stage of life, respectively the second and fourth stages of life. This stage of life starts around the time that people are retiring and ends when they have grown into the "elderly" stage where they need to receive care. The freeing up of their time and the loss of the ambitions that they have had for years will for some be a blessing and others will perhaps be lost for some time. The losing of the stability work has offered for many people is an element that needs to be replaced or people need to reinvent themselves. The realization of the coming of the third stage of life is for many people a moment in time to make a decision how they want to spend the rest of their lives

The interviewee Ms Baker and Mr and Mrs Visser have similar reasons to start looking for a new place to live. They are still young and healthy and want to move only one more time in their lives. The houses that they are currently living in are not houses where they can grow old in so they also do not want to make big investments in these houses to get them technically up to date.

The young retirees eventually will grow old and a big risk for the elderly now a days is loneliness. This is something that can be prevented during the third stage of life by moving to a place where there is a community. But the two interviews that were conducted showed that these people would not like to share or live together with others on a regular basis. Sharing in collective activities would be optional, but neither reacted very positively on the suggestion.

Aging in place

3

Chapter 3

3.1 - Aging in place

With the fact that people are getting older and living longer, the choice of a new home comes with different requirements. People are looking for a home where they can grow old, in other words a place where they can age in place (Maltz et al., 2014). The term seems rather self-explanatory, but it is interesting to see what the elderly themselves think about this term. Answers to this question is sought after in the research done by Wiles et al (2011). They contacted a group of 121 people in New Zealand living in two communities that have been built in the 1950 / 1960. Many people moved in here when it was constructed and have literally grown old in the same place. New people move here after their retirement because of the central location, health services and the affordable housing. The ages of the interviewees were between 56 and 92 years with an average of 74 years. The people talk a lot about the social advantages that they have gained by living in these communities. Not only in good neighbors, but also by attending social groups. There is also an element of people looking out for one another. The social connections are the reason many people in the study mention that they do not want to move.

The types of people one lives next to are very important to the experience of living in a house, they can make or break the place. Of course, it is very different per person how the relationship looks like with their neighbors, but even when one does not have any contact with the people living next to you, they can still have an impact. Miss Baker names such an example when she was still living in her previous house: "In my previous house, on the one hand, I had a Polish family. We never talked. The house was very noisy and then a dog came along so always noise. I just didn't like that and was very happy to leave them behind."

Chapter 3

To create housing that is appropriate to age in place, there are some physical architectural aspects that can be implemented. Hallways should be big enough to allow for easy movement for wheelchairs, mobility scooters and walkers. Not only in the hallways but also within the apartments. In the apartment there should also be enough space that if there is need for care at home, it can be provided there (Laws, 1997, p.93). Creating a home with a set of stairs in them is not now a problem for the young retirees and also not a problem for some elderly people. But for the couple Visser that has been interviewed, the fact that they are dependent on the stairs in their home is the reason for them to go and find an other home.

There are also numeral social benefits of aging in place. When people move to a building that has been designed for the young retirees, people with the same mind set come to live there. Not everyone shall be as involved with the neighbors as the others, but there is a bigger feeling of solidarity between the residents (Iecovich, 2014). When the necessity of care becomes more important for the young retirees, having them living close to each other, it makes the giving of care easier. Since the home care nurse does not have to travel far between houses (Movisie, 2015). When the young retirees stay living alone in their home, they are also quicker in need of home care when they are not able to do the things that need to be done. This home care does not only have to be medical care, but also help with cleaning the home and getting groceries. When living in a community there are people that are willing to help with the smaller activities. There is a growing amount of interest in living in communal living (Rusinovic et al. 2019). This communal living can help the residents to build up social connections within the building and this allows for people to help each other. In the Netherlands this already happens with Knarrenhoven. These are communities where people live together in a

Chapter 3

secluded courtyard. The social interaction is a must in these communities. Neighbors look out for one another and help each other with simple things. This caring for each other allows for the people to live at home longer without needing care (Knarrenhof, 2022).

3.2 - Conclusion

So the type of apartment that people need to grow old in must have a few different components to ensure that one can grow old here. These elements will also be used in the design of the layout of the apartments for the design project this research is related to. Most apartments will be on one level and accessible with the wheelchair. There are a few apartments that will be designed with stairs for people who wish to stay active in that way.

Time and retirement

4

Time and retirement

Speaking of combining working and living in the context of young retirees, might sound a little contraindicative. But people starting with retirement are not incapable of working anymore (Baars, 2000). But the amount of people still working after their retirement is not large in the Netherlands. In 2015 a different study was conducted where Eismann (2020) states: 'working after retirement is the last thing people are thinking of'. According to her study done in 2015 only 5% wants to keep working at their current job and 4% wants to become an independent (Eismann, 2020). In 2023 Van Solinge conducted research into the relation between the ambition people have to keep working and whether they actually did work past their retirement. She also conducted a study in 2015 to record the ambition of people to keep working after their retirement. Her study concluded that there are 20,5% of people who have vague plans to keep working and 6% whom have concrete plans to keep working. In 2018 these same people were interviewed, but only a quarter (26,3%) of them did actually keep working after their retirement. The number of people actually working past their retirement age did grow to 8,5% of the people that are retired in the Netherlands (CBS, 2022; RVS, 2022).

So there is a percentage of people that continues to work when they have reached the magic number 67, and that number is growing. But the reason for people to keep working or to stop is different. People stay working longer after they have gone through a divorce, or their partner has passed away. The social contacts that one has while working is another reason to keep working. A third reason is that one must keep working because of financial reasons (Damman, 2015). Then there are also people who do have the ambition to keep working, but can not because of the rules in the collective labor agreements. In a vast majority of these it is stated that the employment relationship ends when the retirement age is reached.

Time and retirement

The lack of thinking with the employee from the employer connected with these rules, does not help the employees with the ambition to keep working. Seeing that there is 73,7% of people that has lost their plans to keep working after their retirement, there is a real opportunity for employers to fill their open vacancies (Van Solinge, 2023).

The young retirees have just worked multiple years for the companies and during their work and life they have gathered a lot of knowledge. This knowledge that they have gathered over these years is highly valuable. They become experts in their respected fields and are able to recognize patterns more easily and are quick in their respected fields. With all the experience these young retirees have gathered over their life, they can also become post formal thinkers. This means that they have come free from the formal way of thinking, which is a black and white way of thinking. The post formal way of thinking is breaking free of this rule based way of thinking. With the post formal way of thinking and the expert knowledge that the young retirees have gathered over the years, they have become better in solving problems and communicating their knowledge to others (Munk, 2020)

4.2 - Free time and retirement

If people choose not to work, the young retirees gained a lot of free time. The way they fill their time is different for each person, but most people are active in social work. 43% of the retired people work for 8 hours in the week at many different charity organizations. In the research done by Eismann (2020) workers from above 60 were asked what they wanted to do with their spare time after their retirement and the first choice was to spend time on hobbies. Secondly was sport and movement, thirdly creative and fourth is spending time with family. The learning of new skills and gaining knowledge is a point that

Time and retirement

was very low on the list of activities.

So working after retirement is not really an option that can be applied to all the young retirees. It is a personal choice whether or not to keep working. But to participate in doing something for society is something people are open to. People want to be busy, want to have a sense of purpose in life and want to connect with others. A possible concept for a building that is designed to have space to organize events for the community is co-housing. With co-housing people still live independently, but can share several communal spaces. People can also share in facilities, like sharing a kitchen and or a living room. This is called co-living. With co-living people choose to live with each other in the same space and have a very small personal private space. The allure of living in co-housing is the supportive community one can find here and the added bonus of having to option of sharing in daily tasks. Child care can be arranged collectively and there is also the possibility to for example eat and cook together. The main reason for co-living in is the need for affordable urban dwellings. The social components come second. The most people that are attracted to this type of living are the young professionals (Medar & Ćurčić, 2021).

With the young retirees in mind, co-housing is generally a better fit then co-living. The people want to be autonomous and have their own identity (RVS, 2022). They do want to have social interactions with others and have a new purpose in their lives. But after having lived for multiple decades alone or with their own family in a house, to have to change this learned way of living to fit into a co-living situation is to big a step. According to the interviews conducted with Ms Baker and Mr and Mrs Visser, people are not looking for that kind of interaction with the other tenants.

Time and retirement

But the opportunity to interact with neighbors has also important health benefits in a building where people are getting older. Birgit Jurgenhake (2019) showed in her research is that the social circle of people is getting smaller the older they get. This is due to the fact that the physical health of people can decline. To include spaces where social activities can be organized for the residents, people can build up relationships with others in the building. These social connections between these people then help with the feeling of being connected with one another.

4.3 - Conclusion

The young retirees gain a lot of free time after their eventual retirement. The plans that the people have of what they will do with their new time is not always clear. A small percentage of people have concrete plans of what they want to do with their time, but this does not always eventually work out the way they had imagined it. Even though the young retirees have gathered a lot of expert knowledge and have evolved in their way of thinking, they generally do not show the ambition of using this knowledge later in life again for a job. Of the people that do work after their retirement, the number has grown within three years from 6% to 8,5%.

People want to spend more time on their hobbies and other social activities. A type of housing that would fit with this and also promote social activities is co-housing. In this type of housing people live privately in their own home, but there are communal spaces in the rest of the building. The activities that can be done in these spaces are endless, but a few examples are that there are meals organized for the neighborhood. Or that the space can be used for a chess club, or the technology repair group (where people can bring broken appliances).

Time and retirement

Building insights

5

Building insights

5.1 - Case studies

There are several projects that are designed with the elderly in mind. In this chapter three of these projects will be looked into, to discover how others have designed buildings with the elderly in mind. The first is the Vindmøllebakken in Stavanger. A building that accommodates the different age groups and brings them together with several group spaces. It has been chosen as a case study, to explore how housing and communal spaces can be situated together, but in a way that it does not force the social interactions constantly. The second is the OCMW Nevele. Although it is a care home, the elements that are included in this building to be able to provide care and support the residents are to be looked in to. Since the young retirees are planning on moving only once more in their lives, the apartments need to be equipped to receive care and to be able to move around in when ones physical health has deteriorated.

Vindmøllebakken



Figure 5.1 - Birdseye view of Vind Vindmøllebakken. Retrieved from: <https://www.archdaily.com/962820/vindmollebakken-housing-helen-and-hard>

Location: Stavanger, Norway
Architect: Helen & Hard architects
Completion: 2019

Building insights - Vindmøllebakken



Figure 5.2 - Interior view of Vind Vindmøllebakken. Retrieved from: <https://www.archdaily.com/962820/vindmollebakken-housing-helen-and-hard>

Building insights - Vindmøllebakken

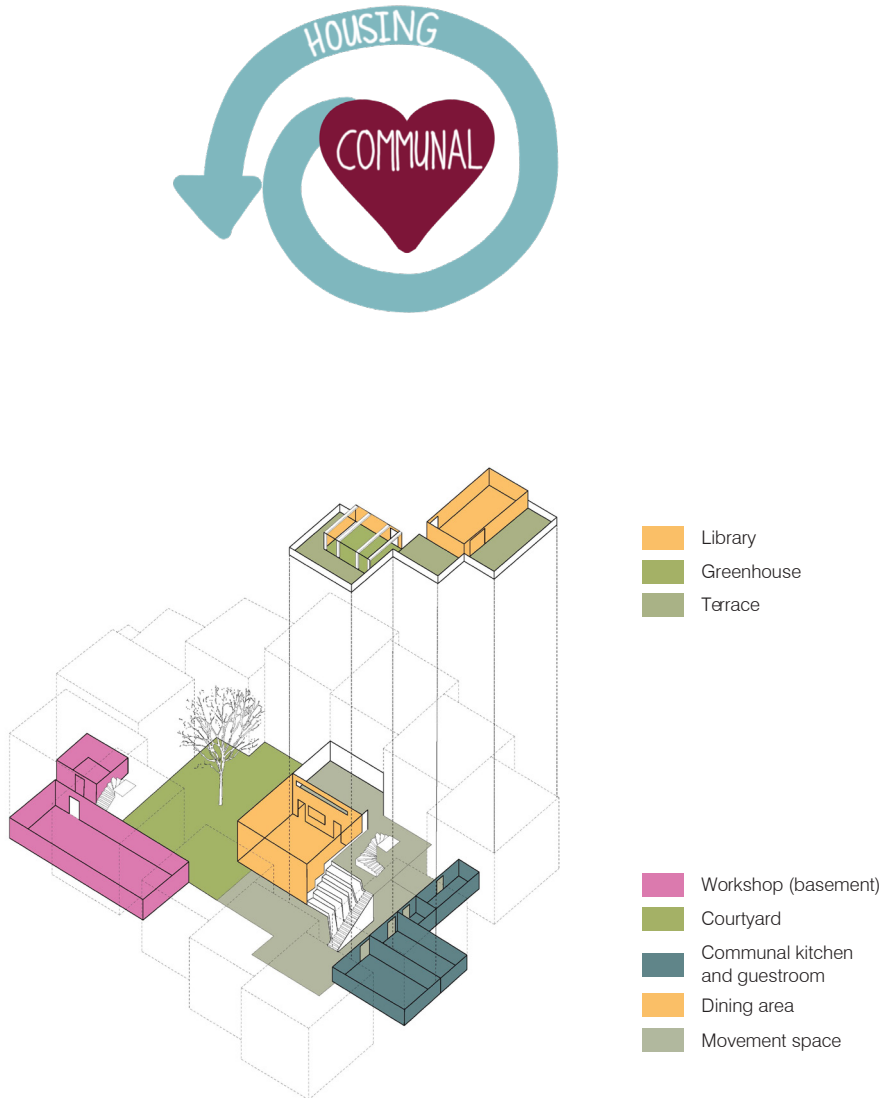


Figure 5.3 - Communal spaces in Vindmøllebakken

5.2 - Vindmøllenbakken

The Vindmøllenbakken is located in Stavanger Norway and is designed by Helen and Hard architects and houses 40 co-housing units, 4 townhouses and 8 apartments. The building is built up with a “communal heart” in the center of the building with a courtyard and communal spaces and the housing wrapped around it in a circular movement. There are four types of apartments ranging in size from one to four bedrooms and feature high ceilings, large windows, and balconies or terraces. The development also includes a number of sustainable design elements, such as a green roofs and being constructed using wood-frame construction, which is both sustainable and energy-efficient (Pintos, 2022).

In the building there are not only the private apartments of the residents to be found, but also communal spaces. The residents that live here have also participated in the creating of the building. The concept of gaining by sharing, which involves owning less individually and sharing more collectively, is the basis of this project. Within the building there is space for communal dining and a collective kitchen, found on the groundfloor next to the main entrance to the building (see figure 5.3). Other communal spaces include workshops, guest rooms and a lounge on the ground floor. On the top of the building there is a library and a greenhouse.

The entry to the building can be done in one of two ways. One can move through the communal spaces in the heart of the building and then through to a staircase that will bring the people to their homes. Or the apartments can be reached more privately through the direct staircase. This gives the residents the choice on how much social contact they want to have with one another. The placement of their home can also be influenced by this decision.

Building insights - Vindmøllebakken

Figure 5.4 - Schematic floor plan of the ground floor of Vindmøllebakken

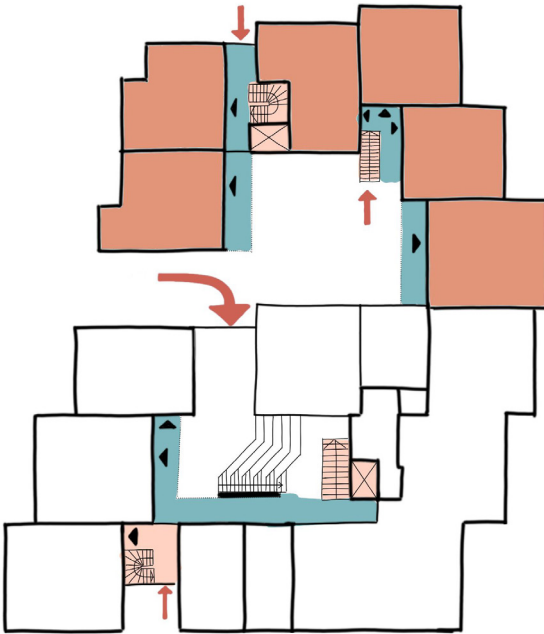


Figure 5.5 - Interior view of Vindmøllebakken.
Retrieved from:
<https://www.archdaily.com/962820/vindmøllebakken-housing-helen-and-hard>



Building insights - Vindmøllebakken

The apartments that are highlighted in orange in figure 5.4 are not connected to the communal spaces like the others. So for people that want to live more on their own, these apartments could suit them better than the other apartments.

Spatially the communal heart in the center of the building is a large open space with an atrium and visual connections to the other spaces. This visual connection also allows the residents to observe what is happening in the rest of the building. In figure 5.5 the windows to the left are visible. These are adjacent to the hallway on the first floor and allow the residents there to see and know what is going on in the main part of the building. The hallway in this example is a transition zone between the private space of the apartment and the public of the communal heart. These transition zones are to be found throughout the building to not have the communal spaces and private spaces interfere with each other.

The amphitheater and stairs that are placed in the middle of the space also invite people to keep moving and exercising. The visual connection to the top helps people to naturally use the stairs. By having these communal spaces placed in the general routing of the building, people use it more easily. This allows the residents to come more organically in contact with one another and makes the use of the space more approachable. The communal activities are all coordinated by the residents themselves.

According to an article of Archello there are 22 interest groups for the residents to take part in. These groups arrange the daily tasks and gather the resources themselves to be able to participate in the communal activities (Archello, 2020). The great thing about it is, that the people that live here understand what the needs and wishes are of the residents.

Building insights - Vindmøllebakken

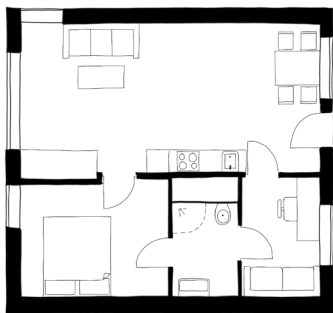


Figure 5.6 - standard apartment, 57 m²

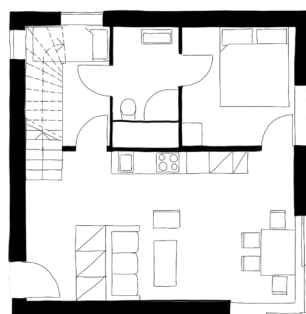
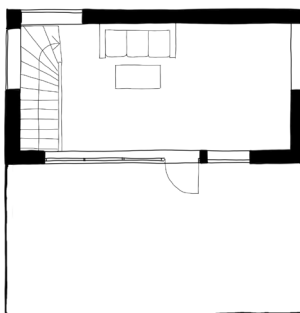


Figure 5.8 - Duplex apartment, 75 m²

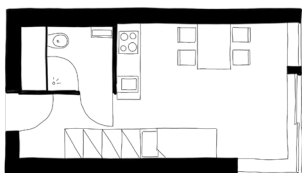


Figure 5.7 - Guest apartment, 28 m²

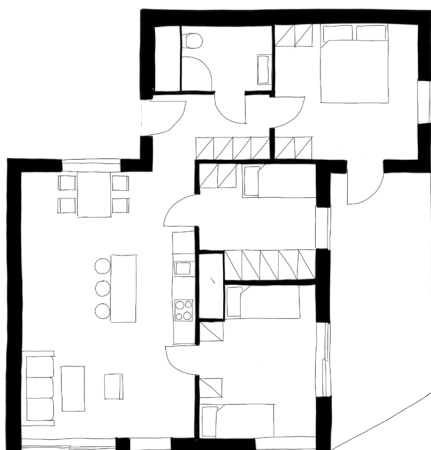


Figure 5.9 - Family apartment, 82 m²

The apartments

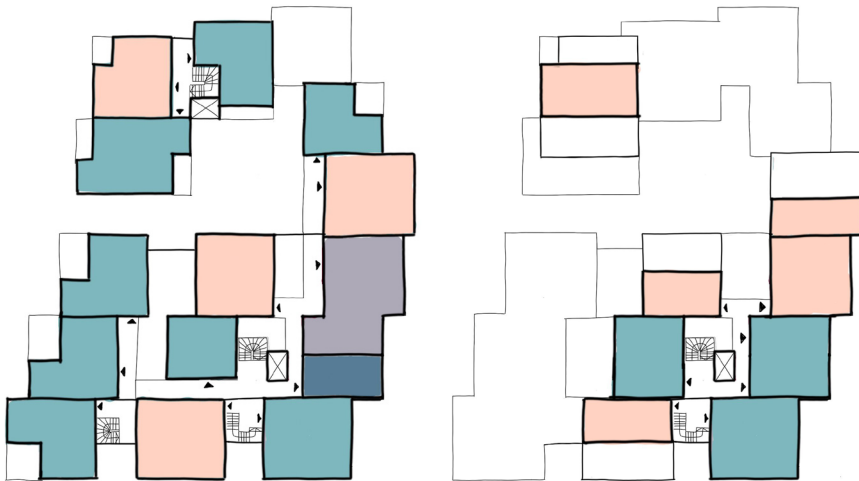
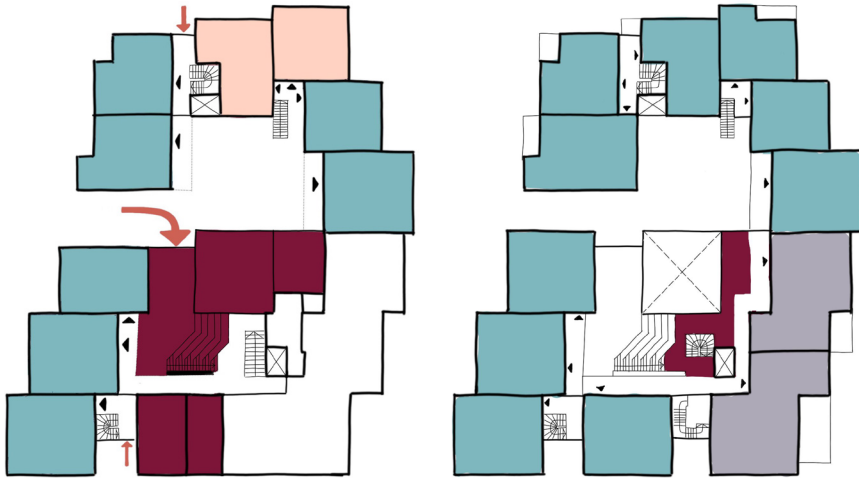
As mentioned before, there are different types of apartments in the building, three in total: The "standard" apartment that is to be found is an apartment of 57 m² with a bedroom, bathroom, study and kitchen/living area. There are 27 of these types of apartments in the building. The second type of housing in the building is the duplex apartment with 75 m². This has a second level to the apartment where an extra study space is placed and one has access to a roof terrace. The bottom level of these apartments is similar to the layout of the 'standard' apartment with a bedroom, study, bathroom and a living/kitchen room. Of these apartments there are eight in the building.

Thirdly there is the family apartment. This is an apartment of 82 m². The layout contains three bedrooms, a bathroom and a large living/kitchen space. Of these apartments there are four in the building.

And as last there is the guest apartment. It is an apartment of 25 m² and is to be found in the ground floor next to the communal heart. By including a guest room like this for general use allows for the apartments to be smaller. The times that a guest would stay for a long period of time is not very often and by creating this guest room the need to include a separate room in each apartment is not necessary anymore.

The apartments are not all very spacious. Take miss Baker for example who had as a requirement that the apartment had to be 100 m², these apartments do not fall into that size requirement. But that does not mean that these lack in quality compared to the apartment of miss Baker. These apartments have been designed to give a good quality of life if one wishes to live a more private life, but by including the communal rooms people can enlarge their living area. That is also why these rooms have been

Building insights -Vindmøllebakken



- Communal space
- Standard apartment
- Duplex apartment
- Family apartment
- Guest apartment

Figure 5.10 - Mix of apartments
 TL: first floor, TR: second floor
 BL: third floor, BR: fourth floor

Building insights - Vindmøllebakken

designed to be slightly smaller than what most people are looking for. The apartment is big enough to live in, but when more space is needed or wanted the building can provide this.

The choice of materials and the use of large windows and skylights creates a soft and approachable look in the building. Even though the apartments are smaller than some would want, the windows in the apartment allow for a lot of natural light to enter to open the space and let it not feel crowded.

The types of apartments are mixed through each other on the different floors and set back from each other. This allows for more sun to enter the apartments. This in turn allows the space to open up more visually. The different types of apartments also attract different kinds of people, which creates a mixed group of residents in the building. A mix that will keep existing through the years when people move in or out.

In figure 5.10 one can see the way that the apartments are shifted from one another allowing for more sides of the facade to be opened up to the sun. The shifted placement of the apartments also create hallways that are not only straight. The hallways work around the apartments making the look not singular throughout the building. This also allows the people living in the apartments to give more identity to their own home on the side that is shared with the hallway.

OCMW Nevele

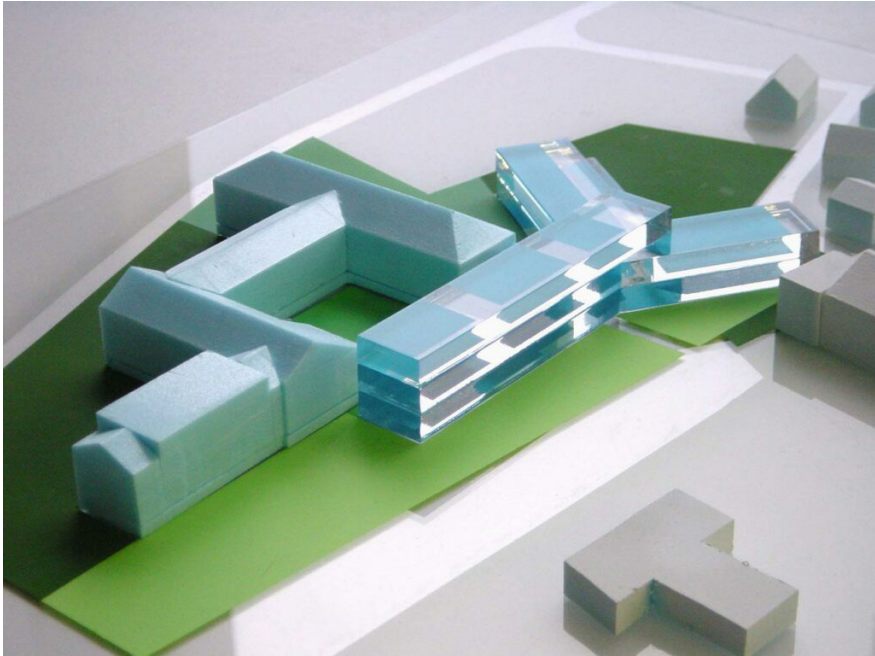


Figure 5.11 - Model of OCMW Nevele. Retrieved from: <https://hicarquitectura.com/2012/12/51n4e-ocmw-nevele-seniors-campus/>

Location: Nevele, Belgium
Architect: 51N4E
Completion: 2012

Building insights



Figure 5.12
- Pictures of
the exterior of
OCMW Nevele.
*Retrieved
from: [https://
miesarch.com/
work/2946](https://miesarch.com/work/2946)*

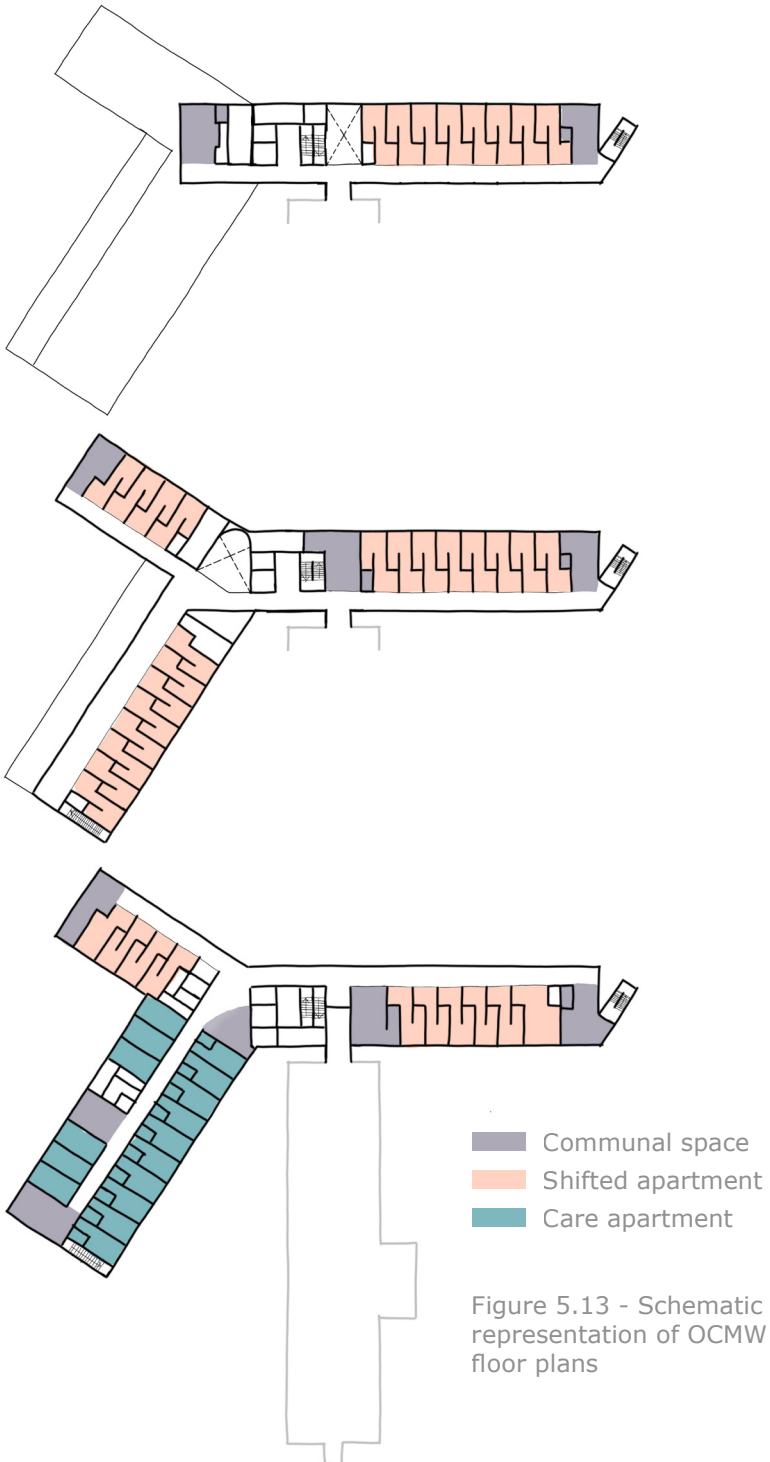


Figure 5.13 - Schematic representation of OCMW floor plans

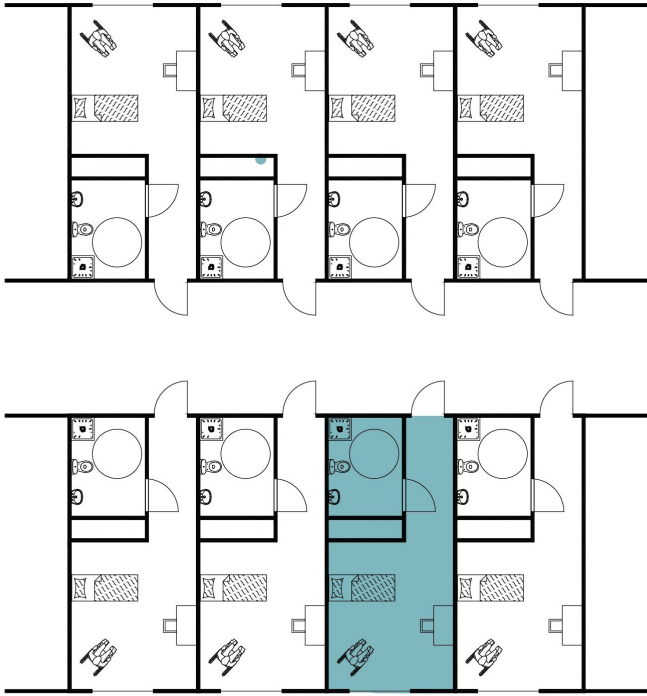
Building insights

5.3 - OCMW Nevele

OCMW Nevele is a completely different building than the Vindmøllenbakken since it is an elderly home where people live once they cannot take care of themselves anymore. Located near Ghent, the Nevele rest home is a three-story building featuring dark-red glazed tiles. Tucked in between houses and sheds, the rest home boasts large square windows that offer a glimpse of its elderly residents. The part we are focusing on for this research is the addition that has been implemented by the architect 51N4E in 2012.

The new extension has added 54 new care units to the complex. The building is built up off three long corridors that meet in the middle. Within these corridors there are communal spaces where the residents can meet one another. These communal spaces are mostly located on the ends of the hallways. Here they have a clear view of the gardens surrounding the building. There are two types of common spaces. One with large tables and a kitchen to allow people to cook together. The other common spaces are more like big living rooms with a couch and big chairs. What is also interesting is that next to these common spaces there are also toilets to be found. An element that is important to keep in mind when designing for people who are getting older.

Building insights



Apartment Corridor

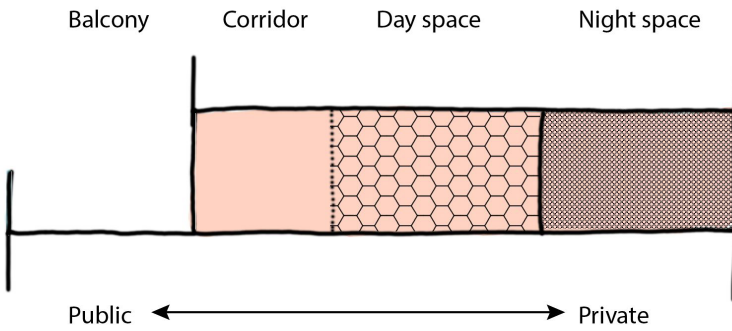
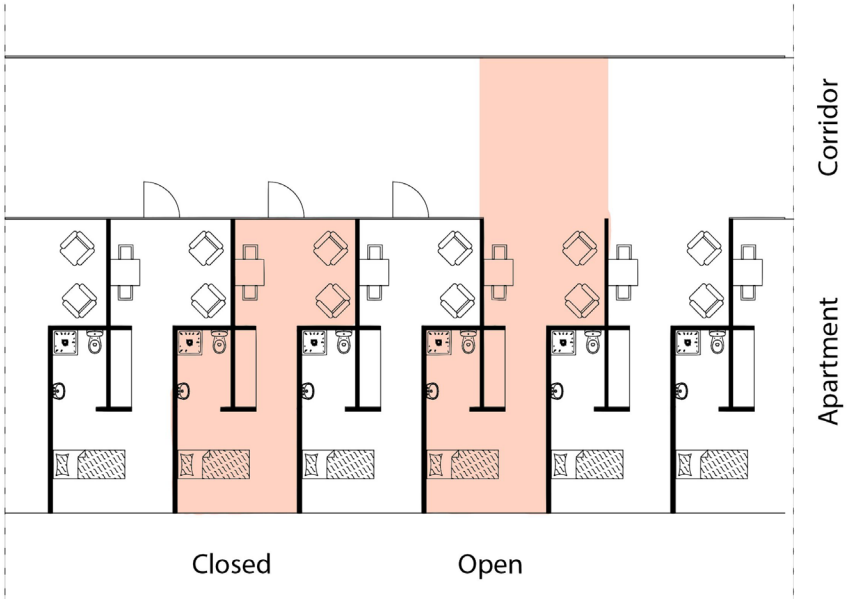
Building insights

The apartments

In the building there are 2 types of apartments to be found. The first one is only on the ground floor and is accessed by a corridor in between two rows of apartments. These apartments are configured with the bathroom close to the frontdoor and the living area behind. From here the residents have an open view of the gardens surrounding the building. These apartments are the more private apartments, since there is no way to open these up to neighbors. There is however still the opportunity for these people to meet others in the common spaces connected to the hallway. Here one can meet and interact with the other residents. These apartments are more designed for people who do not have the ability to care for themselves anymore. That is why they are probably to be found on the ground floor so that the elderly don't have to deal with stairs or elevators. The access to the building is easier in this way and is less of a hurdle for elderly people to overcome if they wish to go outside.

In the apartment there is a lot of space for the resident to move around with a wheelchair. The bathroom is spacious and the bed is placed loose from the wall. Moving further into the apartment there is a lot of open space. This can be used by the caregiver helping the patient. The patient themselves can also use this space as their sitting area with the view out onto the garden.

Building insights



Building insights

The second type of apartment is more interesting. These are also more to be found in the project. The apartments are all placed next to an overdimensioned corridor. Instead of having a straight apartment like the previous type this apartment has a shifted layout. The first part of the apartment is not inline with the rest of the apartment and in this way there are two distinctly different spaces created within one continuous space. Adjacent to the corridor the living room is placed, one then moves through the kitchen towards the private part of the apartment with the bedroom where one can access the bathroom. The partition between the living room and the corridor is made of large sliding doors that can be opened up entirely. This allows the residents to expand their living room into the corridor and even further on the balcony placed in certain sections. There is a very clear transition from the private to the public with these layouts and the communal spaces.

Having the corridor as the only way to access the apartments, this will create the opportunity to interact more with the other residents. These apartments are for people who can still take care of themselves up to an point. In contrast to the care apartments, here the residents have a small kitchen for themselves where they are able to cook for themselves.

One downside of the design of the entire building is that it is very minimalistic interior of the hallways. Everything is white and all the doors are exactly the same. When an elderly person were to live here and who would become forgetfull, this layout would not help this person to find their home. It would actually hinder them.

Building insights

5.4 - Conclusion

The Vindmøllenbakken and the OCMW have different ways of handling the transition of the private and the public spaces. The Vindmøllenbakken has apartments that are completely private. The residents here have the choice to either live completely on their own or to engage in more with the other residents. Either in social clubs or by meeting in the greenhouse. The transition from their private apartment to the semipublic transition zones before entering the public spaces allows them to enforce their choice whilst also entering or exiting the building. The visual contact one has at all levels to other parts of the building also creates a feeling of familiarity and recognition with the building and other residents. The fact that the main routing of the Vindmøllenbakken moves through the common spaces lets people get more familiar to these spaces is an element that can encourage the social interactions with the other residents. Instead of having the entrance immediately move into a stairwell, this configuration invites people to interact with one another more.

The hallways in the OCMW create a clear structure. There are three arms with large windows on one side and the apartments to the other that meet in the middle. However, for the elderly this can be a problem to orientate themselves in the building. The hallways are all very similar in materialization and therefore look all the same. For elderly people it is harder to recognize which apartment is theirs when they all look the same. In the Vindmøllenbakken the apartments are not placed on a similar fashion, they slightly shift from one another, so they are distinctively different and recognizable. The design of the shifted interior of the apartments in OCMW is one important take away of this building. Allowing the doors to open up to the hallway to extend the living room,

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creates the possibility to create social contact with others.

Conclusion

6

Conclusion

In the beginning of this research the question was posed: How to create architectural spaces that would benefit the interaction between young retirees and motivate them to move?

To answer this question we looked at who the young retirees are. The young retirees are people that are not to be confused with people that are retiring at an early age. The young retirees are people who have just entered the third stage of their lives. This is a new stage between adulthood and elderly. This new stage has been introduced since people are living longer and staying healthy longer. They do not need to be filled into the elderly group just because they have retired. Because these people have just retired they have a lot of time on their hands and can undertake new and different activities. They are looking for three main points in their life: being autonomous, come in contact with others and have a purpose in life. Finding out how to divide their time to fulfill each of these three points is something that will take time and exploration.

With two interviews conducted with Ms Baker and Mr and Mrs Visser we discovered that the young retirees are very motivated to move and have the money to do so, but the lack of appropriate housing is what halts them. Also with living in an house that is sufficient for the near future there is no real haste to move out to a new home. Ms Baker moved out quite quickly after making the decision to look for another apartment, but this process was sped up because of the miss match between her and her neighbors.

The second question that was looked into was what the young retirees need in their homes to consider moving to them. The most important element is that these people only want to move one more time in their life. So the

Conclusion

house that they are now moving to has to be the house in which they can age in place. This means that they want an apartment that is on one level and where they have enough space to move around to receive care if that is needed. The other important aspects are the social contacts around these apartments. Even though Ms Baker and Mr and Mrs Visser have said that they do not mind who their neighbors are, they still are sensitive about them. Ms Bakers likes that all her neighbors are around the same phase in life, so the lifestyles of everyone matches with each other and there are no clashes between them. Mr and Mrs Visser named specifically the neighborhood where they would want to live in that needed to be aligned with their ideals.

Thirdly the question became what these people could do with their newly found free time. There is a small percentage of people that continue working in the Netherlands after their retirement and this number has grown over the years, but not significantly. Most people want to spend their time on their hobbies and friends and family. But when looked at a building like the vindmøllebakken in Stavanger, where there are 22 different social groups that organize events within the building, there is definitely a possibility for collective activities for the young retirees. This would really help the young retirees that have just retired and are looking for a new purpose or new social contacts.

But important is that these communal activities do not become a mandatory element of the life in the building. People still have their own preferences in how involved they want to become in the life of the building. The case studies of vindmøllebakken and OCMW Nevele both show this. In both buildings there is the possibility of participating in communal activities. In the vindmøllebakken it is more visible, being placed on the

Conclusion

ground floor with the apartments moving around this space. But because there are different routes throughout the building there is no pressure to interact with these activities. People can choose whether or not to participate. In the OCMW Nevele the choice is there as well. With the communal spaces placed in between the apartments, it is easy to go to a space to interact with others. But if one wants to keep it more private, the option also exists to slide open the door to the hallway to extend their living room.

Conclusion

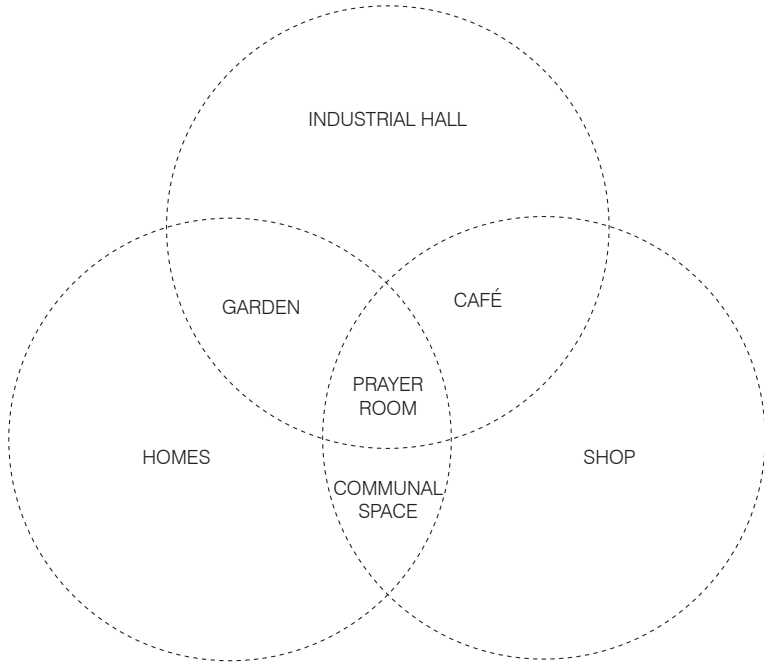
The design

So we have learned in the core that the young retirees are people that are willing to move, but that the lack of sufficient housing stops them from moving. The houses that they are looking for are apartments that are on a ground level and they want to be able to age in place there. Seeing that they have a lot of time to spend after their retirement and are in need of social interactions, communal spaces are needed within the building. But these spaces should not be forced upon the residents. There needs to be a secondary route that can be taken by the residents to avoid those spaces.

For my design I am aware that my building is not placed alone on the earth, it is designed in between other buildings. Therefore I want my building to not only and exclusively be used by the residents, but be opened up to the neighborhood. In connection with that, is that my building will also be used by the workers in the industry. The paths of these three users are supposed to cross, in order to allow them to interact with one another. There are different types of places that these people can meet each other in, but to help with people meeting a space needs to have a function. If all the spaces would be empty, people would not quickly come there. Looking in my own experiences with meeting different kinds of people, from all walks of life, is the church. A place people come to with different motivations, but with a singular goal. Also within the massiveness and always active character of the city, the moments to stop and take a minute and finding oneself again are limited. So to make space for this, in the center of the concept of my building is a prayer room. A place that is accessible for everyone and connected to the rooftop garden for extra contemplation or the cafe for more social interactions with others.

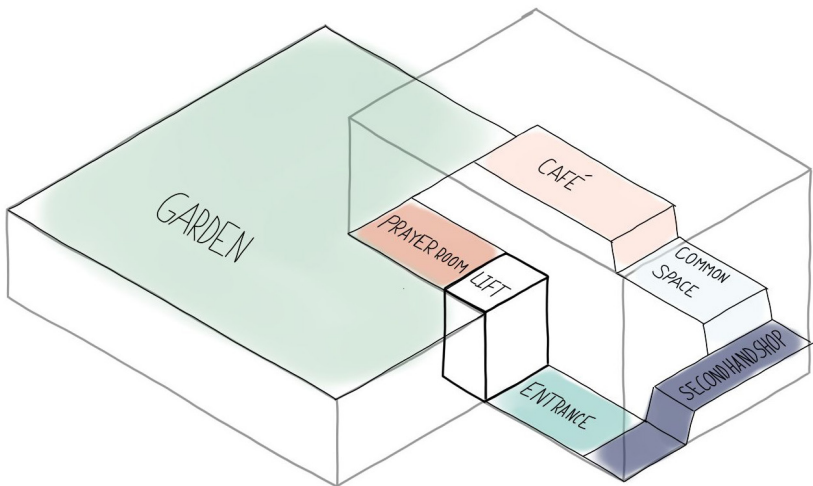
Conclusion

Workers



Residents

Neighbors



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