

Healthy Ageing through the Living Environment

Graduation Thesis



Research Report | Designing for Care in an Inclusive Environment

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ABSTRACT

The ageing population in the Netherlands presents challenges in elderly care, including rising health issues, a shortage of healthcare staff, and escalating costs. This study explores the association between healthy ageing and Blue Zones, regions in the world where long and healthy lives are common. Genetic factors contribute to 25% of lifespan variations, while non-genetic elements, such as unhealthy habits and social conditions, play significant roles. Environmental factors also impact the ageing process. The research aims to create a healthy urban living environment in the Netherlands, drawing inspiration from the lifestyle lessons in the Blue Zones.

The main research question delves into how Dutch living environments can promote healthy ageing and assist the elderly in maintaining vitality. Sub-questions explore the key elements contributing to healthy ageing, the implementation of the Blue Zone concept in the living environment on the scale of the neighbourhood, street and building, and how the concept can be applied within Dutch urban living environments. Building on the principles of Blue Zones, the study focuses on three key spatial domains within the living environment: Physical Activity, Green/Blue Spaces, and Social Connection. The research goal is to provide practical design guidelines for architects and urban planners, aiming to reduce healthcare costs and chronic diseases in the ageing population.

Implementing these guidelines in Dutch urban environments enhance the overall health of the elderly, maintaining their vitality and independence for as long as possible. To achieve the best health benefits, a societal shift towards proactive engagement and inhabitants' responsibility for their living environment and health is needed to create a healthy living environment.

KEYWORDS

HEALTHY AGEING | BLUE ZONES | VITALITY | ELDERLY | PREVENTION

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01 INTRODUCTION

1.1 Problem Statement

The Netherlands are dealing with an ageing population. In 2015 the population aged 65 and over consisted of 3,6 million people. This number is expected to rise to 4,8 million in 2040 (Stoeldraijer et al., 2022). Moreover, the number of individuals aged 90 and above will increase from 117.000 in 2015 to 340.000 by 2040, according to data from the Dutch National Institute for Public Health and the Environment (RIVM) (2018). Within Dutch elderly care, three critical issues have emerged.

Firstly, life expectancy is increasing, but the additional years are not necessarily free from chronic diseases (RIVM, 2018). In fact, the number of years lived without chronic diseases has decreased over time (De Klerk et al., 2019). In the 1980s, the average lifespan without chronic diseases was 55 years, but by 2022, this had decreased to 40 years (Van Mersbergen, 2022). Nowadays, 10 percent of the population aged 65 and older is dealing with complex medical conditions. According to experts this percentage is expected to rise to 22 percent in 2040 (Baâdoudi et al., 2023). The existence of these diseases, including cardiovascular diseases, obesity, hypertension, osteoporosis, and type 2 diabetes, finds its origin in the mismatch between the adoption of the modern western diet and lifestyle that differs very much from what shaped the human genome for over 2 million years. In short, a person's environment and accompanying lifestyle have a larger influence than their genetics on their chances to develop chronic diseases (Carrera-Bastos et al., 2011; Universiteit van Nederland, 2018).

Secondly, the ageing society is confronted with a shortage of caregivers to meet the needs of a growing population (Langerveld, 2022). To maintain the current level of care in the Netherlands in 2040, it is estimated that one out of four people will need to work in the healthcare sector. In 2022, one out of seven people worked in the healthcare sector (Langerveld, 2022). The future shortages cannot be addressed only by informal caregivers, such as adult children, taking care of their parents. In 2015, there

were ten potential caregivers between the ages of 50-64 for each person aged 85 or older. However, by 2040, the expectancy is that this will decrease to only four caregivers per person aged 85 or older due to changes to the demographic (RIVM, 2018).

Lastly, the current healthcare system focuses on treatment rather than prevention, where individuals receive care only when they are already ill. This approach is becoming unsustainable due to rising healthcare costs and the ageing population (Koopmans et al., 2012).

To sum it up, without intervention, the ageing population will face three major challenges:

- An increase in non-communicable diseases.
- A shortage of healthcare staff.
- Rising healthcare costs, which makes the healthcare system unsustainable.

1.2 Relevance

This research is relevant as there is an urgent need for change within the Dutch healthcare system. The ageing population is facing increased health issues, and the number of caregivers is insufficient to meet these demands. The Dutch government has written policies for preventative measurements, but there are not enough concrete projects realised. Architects and urban planners play a crucial role in shaping the living environment and should be an integral part of the solution for creating a health-promoting living environment.

1.3 Research Goals

The goal of this research is to provide architects and urban planners with practical design guidelines that they could use in their design projects, to contribute to a health promoting living environment. By making the living environment health-promoting, healthcare cost (McNutt, 2022) and the amount of people with chronic diseases will decrease (Baâdoudi et al., 2023).

1.4 Theoretical Framework

Healthy ageing is associated with Blue Zones, which are regions in the world where people typically enjoy long and healthy lives. These areas are characterised by a low rate of chronic diseases and cognitive decline (iPH, 2020). Buettner and Skemp (2016) conducted a study on these five Blue Zones and identified nine key lifestyle attributes that were present in each of these areas, which will be discussed in chapter 1. These nine elements do not all have a direct connection to the built environment, as some are specific to the choices individuals make regarding their beliefs and dietary preferences. It is also important to recognise that the success of these Blue Zones is related to the specific environments and cultures of these regions. Most Blue Zones have traditional lifestyles and rely on physically demanding traditional economic activities such as farming, shepherding, and agriculture (Herbert et al., 2022).

In the Netherlands, there are initiatives focused on healthy ageing and promoting a healthy lifestyle, by drawing inspiration from the Blue Zones. For instance, the 15 villages and neighbourhoods known as the BloeiZones in Friesland have adapted the key elements and modified them to their local environment. They have been working with themes including citizenship, access to green spaces, active leisure, healthy mobility, healthy living, healthy diet, and financial well-being (HANN, n.d.). These elements are more relevant to the modern Western environment, where physical activity and stress reduction must be consciously incorporated in one's lifestyle, rather than occurring naturally. However, it is essential to critically assess this approach, because it is implemented in small villages in the northern part of the Netherlands, a setting quite different from the urban landscape of the western part of the country. Moreover, technology has not been included, which could also contribute to healthy ageing. Additionally, like the Blue Zones, some elements are non-spatial.

Another example of translating the Blue Zone principles into the Netherlands is the Cartesius neighbourhood

in Utrecht. This is a new urban neighbourhood that prioritises physical activity, healthy food, community, purpose, and relaxation (Muis, 2018). This project is particularly interesting because it is set in an urban environment. However, this project aims to develop a new neighbourhood and therefore does not deal with existing communities. Furthermore, it has not been completed yet, with an expected completion date in 2028. So it is not yet possible to draw any conclusions from this project.

The relationship between the living environment and public health has been studied in existing literature. The environment can either encourage or hinder physical activity, foster social interactions, influence behaviours and motivations and reduce stress (Glandon, 2020; Kuppen et al., 2023; Zantinge et al., 2011). Building on the principles of Blue Zones and existing literature on healthy ageing, this study will investigate three spatial domains within the living environment that are relevant to this context: Physical Activity, Green/Blue Spaces and Social Connection (figure 1).

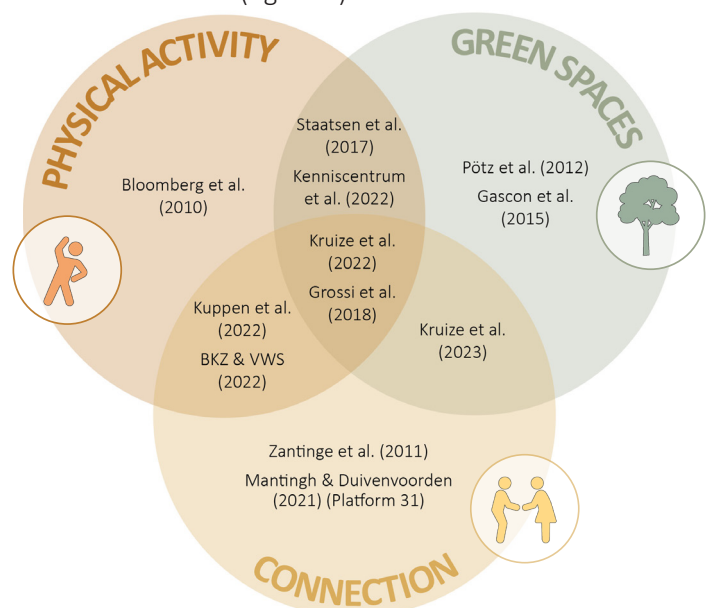


Figure 1. Existing literature positioned in the three domains of healthy ageing in the living environment (Koes, 2023).

1.5 Research Questions

Main Research Question

How can Dutch living environments be adapted or designed to promote healthy ageing and assist the elderly in maintaining their vitality?

Subquestions

- What are the key elements that influence the health and well-being of the ageing population in Blue Zones and other examples?
- How can those key elements that contribute to health and well-being be integrated into urban planning and housing design?
- What architectural features can encourage healthy lifestyle choices within residential buildings?
- How can the Blue Zone concept be implemented within existing Dutch urban living environments?

Include | Exclude

This research will include the living environment in Dutch urban landscapes, including cities like Delft. The primary focus of this paper will be on older adults, but other demographic groups will not be excluded, as community engagement is one of the key factors in promoting healthy ageing.

1.6 Definitions

BLUE ZONES | Blue zones are areas in the world where people typically enjoy long, healthy lives. These zones are characterised by a low rate of chronic diseases and mental decline (iPH, 2020).

HEALTHY AGEING | Healthy ageing includes the ability to carry out basic or complex daily activities, high functioning in tests of physical and cognitive assessments, and the absence of diseases and mental health issues (Peel et al., 2005).

RIVM | The Dutch National Institute for Public Health and the Environment (RIVM) aims to improve the health of the population and ensure a sustainable, safe, and healthy living environment. They achieve this by independent scientific research, and provide advice to the government, professionals, and citizens based on their findings (RIVM, nd).

VULNERABLE ELDERLY | The most common definition of vulnerability in the context of the elderly is a decrease in physical reserves in multiple organ systems. This reduction can result in adverse outcomes, such as an increased risk of falls, declining mobility and mortality. Risk factors contributing to vulnerability include chronic diseases, low cognitive function, polypharmacy, and higher levels of pain (De Breij et al., 2021).

VITAL ELDERLY | In social sciences, vitality is an important aspect of well-being in old age. Vitality is described as the competency that enables people to use their functional abilities. It consists of having the motivation to take responsibilities, the knowledge, and skills to execute them, and, ultimately, the capacity to enjoy the results. The absence of vitality can hinder the experience of well-being. Vitality has many aspects, including resilience, engagement, energy, resilience, self-esteem, coping mechanisms, autonomy, and a sense of purpose. These aspects contribute to reaching a satisfactory life (Westendorp & Schalkwijk, 2014). In 2021, De Breij and

her researchers found several factors that influence vitality and vulnerability in individuals aged 75 and older. These include age, depressive symptoms, the presence of chronic diseases and self-assessed health. Moreover, being male, a moderate alcohol intake, receiving greater emotional support and not experiencing hearing problems were identified as predictors of higher levels of vitality.

NON-COMMUNICABLE DISEASES (NCDs) | Non-communicable diseases (NCDs), or chronic diseases, are of long duration. They result from a combination of genetic, physiological, environmental, and behavioural factors. The main types of NCDs include cardiovascular diseases (such as heart attacks and stroke), certain cancers, chronic respiratory diseases (such as COPD and asthma) and diabetes (WHO, 2023). The adoption of a modern, convenient lifestyle is a significant contributing factor to the development of chronic diseases (Balwan, 2021; Dekkers, 2022).

MODERN WESTERN ENVIRONMENTS | This term refers to locations characterised by Western cultural norms, including Europe, the United States, Canada, Australia and New Zealand (Levitas, 2023).

NEIGHBOURHOOD / WIJK | A Neighbourhood, or 'Wijk' in Dutch, is a part of a city that contains of a combination of residential, commercial, and recreational functions. Neighbourhoods are designed to serve the needs of the local community, providing spaces for people to live, work, shop and engage in recreational activities.

STREET | The close area around a house or a building. Streets facilitate the movement of traffic, such as cars, bicycles, and pedestrians. The street connects different locations within a neighbourhood.

BUILDING | The building where people live in. It could be an apartment building, but also an individual dwelling.

PHYSICAL ACTIVITY

Physical activity is as any bodily movement involving skeletal muscles, that requires energy. This includes activities during leisure time, for transportation, or as part of one's work (World Health Organization [WHO], 2022). For individuals aged 65 and above, the WHO (2022) recommends:

- Engaging in 150-300 minutes of moderate-intensity per week, or 75-150 minutes of vigorous-intensity activity per week (or a combination of both).
- Incorporating muscle-strengthening activities on 2 or more days per week.
- Limiting sedentary time.
- Enhancing functional capacity and preventing falls through multicomponent physical activity, with a focus on functional balance and strength training, on 3 or more days a week.

GREEN & BLUE SPACES

Urban green spaces are vegetated land, surface water, and urban green elements like street trees and water features (Staatsen et al., 2017). These areas are characterised by publicly accessible spaces with natural vegetation, including grass, plants, or trees. Green space in urban areas refers to small urban parks, public parks, street verges, blue spaces, cemeteries, and sports grounds (Taylor & Hochuli, 2017).

SOCIAL CONNECTION

Social connectedness is born out of an individual's unique social needs and the opportunity to regularly meet those needs through their social network (Perry & Braren, 2020). According to Blokland (2008) there are two types of encounters:

Everyday encounters in public spaces

These encounters are unintentional and involve people we may not see again. These interactions play a crucial role in shaping perceptions, expectations, and preferences, which results in more positive assessments of others on the street. These encounters tend to be more nonverbal than verbal, and individuals tend to pass each other by individually, providing the opportunity to briefly connect with anonymous others.

Examples | Shopping Street, Tram, Lunchroom, Clothing store

Repeated encounters

Through repeated encounters, interactions and recognition take place, leading to a certain level of familiarity and safety. People become accustomed to each other's habits without delving further into each other's lives. Neighbourhoods benefit from unorganised places that encourage repeat visits in a casual manner.

Examples | Parents who regularly meet on the schoolyard, Conversations with cashiers at the local supermarket.

Public familiarity arises through repeated encounters, where people gain knowledge about others and recognize them without counting them as acquaintances. This familiarity can be established through direct contact, such as striking up a conversation, or indirectly, by hearing about fellow neighbours through others (Blokland, 2008).

1.7 Methodology

Literature Research | Case Studies

A literature study will be conducted to gain insights into the key factors contributing to the health and well-being of an ageing population. This study will primarily focus on the Blue Zones, the Dutch government's "Nationaal preventieakkoord", and other sources related to spatial elements that influence the health and well-being of older adults. The research will focus mostly on the implementation of physical activity, green/blue spaces, and social connections in the living environment. This investigation will include different scales, including the scale of the neighbourhood, street and building.

Furthermore, case studies will be researched to understand how various projects in the Netherlands have implemented the principles of Blue Zones and/or the promotion of physical activity, social interactions, and the usage of green/blue spaces. These case studies will include new examples such as the Cartesiusdriekhoek in Utrecht and examples that implemented the principles in existing living environments.

Questionnaire

To gain insights of the health of elderly residents in a housing community, a questionnaire will be developed. Approximately 100 questionnaires will be distributed within the building complex, with in mind that not all the residents may return them. The questionnaire will include approximately 20 questions about participant's experiences within the housing community, their physical activity levels, their social connections, and community preferences.

Observations | Interviews

An observational study will be done to observe the behaviour of individuals in various settings. During the stay at the housing community, residents' behaviour related to physical activity, social connections and green/blue spaces will be observed. These observations will provide insight into their behaviour and help identify essential elements needed to promote and encourage healthier choices.

Walking route | A group of 5 elderly residents from the housing community will be joined on their walks. The routes they walk will be mapped. During the walk, they will be asked questions about their reasons for choosing that specific route and what could encourage them to walk more or for longer distances.

Garden usage | The usage of the housing community's garden will be observed for a few hours to understand how it is used by residents.

Stair usage | The use of the stair within the housing community will be observed for a few hours to understand the routes people choose for, and how much the elevator is used. Participants will also be interviewed to understand their reasons for choosing the stairs over the elevator. This study will explore how many people use the stair instead of the elevator.

Experiencing ageing | Experiencing ageing by stimulating physical impairment, visual impairment, and hearing impairment. This way it will be clearer what is needed to improve the living environment for elderly.

02 THE SECRETS TO HEALTHY AGEING

Blue Zones

Healthy ageing is associated with Blue Zones, which are regions where the population shares a common lifestyle and environment, and their exceptional longevity has been accurately verified (Poulain, Herm & Pes, 2013). The focus on population longevity allows researchers to draw conclusions, as most individuals in these areas are born and live in the same place, making them more likely to share genetic makeup, early-life conditions, and traditional behaviour, including the consumption of locally produced food. The Blue Zones identified by researchers include Ogliastro in Sardinia, Okinawa in Japan, Nicoya in Costa Rica, and Ikaria in Greece (Poulain et al, 2013). Blue Zones are characterised by a low rate of chronic diseases and cognitive decline (iPH, 2020).

Determinants of Longevity in Blue Zones

Poulain's research is based on data from the period between 1900 and 2000 when the Blue Zones were remote and hard to reach. Residents in these areas grew up in similar environments, shared traditions, and consumed the same local diet. The geographic isolation resulted in a strong genetic connection among inhabitants (Leclerc, 2022). Most of the Blue Zones have steep terrain, especially in Sardinia and Ikaria. The climate in the Blue Zones tends to have warm temperatures, high sunlight, wind speed and humidity levels. Additionally, there is a lower degree of industrialisation, low income per capita, moderate calorie intake, and a low prevalence of overweight/obesity, indicating a persistence of traditional habits and resistance to adopting a more Western lifestyle (Poulain et al, 2013). However, extracting clear determinants is challenging due to the interdisciplinary nature of the approach, encompassing environment, nutrition, social issues, demographics, and genetics (VPRO, 2016).

Lessons from the Blue Zones

Buettner and Skemp (2016) identified nine key lifestyle attributes present in each of the Blue Zones, including natural physical activity, purpose, stress management, mindful food choices, plant-based diets, moderate wine

consumption, faith-based community involvement, prioritizing relationships, and belonging to a supportive social community (Figure 2).

Loma Linda, California

They added a fifth 'Blue Zone' to the list, the faith-based community in Loma Linda, United States. Members of the Seventh-day Adventist church view health as central to their faith, by eating no meat, exercising regularly, and abstaining from smoking or alcohol (Buettner & Skemp, 2016) However, Poulain disagrees with expanding the term Blue Zones to include Loma Linda. He states that it is a group of people belonging to a church rather than a region like Ogliastro in Sardinia. Therefore, Loma Linda could be seen at most as a "Blue Population", as it is only a specific group that lives longer, and those in the same area but not part of the church do not experience increased longevity (Leclercq, 2022).

Challenges in Western environments

Genetic factors contribute to 25% of individual variations in lifespan and healthspan, while non-genetic elements like social, cultural, and lifestyle conditions play a significant role (Castruita et al., 2022).

While the Western environment contributes to a longer life with increased medical assistance, the extension of lifespan is not necessarily only healthy added years, as a modern convenient lifestyle is a significant contributing factor to the development of chronic diseases (Balwan et al., 2021; Dekkers, 2022). Unhealthy daily habits, such as sedentary lifestyles and behaviours like exposure to tobacco smoke, alcohol use, and drug consumption, are significant contributors to the development of chronic diseases (Balwan et al., 2021). This finding is also underpinned by the developments in the Blue Zones. In Okinawa, newer generations are facing health problems similar to the Western world due to the adoption of a more modern lifestyle and diet. The geographical isolation of these areas has delayed the influence of the Western lifestyle and diet (Buettner, n.d.)

Environmental factors, including air pollution, climate changes, low-quality diets, physical inactivity, and low socio-economic status (SES), significantly influence the quality of ageing. Healthy behaviours and environments are vital for healthy ageing, whereas unhealthy environments contribute to frailty and increased vulnerability (Di Ciaula & Portincasa, 2020).

SES and education affect the place a person lives and the number of chronic stressors. It also impacts access to healthcare and the quality of care when dealing with illness. Individuals with a higher SES are more likely to live in mentally and physically stimulating environments, impacting cognitive and social function. Access to green spaces and exercise facilities further enhances physical activity, contributing to better health and a reduced risk of chronic illness (Castruita et al., 2022; Di Ciaula & Portincasa, 2020). Additionally, quality of health care, subjective well-being, depression, loneliness, and having a life purpose play integral roles in healthy ageing and longevity (Castruita et al., 2022).

Healthy Ageing in Western Environments

Western environments, unlike Blue Zones, are heterogeneous, posing challenges related to discrimination based on race, socio-economic status, or religion (Castruita et al., 2022). Counteracting the negative effects requires a focus on preventive measures,

encouraging healthy lifestyles, regular physical activity, and a balanced diet (Di Ciaula & Portincasa, 2020). While Blue Zones offer valuable insights, achieving healthy ageing in Western environments involves addressing modifiable risk factors and creating healthy behaviours and environments.

The United Nations (UN, n.d.) emphasises the crucial role of the physical and social environment on people’s well-being, such as access to healthcare, proper nutrition, educational and employment opportunities, safe housing, and supportive communities. In 2011, the RIVM wrote a report about healthy ageing in the Netherlands. They discuss the determinants for health, emphasising the positive influence of the social environment when someone receives support and the negative influence when it causes stress. The physical environment is specifically focused on fall prevention, healthy indoor quality, and a healthy lifestyle, including physical activity, a healthy diet, healthy behaviour, and self-management. In policies the Dutch government incorporates these determinants.

In conclusion, the lessons learned from Blue Zones underscore the importance of adopting healthy habits and environments for promoting longevity and well-being in modern Western societies.

NINE HEALTHY LIFESTYLE HABITS OF THE BLUE ZONES	
1. Engaging in natural physical activity	6. Consuming wine in moderation
2. Finding a sense of purpose	7. Belonging to a faith-based community
3. Managing stress effectively	8. Prioritising relationships with loved ones
4. Making mindful food choices	9. Belonging to the right social community
5. Having a plant-based diet	

Figure 2. Healthy lifestyle habits of the Blue Zones. Potential spatial elements are highlighted (Koes, 2023).

03 HEALTHY AGEING IN LIVING ENVIRONMENT

Integrating the Elements of Healthy Ageing in the Living Environment

The relationship between the living environment and public health has been studied in existing literature. The environment can either encourage or hinder physical activity, foster social interactions, influence behaviours and motivations and reduce stress (Glandon, 2020; Kuppen et al., 2023; Zantinge et al., 2011). A living environment that invites people to do physical activity and meet each other, contributes to elderly living longer physically vital, happy and independent (BZK & VWS, 2022). It is also important to create a healthy environment by adding blue-green grids in urban areas (Pötz & Bleuzé, 2012). Building on the principles of Blue Zones and existing literature on healthy ageing, this

paragraph will investigate how to incorporate three spatial domains that are relevant to this context, into the living environment: Physical activity, Green/Blue Spaces and Social Connection.



Physical Activity

Engaging in physical activity is essential for maintaining the quality of life, mental health, and physical function, playing a significant role in preventing falls, particularly in older individuals. Regular physical activity is important as it provides protection against non-communicable diseases and can play a role in delaying the onset of dementia (Langhammer et al., 2018).

Neighbourhood

■ Literature + Fieldwork
■ Literature



★★★

Walkability

Locate shops and services within walking distance to encourage walking and public transport usage (Bloomberg et al., 2010).



★★★

Accessibility Facilities

The independence of the elderly is influenced by facility accessibility, such as shops, public transport, parks, and recreational facilities. With a standard walking distance of 500 meter in 10 minutes (BZK & VWS, 2022).



★★★

Safe Infrastructure

Proper lighting, even surfaces, obstacle-free routes and visibility are important for pathways designed for active transport (Kenniscentrum Sport en Bewegen et al., 2022).



★★

Public Transport

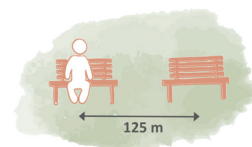
Place public transport stops on busy streets, motivational signage that encourage additional walking, and shelters and seating at stops to make them more user-friendly (Bloomberg et al., 2010).



★

Car Parking

Design car parking to discourage unnecessary automobile travel, especially when walking, bicycling, and public transport are good alternatives (Bloomberg et al., 2010).



★★

Benches

Place benches every 125 meter, especially at locations with a view or high activity, to provide resting spots (Kenniscentrum Sport en Bewegen et al., 2022).



Physical Activity Neighbourhood

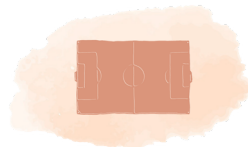
■ Literature + Fieldwork
■ Literature



★★

Recognizable Environment

Recognizable points that assist in finding the way, such as pedestrian lanes and streets in contrasting colours (Kenniscentrum Sport en Bewegen et al., 2022).



★★

Sport Facilities

Include sport facilities in parks and open spaces, such as exercise gardens, racquetball and petanque courts. Place drinking fountains to promote the consumption of tap water (Bloomberg et al., 2010).



★★

Car free Zones

To create more and safer space for slow traffic such as pedestrians and bicyclists (Staatsen et al., 2017).

Street



★★

Safe Pathways

Ensure well-lit sidewalks with a buffer zone between cars and pedestrian areas (Bloomberg et al., 2010). Keep pathways obstacle-free (Kenniscentrum Sport en Bewegen et al., 2022).



★★

Inviting Pathways

Include facilities such as seating, drinking fountains, and restrooms. Place landscape elements for shade and aesthetics (Bloomberg et al., 2010).



★★★★

Safe Pedestrian Crossings

Implement clearly marked pedestrian crossings and minimise road width to reduce traffic speeds and the distances pedestrians need to cross (Bloomberg et al., 2010).



★★

Clear Pathways

Create routes leading to specific destinations, clearly marked on the ground. Make sidewalks and streets in contrasting colours for visibility and guidance (Kenniscentrum Sport en Bewegen et al., 2022).



★

Attractive Façades

Maximise variety, detail, and continuity on the lower one-to-two floors of the building exterior to contribute to an active street. Canopies to create shade (Bloomberg et al., 2010).



★



Entries + Transparency

Provide multiple entries and maximum transparency along the street to help enliven the street (Bloomberg et al., 2010).



Physical Activity

Street

 Literature + Fieldwork
 Literature



Information

Provide information about walking / running / bicycle routes to stimulate physical activity (Bloomberg et al., 2010). ★



Bicycle Parking

Provide secure, sheltered, and accessible bicycle storage (Bloomberg et al., 2010). ★★



Community Gardens

People produce their own food and this leads to increased physical activity (Staatsen et al., 2017). ★★★

Building



Organisation of the Program

Arrange building functions to promote short walks to commonly used facilities. Eventually, position the primary building functions on the second floor, accessible via an attractive staircase. Staircase within 7,5 meter of entrance. (Bloomberg et al., 2010). ★★



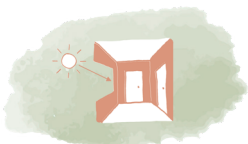
Attractive Staircases

Grand staircases and open interconnecting stairs tend to invite use. Highly visible from paths of travel, easy access increases the usage. Include a stair as an integral component of the main circulation systems of the building (Bloomberg et al., 2010). ★★



Safe Staircases

To reduce the risk of falls, provide anti-slip floor finishes, contrast in colour at tread nosings, and well-lit staircases (Bloomberg et al., 2010). ★★



Attractive Paths of Travel

Ensure paths of travel are well-lit, have daylight, and offer interesting views (Bloomberg et al., 2010). ★★



Shower and Locker rooms

Include shower and locker rooms to encourage cycling, walking, and running between home and work (Bloomberg et al., 2010). ★



Visibility

Position physical activity spaces in centrally visible locations within the building. Create spaces with views to nature and human activities (Bloomberg et al., 2010). ★



Green/Blue Spaces

Green spaces contribute to health and well-being by providing areas for exercise, recreation, relaxation, and social interaction. The integration of green-blue urban planning is also an important strategy to tackle challenges related to climate change, energy and food shortages, heat stress, and the promotion of biodiversity in urban environments (Pötz & Bleuzé, 2012; Staatsen et al., 2017).

Neighbourhood

Social		★★★★		★★★★		★★★★
	Green closeby		Engagement		Shadow & Water	
	Green in the neighbourhood is vital for relaxation, encounters, and physical activity (Staatsen et al., 2017). Green Space should be within 300/500 meters or a 5 minutes walk from homes to maximise these benefits (Grossi et al., 2018; Staatsen et al., 2017).		Involving people in the design and maintenance of green spaces is important for a project to become a valued community asset. This results in a sense of ownership and higher quality of green spaces (Staatsen et al., 2017).		Adding trees and plants provides shading, while water contributes to cooling down the surrounding area (Kenniscentrum Sport en Bewegen et al., 2022).	
Air quality		★★★		★★★		★
	Ventilation		Urban Forests		Urban Agriculture	
	Implementing green and half-open linear structures enhances urban ventilation and contributes to the exchange of air between green and residential areas (Pötz & Bleuzé, 2012).		Urban forests serve multiple purposes, providing spaces for recreation, mitigating heat stress, and creating areas of clean air in the city (Pötz & Bleuzé, 2012).		Urban agriculture could have diverse functions, including educational and recreational aspects. Residents could harvest their own food and flowers or buy it at the farm shop (Pötz & Bleuzé, 2012).	

Literature + Fieldwork
 Literature



Green/Blue Spaces

Street

social



★★★★

Attractive

Green spaces are attractive when there are facilities such as shade and shelter, water features, birdlife, sporting facilities, playgrounds and sports fields (Staatsen et al., 2017).



★★

Maintenance

It is important that the green spaces are well maintained (Staatsen et al., 2017).



★★

Safety

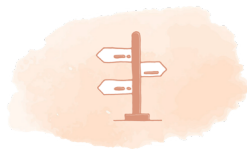
Good lighting and visibility. Not that many crossing or traffic (Staatsen et al., 2017).



★

Education

To stimulate people using green spaces, for example guided group walks and school gardens (Staatsen et al., 2017).



★

Awareness

Clear signs and (route) information creates awareness about the green space (Staatsen et al., 2017).



★★★★

Community Gardens

Create community gardens to make the urban environment greener and promote biodiversity (Pötz & Bleuzé, 2012).

Air quality



★

Tree-lined Avenues

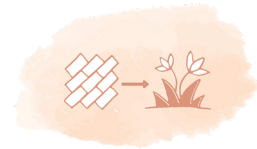
Tree crowns should not merge overhead when fully grown, not have an overhang covering more than one-third of the road, placed 15 meters apart, and preferably not covering the road (Pötz & Bleuzé, 2012).



★★

Dense Vegetation at Street Level

To prevent the mixture of air polluted by traffic with cleaner air (Pötz & Bleuzé, 2012).



★★★★

Reducing paved surfaces

Make horizontal and vertical surfaces permeable. The rougher the surface, the greater the effect will be (Pötz & Bleuzé, 2012).



★★

Evergreen Species

Plants that keep their leaves will keep their ability to clean the air even in winter (Pötz & Bleuzé, 2012).



★★

Trees in Car parks

Plant trees in car parks to reduce the heating up of cars, which reduces the evaporation of hydrocarbons from gasoline (Pötz & Bleuzé, 2012).

■ Literature + Fieldwork
■ Literature



Green Spaces

Building

Air quality



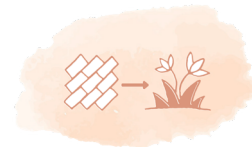
Green Roofs/facades

Incorporating greenery on buildings helps to cool down the surroundings and prevents the building from heating up. Green roofs also store rainwater (Pötz & Bleuzé, 2012).





Vegetable Garden

Encourage private vegetable gardens to make the urban environment greener and promote biodiversity. Examples include square meter gardens, balcony gardens and rooftop gardens (Pötz & Bleuzé, 2012).



Reducing paved Surfaces

Make horizontal and vertical surfaces permeable. The rougher the surface, the greater the effect will be (Pötz & Bleuzé, 2012).

-  Literature + Fieldwork
-  Literature



Social Connection

Social networks become smaller as people get older, increasing the likelihood of loneliness. This is especially the case for seniors aged 75 or older (Zantinge et al., 2011). Meeting each other is important for fostering understanding between groups, such as between seniors and young people or between seniors with different cultural backgrounds (Kenniscentrum Sport en Bewegen et al., 2022).

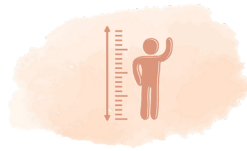
Neighbourhood



★★★★

Design for Pedestrians

Shift the focus from cars to pedestrians as walking and cycling increases the chance of encounters between people (Mantingh & Duivenvoorden, 2021).



★

Human Scale

Design public and collective spaces with a human scale to enhance feelings of safety and comfort (Mantingh & Duivenvoorden, 2021).



★★

Varied Housing Options

Offering a variety of housing options makes the neighbourhood suitable for a diverse mix of people. This brings together residents with varying needs and capacities, fostering the creation of a supportive network (Mantingh & Duivenvoorden, 2021).



★★

Clustered Housing

These housing forms, such as hofjeswoningen [courtyard homes], service apartments, and senior flats, are designed to promote social interaction (BZK & VWS, 2022).



★★★★

Facilities

Facilities for relaxation, encounters and physical activity contribute to social interactions (Kruize et al., 2022).



★★

Green Spaces

Green spaces stimulate encounters and relaxations. They should be attractive, inviting, have variation, close-by and suitable for a diverse range of people (Kruize et al., 2022).



★★★★

Community Centre



(Kruize et al., 2022)



★★

Shops & Cafés

(Kruize et al., 2022)

 Literature + Fieldwork
 Literature



Social Connection

Street



★★★

Collective Space

Collective spaces serve as a buffer between the private area of the house and the public space of the neighbourhood. The layout and amenities is important to encourage usage (Mantingh & Duivenvoorden, 2021).



★★★★

Community Gardens

Community gardens enhance social cohesion among residents. Individuals with more experience can also mentor those with less experience, fostering a sense of community and shared knowledge (Grossi et al., 2018).

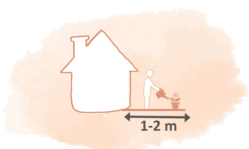


★★

Streetscape Greenery

A street with green streetscape contributes to a higher perceived social cohesion (Staatsen et al., 2017).

Building



★★★★

Intermediate Zones

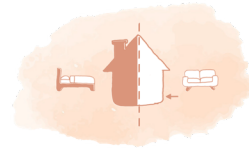
Wider galleries or front gardens not only enhance privacy within the home but also provide areas that individuals can personalize, fostering informal connections. The zone should be between 1 and 2 meters wide (Mantingh & Duivenvoorden, 2021).



★★

Privacy

Interaction with others can only happen when individuals feel secure and have places where they can enjoy privacy. Elevating ground-floor apartments by 60 cm from the ground level is an effective step towards creating privacy (Mantingh & Duivenvoorden, 2021).



★★

House Floor Plan

Place more public functions on the side of access and within sight, while keeping private functions such as bedrooms away from direct visibility and farther from the access side (Mantingh & Duivenvoorden, 2021).



★★★★

Age-in-place Homes



It is important to keep elderly in their familiar environments, surrounded by their social connections, as it is harder for them to establish new social circles in later years. Therefore, housing designs should allow for minor adjustments, so it is possible that it can adapt to changing needs (Mantingh & Duivenvoorden, 2021).



★★★★

Technology

Incorporating technology and domotics can empower elderly people to live independently at home for a longer period (Mantingh & Duivenvoorden, 2021).

 Literature + Fieldwork
 Literature

04 BLUE ZONES IN URBAN SETTINGS

Implementing the Blue Zone Concept into the Urban Living Environment

There are already examples of how the Blue Zone concept is implemented conscious / or unconscious into an urban living environment. This paragraph includes interviews with the municipality and an organisation who works with the blue Zone concept in rural areas in the Northern part of the Netherlands. Own experiences from simulating an ageing body and experiencing the living environment. And own experiences from a week stay in an housing complex for people over the age of 65. And relevant case studies in different scales, that have successfully implemented one of the three domains: physical activity, green, and social connection in the urban living environment.

Interview Municipality of Delft

The municipality of Delft is actively engaged in implementing health-promoting initiatives. Özgül Yurtsever is a policy advisor on health policy. In the interview, Yurtsever discusses the role of the municipality in creating healthy living environments. The full interview can be found in the appendix.

The work of the municipality is based on the needs of residents. They inform residents about laws and regulations and involve them in interventions. For instance, the “Café Positief Gezond.”, serves as a health café providing consultations on various health topics like health insurance, sexual health, lifestyle, poverty, and debts. Specific interventions are based on the needs of residents. Residents and community connectors are actively involved in setting up and implementing these interventions. There are health challenges among the elderly, such as growing loneliness. Therefore, they started projects such as fall prevention and ‘Eén tegen Eenzaamheid.’.

Delft’s local spatial vision emphasises health as a guiding principle for creating a healthy living environment. The municipality promotes active transportation such as

walking and cycling, both in new and existing areas. The municipality collaborates with the Public Health Service (GGD) to include health into the assessment of plans by architects and urban planners. This is not obligated and makes Delft one of the first municipalities that does it. The GGD pays attention to aspects such as noise, air quality, and green spaces in the evaluation of plans.

The municipality sees it as its duty to educate and support residents about health. They facilitate and support residents’ initiatives. Successful initiatives, such as the health festival and residents contributing to healthy snacks, are achieved by working according to demand. Trust in residents and facilitating their initiatives play a crucial role in the success of these initiatives.



Engagement



Information

guidelines

Interview BloeiZones Fryslân

In Friesland, in the northern part of the Netherlands, BloeiZones Fryslân adapts Blue Zone principles to improve the health of the citizens of North Netherland. They work with seven themes: citizenship, access to green spaces, active leisure, healthy mobility, healthy living, healthy diet, and financial well-being (HANNN, n.d.). Jan de Vries from Healthy Ageing Network Northern Netherlands (HANNN) discusses the concept of the BloeiZones in an interview (full interview in appendix).

The goal of BloeiZones is to transform passive residents into active participants who can shape their living environment. Involving residents in creating healthier living spaces is crucial, and the concept can be applied to urban areas with a similar process.

An example is the project in Appingedam, where residents were involved in discussions about a healthy living environment using 'praatplaten' (talk boards). The process focuses on actively engaging residents, including those who typically do not participate, and creating support from municipalities. Talk boards are an accessible means to connect scientific knowledge with the opinions of low-educated and economically vulnerable communities.

A shift in thinking is essential to address challenges in bridging the gap between residents and municipalities. Choices are often based on outdated regulations rather than the wishes and needs of residents. Healthier living environments become more important as the government policies are focussing on this theme. HANNN supports BloeiZones through a process that empowers residents to shape their surroundings.

There are seven themes of BloeiZones, including active citizenship, accessible green spaces, active relaxation, healthy mobility, healthy living, healthy nutrition, and healthy finances. Architects and urban planners can incorporate these themes into urban design, with active citizenship being the most important. When people participate in designing and influencing their living environment, it creates ownership.

The most important thing is putting the needs of people at the centre. Municipalities should involve residents from the project's start. The role of architects and urban planners are crucial in promoting healthy living environments, where the goal is not only physical structures, but also creating a sense of involvement and ownership with residents.





Experiences of simulating being Old

Together with three other students, we gained insights into the challenges of ageing by simulating physical impairments. We experienced different limitations, including blurred vision, reduced muscle strength, hearing impairment and mobility issues in a wheelchair.

Vision impairment

To simulate vision impairment, we wore blurred glasses. The lack of clear vision made walking feel dangerous, as uneven pathways went unnoticed, increasing the risk of falling. Decorative floor lines were confusing, as they looked like elevation differences. Other people were unaware of our visual impairment, which made it more important to walk with caution to avoid collisions. Everyday tasks, such as grocery shopping, became challenging due to the inability to recognize products from a distance.

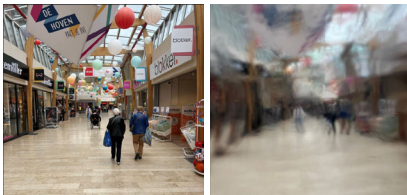


Figure 3. Visual impairment experience (Own photographs, 2023).

Reduced muscle strength

We wore weights to stimulate reduced muscle strength. Weak joints hindered basic activities like bending over or tying shoelaces, and we were exhausted much quicker than usual.

Physical impairment

Sitting in a wheelchair made clear how exhausting and challenging it is, by the many obstacles on pathways. Uneven pathways demanded constant attention, and crossing streets became difficult because of thresholds. When you sit in a wheelchair you feel small and it seems that everyone is looking at you. It is also hard to communicate with the person pushing.

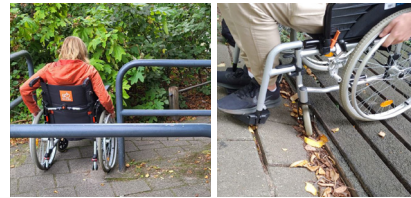


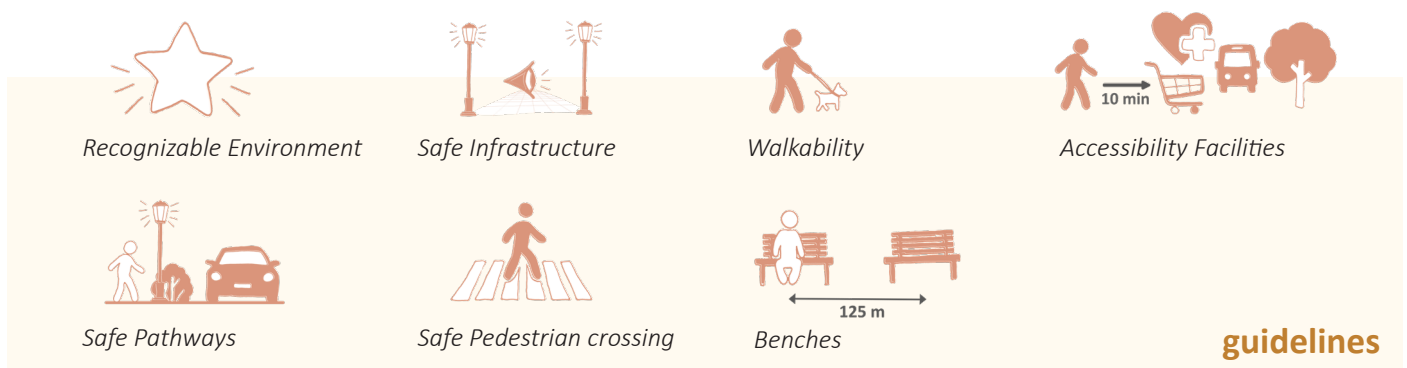
Figure 4. Wheelchair experience (Own photographs, 2023).

Hearing impairment

Simulating hearing loss with noise-cancelling headphones made us aware of the dangers in the environment. Crossing streets required extra attention, and background noises in places like shopping malls made communicating harder and led to missing conversations between others.

Conclusion

Being visually or hearing impaired is particularly dangerous as others may not notice. Using a wheelchair is physically demanding, whether pushing yourself or pushed by another person. This is especially challenging for people with weaker joints. This experience emphasises the need for accessible environments.





Case study | Neighbourhood

Mixed-use Urban District Cartesius | Utrecht, the Netherlands

Period: 2018- 2028 (estimated)

Design: MRP Development
Ballast Nedam
Mecanoo

Project: New

Size: 3.000 houses (mixed)

Development Vision

Because of the increasing population of the Dutch city, Utrecht, the new neighbourhood Cartesius was developed. In the neighbourhood, there is a focus on health, physical activity, innovative energy solutions, healthy food, and sustainable mobility. In the development vision for the area, it is stated that they aim to create a diverse residential environment, with 25 percent of homes designated for social rent. The vision includes the establishment of a car-free zone and active discouragement of private car ownership (Urban Xchange & BGSV, 2017).

Implementation

MRP Development, Ballast Nedam and the architectural firm Mecanoo added the concept of the Blue Zones to the vision of the area and won the tender.

The project will be constructed in multiple phases.

Phase 1: 322 residences (295 residences in the mid-rental segment) + hospitality and studio residences + some higher-end rental residences

Phases 2-6: 2,500 residences + school, sports hall, shops, hospitality, and cultural facilities (Gemeente Utrecht, n.d.)

Nature

There is a green loop around Cartesius where residents can get their daily exercise or enjoy the food forest. In the middle of the neighbourhood, there is the Cartesius park. The public space consists of 30% greenery, and building facades are 15% covered with greenery. Vegetable gardens are established and maintained by residents. There is space for play, sports, and socialising. Measures are in place for water retention and preventing heat stress.

Physical activity

The neighbourhood is designed to promote walking, cycling, and sports. Residents are consciously and unconsciously encouraged to become and remain fit.

- Buildings are arranged to encourage taking the stairs rather than the lift.
- Attractive walking routes throughout the neighbourhood.
- Green loop with an urban trail.
- Adventurous playground for children.
- Electric shared bikes for commuting to the city center.

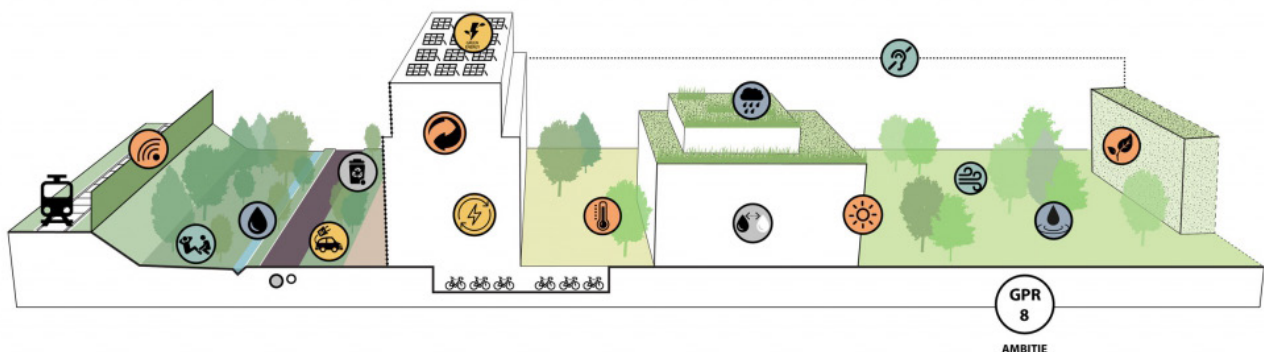


Figure 5. Sustainability Vision (Urban Xchange & BSSV, 2017)

Relaxation

The neighbourhood is a warm, social haven where one can find peace but also seek out activity.

- Park
- Open spaces suitable for activities like yoga, picnics, or deep conversations.

Mobility

The residential area is close to the station, with good walking and cycling routes to the city center, making a private car unnecessary. The goal is to transform the area into the most public transport and bicycle-friendly neighborhood in the Netherlands.

- Cycling and walking routes from the park to the city.
- Public transport stops are within a 7-minute walk.
- Electric shared cars and bikes.
- Discouraging private car ownership.

Sustainability

The aim of the neighbourhood is not only a healthy life but also sustainable choices.

- Energy-neutral neighborhood.
- Good air quality, achieved by making cycling and walking more attractive than using a car.
- Electric shared cars.
- Sound barrier with solar panels and greenery.

Healthy Nutrition

Making a healthy lifestyle easy and tempting.

- Education
- Vegetable gardens for growing one's own produce.
- Supermarket with a healthy selection.
- Local products

Source: MRP & Ballast Nedam Development (n.d.).

Diverse Mix *Car free zones* *Public Transport* *Bicycle Parking*

Green closeby *Good air Quality* *Vegetable Garden* *Noise reduction*

Attractive Walking Paths *Attractive Stairs* *Accessibility* **guidelines**



Case study | Building

Renovation Communal Living Project | Nieuwegein, The Netherlands

Period: 1982 (renovated in 2012)

Design: Original: Co Doesburg (Bewonerscoördinator) and Flip Krabbendam (Architect)
Renovation: DUS Architecten

Project: New & Renovation

Size: 133 housing units (30.000 m²)

Co-developed with the community

This housing complex is a special project, as it was developed in partnership with the community. The complex, originally constructed by Co Doesberg and Philip Krabbendam, reflects a unique approach to housing. Co Doesburg served as the resident's coordinator, while Philip Krabbendam was responsible for the architectural aspects of the project. They connected the desires of the resident group with the design process.

The idea of the architects was that these groups should not be incorporated into a too large group. So, they created distinct social levels between the individual, family, group, and the entire project. They created three courtyards, each housing 7 or 8 groups. These groups shared communal spaces such as a café, childcare facility, and a collective vegetable store.

Future residents actively participated in the design process, choosing a grid system of 6.6 meter, offering maximum flexibility in layout design. A flexible partition wall package was initially employed for interior walls, intending to allow residents to modify floor plans over time. However, this approach proved less effective, as most residents only removed walls. These walls also caused sound leaks.

Different social layers

Residents have the option to walk through the different social layers, from individual apartments to communal living areas, internal courtyards, and meeting rooms. For those desiring anonymity, direct access from the street side is also an option.

Renovation: How to live together in this 21st century?

In the renovation in 2011, the social structure and layering of the project were maintained, but adjustments were made to meet contemporary demands. The complex required renovation, because of challenges such as old facades, energy issues, sound leaks and different resident preferences, such as a need for more privacy. The project was initially not attractive for families, so the architect created suitable houses for them by introducing new housing typologies (figure 3):

- Living community: House for 6 people who have their own room. They share a kitchen, bathroom, toilet and living room.
- Studio: Residents have their own apartment with kitchen, bathroom and toilet. They share a living room.
- Individualistic houses: Everything for themselves and they only share the garden, a movie and event space, and a bar (X!image, 2014).

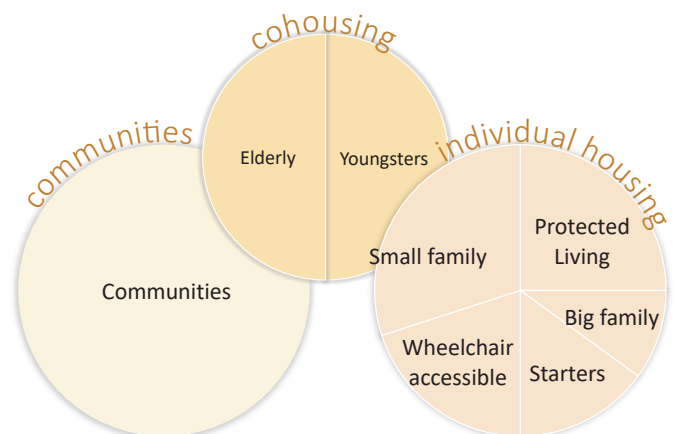


Figure 6. Housing typologies with different types (Koes, 2023)

Flexibility

Flexibility was redefined to accommodate the changing needs of residents, emphasising the option to move within the complex as residents aged. The renovation focused on creating a variety of housing types, including living communities, studios for smaller groups, and individualistic houses. The façade was redesigned to symbolise a unified structure, emphasising the project's commitment to preserving social structures and providing suitable housing types (DUS, 2012; XImage, 2014).

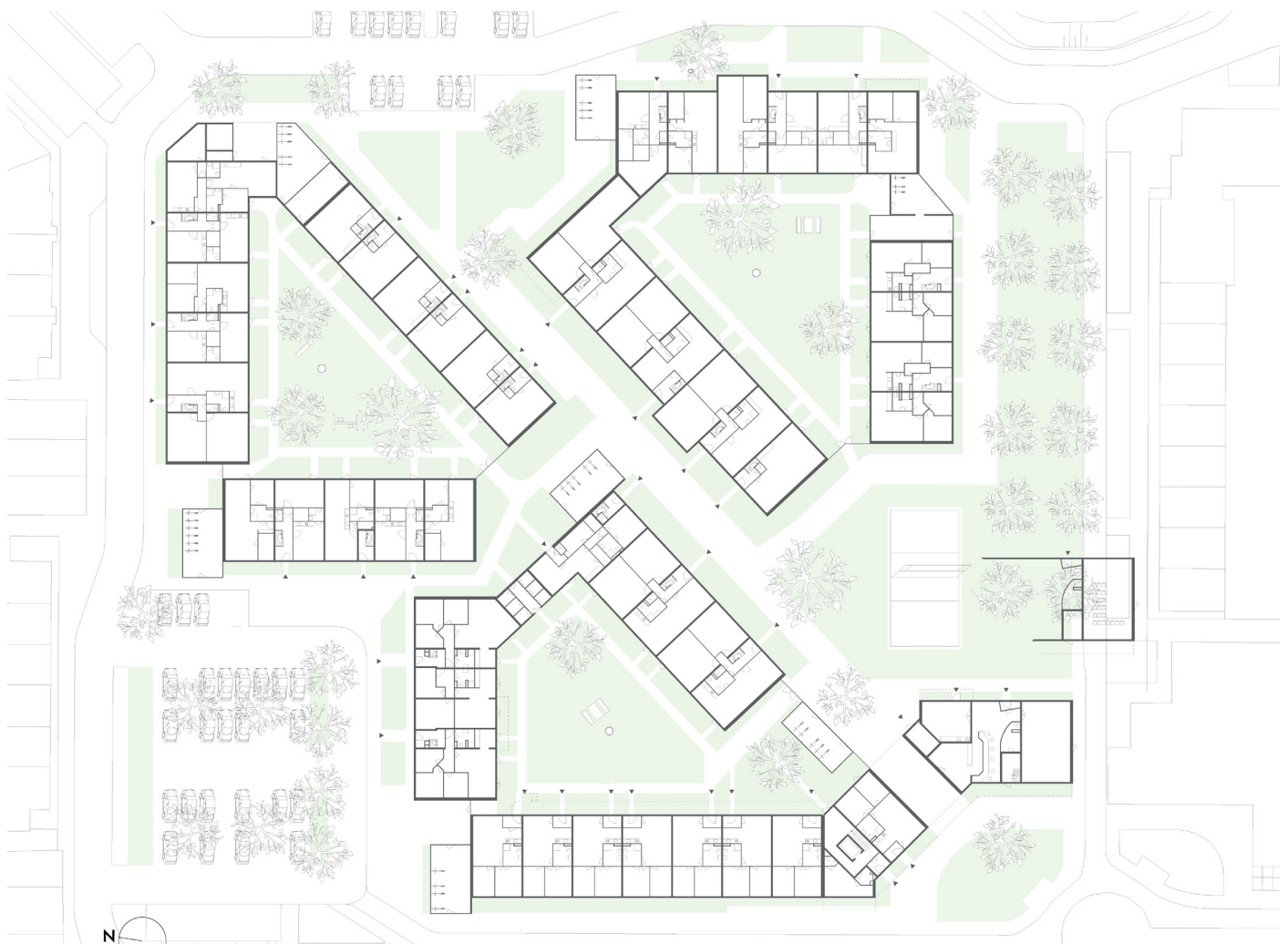


Figure 7. Floor Plan (ground floor) after transformation, Ground Floor (DUS Architecten, 2012).

Participation

Residents actively participate in selecting new residents through an elective system. Philip Krabbendam highlighted that participation extends beyond planning and into the way of living, with residents contributing to the creation of everything in the courtyard, fostering a sense of connection within the community (X!mage, 2014).



Figure 8. courtyard after renovation (DUS, Architecten, 2013)



Engagement



Maintenance



Human Scale



Privacy



Diverse mix



Collective space



Age-in-place homes

guidelines



Case Study | Street

Dementia friendly walking route | Dronten, the Netherlands

The municipality of Dronten, a city in the Netherlands, has created a dementia-friendly street. The route spans from a nursing home to a shopping centre. The street required modification, so the municipality actively involved residents in the design process. The residents expressed a desire for a recognisable, secure, and peaceful route. The pathway is clearly marked, and the crossings are at the same level as the rest of the path, and uniform. The bike lane is separated from the pedestrian path, for safety reasons. There are only a few sign boards along the route.

This pathway not only caters to the convenience of

individuals with dementia but is also beneficial for others, such as those walking with strollers (Omroep Flevoland, 2022).

For this project, the municipality was honoured with an award in “Ruimte in de fysieke omgeving [Space in the Physical Environment]”. The jury praises the simplicity of the solution and its significant positive impact (De Drontenaar, 2022).

- Reduced signage along the road
- Separate bicycle lane
- Replacement of uneven tiles
- Clearly marked and uniform pedestrian crossings
- Consistent even sidewalk
- Four rest areas equipped with easily identifiable green benches

OLD



NEW



Figure 9.
left: before (Google, 2020 (aug))
right, after (Google 2023 (june))



Figure 10.
left: before (Google, 2020 (jul))
right, after (Google 2023 (june))



Figure 11.
left: before (Google, 2020 (aug))
right, after (Google 2023 (june))





Case Study | Street, Building

Experiences during the Fieldwork

The fieldwork provided a unique opportunity to gain insight into the daily life of residents in an elderly housing complex. Together with three fellow students, I spent four days at the housing complex. In the housing complex live 150 residents aged 65 and above, as well as students. The mix between the elderly and students was 85% elderly and 15% students. Each resident has their own apartment with a kitchen, bathroom and separate bedroom. The students live in the studios.

First impressions

We arrived on Monday at 10:00 at the housing community. By the time we arrived, there was already a group drinking coffee and they invited us to join them. They were interested in what we would do there, which already gave a warm welcome feeling. The large communal space was also nicely designed and quite

modern. There were multiple seating areas in different settings, providing everyone with a suitable space. The large open kitchen was equipped with all kinds of amenities.

The residents were all very kind and willing to share their stories and answer our questions. Most of them helped us by filling in the questionnaire and participating in the workshop we organised.

It was a nice and special experience where I learned a lot. The next pages include the most important findings, while the rest of the findings can be found in the appendix.

Accessibility facilities	Walkability	Benches	Car-free zones
Safe infrastructure	Green closeby	Attractive green space	Engagement
Clustered housing	Collective space	Privacy	Age-in-place homes
Attractive stairs	Organisation of the program	Space for Ikigai	guidelines

The Hart of the Building

The communal area 'The Hart' contains diverse functions. There is a large open kitchen with various kitchen tools. A spacious area with seatings where people can gather for coffee, a talk or play games. A greenhouse-like space with all kinds of plants providing a shielded, quiet sitting area. And there is a pool table and more seating spaces. Observations showed that the residents had preferences for specific seating areas. Morning coffee groups formed distinct groups, each with its own spot.

The survey shed light on how often the residents make use of the facilities in the heart of the building. This also aligns with the observations, indicating that common areas in the Heart were often visited. On the other hand, specific spaces like the family room and the theatre have a more specific target group.

Variations in Apartment access

The residents have three different options for reaching their apartments, each associated with different social dynamics:

1. Direct access: Using the staircases that lead directly to the upper floors provides a straightforward and efficient route.
2. Intermediate access: Taking the big staircase to the first floor and then going to the staircase that goes to the upper floors.
3. Social hub access: Choosing the big staircase leading to the first floor, spending time in communal area 'The Hart', and then going to the upper floors.

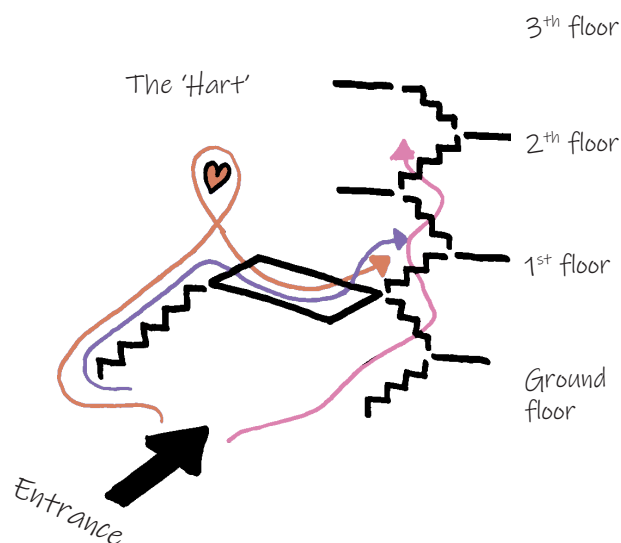
Mister C

He prefers to be on his own and has no interest in participating in activities in 'The Hart'. Nevertheless, he chooses to use the grand staircases and then continues via the other staircase. This allows him to wave and greet the people in 'The Hart'. Currently, this is the only interaction he is interested in with the other residents.

Usage of the facilities in 'the Hart':

	Daily	Weekly	Monthly	Barely
Het Hart	13x	10x	1x	8x
Gem. keuken	2x	7x	2x	22x
Familiekamer		2x	5x	24x
Huistheater		4x	5x	23x
Café / de soos	1x	10x	2x	20x

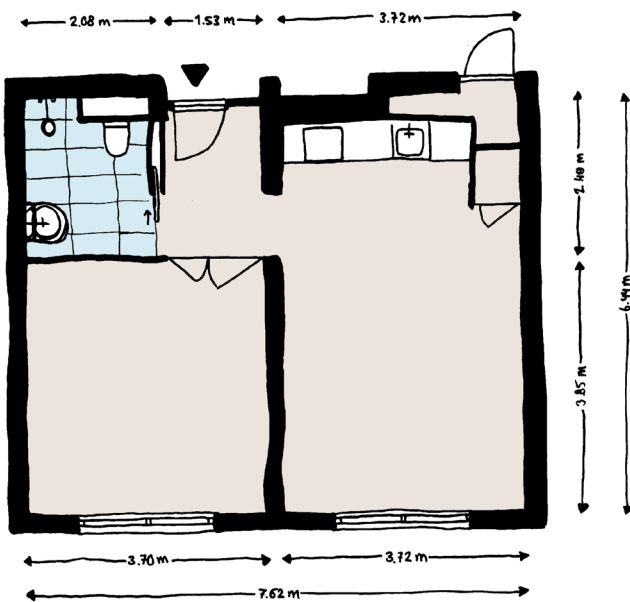
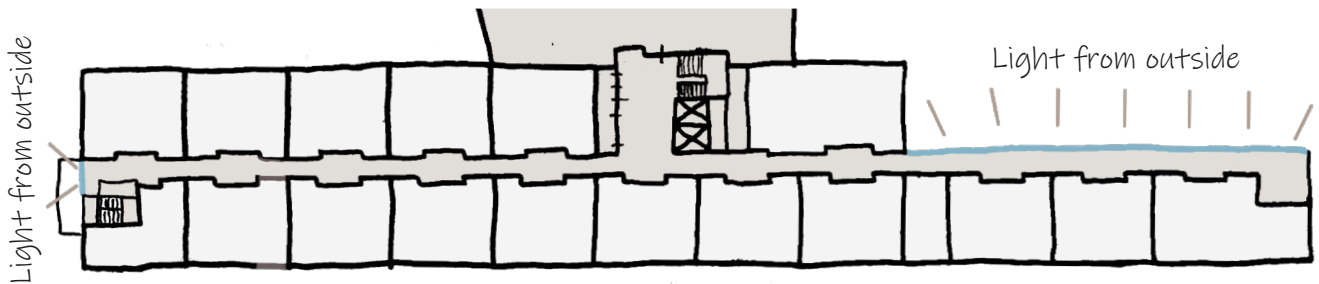
Different ways of going to the apartment:



Apartments

The apartments are accessed through a long hallway, which gives the building a nursery-like ambiance. They tried to avoid this impression as much as possible through wall colours, personalised boards, and niches allowing residents to place personal items outside their doors.

Most apartments have the standard size of 7,6m x 6,4m. Most of the residents are satisfied with the size of the apartments, with most of them surprised by the space when the rooms are furnished. The apartments offer a degree of freedom in arranging the space up to a certain level, allowing residents to personalise their living areas.



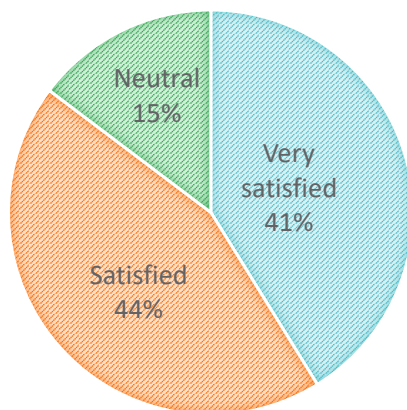
Small pets are allowed

Couple

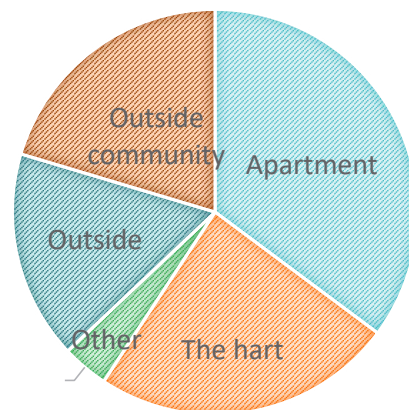
The house we lived in became too big for the two of us, so we looked for something smaller. There was an apartment available, and we went for a visit. At the sight of an empty apartment, we thought it would be too small for all our furniture. Then we saw a furnished apartment, where everything fitted, and we were convinced and still very happy with the decision to live here.

No resident was unsatisfied with living there

Satisfaction rates:

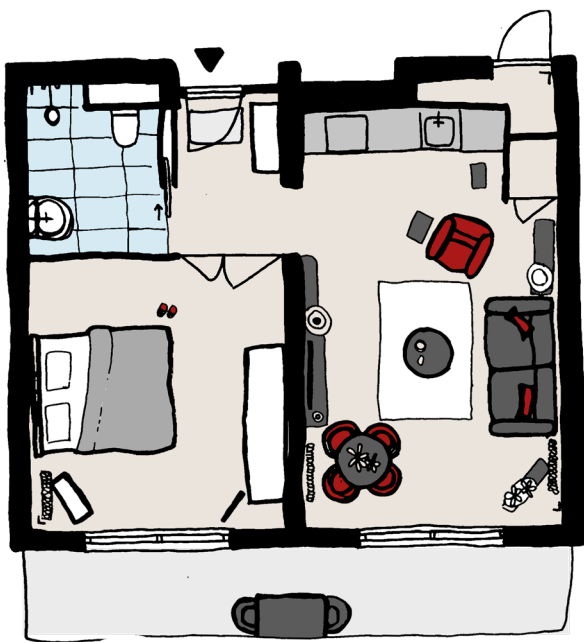


Most of the time spended:



Apartments

45% identified their apartment as their favourite spot within the building



Lady L

She is one of the relatively few residents who enjoy the luxury of having a balcony. She is very happy with it and uses it a lot during the summer. She feels comfortable and at home in her apartment because she furnished it to her liking.

Lady G

Initially, when the apartment was completely empty, it looked quite small. But now that we have filled it with our furniture, I am very happy with the size. It is exactly spacious enough for us, especially since we are often in 'The Hart' or elsewhere.

Sense of Community

According to the survey, 17% of the residents stated that they do something for the community on a daily base, while 26% participate weekly, 6% monthly, and 51% do not participate at all.

The community is organised into different subjects, with approximately 6 residents per group. One resident is the head of the subject and acts as the main point of contact for others. The subjects include finances, catering, weekly dinners, activities, music, garden maintenance, public space management, and a magazine.

There are also residents who do not contribute to the community, either because they are unable or unwilling to do so. This leads to some frustration among residents who are actively involved in community activities.

Ikigai

Ikigai is a Japanese concept and stands for something worth waking up for and living for. This concept is present within the community, as residents have the opportunity to pursue their Ikigai.

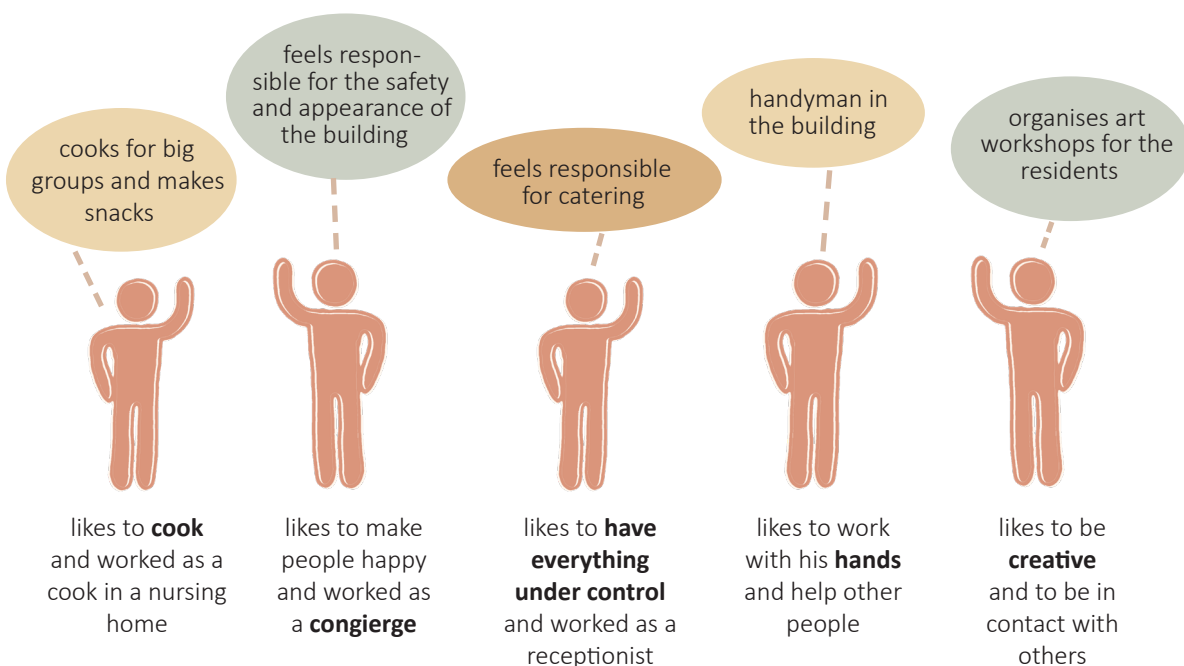
Lady C

Feels responsible for the catering and enjoys being involved, but sometimes it becomes overwhelming. She wishes more residents would help catering and other community activities, as it seems to always be the same persons taking on these responsibilities.

Mister B

Does not do anything for the community because he prefers to be alone and mind his own business. He works five days a week and feels too young to be part of the community. However, he feels pressure that it is expected of him to contribute to the community.

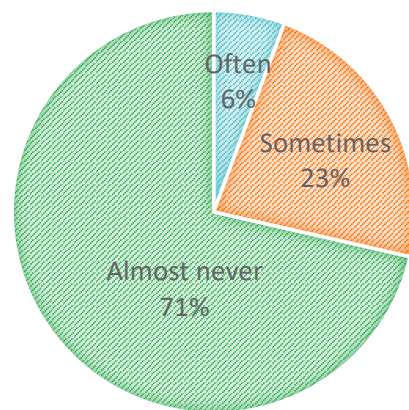
49% does something for the community



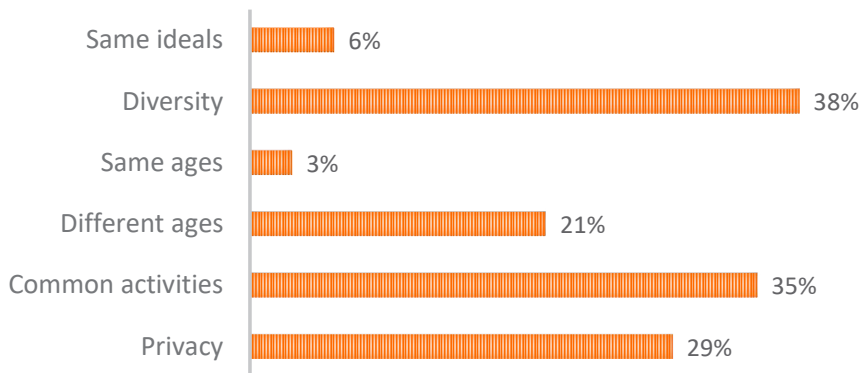
Social Dynamics in the Community

A diverse range of social interactions take place within the building. A distinction is observed between residents who are more physically active and those who are not. There are different morning coffee groups, as well as evening drinking groups. This division among residents aligns with the fact that there are over 150 residents from different backgrounds living in the building. Therefore, it is understandable that residents naturally form their own social circles within the community. Based on surveys and conversations with residents, the conclusion can be drawn that this housing setup is effective in preventing loneliness, as almost everyone reported not feeling lonely.

Feelings of loneliness:



Important for a housing community:



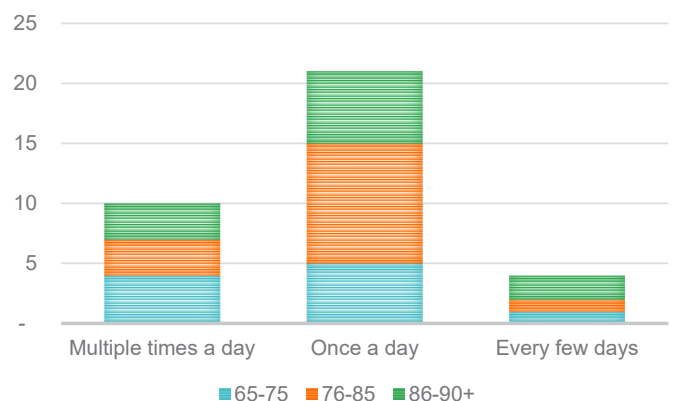
Lady T

She wishes that the residents mirror the broader society. Currently, most of the residents are white and elderly. She wants to have more diversity within the community.

Services within the building

Within the building there are facilities such as a pedicure, hairdresser, and physiotherapist. While it is convenient for residents to have these services close by, there is a consideration to encourage residents to spend time outdoors. A better option might be to relocate these facilities outside the building, accessible through a pleasant walking path. This approach could not only promote outdoor activity but also contribute to the overall well-being of the residents.

Frequency of going outside:



Physical Activity

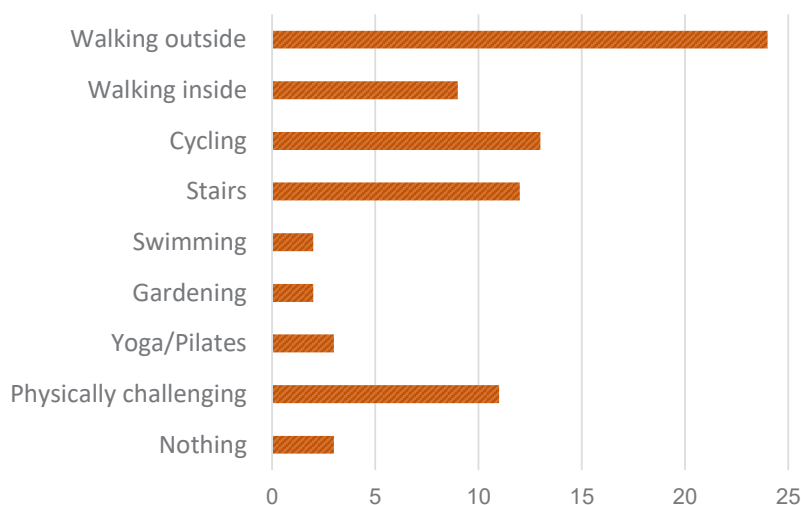
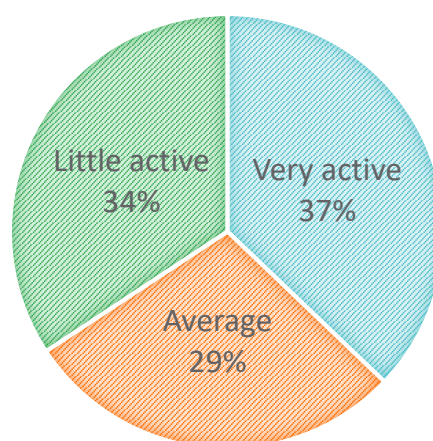
Feeling active

More than half of the residents still feel active, with 37 percent even describing themselves as very active.

Activities

Based on the survey and conversations, we discovered that the most popular activity among the elderly is walking. Most of them walk both outside and inside the building. Among the 37 respondents, only 11 individuals do not participate in walking activities. Four respondents reported not engaging in any physical activity. Two of them mentioned work commitments as the reason, while the other two cited mobility issues, stating they use a scoot mobile and are unable to take part in physical activities.

Perceived activity level:

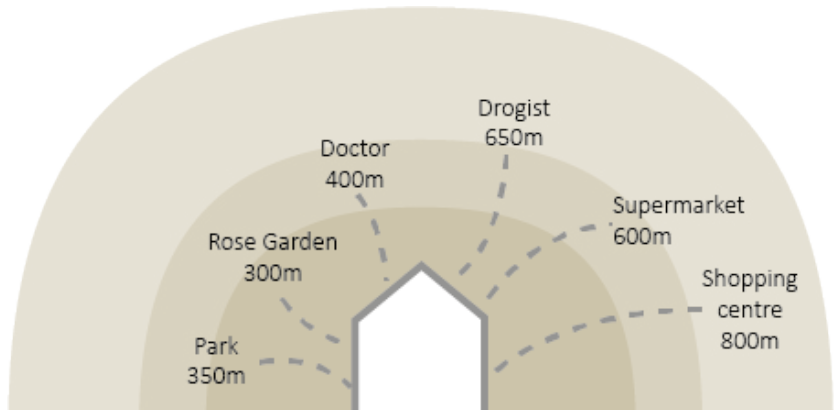


Activities in the building

There is a physiotherapist inside the building where many residents attend and engage in sports activities. The physiotherapist organises a weekly training session for interested residents, as well as residents from the adjacent building. The session costs 2 euros, and each participant receives two weights for the lesson. The entire session is in a seated position and focuses on improving coordination, strengthening muscles, and improving balance.

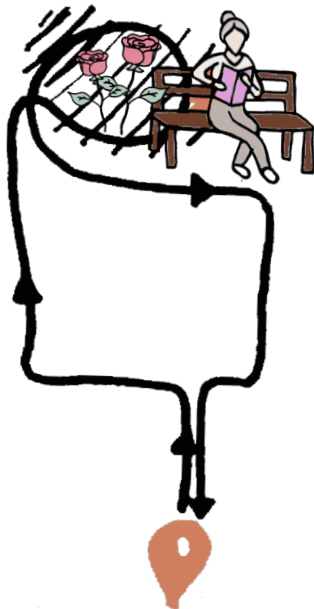
Lady C

She finds it very important to join the weekly training sessions to maintain her activity levels. Some of the exercises are challenging, but then she waits for activities that are more suitable for her. She tries to engage in all the exercises.



Walking

The walking distance from the apartments to the facilities is manageable. All the facilities that the elderly desire are located within walking distance. However, the pedestrian paths are not very suitable for older individuals with strollers or wheelchairs due to uneven pathways, broken tiles, or obstacles on the path.



Walk to the rosary
15 min | 600 m
10 m height



Walk to the park
24 min | 1,02 km
10 m height

Lady D

This woman enjoys walking to the rose park near the complex. During the summertime, she brings a pot of tea, a piece of chocolate, and a good book to this location. She prefers sitting on a bench in the park, which is positioned in front of a garden where families reside. She takes pleasure in eavesdropping on conversations without their awareness. This place provides her with both rest and happiness.

Lady T

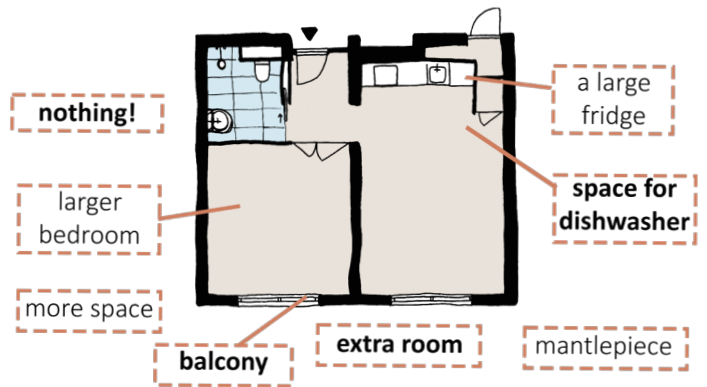
She walks daily for her health. Based on how she feels she chooses between a walk to the supermarket, other shops, or a small park. She ensures her home is stocked with enough food for flexibility. On this day, she chooses a walk to the small park.

She walks with a stroller. The uneven pedestrian paths force her to walk on the street. She needs to rest now and then during the walk by sitting on her stroller.

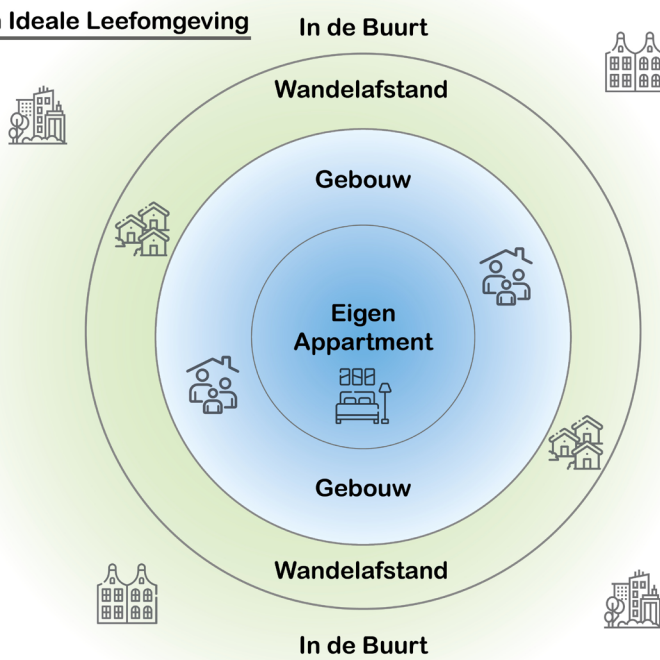
Workshop

Most of the residents would like to have more space in their apartment. There were also people who filled in that they were satisfied and need nothing more in their apartment. Most of the apartment do not have a balcony and many residents would like to have a balcony or garden.

Residents shaped their ideal living environment, by placing stickers of facilities that they would like to see in their living environment.



Mijn Ideale Leefomgeving



Creëer uw ideale leefomgeving:

1. Kies van iedere categorie uw drie favoriete stickers (maximaal drie!)

- = Ruimtes
- = Voorzieningen
- = Mobiliteit
- = Activiteiten
- = Buitenruimte
- = Mensen om mij heen
- = Zorg en ondersteunende hulp

2. Plak de stickers ergens in uw leefomgeving.

3. Gebruik de joker voor als wij iets zijn vergeten binnen een bepaalde categorie en plak deze ook in de leefomgeving.

4. De rode zone: wat wilt u absoluut niet in uw leefomgeving?

5. Vul hieronder uw geslacht en geboortjaar in

Ergens in de wijk - Mag iets verder zijn

6. Waar ziet u zo het liefste?

In uw appartement - privé voor u alleen

In het gebouw - Delen met uw medebewoners

Op wandelafstand - In de buurt op maximaal vijf minuten lopen

7. Geslacht: M V

8. Geboortjaar:

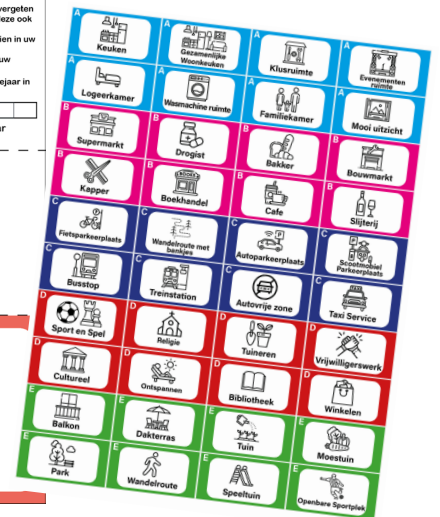
IDEE ZONE

Ik Mis Nog...

Ik Wil Niet!

ROOD ZONE

Ik Wil Niet!



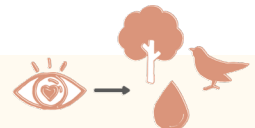
Facilities within walking distance - supermarket, pharmacy



Shared guest room / balcony



Walking route with benches



Nice view from apartment

guidelines

05 CONCLUSION

In conclusion, this research addresses the question of how Dutch living environments can be adapted or designed to promote healthy ageing and assist the elderly in maintaining their vitality. The first paragraph identified key elements that influence the health and well-being of the ageing population. This was done by drawing inspiration from Blue Zones, regions in the world where the population have exceptional longevity rates. Nine key lifestyle elements that are present in these areas were identified: natural physical activity, purpose, stress management, mindful food choices, plant-based diets, moderate wine consumption, faith-based community involvement, prioritizing relationships, and belonging to a supportive social community. When focusing on creating a health-promoting living environment, three critical domains stand out: **Physical Activity, Green / Blue spaces and Social Connection.**

While genetic factors account for 25% of lifespan variations, this study underscores the significant role non-genetic elements, such as unhealthy habits and social conditions, play in overall health. Additionally, environmental factors, including air pollution and low socio-economic status, further impact the ageing process negatively. Unlike Blue Zones, Western environments are characterized by diverse populations and modern conveniences, leading to the development of chronic diseases due to sedentary lifestyles, exposure to pollution, and unhealthy habits.

The second paragraph translated the elements of healthy ageing- Physical Activity, Green/Blue Spaces and Social Connection- into actionable guidelines for urban planning and housing design. This research emphasises the importance of having essential facilities, such as supermarkets, public transport, healthcare facilities and parks within walking distance for the elderly, to maintain their independence and overall well-being. All guidelines can be found on pages 39 till 42.

Initially, some Blue Zones lifestyle lessons, such as a healthy diet, sense of purpose, and stress management,

seemed unrelated to the spatial living environment and were excluded from this research. However, the study reveals that the living environment can stimulate these aspects by facilitating food gardens, communal spaces, and allowing residents to pursue their ikigai (purpose).

Relevant case studies in paragraph three demonstrate that creating a healthy living environment within the Dutch urban context is achievable. What these case studies have in common is the active involvement of citizens. The interviews conducted with both the municipality and BloeiZones Fryslân underscore the importance of involving residents in the process of shaping their living environment. This creates not only a sense of ownership but also results in a healthy living environment that is shaped to the specific needs and preferences of the residents.

Discussion

One noteworthy concern in urban living environments is pollution from industries and transport, posing challenges to creating an urban Blue Zone. Factors such as office jobs promoting a sedentary lifestyle, pollution from industries and transport, and social inequalities among the population contribute to these challenges. Nevertheless, implementing the provided guidelines can help mitigate differences between groups, reduce pollution, and make it easier for people to adopt healthier lifestyles.

This research emphasises that the creation of healthier living environments goes beyond the individual. Adopting an alternative approach that focuses on preventing rather than healing can make the living environment healthier. Ultimately, achieving healthy living environments needs a fundamental shift in perspective towards prevention. To maximise benefits, a proactive civil society, where inhabitants actively shape their living environments, becomes essential.

Overlapping Guidelines



Engagement ★★★



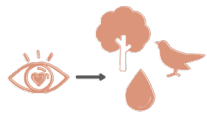
Walkability ★★★



Facilities ★★★



Civil society - voluntary collective action around shared interests, goals and values ★★★

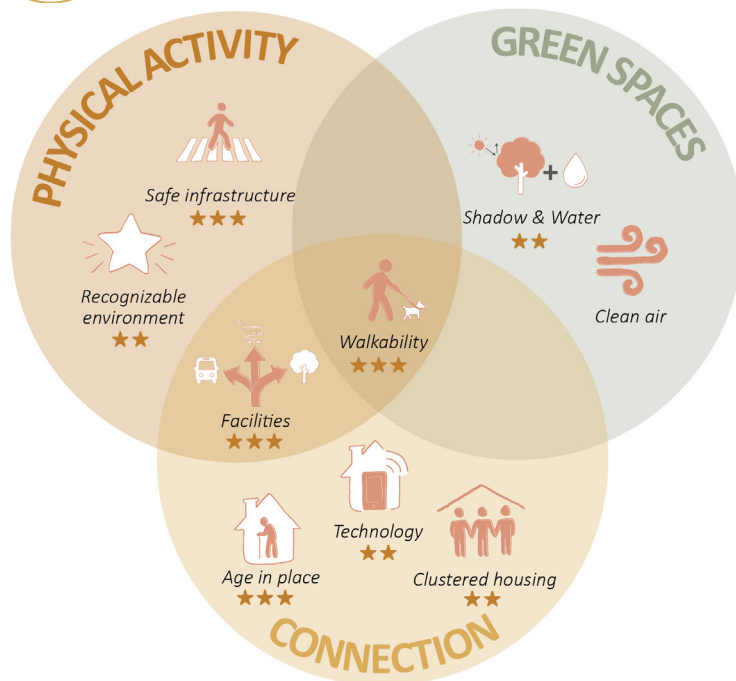


Attractive environment ★★



Community garden ★★

Maintaining Vitality





Physical Activity



★★★★

Walkability neighbourhood



★★★★

Accessibility facilities



★★★★

Safe infrastructure



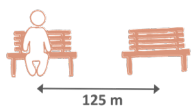
★★★★

Safe pedestrian crossings



★★★★

Community gardens



★★★

Benches



Green/Blue Spaces



★★★★

Green closeby



★★★★

Engagement



★★★★

Ventilation



★★★★

Reducing paved surfaces



★★★★

Shadow & Water



★★★

(Community) gardens



Social Connection



★★★★

Engagement



★★★★

Design for pedestrians



★★★★

Green Spaces



★★★★

Community centre



★★★★

Age-in-place homes



★★★★

Intermediate zones



Physical Activity



★★

Public transport



★★

Recognizable environment



★★

Sport facilities



★★

Car free zones



★★

Organisation of the program

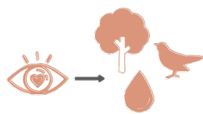


★★

Bicycle parking



Green/Blue Spaces



★★

Attractive + maintained green spaces



★★

Dense vegetation street level



★★

Education + information



★★

Green roofs & facades



★★

Urban forests



★★

Evergreen species



Social Connection



★★★★

Community garden



★★★★

Facilities



★★

Privacy



★★

Varied housing options



★★★★

Technology



★★

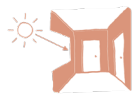
Collective space



Physical Activity



Inviting pathways



Attractive paths of travel



Attractive / safe staircases



Attractive facades + entries



Shower + lockers



Green/Blue Spaces



Urban agriculture



Safety



Trees in car parks



Tree-lined avenue



Social Connection



Human scale



House floor plan



Streetscape greenery



Shops & Cafés



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07 APPENDIX

7.1 Reflection

Relation with master track Architecture and the master program

“The topic of prevention that I chose for my graduation is important to me, as I believe in the potential for creating healthier living environments. The human-centred approach, which was integral to this studio, provided invaluable insight into understanding the needs of those for whom we design. I was given the chance to delve into the topic and learned a lot about the way of living and needs of the elderly. This was a valuable addition to this interesting journey, and I would like to inspire other students to do the same.

My graduation research demonstrates the impact of the living environment on how we age, drawing inspiration from the Blue Zones and critically assessing them to create practical design guidelines for urban living environments in the Netherlands. The research focuses on three vital spatial domains – Physical Activity, Social Connection, and Green/Blue Spaces. The design guidelines developed within these domains contribute to reducing the need for care while prolonging people’s autonomy and can therefore be used by architects, urban planners, and municipalities.

Relevance of the topic

This topic and graduation work are important as there is an urgent need for change within the Dutch healthcare system. The ageing population is facing increased health issues, and the number of caregivers is insufficient to meet these demands. The Dutch government has written policies for preventative measures, but there are not enough concrete projects realised. To make a living environment healthier, people from the neighbourhood, or the municipality must act. Architects and urban planners play a crucial role in shaping the living environment and should be an integral part of the solution for creating a health-promoting living environment.

In the design of this graduation project, the design guidelines are implemented in an existing cauliflower neighbourhood in Delft. The site research delves into the current problems in these neighbourhoods and what is needed to revive them. The project serves as an example of how the guidelines can be implemented, and the research serves as a discussion of how we look at our living environment and what impact it has on our health.

This graduation project embodies a holistic approach to healthy living environments, highlighting the symbiotic relationship between architecture and inhabitants’ well-being. The design fosters social cohesion and physical activity through the integration of cohousing, communal green spaces, and a multifunctional community house. Moreover, biobased materials and ventilation type D create a healthy indoor environment. My graduation project serves as an example of healthy living, offering practical examples for architects, policymakers, and researchers. It is not only about the potential of architectural interventions but also about reimagining urban landscapes for collective well-being and sustainable living.



The value of having a purpose - During the fieldwork week, this lady in her 90s said that she felt bad that she could not help with cooking. I therefore suggested a task within her reach – prepping sprouts, and she enjoyed doing it. Even more people joined the session, and that gave me the realization about the importance of feeling valuable and having a purpose.

Reflecting on the process

Reflecting on the process thus far, I am particularly engaged with the studio's theme of health and care and the human-centered research. The research phase was not only informative but also enjoyable. However, challenges arose when translating this research into a design, specifically due to my tendency to focus more on products rather than considering how to effectively translate my concept into a design. Before the P2 presentation, I therefore found myself at a standstill, which also resulted in a re-examination. Yet, by stepping back and returning to sketching, I was able to bring back my energy and enthusiasm for the project. This technique has proven to be helpful in overcoming obstacles and reigniting my passion.

A valuable lesson learned from this process is the importance of trusting my intuition, especially when grounded in research. I realised the need to return to research as the foundation for my creative process to ensure the coherence between the concept and execution. By sketching I found a way to express my intuition, which has helped me overcome obstacles during my graduation process.

Throughout the graduation process, I managed to create a housing community that fosters social connection and breathes new life into the cauliflower neighbourhood. I am confident in the quality of my design choices, as they align with my research and vision.

My graduation design embodies the principles of healthy aging, seamlessly integrating research findings into an existing neighbourhood. Just as the Blue Zones harmonise with their surroundings, my design fits the scale and context of the neighbourhood in Tanthof. Social connection is woven throughout the design, extending beyond the housing community to involve all residents of the neighbourhood.

I am looking forward to entering the last phase to set an inspiring example and raise further awareness of the importance of healthy living environments.



Sketches during the design process, reflecting both intuition and research findings, played an important role during my design process (own work).

7.2 Interview with policy advisor on health policy for the municipality of Delft

Date: 8 December 2023

Interviewer: Eline Koes

Form: Online



Wat is uw functie?

Ik ben beleidsadviseur, met een specifieke focus op gezondheidsbeleid. Mijn takenpakket omvat een breed scala aan gezondheidsbeleid, dus niet alleen positieve gezondheid. Het is gebaseerd op de gezondheidsnotitie van Delft, waarop ook het preventieakkoord en alle activiteiten die betrekking hebben op de gezondheid van de bewoners uit voort komen.

Wat is het doel van de gemeente?

Het doel is om behoeftegericht te werken. We zijn niet met aanbod bezig, maar laten de plannen voortkomen uit de behoeften van de bewoners. Wel is het zo, dat als er wet- en regelgeving in de maak is, we onze bewoners daar over inlichten of voorlichten. Maar over het algemeen als het gaat over interventies, dan betrekken we hier de bewoners bij door met hen te praten over de behoeften, hoe ze deze zouden willen bewerkstelligen, en bewoners zijn ook actief betrokken bij de uitvoering ervan.

Kunt u een voorbeeld geven van zo'n interventie?

Een voorbeeld van een grote interventie is het café Positief Gezond. Dit is geen normaal café, maar een gezondheidscafé dat elke dinsdag fysiek plaatsvindt in wijkcentrum de Vleugel (tussen de wijken Voorhof en Buitenhof in). Hier wordt een inloopspreekuur aangeboden door verschillende gezondheidsorganisaties, zoals Brijder (verslavingszorg), de GGD en Delft voor Elkaar. Deze organisaties zijn om toerbeurten aanwezig. Daarnaast wordt er van 10 tot 12 nog een programma aangeboden waarbij er voorlichting wordt gegeven over onderwerpen dat gebaseerd is op de wensen en behoeften van de bewoners. Dat kunnen voorlichtingen zijn over diverse onderwerpen zoals zorgverzekeringen, seksuele gezondheid, leefstijl, armoede en schulden.

Kunnen bewoners zelf initiatief nemen voor interventies?

Ja, bewoners kunnen via wijkverbinders of rechtstreeks zelf initiatieven aandragen. Over het algemeen is het zo dat er een groep bewoners ideeën hebben met betrekking tot gezond leven. Meestal wordt dit aangedragen tijdens de bijeenkomsten in Café Positief Gezond. Het kan ook via bewoners naar de wijkverbinder gaan. De wijkverbinders zijn vertegenwoordigers van de bewoners en spelen een cruciale rol bij het faciliteren en uitvoeren van de initiatieven. Als gemeente zorgen we er dan voor dat er een interventie wordt aangeboden, waar we samen met de initiatiefnemer (bewoner) en professionals in gesprek gaan om te kijken waar het naar toe kan leiden.

Wat merken jullie van de vergrijzing en de druk op gezondheidszorg?

Met betrekking tot eenzaamheid is die druk er zeer zeker. Er is veel eenzaamheid onder ouderen, deels veroorzaakt door vergrijzing. Projecten zoals "Eén tegen Eenzaamheid" zijn opgezet om dit aan te pakken. In Nederland groeide het aantal ouders wat eenzaam was, en bij de Omnibus enquête zagen we dat Delft er bovendien stak. Toen hebben we gekeken hoe we hier invulling aan konden geven. Met professionals gingen we om tafel en daar zijn verschillende bijeenkomsten en activiteiten voor bewoners uitgekomen. Het project 'een tegen eenzaamheid' is toen gestart. Verder organiseren we

grote evenementen, en laatst hadden we een grote bijeenkomst over eenzaamheid, waar wijkverbinders en professionals aanwezig zijn. Daar wordt dan voorlichting gegeven of over interventies gepraat. Maar ook op andere vlakken merken we de impact van de vergrijzing. Zo is er bijvoorbeeld vraag naar valpreventie onder de bewoners. Door het vrijkomen van extra middelen gaan we hier extra op inzetten.

In hoeverre ligt de focus op gezondheid bij het toetsen van nieuwbouwplannen?

In de lokale omgevingsvisie maakt gezondheid daar een centraal onderdeel van uit. Gezondheid loopt er als een rode draad door heen. Deze visie moet dan omgezet worden in plannen en dat is een slag die nog gemaakt moet worden en waar we vol mee bezig zijn. We zijn op dit moment ook met de GGD in gesprek, waarbij de GGD bij de eerste stappen voor plannen al meekijkt of gezondheid al voldoende wordt meegenomen in het traject. We zijn ook plannen aan het maken om de GGD structureel mee te laten kijken.

Kijkt de GGD mee met alle plannen voor de leefomgeving?

De GGD kijkt met name mee bij complexere plannen, terwijl eenvoudigere plannen door de gemeente zelf worden afgehandeld. De focus van de GGD ligt op aspecten zoals licht, geluid, lucht en gezonde inrichting van de leefomgeving. Zij letten ook op hoe woningen worden gebouwd en adviseren bijvoorbeeld over de positie van slaapkamers en de aanwezigheid van voldoende groen en water.

Is dat iets van de gemeente Delft, dat de GGD meekijkt, of is dat verplicht?

Dat is op dit moment geen verplichting. In Delft zijn we één van de voorlopers daarin. Wij willen graag dat de GGD ons in de gezonde leefomgeving ondersteunt. Het kan zijn dat andere gemeenten ons daarin gaan volgen. Ik zet daar als beleidsadviseur ook op in dat de GGD in beeld blijft.

Speelt het stimuleren van actief verkeer (wandelen/fietsen/hardlopen) ook een rol in de omgevingsvisie?

Dat maakt er ook onderdeel van uit. In de bestaande omgevingen kunnen we niet altijd wijzigingen aanbrengen, doordat deze vaak vol zijn. Bij nieuwe plannen kijken we wel bijvoorbeeld naar de hoeveelheid fietspaden, wandelpaden en het groen. Verder werken we samen met Positieve Gezondheid waarbij stads breed kijken wat er nodig is voor een gezonde leefomgeving. Bewoners hebben aangegeven dat ze graag meer bankjes zouden willen, dus wij zorgen er dan voor dat er bankjes geplaatst worden op de plekken waar de bewoners aangeven dat er bankjes moeten komen. Pas geleden is er een bankje bij een school geplaatst waarbij de kinderen samen met bewoners de bank versierd hebben. Verder zijn we aan het kijken naar het plaatsen van borden op wandel- en fietspaden om sporten te stimuleren. Deze borden geven dan bijvoorbeeld aan op hoeveel meter ja al zit en waar bijvoorbeeld rustpunten zijn waar je water kan halen.

Hoe ziet u de verantwoordelijkheid voor gezondheid tussen de gemeente en bewoners?

De gemeente heeft de plicht om bewoners voor te lichten en te ondersteunen op het gebied van gezondheid. Hoewel bewoners zelf keuzes maken met betrekking tot eten en levensstijl, faciliteert de gemeente collectieve gezondheid. Op dit moment zijn we daar vooral met positieve gezondheid druk mee bezig.

Is dat voldoende, of is er meer nodig?

Als je kijkt hoe gezond gedrag gerealiseerd wordt, dan wijzen de cijfers aan dat je eigenlijk pas na 5 tot 7 jaar pas de resultaten ziet. Gedrag verander je niet in één keer. We zijn nu al 2,5 jaar bezig, en we zien wel al dat bewoners de richting op gaan waar we heel erg blij mee zijn.

Een voorbeeld hiervan is het Gezondheidsfestival, waar bewoners aan mee helpen die vaak ook aanwezig zijn bij café Positief Gezond. We willen graag dat bewoners aanwezig en actief zijn bij de programmering, maar ook bij de invulling. Zo zijn er een aantal bewoners die zich inzetten voor het maken van hapjes tijdens het festival. Bij de eerste keer moesten we in de gaten houden dat de hapjes wel gezond werden, maar de afgelopen keer hebben ze zelf boodschappen gedaan en de recepten zelf aangedragen, en de hapjes zelf gemaakt. Er zitten dan nog wel verbeterpunten in, zoals dat we liever bruin brood zien dan wit brood, maar het is verder wel gezond. Je ziet dat de bewoners bewust bezig zijn met de gezondheid en dat is ook ons doel: bewust worden.

Wat maakt dit tot zo'n succes?

Wij dringen niet op, maar we werken vraaggericht. We werken op basis van behoeften van bewoners. 'Train de Trainer' is één van de grotere interventies die we hebben opgezet, waarbij wijkverbinders getraind worden door een voeding juf. De wijkverbinders trainen zo weer andere bewoners door het geven van workshops. Door dit soort initiatieven merk je dat er stapsgewijs meer verandering komt in gedrag en enthousiasme. Na evaluatie kwam uit dat bewoners meer willen insteken op naast gezond koken ook op goedkoop koken. Toen hebben wij hier een voeding juf aan gekoppeld en ligt de focus nu ook hierop.

Wat specifieke behoeften hebben ouderen in hun leefomgeving?

Ouderen hebben behoefte aan voldoende rust en energie om dingen te kunnen blijven doen. Ouderen hebben zelf ook aangegeven dat ze behoefte hebben aan ontmoetingsplekken. Met betrekking tot eenzaamheid proberen we mensen bij elkaar te brengen. Zo hebben we een aantal jaar terug laptops beschikbaar gesteld aan bewoners, waardoor ze door beeldbellen in contact konden komen met familie en vrienden. Dit sloeg echter niet goed aan, waardoor we er mee gestopt zijn. Maar het geeft wel aan dat we op allerlei manieren kijken hoe we deze bewoners kunnen helpen. Ook geschikte woningen, valpreventie en woonondersteuning dragen bij aan een ideale leefomgeving voor ouderen.

Hoe ziet u de ideale leefomgeving voor zich?

De ideale leefomgeving biedt voor iedereen, zowel voor jongeren, volwassenen en ouderen, mogelijkheden om gezond te leven, met voldoende water, weinig geluid, schone lucht en diverse faciliteiten die bijdragen om gezond te blijven.

7.3 Interview about BloeiZone Fryslan

Date: 24 November 2023
Interviewer: Eline Koes
Form: Fysiek in Groningen



Summary of the interview

The goals of BloeiZones are to transform passive residents into active participants who can shape their living environment. Involving residents in creating healthier living spaces is crucial, and the concept can be applied to urban areas with a similar process.

An example is the project in Appingedam, where residents were involved in discussions about a healthy living environment using 'praatplaten' (talk boards). The process focuses on actively engaging residents, including those who typically do not participate, and creating support from municipalities. Talk boards are an accessible means to connect scientific knowledge with the opinions of low-educated and economically vulnerable communities.

A shift in thinking is essential to address challenges in bridging the gap between residents and municipalities. Choices are often based on outdated regulations rather than the wishes and needs of residents. Healthier living environments become more important as the government policies are focussing on this theme. HANNN supports Bloeizones through a process that empowers residents to shape their surroundings.

There are seven themes of BloeiZones, including active citizenship, accessible green spaces, active relaxation, healthy mobility, healthy living, healthy nutrition, and healthy finances. Architects and urban planners can incorporate these themes into urban design, with active citizenship being the most important. When people participate in designing and influencing their living environment, it creates ownership.

The most important thing is putting the needs of people at the centre. Municipalities should involve residents from the project's start. The role of architects and urban planners are crucial in promoting healthy living environments, where the goal is not only physical structures, but also creating a sense of involvement and ownerships with residents.

Wat is jullie doel?

Wat wij met BloeiZones proberen te doen, is de passieve inwoner veranderen, die zijn leven en leefomgeving ondergaat, naar een actieve inwoner die er actief en participatief mee bezig is en leiding neemt in hoe dat vormgegeven wordt. Het gaat niet alleen om bewoners te leren dat het anders kan, maar ook om overheden en andere instanties te leren luisteren naar de behoeften van inwoners, en beseffen dat de oude aanpak niet meer werkt.

BloeiZones bevinden zich in Friesland en richten zich vooral op dorpen. Zou het concept van de BloeiZone ook toegepast kunnen worden in een stedelijke omgeving?

Het concept blijft hetzelfde. Je geeft inwoners en mensen die daar leven regie en inzicht in hoe een gezonde leefomgeving eruit kan komen te zien, met jouw achterliggende expertise en wetenschappelijke kennis van wat een gezonde leefomgeving inhoudt.

Een voorbeeld is bijvoorbeeld wat ik hiervoor heb gedaan is het project in Appingedam. Voor het project in Appingedam was het doel meer gezonde jaren door mensen grip te laten krijgen op hun eigen leefomgeving, want mensen leven daar gemiddeld 12,5 jaar minder lang in goede gezondheid door een opeenstapeling van problemen. We zijn daar deur aan deur gegaan om met bewoners te praten over een gezonde leefomgeving. Hiervoor ontwikkelden we een praatplaat waarop mensen konden aangeven hoe zij een gezonde leefomgeving voor zich zagen.

Hoe hebben jullie die praatplaat vormgegeven?

We hebben plaatjes gebruikt, omdat de mensen over het algemeen laagopgeleid zijn en een lage economische status hebben. Met een theoretisch model of wetenschappelijk concept zouden we hen direct kwijtraken. We wilden de link leggen tussen wetenschappelijke kennis en de mening van mensen op een toegankelijke manier. Door middel van de praatplaat hebben we input opgehaald binnen bepaalde kaders die we zelf hadden opgesteld, los van de gemeente. Later heeft de gemeente besloten dit mee te nemen in een stedenbouwkundig plan. Zelf ben ik niet meer bij dat project betrokken, maar ik weet dat ze nu sessies houden waarbij bewoners de leiding hebben. Dit soort sessies kunnen soms leiden tot autovrije zones, of woonerven. En wat je dan merkt is dat organisaties helemaal geen moeite hebben met het creëren van een woonerf. Vaak zijn de regels en protocollen die wij rond openbare ruimten hebben opgesteld zonder de wetenschap dat het een gezondheidsimpact heeft, maar het is vaak puur gericht op infrastructurele functies.

Het concept gezondheid is van de laatste jaren, maar de regels en wetgeving die rondom dit alles zit, is best verouderd. Wij stellen eigenlijk de vraag of het huidige middel het doel nog wel rechtvaardigt.

Dat is interessant, want voor gemeenten is het vaak 'we kennen het zo, dus we gaan het zo weer doen', maar het is natuurlijk wel goed om er kritisch naar te kijken 'is dat nu nog nodig in deze tijd'.

Ja, hoe ik het vaak vergelijk is met de zorg. We hebben het heel mooi met z'n allen bedacht, de zorg, ouderenzorg, en ziekenhuizen. Maar we merken nu dat we het in de zorg niet gaan redden. Het zorgsysteem en gezondheidssysteem is zo ingericht dat als iemand ziek wordt, we deze beter maken, maar we hebben het helemaal niet ingericht in van hoe kunnen we ervoor zorgen dat mensen minder ziek worden. En bij infrastructuur dus, het moet gewoon werken en gezondheid is niet meegenomen. En nu komen we tot het besef dat de omgeving waarin iemand woont heel veel invloed heeft op hoe gezond iemand is, en wat iemand zijn zorgvraag wordt, en hoe gelukkig diegene is. De Bloeizones zijn hierin een stap.

In het voorbeeld van Appingedam, begin je met een leeg vel papier, dat biedt mogelijkheden, maar dan moet er wel draagvlak voor zijn, hoe merk je dat er meer aandacht komt voor gezonde leefomgevingen?

Dat biedt zeker mogelijkheden. De reden: Het Gezond en Actief Leven Akkoord (GALA). Dit is waarom gemeenten het steeds belangrijker vinden, omdat het moet. Dit is een rapport van het Ministerie van Volksgezondheid, Welzijn en Sport (VWS). Het is van januari 2023. Sportakkoord is hetzelfde concept. Dit wordt bedacht door de overheid in Den Haag, we moeten hier meer mee gaan doen. Er wordt een rapport opgesteld. Hoe gaan we dat doen? Er komt een budget vrij en dan wordt er tegen gemeenten gezegd 'Jullie moeten hier wat mee, want wij als politiek vinden dat belangrijk, succes'. En daarom vinden gemeenten dat dus heel belangrijk. Er staan gezondheidsdoelen in, en één onderwerp ervan is 'een gezonde fysieke leefomgeving die tot bewegen en ontmoeten uitnodigt'. Dit is iets waar gemeenten nu een beleidsplan op moeten schrijven. Zo komt het in beleid terecht. Dat een instantie zoals VWS zegt: het moet anders. We schrijven een plan en er moet zoveel geld komen. De regering zegt: prima, gaan we doen. En dit komt dan bij gemeenten terecht en die moeten er wat mee gaan doen. Maar zo nieuw is dit dus, januari 2023. En dit is het allereerste akkoord waarin staat dat gezondheid moet worden meegenomen in plannen rondom de leefomgeving.

Wat zou jullie rol binnen HANNN hierin kunnen zijn naar de gemeente toe?

Onze taak hierin zou kunnen zijn om aan de ene kant de gezondheidskennis hierover te hebben, maar anderzijds om dat proces van hoe kan je nou mensen grip laten krijgen op het inrichten van een gezonde leefomgeving vorm te geven. Dus dat er naast gezondheidskennis toepassen, ook de mensen zelf vragen.

Maar vooral ook om te zeggen: doe het niet vanaf je bureau, en ga niet denken vanuit de bestaande protocollen, over hoe het er dan uit moet zien. Vraag het ook gewoon aan de mensen die er moeten wonen. Als we aan die tafel zouden zitten dan kunnen wij ook advies geven aan de gemeente over hoe inwoners betrokken kunnen worden bij zo'n proces. Voor de gemeenten is dit proces namelijk lastig, omdat we merken dat gemeenten het lastig vinden om aansluiting te vinden met inwoners, omdat ze het niet gewend zijn, en anderzijds vinden mensen de gemeenten niet leuk. En wij zijn er dan ook voor om de gemeente te informeren, van hoe geef je dat proces vorm en hoe betrek je de mensen hierbij.

Zouden jullie dan die taak willen overnemen, als de gemeente daar om vraagt?

We kunnen dat niet zomaar doen. Ik zou het wel willen doen, want ik vind dat hartstikke leuk. Heel veel gemeentes weten niet hoe ze het moeten doen, omdat er zo'n gat zit tussen de gemeenten en de inwoners.

Laten we teruggaan naar de BloeiZones, want jullie slagen erin om de leefomgeving gezonder te maken.

Hoe gaan jullie daarbij te werk? Wat houdt een BloeiZone precies in?

Een BloeiZone is niets anders dan een groep mensen die actief bezig is met gezondheid rondom de zeven thema's van de BloeiZones. Als ze hier actief mee bezig zijn en contact met ons opnemen om een BloeiZone te worden, kunnen ze dat worden. Een BloeiZone is eigenlijk een stempel naar de buitenwereld dat ze goed bezig zijn. Daarna komen ze in een netwerkgroep met andere BloeiZones die ook in elkaars activiteiten zijn geïnteresseerd. Stel iemand heeft een vraag en wil weten of een andere BloeiZone daar ervaring mee heeft of het probleem al heeft opgelost. Dan kan ik kijken hoe ze elkaar kunnen helpen. Een voorbeeld is een BloeiZone waarbij een groep huisartsen de koppeling tussen zorg en BloeiZones nog niet zien, dan geef ik een presentatie waarbij ik het verhaal van een andere BloeiZone vertel waarbij huisartsen juist de drijvende kracht zijn bij de ontwikkeling van de BloeiZone. Op die manier kunnen de BloeiZones van elkaar leren.

Dus om te laten zien wat er mogelijk is?

Ja, en ik denk dat het succes vooral ligt in het feit dat wij niet denken in gemeentelijke structuren, protocollen en regels. Wij denken vanuit het perspectief dat deze mensen iets willen doen aan hun gezondheid en daar gewoon mee aan de slag willen. Onze rol is om dat proces te faciliteren. Dus hoe kan deze groep inwoners dat het beste aanpakken? En als ze bijvoorbeeld voor de inrichting van de openbare ruimte hulp nodig hebben, kunnen wij naar de gemeente gaan. Wanneer de gemeente hoort dat het om een BloeiZone gaat, zijn ze vaak meer geneigd om naar de inwoners te luisteren.

Merk je dat dit al meer begint te leven bij de gemeentes?

Ja, en dat is altijd dubbel, want gemeentes vinden dit fantastisch. Er is zelfs in het zuiden van Friesland een Regiodeal gesloten, waarin bepaalde BloeiZones een bedrag van 25.000 euro krijgen om uit te geven aan wat zij willen. Maar tot nu toe gebruiken gemeentes het vooral om beleid achteraf te rechtvaardigen. Bloeizones ondernemen acties, en gemeentes schrijven dan beleid op basis daarvan. Ze ondersteunen wel, maar ze pronken er ook heel erg mee.

Ik ben benieuwd naar de 7 punten van de BloeiZones en hoe een architect of stedenbouwkundige daarmee kan werken. Zijn jullie ook in gesprek met stedenbouwkundigen of architecten?

We zijn niet per se in gesprek met architecten, maar als ik logisch nadenk en het vanuit mijn ervaring bekijk is Actief burgerschap (het eerste thema van een BloeiZone) belangrijk. Dat zou je misschien niet denken, maar als inwoners in gesprek gaan met een architect over het inrichten van hun eigen gezonde leefomgeving, beschouw ik dat als actief burgerschap. Dus ik denk dat dit een essentieel punt is om als architect in je hoofd te houden als je gezondheid wilt bevorderen en breder wilt kijken dan alleen de fysieke omgeving. Als je ervoor kunt zorgen dat mensen na het proces van het vormgeven van hun leefomgeving het idee hebben: 'Ik kan dus iets doen aan mijn omgeving', dan kunnen ze dat ook in andere facetten van hun leven toepassen. Dan kun je nog veel meer bijdragen aan gezondheid.

De eerste stap, het opzetten van een BloeiZone, is eigenlijk dat je mensen vraagt wat ze willen, een beetje zoals die praatplaat in Appingedam. Zie je dat als iets wat een architect zou kunnen doen?

Ik denk dat als je gezondheidsbevordering als een bolletje ziet, je twee delen hebt. Aan de ene kant heb je de fysieke omgeving zelf, die uiteindelijk bijdraagt aan een goede gezondheid. En aan de andere kant zit het gevoel van grip hebben op de gezondheid. Dus het proces zelf is volgens mij minstens zo belangrijk.

Dat mensen het idee hebben: wij hebben dit ontworpen?

Ja, dan krijgen mensen het gevoel dat ze echt iets samen kunnen bereiken. Ze gaan misschien in hun buurt ook meer doen, want dat zie je in BloeiZones heel sterk. Mensen bereiken dingen en raken gemotiveerd om nog meer te doen, waardoor hun impact groter wordt en ze de leefbaarheid van het dorp vergroten. Het zien dat dingen tot stand komen, vooral bij de verandering van de leefomgeving, is misschien wel het meest overtuigende bewijs dat je als individu kunt bijdragen.

Houden mensen het dan ook netter als ze het idee hebben dat zij dit voor elkaar hebben gekregen, bijvoorbeeld in een park?

Zeker, dan beschouwen ze het als iets van henzelf. Als je 50 jaar later terugkomt met je kleinkinderen, zeg je: "Zie je dat? Daar hebben wij samen over nagedacht." Dan ben je er nog steeds trots op.

En dat is ook een beetje in het kader van een nieuwe definitie van gezondheid; je kunt kijken naar positieve gezondheid,

waar veerkracht een rol speelt. Ik denk dat dit een vorm van veerkracht is. Hoe ga je om met een veranderende context? Als je het idee hebt dat het je overkomt en je klaagt erover, dan heb je minder veerkracht. Maar als je denkt: "Het is stom, maar laten we ervoor zorgen dat het anders gaat", en je gelooft dat het mogelijk is, dan noem ik dat veerkracht. Daarom denk ik dat het bijdraagt aan gezondheid.

Thema 2: Bereikbaar groen. Pluktuinen, moestuinen, parken zijn dit initiatieven van mensen zelf?

Ja, een mooi voorbeeld- niet van een BloeiZone- is de aanplant van bomen op de Grote Markt in Groningen. Ze planten nu bomen omdat het klimaat verandert en het warmer wordt, zodat mensen in de schaduw kunnen zitten. Dat heeft twee voordelen, aan de ene kant het voorkomen van hittestress en aan de andere kant vinden mensen dat natuurlijk ook prettig.

Thema 3: Actief ontspannen

De koppeling tussen ontwerpen en actief ontspannen is logisch, een park, aantrekkelijke wandelpaden. Maar actief ontspannen kan ook een keerzijde hebben. Hier in Groningen heb je het park Noorderplantsoen waar studenten van alles doen. Ze zijn allemaal actief aan het ontspannen, er zijn altijd fitnessgroepjes, basketballers, iedereen is bezig. Mensen die daaromheen wonen ervaren veel overlast. 's Ochtends om 7 uur worden ze wakker van schreeuwende fitnessgroepen en hardlopers. En nu hebben ze een padelbaan, maar het schijnt dat het enorm lawaai maakt als je in de buurt woont vanwege het glas.

Dat is misschien ook een kwestie van in gesprek gaan met mensen, want wat voor de een overlast is, is misschien geen overlast meer als er duidelijk over gecommuniceerd wordt?

En het is ook een beetje nadenken. Wat je in Appingedam zag, was dat de gemeente de inwoners niet begreep en vice versa. Toen heb ik iets georganiseerd waar ze rustig met elkaar konden praten. Het bleek dat het plan van de gemeente dat niet was doorgedaan, waar bewoners zich aan ergerden, als de gemeente dat gewoon had uitgelegd in persoon, hadden de bewoners er begrip voor gehad. En als een bewoner rustig zijn problemen één op één bij iemand van de gemeente kon aankaarten, zei die persoon ook: "Nu je het zo zegt, snap ik het ook wel." Het gaat dus ook om een gezicht hebben, dat is blijkbaar de helft.

Thema 5: Gezond wonen in hun vertrouwde leefomgeving, dat gaat over ouderen dat die op hun plek kunnen blijven wonen?

Als dat voor iemand belangrijk is wel. Als ik me ergens thuis voel en ik woon vlak bij wat groen, dan vind ik dat vertrouwt. Dus wat voor iemand vertrouwd is, en voor iemand thuis voelt, is voor iedereen anders. Het is wel goed om op tijd na te denken over de inrichting van het huis, kan het nog 20 jaar, zijn er nog aanpassingen nodig, gaat hetzelfde om de leefomgeving, vind ik het hier nog prima?

Thema 6: Gezonde voeding. Hoe kan dit worden opgenomen in de leefomgeving?

Er komt steeds meer nadruk op te liggen dat mensen inheemse producten gaan eten. En we moeten weer terug naar wat duurzame akkerbouw, een moestuin of een wijkmoestuin, dat heb je hier in Groningen ook wel. De gemeente freest een stuk grond zodat de grond klaar is om er wat in te verbouwen, en voor de rest laat je mensen lekker zelf die moestuin beheren. Dat heeft wel met gezonde voeding te maken, en de leefomgeving. Het wordt ook steeds meer gebruikt om mensen bij elkaar te brengen.

Thema 7: Gezonde financiën. Hoe kan dit worden opgenomen in de leefomgeving?

Hier zie ik zo snel geen link. Maar het is wel heel belangrijk. Er zijn heel grote gezondheidsverschillen tussen mensen met een hoog en laag inkomen. Dat komt niet per se door het inkomen zelf, maar door de stress die mensen hebben van hun inkomen. Maar je kan misschien wel kijken naar wat zit die mensen nou echt dwars. Want dat gezondheidsverschil kan komen doordat ze zoveel werken, maar dat kan dus ook komen doordat ze zoveel werken en daardoor het idee hebben dat hun kinderen niet kunnen spelen en dan voelen zij zich niet goed. Dus als je de kern van het probleem kan achterhalen. Waar zit de grootste stress voor mensen. Want dat geldt dat is stress, maar dat heeft een gevolg. En dat gevolg is vaak de kern van het probleem. En dat zou opgelost kunnen worden in de openbare ruimte.

Wat zou jouw aanpak zijn als je aan een BloeiZone in Delft begint?

Als ik kijk naar wat jouw aanpak zou kunnen zijn in Delft, denk ik dat het proces voor jou belangrijk is. Voorbeelden zou ik wel meenemen, maar ik zou vooral het proces wat wij doen gebruiken. Neem bijvoorbeeld het streven naar een gezonde leefomgeving, dat als belangrijk wordt beschouwd door VWS. HANNN werkt aan het procesmatig invullen hiervan (Wat wij met BloeiZones doen is niets anders dan procesondersteuning), met als kern het stellen van vragen aan inwoners om hun wensen en behoeften te begrijpen. Dit proces zou je best kunnen gebruiken.

Het begint dus met de inwoners die aangeven wat zij willen, en jullie helpen dan om te bepalen wat er nodig is en welke instanties daarbij betrokken moeten worden. Jullie zijn de schakel tussen inwoners en gemeenten of andere organisaties, klopt dat?

Je moet het zo zien, er is een groep die zich bezighoudt met dit thema. Het advies wat ik dan geef is ga bij die mensen langs. Neem een model in je hoofd, of zet iets op papier, waarmee je dan bij die mensen langs gaat, wat voor vragen stel je dan? Wij doen dat zelf niet. Ik heb dat zelf eerder wel gedaan, maar het gaat mij meer om dat ik dat proces ondersteun. Hun methodiek, hun aanpak. Om ervoor te zorgen dat zij niet de plank mis gaan slaan bij de inwoners. En om ervoor te zorgen dat de input die ze ophalen en het doel wat ze willen halen, dat ze daar zo dicht mogelijk bij komen. Want heel veel projecten gaan over leefbaarheid rondom omgevingen. Ik vind speelparkjes en misschien openbare fitnessruimtes nog wel het mooiste voorbeeld. Er zijn altijd een aantal inwoners die dat belangrijk vinden, en dan zet je dat in de wijk neer en dan wordt er niks mee gedaan. Omdat het dan maar om vijf actieve inwoners gaat, die voor de hele wijk bepalen wat daar moet komen. Waardoor mensen er uiteindelijk helemaal geen gebruik van gaan maken. Het is heel belangrijk dat als je ergens wat plaatst dat je echt een goed beeld hebt van wat er speelt, wie wat wil, en ook de mensen erbij betreft die normaal niet meedenken, want dat zijn vaak de mensen die het het hardst nodig hebben.

En wat is dan de beste manier om deze mensen te bereiken?

De beste manier om mensen te bereiken is simpelweg door ze te benaderen. In ons geval hebben we ervaring opgedaan door letterlijk aan te bellen. Ik heb bijvoorbeeld studenten begeleid die enquêtes in een wijk hebben afgenomen. Hoewel ze waardevolle informatie verzamelden, waren het vooral hoogopgeleiden en mensen die al actief waren in buurtverenigingen die interesse hadden om te blijven meedenken. Het is essentieel om ook de mensen te bereiken die normaal gesproken niet meedenken. En het is heel lastig om die mee te krijgen. En dat ga je niet goed doen, dat kan ik ook niet, want daar zijn we nog mee bezig. Maar als je daar al naar streeft dan ben je al heel goed bezig. Als je ervoor zorgt dat de mensen om wie het gaat ook mee mogen doen in het hele gesprek. En dat is heel moeilijk. Want je bent een extern iemand, en dat vinden de mensen maar vreemd.

Hoe kan je gemeenten meenemen in de plannen?

Wat ik zelf zou doen: is het Gezond en Actief Leven Akkoord (GALA) erbij pakken, en vragen of ze al een plan hebben om dit uit te gaan voeren. Dan: Wij gaan dus nu bezig met hoe we dat moeten doen, ik heb een gesprek gehad met iemand die hier al wat mee doet. Ik ga kijken of ik een goede manier kan vinden om dat voor elkaar te krijgen. Willen jullie wat meer van het proces weten? Dan kan je ze wat meenemen in het proces, van hoe ga je dan die wijk in, of wat is jouw gedachtegang, en dan luisteren ze wel. En dan is de kans ook veel groter dat ze zeggen van 'nou we zijn hier nu een proces gestart met inwoners die hebben nagedacht hoe ze willen wonen en dat is voor ons ook heel belangrijk om daar wat mee te doen. En dan is de kans ook veel groter dat er wat mee gebeurt.

Je hebt veel meer met dingen als je er al in het begin bij betrokken wordt. Als jij een film gaat kijken en je ziet alleen de laatste helft dan denk je ook van het zal wel. Het gaat heel erg om het proces zelf.

Als architecten en stedenbouwkundigen al zouden zeggen dat we moeten veel meer inzetten op een gezonde leefomgeving dan heb je al een grote winst denk ik?

Absoluut. Je hebt als stedenbouwkundige natuurlijk een kader voor wat een gezonde leefomgeving nou is. Als je dat kader nou meeneemt naar inwoners zelf, van hoe denken jullie hierover, moeten we hier wat mee, en hoe ziet dat er hier eruit? Dan heb je en een gezonde leefomgeving vanuit het boekje, en een gezonde leefomgeving waar inwoners zelf achterstaan, waar ze zelf wat bij voelen ook. En voor mensen die dat niet willen, dan ook prima dan hebben ze alsnog volgens het boekje een gezonde leefomgeving en hebben ze misschien toch 'nu ik weet dat ik ergens invloed op kan hebben, kan ik misschien wel op meerdere dingen invloed hebben. Dus dan heb je eigenlijk 3 vliegen in één klap.

7.4 Fieldwork

Together with three fellow students, I spent four days at the housing complex. In the housing complex live 150 residents aged 65 and above, as well as students. The mix between the elderly and students was 85% elderly and 15% students. Each resident has their own apartment with a kitchen, bathroom and separate bedroom. The students live in the studios.

We arrived on Monday at 10:00 at the housing community. By the time we arrived, there was already a group drinking coffee and they invited us to join them. They were interested in what we would do there, which already gave a warm welcome feeling.

The large communal space was also nicely designed and quite modern. There were multiple seating areas in different settings, providing everyone with a suitable space.

The residents were all very kind and willing to share their stories and answer our questions. Most of them helped us by filling in the questionnaire and participating in the workshop we organised.

Survey

We distributed a survey among the residents. We distributed around 150 surveys in the mailboxes and received 37 responses. There were 2 responses of people under the age of 65, and they both lived in another building, so I did not include these answers in the results.

Workshop

We organised a workshop where people could compose their ideal living environment.

Time schedule:

	Monday	Tuesday	Wednesday	Thursday
Morning	Arrival Coffee with coffee group Guided tour Getting lunch	Breakfast in the Heart Workshop Chatting with residents Cleaning Brussels sprouts	Breakfast in the Heart To the Sligro with residents Preparing lunch residents	Tidying up Breakfast in the Heart Physical activity half-hour Walking with resident
Afternoon	Lunch Unpacking items Preparing surveys Distributing surveys Chatting with each other Eating pizza	Lunch Chatting with residents Rondleiding Habion	Lunch with residents Chatting with residents Workshop Walking with resident Visiting resident's rooms Grocery shopping	Lunch Visiting resident's room Chatting with residents Helping with preparation
Evening	Chatting with resident Chatting with resident Playing a game	Preparing Wednesday's meal Going to a café with resident	Eating with residents Making Christmas snacks Having drinks with residents Playing a game	Christmas celebration Farewell

Survey

Survey

Beste bewoner van (living community),

Voor ons afstudeerproject aan de TU Delft logeren we deze week in (living community). Om een goed beeld te krijgen van (living community) en de bewoners willen we u vragen om ons te helpen door deze korte vragenlijst in te vullen. Alvast bedankt!

Zou u de ingevulde vragenlijst **vóór vrijdag 17 november** willen inleveren in de doos in het Hart? Als u hulp nodig heeft bij het invullen of met ons wilt kennismaken, wij zijn op dinsdag en woensdag in het Hart (en vast nog vaker).

Algemene informatie

1. Geslacht:	2. Geboortjaar:	3. Woont u in het gebouw verbonden aan 'Het Hart'?
Man: 13x	65-75 jaar: 10x	Ja: 28x
Vrouw: 22x	76-85 jaar: 14x	Nee: 7x
Zeg ik liever niet: 0x	86-90 jaar: 6x	
	90+ jaar: 5x	

Wonen

4. Wat was uw woonsituatie voor (living community)?
- Appartement: **37%**
 - Vrijstaand huis: **20%**
 - Twee-onder-een kap / Rijtjeswoning: **40%**
 - Anders, namelijk: **3%**
5. Wat was de eigendomsverhouding met uw vorige woning?
- Huurwoning: **46%**
 - Sociale huurwoning: **3%**
 - Koopwoning: **51%**
6. Wat was de voornaamste reden dat u naar (living community) kwam?
- Omdat ik op dat moment zorg nodig had: **9%**
 - Omdat ik in de toekomst zorg nodig zal hebben: **26%**
 - Omdat ik behoefte had aan sociale contacten: **31%**
 - Omdat mijn huis niet meer geschikt was: **37%**
 - Omdat mijn omgeving vond dat dit beter voor mij was: **11%**
 - Anders, namelijk: Bij familie in de buurt: **17%** | Overlijden, scheiden partner: **9%**

7. Hoe bevalt het wonen in (living community)?

Zeer tevreden: **40%** Tevreden: **43%** Neutraal: **14%** Ontevreden: - Zeer ontevreden: -

8. Waar spendeert u de meeste tijd gedurende de dag?

Appartement: **54%**

Gemeenschappelijke ruimte 'Het Hart': **37%**

Andere gemeenschappelijke ruimte: **6%**

Buiten: **26%**

Ergens anders dan (living community): **31%**

9. Wat is uw favoriete plek in de woonomgeving?

Eigen appartement: **45%** | Ruimte in Het Hart: **17%** | Centrum: **21%** | Garden

10. Wat zou u willen toevoegen?

In (living community):

Information **3x** | Zwembad **2x** | Biljard: 1x | Sauna: 1x | Jeu de Boules: 1x | Kleine supermarkt

In uw appartement:

Meer ruimte/extra kamer: 3x | Balkon: 3x | Dishwasher: 2x | More storage: 2x

11. Wat bent u bereid om met anderen te delen? (meerdere antwoorden mogelijk)

Keuken: 4x

Badkamer: 1x

Logeerkamer:-

Tuin: 18x

Grotere woonkamer: 3x

Hobbyruimte: 7x

Wasmachine: 3x

Gereedschap: 9x

Auto: 1x

Fiets: 2x

Scootmobiel:-

Computer: 2x

Boeken: 10x

Gezondheid

12. Hoe fysiek actief voelt u zich?
Heel actief: **37%**
Gemiddeld actief: **29%**
Een beetje actief: **34%**

13. Ontvangt u ondersteunende hulp?
(Thuis)zorg: **11%**
Mantelzorg: **14%**
Huishoudelijke hulp: **49%**
Geen hulp: **49%**

14. Voelt u zich eenzaam?
Vaak: **6%**
Af en toe: **23%**
Bijna nooit: **71%**

15. Voelt u zich verveeld?
Vaak: **6%**
Af en toe: **9%**
Bijna nooit: **86%**

16. Hoe vaak komt u in de buitenlucht?
Meerdere keren per dag: **29%**
Elke dag: **60%**
Om de dag: **11%**
Wekelijks: -
Minder dan bovenstaande: -

17. Welke activiteiten doet u? (meerdere antwoorden mogelijk)
Wandelen in het gebouw: **9x**
Wandelen buiten (bijvoorbeeld naar de winkel): **24x**
Fietsen: **13x**
De trap gebruiken: **12x**
Tuinieren: **2x**
Zwemmen: **2x**
Yoga / Pilates of iets dergelijks: **3x**
Fysiek inspannende sport, zoals: Fitness, Hardlopen, voetbal: **11x**
Anders, namelijk: Niet mogelijk ivm scootmobiel of werk: **3x**

Gemeenschap

18. Bent u lid van de vereniging (living community)?
Ja: **80%**
Nee: **20%**

19. Hoe vaak doet u iets voor de gemeenschap?
Dagelijks: **17%**
Wekelijks: **26%**
Maandelijks: **6%**
Nauwelijks / nooit: **51%**

20. Kruis aan hoe vaak u de faciliteiten in (living community) gebruikt

	Dagelijks	Wekelijks	Maandelijks	Nauwelijks
Het Hart	13x	10x	1x	8x
Gem. keuken	2x	7x	2x	22x
Fitnessruimte	3x	4x	1x	25x
Familiekamer		2x	5x	24x
Huistheater		4x	5x	23x
Café / de soos	1x	10x	2x	20x
Kapper		3x	11x	19x
Leeftuin / buiten	5x	6x	5x	16x
Werkplaats		4x	2x	25x

21. Mijn sociale kring bevindt zich:

- Voornamelijk in (living community): -
- In en buiten (living community): **76%**
- Voornamelijk buiten (living community): **24%**

22. Wat is voor u het belangrijkste in een gemeenschap (kies 1)

- Privacy: **29%**
- Gemeenschappelijke activiteiten: **35%**
- Verschillende leeftijden: **21%**
- Dezelfde leeftijden: **3%**
- Diversiteit: **38%**
- Dezelfde idealen: **6%**

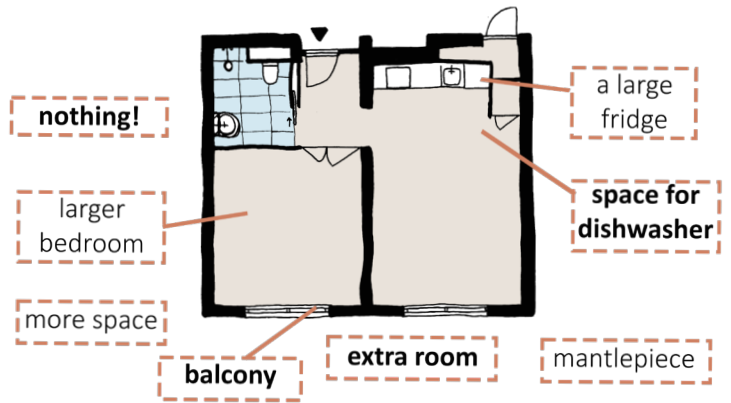
Einde. Nu kunt u hem inleveren in de doos. Hartelijk bedankt!

Arno, Eline, Jan & Thyra

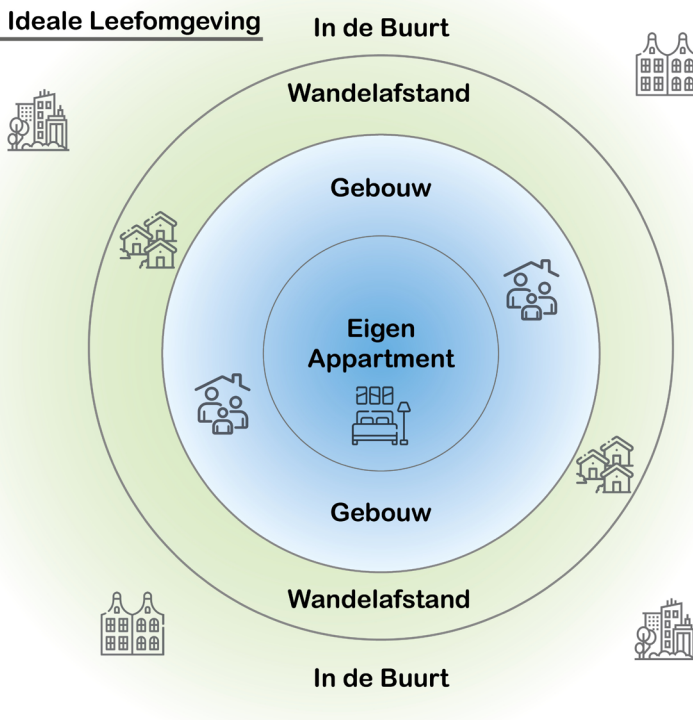
Workshop

What do you want to add?

The answers on this question got us different answers, but most of them were all related to the available space. There were also people who filled in that they were satisfied and need nothing more in their apartment. The apartments do not have a balcony, which is a pity for some of the residents.



Mijn Ideale Leefomgeving



Creëer uw ideale leefomgeving:

- Kies van iedere categorie uw drie favoriete stickers (maximaal drie)
 - = Ruimtes
 - = Voorzieningen
 - = Mobiliteit
 - = Activiteiten
 - = Buitenruimte
 - = Mensen om mij heen
 - = Zorg en ondersteunende hulp
- Plak de stickers ergens in uw leefomgeving.

Waar ziet u ze het liefste?
 In uw appartement - privé voor u alleen
 In het gebouw - Delen met uw medebewoners
 Op wandelafstand - In de buurt op maximaal vijf minuten lopen
 Ergens in de wijk - Mag iets verder zijn
- Gebruik de joker voor als wij iets zijn vergeten binnen een bepaalde categorie en plak deze ook in de leefomgeving
 De ideale zone: wat zou u graag willen zien in uw ideale leefomgeving, droom groot!
 De rode zone: wat wilt u absoluut niet in uw leefomgeving?
 4. Vul hieronder uw geslacht en geboortjaar in

M V

Geslacht Geboortjaar

IDEE ZONE
Ik Mis Nog...

ROOD ZONE
Ik Wil Niet!

The Hart of the Building

The communal area 'The Hart' contains diverse functions. There is a large open kitchen with various kitchen tools. A spacious area with seatings were people can gather for coffee, a talk or play games. A greenhouse-like space with all kinds of plants providing a shielded, quiet sitting area. And there is a pool table and more seating spaces. Observations showed that the residents had preferences for specific seating areas. Morning coffee groups formed distinct groups, each with its own spot.

The survey shed light on how often the residents make use of the facilities in the heart of the building. This also aligns with the observations, indicating that common areas in the Heart were often visited. On the other hand, specific spaces like the family room and the theater have a more specific target group.

Variations in apartment access

The residents have three different options for reaching their apartments, each associated with different social dynamics:

1. Direct access: Using the staircases that lead directly to the upper floors provides a straightforward and efficient route.
2. Intermediate access: Taking the big staircase to the first floor and then go to the staircase that goes to the upper floors.
3. Social hub access: Choosing the big staircase leading to the first floor, spending time in communal area 'The Hart', and then going to the upper floors.

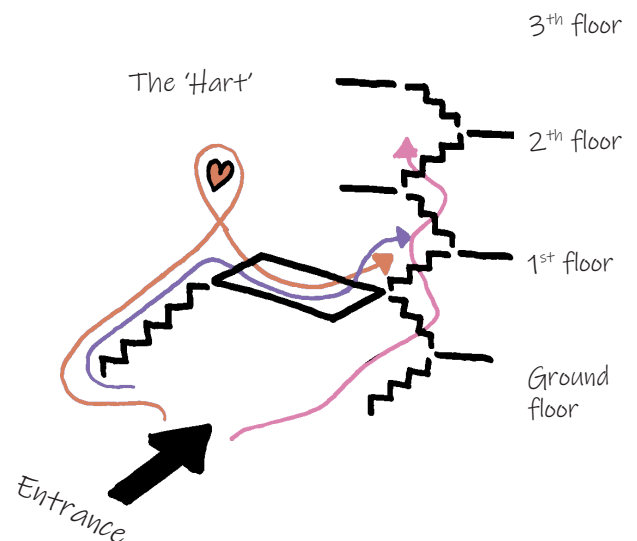
Mister C

He prefers to be on his own and has no interest in participating in activities in 'The Hart'. Nevertheless, he chooses to use the grand staircases and then continues via the other staircase. This allows him to wave and greet the people in 'The Hart'. Currently, this is the only interaction he is interested in with the other residents.

Usage of the facilities in 'the Hart':

	Daily	Weekly	Monthly	Barely
Het Hart	13x	10x	1x	8x
Gem. keuken	2x	7x	2x	22x
Familiekamer		2x	5x	24x
Huistheater		4x	5x	23x
Café / de soos	1x	10x	2x	20x

Different ways of going to the apartment:

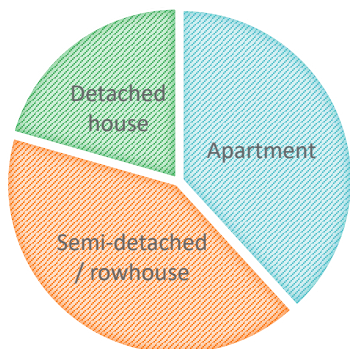


Previous living situation

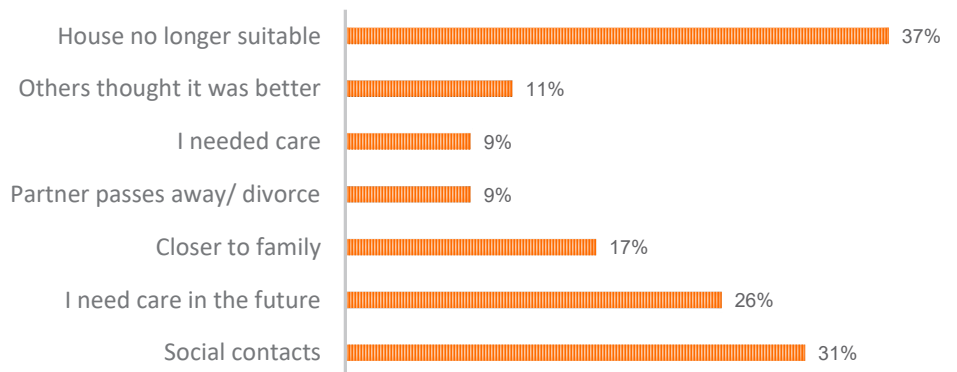
After talking to people and analysing the surveys, we figured out that the main motivations for people to relocate to the housing community was that their house was no longer suitable, a desire for more social interactions, and future planning with a consideration for potential future care needs. Another reason for moving was to be closer with family.

Among the residents, 37% moved from an apartment, while 67% relocated from an semi/detached, rowhouse or detached house.

Previous living situation:



Main reasons for moving:



Couple

Our house was getting too big and we wanted to make space for families.

Mister A

I lived on my own, but after I fell, my daughters thought it would be better for me to live here. I think it is not necessary.

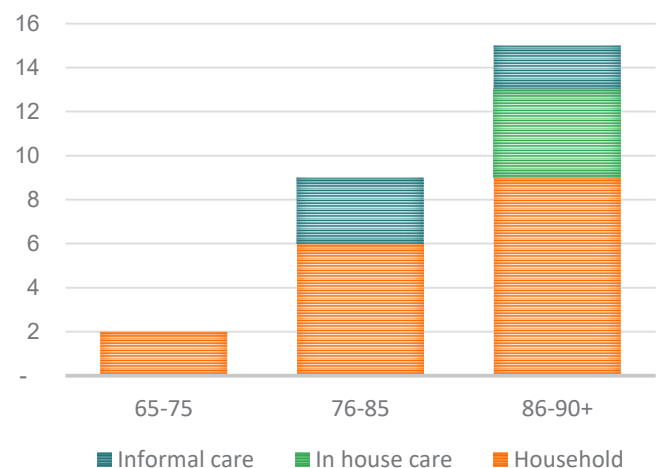
Care options

To be eligible for an apartment in the housing complex, people have to be over the age of 65. The community maintains a balanced mix between people who need care and those who are still independent. Survey results show that there is a correlation between age and the level of care needed. With more care needed when getting older. It is possible to get care in the housing complex.

Couple

It is a nice idea that it is possible to get care in your apartment and you do not have to move.

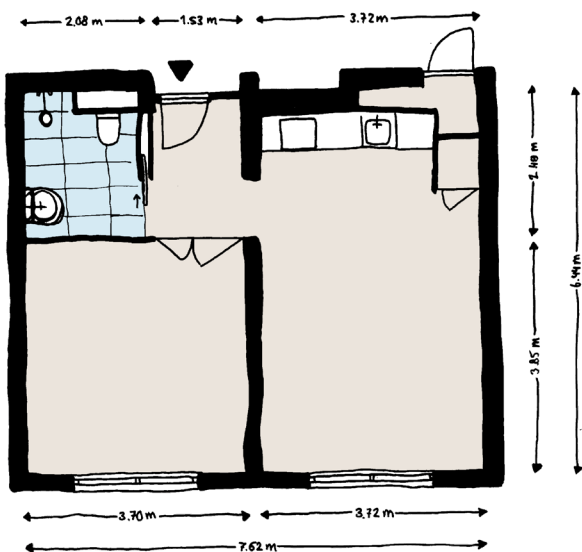
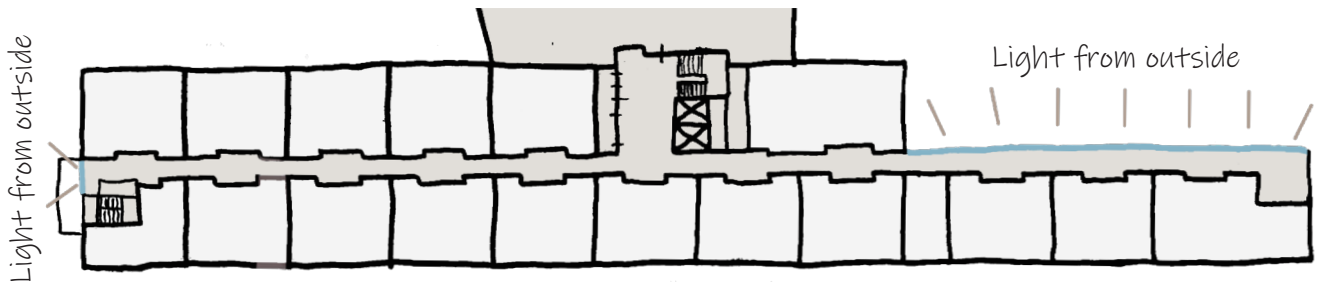
Kinds of care per age groups:



Apartments

The apartments are accessed through a long hallway, which gives the building a nursery-like ambiance. They tried to avoid this impression as much as possible through wall colours, personalised boards, and niches allowing residents to place personal items outside their doors.

Most apartments have the standard size of 7,6m x 6,4m. Most of the residents are satisfied with the size of the apartments, with most of them surprised by the space when the rooms are furnished. The apartments offer a degree of freedom in arranging the space up to a certain level, allowing residents to personalise their living areas.

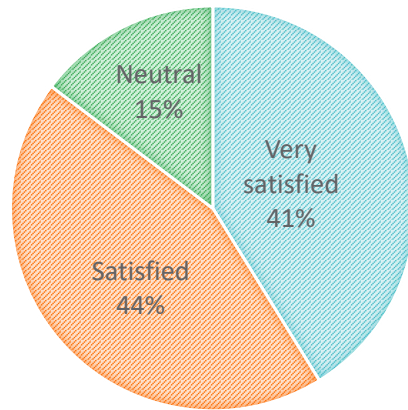


Small pets are allowed

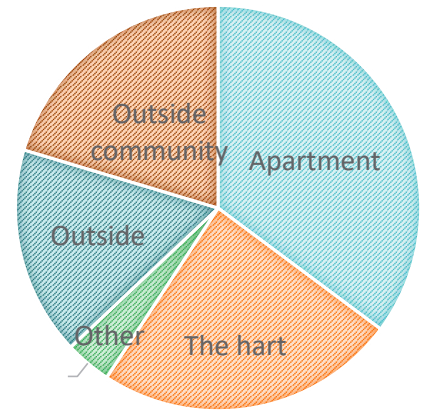
Couple

The house we lived in became too big for the two of us, so we looked for something smaller. There was an apartment available and we went for a visit. At the sight of an empty apartment we thought it would be too small for all our furniture. Then we saw a furnished apartment, where everything fitted and we were convinced and still very happy with the decision to live here.

Satisfaction rates:



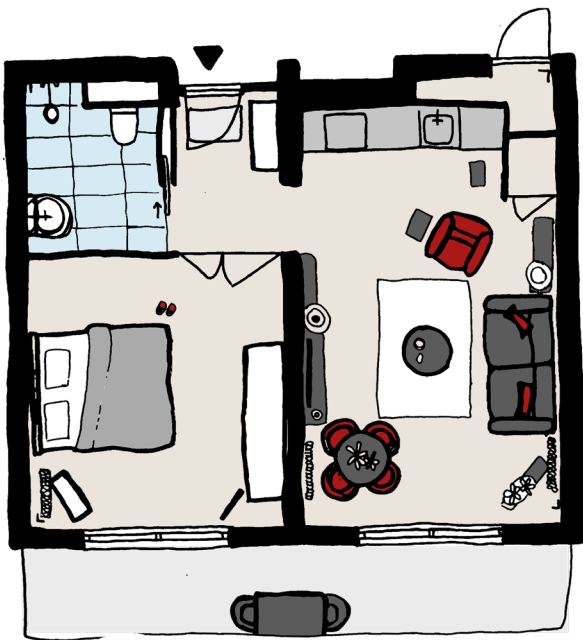
Most of the time spended:



No residents was unsatisfied with living there

Apartments

45% identified their appartement as their favourite spot within the building



Lady L

She is one of the relatively few residents who enjoy the luxury of having a balcony. She is very happy with it and uses it a lot during the summer. She feels comfortable and at home in her apartment, because she furnished it to her liking.



Lady G

Initially, when the apartment was completely empty, it looked quite small. But now that we have filled it with our furniture, I am very happy with the size. It is exactly spacious enough for us, especially since we are often in 'The Hart' or elsewhere.

Community

According to the survey, 17% of the residents stated that they do something for the community on a daily base, while 26% participate weekly, 6% monthly, and 51% do not participate at all.

The community is organised into different subjects, with approximately 6 residents per group. One resident is the head of the subject and acts as the main point of contact for others. The subjects include finances, catering, weekly dinners, activities, music, garden maintenance, public space management, and a magazine.

There are also residents who do not contribute to the community, either because they are unable or unwilling to do so. This leads to some frustration among residents who are actively involved in community activities.

Ikigai

Ikigai is a Japanese concept and stands for something worth waking up for and living for. This concept is present within the community, as residents have the opportunity to pursue their Ikigai.

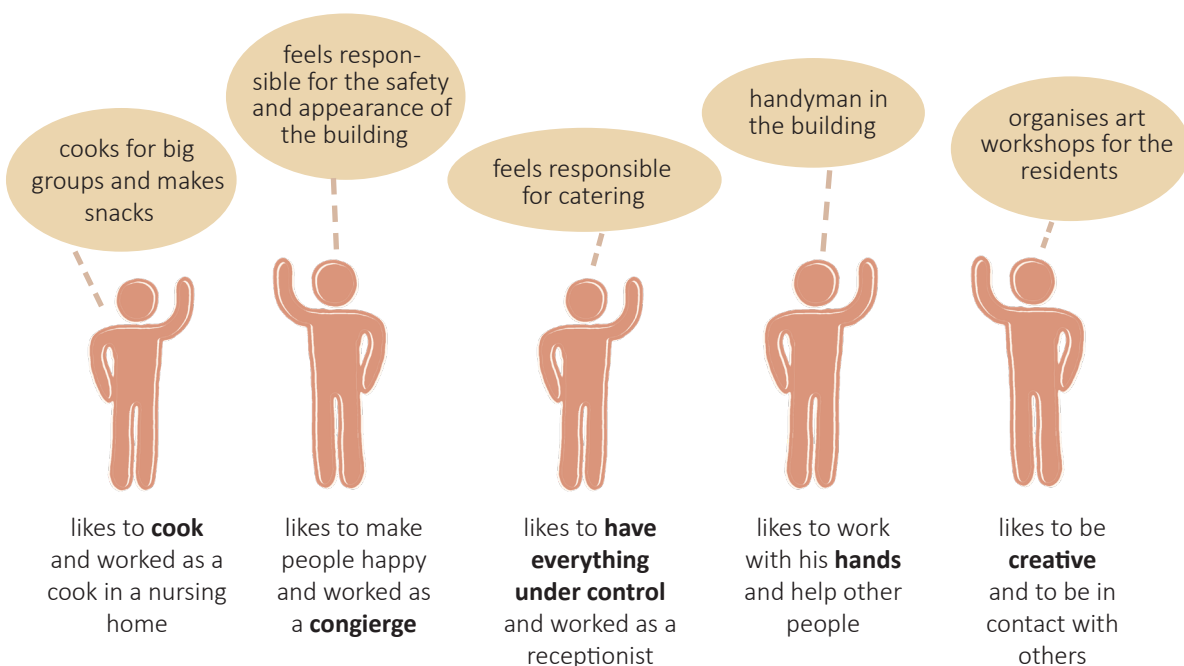
Lady C

Feels responsible for the catering and enjoys being involved, but sometimes it becomes overwhelming. She wishes more residents would help catering and other community activities, as it seems to always be the same persons taking on these responsibilities.

Mister B

Does not do anything for the community because he prefers to be alone and mind his own business. He works five days a week and feels too young to be part of the community. However, he feels pressure that it is expected of him to contribute to the community.

49% does something for the community

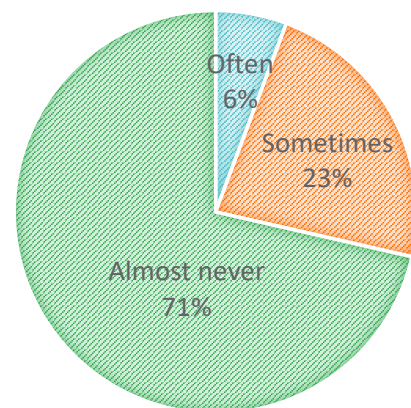


Community

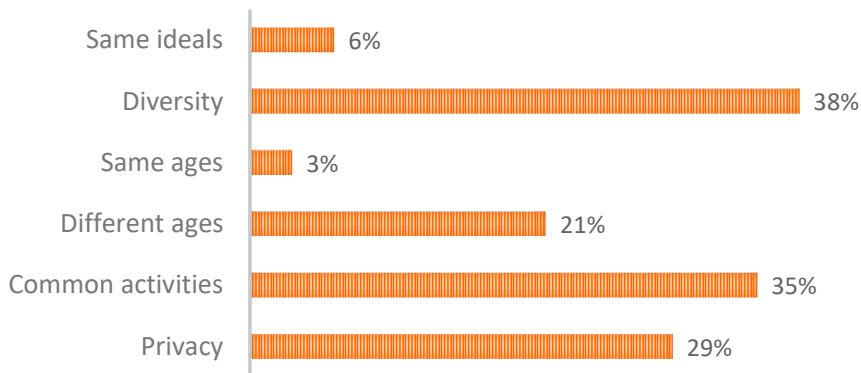
Social dynamics in the community

A diverse range of social interactions take place within the building. A distinction is observed between residents who are more physically active and those who are not. There are different morning coffee groups, as well as evening drinking groups. This division among residents aligns with the fact that there are over 150 residents from different backgrounds living in the building. Therefore, it is understandable that residents naturally form their own social circles within the community. Based on surveys and conversations with residents, the conclusion can be drawn that this housing setup is effective in preventing loneliness, as almost everyone reported not feeling lonely.

Feelings of loneliness:



Important for a housing community:



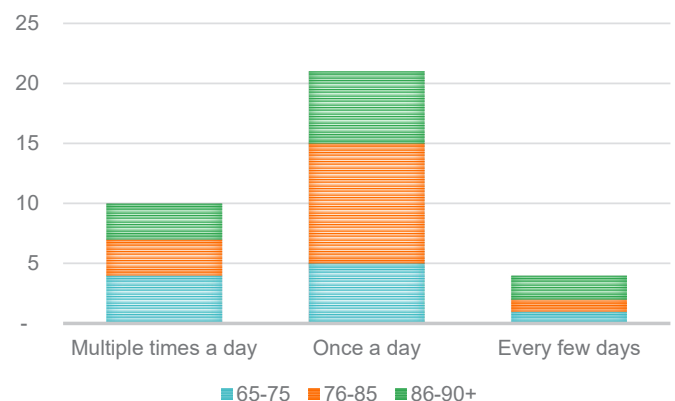
Lady T

She wishes that the residents mirror the broader society. Currently, the majority of the residents are white and elderly. She wants to have more diversity within the community.

Services within the building

Within the building there are facilities such as a pedicure, hairdresser and physiotherapist. While it is convenient for residents to have these services closeby, there is a consideration to encourage residents to spend time outdoors. A better option might be to relocate these facilities outside the building, accessible through a pleasant walking path. This approach could not only promote outdoor activity but also contributes to the overall well-being of the residents.

Frequency of going outside:



Physical activity

Feeling active

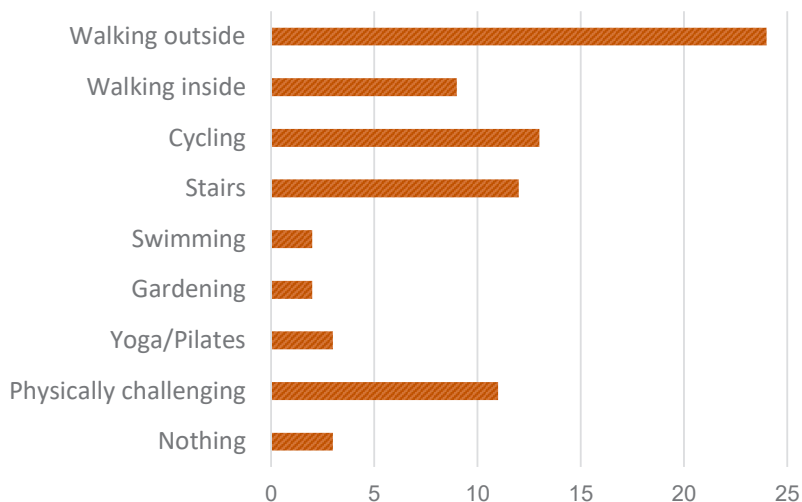
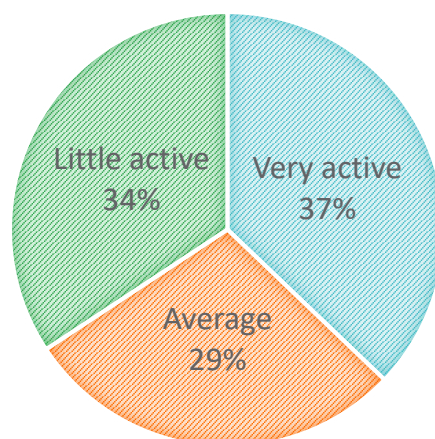
More than a half of the residents feel still active. 37 percent even feels very active

Activities

From the survey and talks we found out that the most popular activity among the elderly is walking. Most of them go outside the building for a walk, and walk inside the building as well. A small group of

From the 37 respondents, only 11 people do not walk. There were 4 people not doing any physical activity at all. 2 of them say that they work and don't have time for it. And 2 said to be in a scootmobile and could therefore not take part of activities.

Perceived activity level:

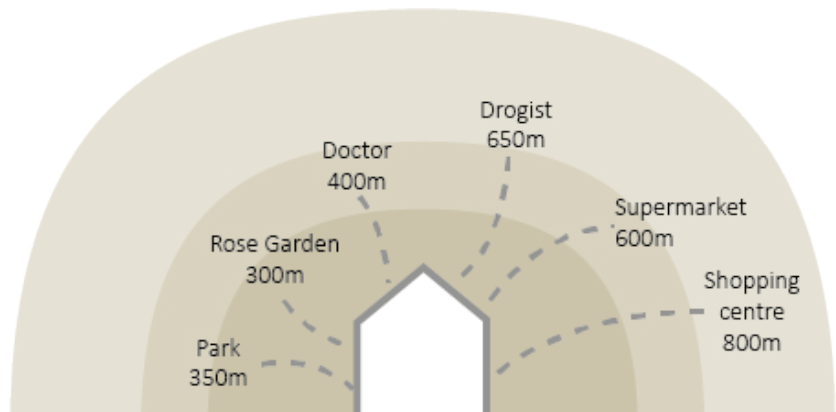


Activities in the building

There is a physiotherapist inside the building. A lot of residents go there and also sport there. The physiotherapist organises once a week a training for interested residents, and residents from the aangrenzende building. It costs 2 euros and with the lesson everyone takes 2 weights. The lesson is done seated the whole session. It focusses on coördination, strenghtening from the muscles and balance.

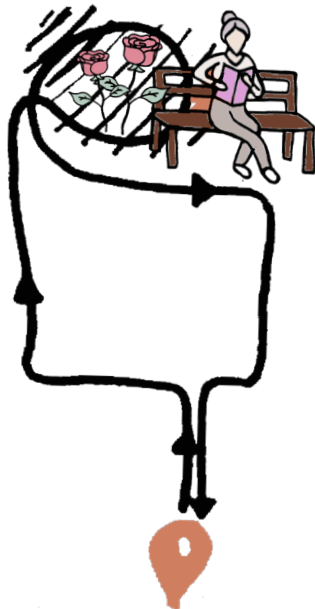
Lady C

To stay active she joins the one-hour training session weekly. This is given by the physiotherapist who is also in the building. It costs 1 euro and takes 1 hour per week. The excercises are all done while sitting on a chair. It focusses on muscle strength, coördination and balance.



Walking

The walking duration from the apartments to facilities could be done very well. All the things the elderly wants is withing walking distance. However, the pedestrian paths are not that walkable for older people with strollers or wheelchairs, because of the uneven pathways, broken tiles etc.



Walk to the rosary

15 min | 600 m
10 m height



Walk to the park

24 min | 1,02 km
10 m height

Lady D

This woman enjoys walking to the rose park near the complex. During the summertime, she brings a pot of tea, a piece of chocolate, and a good book to this location. She prefers sitting on a bench in the park, which is positioned in front of a garden where families reside. She takes pleasure in eavesdropping on conversations without their awareness. This place provides her with both rest and happiness.

Lady T

She walks daily for her health. Based on how she feels she chooses between a walk to the supermarket, other shops or a small park. She ensures her home is stocked with enough food for flexibility. On this day, she chooses a walk to the small park.

She walks with a stroller. The uneven pedestrian paths forces her to walk on the street. She needs to rest now and then during the walk by sitting on her stroller.

