BRIDGING THE GAP

An intergenerational care facility where young and old people are sharing their everyday life
THANK YOU

Morgan for the feedback, support, and for all the wise words.

Anne Ekdahl, Susanne Ramel, Bagaregården’s residential care facility, and the preschool in Mölndal, for taking your time and answering all my questions.

Friends who have supported me and forced me to take breaks.

Family, for always being there and believing in me.

Mom, for supporting me and giving me energy! As always.
Good health is a combination of physical activity and mental well-being. The World Health Organization defines: “Health as a state of complete physical, mental and social well-being”. With increasing age, physical activity decreases. Residents in residential care facilities in Sweden rarely achieve the general recommendations for their daily activities. Social isolation is another problem individuals encounter when growing older. Mental illness is a widespread problem in Sweden and the loneliest are the people above 75 years old. Mental illness is more common for residents at residential care facilities than among people who live in ordinary accommodation.

Through architecture, the concept of combining different generations will be developed, and hopefully, inspire society to deal with today’s issues of the aging population.

This Master Thesis investigates how young children and old people can make use of each other and in what way the connection between the generations can contribute to better health. The study will be conducted through literature studies, and interviews with different target groups combined with professions in the field of healthcare and architecture. The report will analyze examples of existing intergenerational programs and adapt them to a concept that can be implemented in a design of a building.

The result of the theoretical studies will be implemented in a design proposal with a focus on the social benefits of a building where children and older people are sharing their everyday life together. This Master Thesis will hopefully open the question and discussion about how our society is taking care of our elderly.

Keywords: Intergenerational programs, Mental health, Physical activity, Residential care, Childcare, Healthcare Architecture
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The question of how we are taking care of the aging population is close to located my heart after the work I did with the elderly in the spring year 2020. I believe that there are many things society can do to create a more meaningful life for our aging population. During the covid-19 pandemic, a lot of focus has been on the elderly, and I believe that this is the start of a long discussion of how we are taking care of the aging society.

The combined knowledge from the two master studios, healthcare, and housing, will be great to have as a background for the design proposal.

Personal observations of how older people are living their everyday life in care facilities, and how an elderly care facility in Sweden functions, combined with what is working and not in a facility, will hopefully, if not likely, be a good base for this master’s thesis.
According to the World Health Organization, older people are often expected to be frail and a burden to society. Even though a few of the elderly’s health is genetic, most of the health comes from people’s physical and social environments. (WHO, 2021) Old people must be given the same possibilities to live a meaningful life as the rest of the population. By creating spaces where old people “are needed”, they will hopefully find meaning in their life. They will also spread their lifelong knowledge and perspectives to a younger generation. (Newman, 1997) This thesis aims to investigate how architecture can promote interaction between very young and old people in a care facility. By defining the shared spaces, finding the common architectural elements for the user groups, and presenting united activities, the aim is to create a new type of concept that can be adapted into new facilities in the future.

AIM AND PURPOSE

Intergenerational programs have through the years been doing well in addressing social problems, economic problems, and political problems. This master thesis focuses on the social well-being and health aspects of intergenerational programs. The thesis will not focus on economic aspects, however, research shows that there are economic benefits from intergenerational care facilities. (Newman, 1997) The thesis will neither focus on political aspects. How to create a space that both can be shared and divided is crucial for this thesis and therefore the focus will be on the concept and floorplans, rather than construction.

DELIMITATIONS

The thesis is divided into seven chapters. The first part, the introduction, contains information about the overall task of the master’s thesis. The second part, background, presents the theoretical framework and gives the reader an understanding of the topic. The methodology is described in the third chapter followed by the result of the studies in the fourth chapter. The background and result chapters are incorporated in a fifth chapter, the concept, showing the schedules for the units and how to combine them. The site and context contain information about the chosen site and in the last chapter, the design proposal is presented. The seven chapters are followed by a discussion and conclusion part, and a reference list.

READING INSTRUCTIONS

THESIS QUESTION

How can spaces within and around a care facility be designed to promote daily activities and spontaneous meetings between very young and old people to improve their physical, mental, and social well-being?

What type of activities and planned meetings can be used in an intergenerational care facility to promote interaction between young and old?

How can a space be designed for children and residents in a care facility to work for one user group at a time, or both combined depending on the circumstances?
Good health is a combination of physical activity and mental well-being. The World Health Organization defines health as a “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 2020, p. 1). Good health can be presented with a long lifespan. In Sweden, the trend of a longer life span is growing. Today is the life expectancy around 81 years for men and 84 for women. (Socialstyrelsen, 2020)

Physical activity refers to all bodily movement produced by skeletal muscles that require energy. Both mild- and strong-intensity physical activity improves health. Regular physical activity is proven to prevent different diseases such as stroke, heart disease, and diabetes. Physical activity also prevents hypertension and can improve mental health and hence the quality of life and well-being. (World Health Organization, 2022)

Mental health is the foundation for the ability to think, emote, interact, and live an enjoyable life. Poor mental health is associated with social exclusion and an inactive lifestyle as two out of several examples. The foundation for good mental health is based on respect for basic civil, political, cultural, and socio-economic rights. (World Health Organization, 2022)

The World Health Organization defines mental health as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community”. (World Health Organization, 2022)
The aim of the preschool is to set a foundation for the learning that continues during life. The preschool should be fun, safe, and educative for all children. Through playing, creating, and exploring, the child should get the opportunity to learn and develop, individually, in a group, and with adults.

According to the Swedish National Agency for Education, Skolverket, it is important to have a suitable mixture and number of children in the preschool. For children between one and three years old, it is recommended to be a group of six to twelve children, and for children between four and five years old, the number can vary between nine and 15. (Skolverket, 2022)

Children and adults are experiencing the environment in different ways and the connection between the development of a child and their relationship to space is strong (Drane, 2009).

For a child, the physical environment creates conditions and obstacles for play and learning which often goes hand in hand with a child's perspective because children develop socially, emotionally, and physically through play. Learning does not take place in a special space or time; the learning process is continuous in both formal spaces (such as the preschool) and informal spaces (for example outdoor environments). If the physical environment is perceived as inaccessible, unsafe, and not stimulating, children will not explore or play in the environment which may lead to a child who is not physically, cognitively, and socially well developed. (Björklid, 2005)

A diversified environment enables sensible and physical exploring. Children perceive, explore, and discover the spaces with all their senses. The physical senses are developed through climbing, crawling, jumping, running around, and hiding and it is important that the built environment is designed for these activities. (Björklid, 2005)

Children need different types of spaces for focusing, playing, and developing their social life. Attractive rooms often have the character of an “in-between” space. Staircases, corridors, niches, and entrances are essential for children and should not only be designed from functional measurements and norms. (Björklid, 2005)

According to the Swedish curriculum for preschools, children should be stimulated by their creativity, curiosity, and self-esteem. Young people should have the opportunity to develop their ability to explore, communicate and reflect in their everyday environments. (Blomgren & Drougge, 2019) Children are small, and therefore drawn to small-scaled areas where they dare to meet new challenges. By breaking up larger volumes into smaller components the built environment can help the children to understand the world around them. (Scott, 2010)

When designing a building for children, it is important to have in mind how to change the space during the day. The design should strive for flexibility to handle the possibility to open for collaboration or closing for focusing. The sound environment is another factor to have in mind since it affects several important factors in a preschool. The possibility for stimulation, participation, concentration, language development, and speech intelligibility are all factors affected by the sounds in the environment. A bad sound environment affects children's development and creates work environment problems for both children and educators. (Blomgren & Drougge, 2019)

Lis Ahlman, a Swedish movement educator, states that the floor is the most important furniture for a child. Being on the floor also reduces the difference between children and adults. Lundahl explains in her book, *Hus och rum för små barn*, how a sleeping hour on the floor where both staff and children are gathered, creates a more equal relationship between the individuals. (Lundahl, 1995)
Healthy aging can be defined as “the development and maintenance of optimal physical, mental (cognitive and emotional), spiritual, and social well-being and function in older adults”. Staying mentally and physically active is a crucial part of healthy aging. (O’Hanlon, 2017, p.2)

With increasing age, physical activity decreases. Residents in elderly care facilities in Sweden rarely achieve the general recommendations for their daily activities. (Neljesjö, Sax, 2017) To be granted a subsidized spot in a residential care facility, the residents’ need for care must be so extensive that it cannot be supported by the home care service. Residential care facilities today cover therefore the weakest elderly and elderly with dementia. (Seniorval, 2022)

Social isolation is another problem we encounter when we get older. Mental illness is a widespread problem in Sweden and the loneliest are the people above 75 years old. Being lonely is less common for individuals who live in an ordinary accommodation with support from home care, compared with residents at residential care facilities. (Socialstyrelsen, 2020) Living alone, without regular contact with others, increases the risk of suffering from depression (Vårdguiden, 2022).

In the book, Intergenerational programs, Sally Newman describes how residential care facilities require residents to give up much of the independence enjoyed throughout life. Becoming older, the surrounding wants to protect the people from dangers and therefore take away as many risks as possible. (Newman, 1997) Ingmar Skoog, professor and chief physician in the section of Psychiatry and Neurochemistry, describes how a resident in a care facility who has worked as a fighting correspondent in Syria during the war might not even be able to walk outside of the building to pick up the daily news because of the risk of falling. (Skoog, August 02, 2021. 16:05. Own translation)

“A life without risk, where all the risks are minimized, is no life”

To counteract both physical and mental illness, methods that offer the elderly a social community and context are needed. More elderly need access to activities and connections with other people through for example meeting places and accommodations that work against isolation. (O’Hanlon, 2017)

For architects, there are several aspects to have in mind when designing a residential care facility. Materials should appear natural. A door handle with the expression of wood should consist of wood, to avoid confusion. A glass door or glass wall may be hard to perceive and therefore doors and walls should consist of massive material, to prevent someone from trying to walk through the glass surface. (Aremyr & Wijk, 2015)

For residents with Alzheimer, sound may be a critical disturbance since it is hard to know what sound to focus on. For architects and designers, there is therefore important to use sound-absorbing materials to reduce scratching sound for chair legs etcetera. It is also important to create silent places since the brain needs to recover as well as be stimulated. (Aremyr & Wijk, 2015)

The walking paths in and around the building should include rest areas, where the resident easily gets back to the starting point if he or she continues to walk. Corridors only leading to a closed-door should be avoided. (Aremyr & Wijk, 2015)

Another quality when designing for people is nature. Many humans find contact with nature both healing and relaxing. There is clear evidence for the individual stress levels and how it decreases when getting in contact with small nature experiences, such as a flowerpot in a window or a window toward a tree. (Aremyr & Wijk, 2015)
INTERGENERATIONAL PROGRAMS

The term intergenerational has over the last 30 years been used to describe a social trend that brings together the youngest and the oldest generation. In several of the earliest programs, the primary focus has been to bridge the gap, with the goal of providing opportunities for young and old to interact with each other for mutual benefit. (Newman, 1997)

Intergenerational programs are historically designed to bring together non biologically young and old individuals by promoting cultural exchange and providing a positive support system. The program offers meaningful activities as well as exercise and motivation, to gain the participant’s self-esteem. (Newman, 1997)

Anne Karpf explains in her book “how to age” the direct link between age segregation and ageism. By not encountering older people casually and regularly as a part of our daily life, we isolate them from society. All evidence indicates that integration of different ages is beneficial. (Karpf, 2014)

Intergenerational programs strive for breaking down the barriers that modern society has created between the age groups. The elderly offers young people a real service of a supportive relationship with a dependent older by passing along values, culture, and unique life skills to members of the future generation. Services where the young help the old, can provide a powerful boost to a child’s self-esteem and by participating in these programs, young people often experience a positive change in attitude toward older adults in general. (Newman, 1997)

Examples of intergenerational meetings can be combined meals and gardening. In gardening, the elderly have the opportunity to teach something that the children do not know about. Older people often lose their self-confidence when growing old and activities where they feel comfortable are therefore important for their well-being. (Newman, 1997)

The skills, insights, and wisdom from the elderly can be passed on to the children. Even very frail elderly can bring unique value to the younger generation. Because of today’s modern society where children spend much time away from their parents and families, intergenerational contact can provide a family atmosphere and therefore counteract any negative impact of the separation from the biological household. Furthermore, contact with a frail elderly can make the children develop relationships with the older generation and see them as individuals and not stereotypical figures. (Newman, 1997)

Older adults who experience the energy and enjoyment of a younger person are much more likely to see his or her life as interesting and therefore worthwhile. (Newman, 1997) Intergenerational meetings can be structured as games with guidelines or a prepared program. The meetings can also arise through free play, where two generations are sharing a room together with tools allowing them to choose activities. (O’Hanlon, 2017)

Interactional play promotes physical health by exercising small and large muscles, stimulating the blood flow to the brain, and practicing the individual’s motor skills. Intergenerational interaction allows for expressing feelings, exercising the way of thinking, and increasing self-esteem. (O’Hanlon, 2017)

There are many advantages to intergenerational meetings, however, the concept can also be problematic. Later in the report, the risk of infection is brought up by a chief physician in geriatric at Helsingborg Hospital (found at p. 26). Concerns such as hearing, and energy is also brought up later in the report (found in the result chapter).
This thesis will provide a design of an intergenerational care facility, focusing on promoting interaction between different generations and what kind of spaces can be shared between very young and old people. The thesis is divided into three parts: the research phase, the concept phase, and the design phase.

The scope of the thesis is mainly based on two perspectives: the young and the old. However, the perspective of the staff is also important for having all users in mind when working with this topic.

The report starts by describing two theoretical methods; the literature review followed by analysing reference projects, as a background in the report. The next method used in the thesis is the interviews, to highlight the user’s perspective as well as develop a deeper understanding of the topic of the intergenerational concept. The last two methods are the mapping and design proposal, where the theory part will be tested.
INTERVIEWS

To get a wider understanding of the topic, six different types of interviews were conducted. The two first interviews were with professions in the field of healthcare and architecture; one with an architect from Marge Architects and one with a geriatrician working at the hospital in Helsingborg. The two following interviews were made with six elderly and their healthcare providers at Bagaregården’s residential care facility in Gothenburg. The last two interviews were made with preschool teachers together with five children aged four to six years old at a preschool in Mölndal. The aim of the interviews was to get a deeper understanding of the chosen topic from different perspectives.

LITERATURE REVIEW

The literature consists of published scientific literature as well as articles about experiences in the field of intergenerational care. The topic of the literature aims to provide a base of understanding for the reader, to have for the followed report. The literature covers information about health in general, as well as young and old and their environments. The literature also covers information about intergenerational programs and three reference projects: The intergenerational learning center in Seattle, Apples and Honey Nightingale in London, and the Swedish project Fyraåringarna på äldreboendet.

MAPPING

The concept started with mapping the needs of what spaces children use in a preschool and elderly in a care facility. The information was collected through Swedish examples in terms of programs and schedules and thereafter three flow charts were created; one for how different spaces are connected in preschools, and one for the elderly in their care facilities. With the knowledge of how the units work separately, a combined flowchart was designed.

DESIGN PROPOSAL

The design proposal tests the theory part found in the report and adapts it to a specific site. The flow chart has been revised into sketches and floorplans of how a combined unit between residential care apartments and a preschool can be designed. The units have thereafter been redesigned to work at a specific site, located in Utby in Gothenburg, and multiplied to work in the given volume for the location. The challenge the site has to offer is mainly the hilly terrain and is tackled by designing units with big atrium yards.
To get a deeper understanding of intergenerational programs, this chapter contains interviews with different target groups. As an architect, it is essential to understand how the residents, staff, and children are living their daily lives and how their facilities function, to be able to design a good building. How the rooms will be used is crucial for a well-designed facility. In this chapter, children and their teachers have been interviewed as well as residents and their healthcare providers. The chapter also contains interviews with professions in the field of healthcare and architecture. Information about three different reference projects is also presented.

The intergenerational learning center in Seattle, Apples and Honey Nightingale in London, and the Swedish project Fyraåringarna på äldreboendet are examples of how intergenerational programs can work. The two international reference projects give information about how intergenerational programs works since the topic is undeveloped in a Swedish context. The Swedish reference is an experiment project spanning over six weeks and gives an idea of how an intergenerational care facility can work in a Swedish context. The reference projects analyze schedules and intergenerational activities to get different views of what is working and not working.

There are different ways of working with intergenerational programs. This thesis investigates how much it is possible to integrate the user groups (young and old) with positive outcomes and discovers how it is possible to develop a concept for a shared unit.
Anne Ekdahl (Personal communication. January 21, 2022) is an associate professor and chief physician in geriatrics at Helsingborg Hospital. She is also Secretary-General of the European Geriatric Medicine Society. In the year 2019 Anne participated as an expert in Swedish television series called *Fyraåringarna på äldreboendet* (found at p. 36) where a unique experiment was tested bringing together 10 children and 10 residents during the daytime for six weeks and therefore, she has a lot of knowledge about the topic of intergenerational living.

Anne describes how the elderly participants in the intergenerational experiment from the beginning, neither were positive nor negative for the experiment with the children. Most of the elderly were bored and had nothing else to do during the daytime and expressed the feeling of “we don’t have anything better planned, so why not”. But already after a couple of days, you could see how that changed.

“I think the concept of combining elderly and children is very exciting and I was deeply impressed with how quickly the children made contact with the elderly, it only took a couple of days before they started looking for each other spontaneously. All we had to do was to expose them to each other, giving them the opportunity to interact, and that’s enough. That made me very impressed”. (Own translation)

During the interview, three categories were discussed: the amount of younger and older, different types of meetings, and the infection risk. According to Anne, it is good to have an equal amount of elderly and children attending different activities. The elderly tend to be jealous of each other if someone does not have a child to be with. Sometimes elderly do not have the energy to be part of an activity, therefore it is better to plan for many children than a large amount of elderly.

There are two types of meetings, planned and spontaneous. In the television series, the focus was to arrange planned meetings. These meetings are important, especially for young and old individuals who are shy from the beginning. The risk of losing interest from mainly the children is also an aspect of why these planned meetings are important.

Examples of planned meetings might be storytelling, singing, and planting. Meals together can make the resident feel needed. Being close to animals produces many positive emotions and could also work as an intergenerational meeting place. Many inactive seniors who barely give any signs of life shine up at the sight of a dog or a cat since they associate them with their previous experiences in life.

When designing for spontaneous meetings, it is important to have safety in mind so unintentionally things do not happen, for example, fall injuries.

When it comes to architecture it is important to create a flexible building. The concept should underline the importance of dividing one shared zone into two separate. In a concept like this, you cannot ensure not being infected but it is important to vaccinate all elderly against the seasonal flu to reduce the risk. It is also important to get the consent of the elderly or a close relative or friend that “It is okay for me to be exposed to a virus”.

“My opinion is that most people want to live until they die, instead of being isolated and bored as many are in nursing homes today”. (Own translation)
INTERVIEW - SUSANNE RAMEL

Founder, partner and architect at Marge Architects

Susanne Ramel (Personal communication. February 22, 2022) is one of the founders and partners at Marge Architects, in Stockholm, Sweden, who is working with both residential care buildings and preschools. She believes that the concept of creating an intergenerational building will work well, however, as an architect there are several aspects to have in mind when designing this type of building.

During the interview, four topics were discussed. The concept and the shared functions, the indoor environment and materials, the open kitchen, and the outdoor environments. In one of Susanne's first residential care projects at Marge, interactions and dialogues with the residents were made, to get to know their needs, understand their diseases, and discuss how architecture can create a stimulus to all senses. The outcome of those meetings has been good to have as a base for all the residential care projects developed at Marge Architects.

In a unit, the shared areas for staff can for example be laundry and waste, the staff room, an office, the kitchen, and the cleaning room. However, the intergenerational concept focuses mainly on the users. Within the unit, shared areas can be arts and crafts, a story room, a room for free play, and a dining room. In this type of concept, Susanne believes that it is important to know what space belongs to the elderly and what space belongs to the children. The staff needs to know which area they are responsible for, as the children and elderly need to know where “their” space starts and ends. There should be specific places where the children know that they are meeting the elderly, and the elderly know that they are meeting the children. It is also important with operations that are interested in cooperation.

Outside of the building, a greenhouse where you can bake bread, or do gardening is a good example. Other ideas for combined areas are a carpentry workshop, a spa, and a gym. Another shared function Susanne mentioned was the exhibition space. When moving to a residential care facility, the elderly often gets cut out of society.

When choosing materials, the goal is to create beautiful environments. Wooden floors should be designed in the project to create a warm atmosphere and minimize the feeling of hospitalization for the residents. For children, wooden floors are warm, and they should not have to crawl around on a plastic mat. In architecture, it is important to design an environment for all senses. Susanne gives one example of how to design for an elderly who spends their entire day in bed.

“If you are lying in bed, you should be able to have a choice to open the door and hear how food is cooked in the kitchen or how someone is sitting and talking in the living room”. (Own translation)

The open kitchen was a topic discussed during the interview. The “old” or “normal” kitchen in a residential care facility is often very clinical and have small measurements aimed to be used only by the staff members. At Marge, all residential care facilities have been designed with “open kitchens”. Susanne states that it is important for the residents to feel included in the cooking process.

The outdoor environment should be designed with the goal of creating beautiful environments and design for all senses. Atrium courtyards are one effective way of designing since it means that all residents and children can walk out without wandering away. The outdoor environment can be good to combine, but it should also be divided to create separate spaces for the residents and the children. The environment should be rich with many insects and maybe even some animals, for example, chickens, that can be fun both for the elderly and the children. For the elderly, the biggest problem is often that they are feeling lonely, and nothing is happening, then even the smallest action might be interesting to observe. One example of this is to not hide the parking, and deliveries since that is something that is happening every day.
Bagaregården’s residential care facility (Personal communication. April 14, 2022) is located in Gothenburg and is owned by the municipality. There are six units within the building and a preschool on the ground floor. A few times a year there are intergenerational meetings between the elderly and the children in the preschool. The aim is to develop and expand the intergenerational meetings, but due to the covid-19 pandemic, that plan has been on hold. During the spring I got the opportunity to interview both residents and staff members at Bagaregården. All the residents being interviewed were happy with their choice of care facility, however, some residents expressed the issue of being lonely.

“I am in the position that I am completely clear in my head which sometimes makes it hard for me. It is a very nice accommodation here but I do not have much social exchange. I had a very nice friend here before but now she has started to forget, more and more, which makes it difficult for me. It can get lonely sometimes, especially in the evenings.” (Female resident, own translation)

One observation during the interviews with the residents was that all the participants described their days explaining all their meals. Even if there are activities presented for the residents, the assumption from the interviews is made that the activities are not happening often enough to be included in a “normal day”. However, when I asked more specifically about activities in the building, the residents mentioned activities such as “sitting exercises”, 30 minutes of worship, a performance by guitarists, a crayfish party, and a manicure.

The residents did not have very much experience in the intergenerational meetings. They remembered how the children had been singing for them at midsummer and Lucia, and one resident had been painting with the children once. Five out of six residents would like to have more meetings with the children in the preschool.

Intergenerational activities mentioned in the interviews with both elderly and staff members was a greenhouse, a cinema, a spa, a “peace of mind” room, arts and craft, a pet’s corner, a story room, walking loops outside, barbeque parties and Swedish Fika. There were different opinions about the shared meals among the staff, where some thought that it would be a great idea, while others were worried that the elderly would cough and scare the children. My conclusion is that it is important to have the possibility to divide the residents into different groups, the ones who want to eat with children and the ones who do not want to, and the same goes for the children.

“In general, I think that it is good for the children to take part of the elderly’s experiences, to feel involved and doing something positive.” (Staff member, own translation)

“The dream would be a one-story building, so you are able to open the doors to your own private courtyard where the residents can come and go as they please.” (Unit manager, own translation)
INTERVIEW - PRESCHOOL IN MÖLNDAL

During the spring I got the opportunity to interview staff members and children at a preschool in Mölndal (Personal communication. January 20, 2022), close to Gothenburg in Sweden. The preschool consists of 5 units within the building and is open from 6.30 to 18.00 every weekday. The deputy principal of the preschool strongly believes that intergenerational meetings could be beneficial for both elderly and children.

“The elderly get a purpose of getting up in the morning, something happens to them. I think they would get more joy in their lives. The younger ones get an opportunity to meet different people and to see their differences and they will learn to respect each other and others. I see a positive aspect in passing on thoughts, knowledge, and opinions from older generations to younger ones. Children can learn from the elderly.” (Own translation)

The children described how they wanted to play different kinds of games with the elderly like hide-and-seek and football, as well as watching tv and reading stories. The staff pointed out meals, story times, arts and crafts, movement games, digital activities, dance, resting times, outdoor events, and celebration of different holidays as activities that could be intergenerational. There could also be times when the elderly can act “audience” when the children run different races.

At the preschool, the teachers are missing several rooms. According to the deputy principal, the goal would be to have different rooms with different purposes, so the rooms do not have to be rearranged several times a day. Examples of rooms are movement rooms, a lab for experiments, light room, and a resting room where mattresses always can lay on the floor. One preschool teacher highlights the kitchen as a missing piece where they can cook their own food from scratch, to let the children be part of the process from plant to plate. Discussing the concept of intergenerational meetings, the conclusion is made that the children need both times with the elderly, but also separate. According to the deputy principal, it is important to be able to change plans during the day.

“I believe that it is important to be flexible and take the day as it comes, especially for the elderly, but still have a basic structure. For the children, it is extra important with outdoor activities like forest visits and playground. Sometimes it is hard for the elderly to participate in these activities. The children need to feel that they have their own arena where you can play freely. However, I think that the residents would appreciate being able to see the children in their play, participate at their level and that something happens in their everyday life.” (Deputy principal, own translation)

One difficulty that can occur in an intergenerational meeting is that it can be noisy and messy among children and therefore it is important for the elderly to have the opportunity to walk away to their private room when needed.

“All kinds of environments need to exist. Loud with joy and singing with the opportunity to walk away when needed. I think it is important that the elderly can have their own to go to when needed but also choose to be involved when they want.” (Deputy principal, own translation)

“The integration between young and old would work well because children are curious about new faces and want to see what the elderly have to offer. Children nowadays want someone to see them, hear them, and want to play with them on their terms. New games or activities would capture the child’s interest and be able to keep the curiosity and interaction up. One example is when you buy a new toy, you can lose interest easily, but if you use your imagination and give the toy different roles, you could keep the interest up for a long time.” (Preschool teacher, own translation)
In the 1980s, the Intergenerational Learning Center was founded at Providence Mount St. Vincent. The administration realized that one vibrant element was missing in the building, the joy of the children. A member of the staff team suggested opening a childcare program and year 1991 the Intergenerational learning center opened. (Providence, 2018) Since the year of 1991 the building, called Mount facility, has served more than 1000 children who have shared their everyday life with more than 3000 seniors. (Flash, 2015)

The mount facility is licensed as a daycare center and consists of 125 children aged six weeks to five years, divided into six different classes. The classes are consisting of 109 residents divided into small “neighborhoods” of 23 resident rooms surrounding the common kitchen and living areas (Providence, 2018) Having a preschool within the doors of an elderly care facility helps the residents to find meaningful and engaging last time of life. At The Intergenerational Learning Center, the children learn how to accept people with disabilities and get to see the aging process. The residents, however, benefit from the daily physical activities as well as experiencing a new sense of self-worth as they pass their lifelong knowledge to the younger generation. The program offers different levels of activity, based on who is in charge combined with who is attending. (Flash, 2015) Charlene Boyd who helped create the program in the year 1991 states:

“We wanted this place to be a place where people come to live, not come to die. It’s not rocket science. It’s about normalcy. It’s normal for someone to use a wheelchair or a walker and that’s just part of life. It’s not out of sight, out of mind. It’s right here. These kids see that every day and they’re not afraid.” (Flash, 2015, p. 340)

What makes this project special is how the location of the units are combined within the same building. The children and teachers go and visit the residents as often as the residents come to visit and observe the children. All the visits are planned and supervised by the teachers, and some examples of intergenerational activities are storytelling, chair volleyball, bowling, music, and puzzles. According to the Providence Mount St. Vincent, residents with dementia or Alzheimer’s disease find it easy to have a conversation with a child because it is easy and short, and both generations “live in the moment”.

The benefits pointed out in this program are many. Children have a variety of role models; they get a positive and realistic portrayal of aging and see the aging process as normal. They also reduce fear of various abilities or disabilities and broader the perspective on change and growth. Furthermore, they get more knowledge about the elderly and have adult “playmates” who are not responsible for the child’s behavior. For the elderly, the opportunity to be a role model occurs, and the feeling of being needed is strengthened. The elderly get a sense of purpose and are reminded of their children and grandchildren. For the community, the stereotypes and barriers that exist between generations break down and for the staff, it broadens up the understanding of other age groups. (Providence, 2018)

The Providence Mount St. Vincent writes that it takes time, energy, patience, and funding to create an intergenerational program, however, the positive outcomes outweigh the challenges. The vibrancy from the young families is giving the residents a more enriched and valuable life. (Providence, 2018)
In the year 2019, a unique experiment was implemented in Sweden. During six weeks, ten children aged four years old shared their everyday life with ten older people aged 70 to 90 years. The purpose of the experiment was to challenge Sweden in how we take care of our elderly and to evaluate if residents’ health became improved, both physically and mentally. (TV4, 2019)

Social isolation and the lack of daily activity are two of the biggest problems we encounter when we get older and this affects both our mental and physical health, and the number of years we live. The expectations from the professionals in the experiment were to make the elderly feel the joy of life again and to improve their physical and psychological health. The theory from the experts is that children make the residents move a lot more than before, but also use their brains in a new way. To make it clear if the experiment is succeeding or not, all the residents did extensive tests aimed at measuring depression, memory, and movement at the beginning and end of the experiment. (TV4, 2019)

Before the experiment, a lot of residents felt lonely, and even though they lived in the same unit they did not talk to each other. When a resident comes to a care facility, he or she often thinks that there will be a lot of conversations because of all the other residents in the building, but since many of the residents are very frail or have a dementia disease it is hard to have conversations which may lead to feeling even more lonely because the resident is surrounded by people, but you cannot talk to them. (TV4, 2019)

The expectations from the elderly with this experience were to feel more alive and to have a place in society where they still can contribute something. However, there were also concerns from the residents about not being able to cope or having the energy that is needed for meeting the children. Before the series started, the residents were asked to describe how their days at the care facility were. The answers were lonely, quiet, and no one talking to each other. One resident explains: (TV4, 2019)

“It is impossible to describe how my days are here because we are not doing anything”

The experiment had its base in the residential care facility, and the children were mainly playing and doing other activities for three to four hours per day in the common room or outside of the building. There were also some special events when the participants had a disco, were seeking treasures, and went on a boat tour. (TV4, 2019)

The outcome of the experiment was better than expected. One 81-year-old resident recovered from her light dementia, and another 89-year-old resident got her zest for life back after being suicidal at the beginning of the program. Seven out of ten people in the experiment improved their health. (Elmblad, 2020) One theory for why the elderly got better was because the children actively challenged them to do things, they probably wouldn’t have done by themselves. A resident explains the days with the children: (TV4, 2019)

“I call these children for medication because they make me happy”

It was not only the elderly who gained from the experiment. The children developed a huge empathy and respect for other people and learned some of society’s social codes. (Elmblad, 2020) One parent explains how her son has changed during the six-week experiment:

“He is much more helpful at home, he wants to help, it’s a big change I’ve noticed. I don’t have to ask him to help anymore, he asks if he can do things, which is new” (TV4, 2019)
In the year 2017, UK’s first intergenerational nursery facility opened. Today, over 180 residents are sharing their everyday life with children from the age of three months to five years old. One vision Apples and Honey Nightingale have is to enhance the quality of life of all involved and develop the community. Apples and Honey Nightingale are showing how it is possible to create a much more varied program compared to normal elderly care facilities in the country.

At Nightingale, children and residents are living in different buildings close located to each other and the program offers several different activities depending on the children’s and residents’ wishes and needs. Gardening, arts and crafts, song sessions, and a pet’s corner are four out of many different activities presented on their website. (Nightingale, 2022) In an interview with Kathy O’Brien, Co-Manager at Apples and Honey Nightingale, she mentions that it would be beneficial to have the children and elderly located in the same building, to promote spontaneous meetings.

“Today there are several planned activities during the weekdays, but it would be ideal to create a community hub, both inside and outside, where children can play friendly and safe, and find different ways of interacting with the elderly all by themselves”. (O’Brien, K. Personal connection, January 18, 2022)

There are different ways in which residents are chosen for participation in the different intergenerational sessions. Some are based on self-selection from the residents, some are decided by the staff and some activities are costume-made for residents within the dementia program.

Followed are three out of many types of intergenerational sessions from the program listed. The first session “baby and toddler group” is held by one nursery teacher and two nursery volunteers and includes around 13 residents combined with 20 small children and their parents or carers. In the first part of the class, children and residents are playing together in the middle of the room or do arts and crafts in stations located in one of the corners. After half of the time, the teacher starts with a welcome song and continues with the “bag song”. It starts with a child bringing a bag to a resident, and then the resident chooses a toy from the bag and the group sings a song associated with the toy. (Somers, 2019)

The “literacy session” helps the children to get ready for reading. Every child has their own reading folder, consisting of a few simple words or picture books. The residents are there to help the children. The session takes place in the residential care facility, which contributes to the residents feeling more confident since they are in their own private space. Being close to the apartments, residents save their energy for playing with the children since it is not too much effort to get out of the rooms to the lounge.

The “exercise class” is divided into two different groups. The first class is led by a senior physiotherapist and includes around 18 residents together with a group of children aged three to five years old. One example of an activity is where participants are holding a big exercise band together. The second class consists of around eight to ten residents with dementia and four to five children in age two to three years. The second session differs from the first since the residents with dementia do not remember the class. This class is gentler and often some sort of game is played, for example bouncing a balloon back and forth to each other. (Somers, 2019)

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby and Toddler Group 10:00-11:30</td>
<td>Reading 2:00-2:45</td>
<td>Drama therapy Group 1, 11:00-12:00</td>
<td>Exercise class 10:00-11:00</td>
<td>Kabbalat 11:00-12:00 (Nursery has an early close each Friday)</td>
</tr>
<tr>
<td>Havdallah 12:15-12:00</td>
<td></td>
<td>Drama therapy Group 2, 2:00-3:00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00 Open Studio in Activities Centre</td>
<td></td>
<td>Baking (once a month)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diagram adapted from (Somers, 2019)
SUMMARY OF RESULTS

Shared spaces and activities

Based on the analysis from the literature studies, the case studies, and the interviews, the best way of designing a building for young and old is to create spaces that are separate and spaces that are shared within the building. Examples of shared spaces within the unit are the dining area, arts and crafts, and a story room. Examples of spaces that can be shared outside of the unit are an exercise area, a spa, a greenhouse, a carpentry workshop, an exhibition space for the city, a lecture hall, a restaurant or café, and a pets’ corner.

The shared spaces within the unit should handle flexibility well. One day, the preschool might want to use part of the room for a special event, and another day the residents in the care facility might have a get-together. On the third day, the young and old might have planned events together, and then the whole space is shared. Due to infection risks, such as the annual flu or covid-19, it is important for the space to be designed so it can be divided easily. The preschool should have one entrance and the residential care another, so it is possible to have separate units when needed. It is also important to divide the spaces according to the sound.

The shared rooms can with the advantage be divided into sliding sections, however, it is important to not design them fully glazed, to avoid confusion for a resident with dementia.

Sharing staff areas will promote conversation between staff members at the different units. By combining offices, lunch spaces, and other rooms, the aim is to spread knowledge about the different user groups which hopefully will contribute to more planned activities between young and old.

“The best thing about eating lunch together is that I feel needed. It feels good. I take it easy and quietly and I see that the children also need that. I eat slowly nowadays and it suits both very well.”

Resident at a residential care facility in Sweden (TV4, 2019)

“The advantage of being close to animals is that it produces many positive emotions. It feels good to pat and cuddle. And it has been seen that many old inactive seniors who barely give any signs of life shine up at the sight of a dog or cat that they associate with previous experiences in life.”

Anne W Ekdahl; Chief physician in geriatrics at Helsingborg Hospital (TV4, 2019)

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Anne W Ekdahl; Chief physician in geriatrics at Helsingborg Hospital (TV4, 2019)

“Ingmar Skoog; Swedish doctor and professor in Psychiatry (TV4, 2019)
SUMMARY OF RESULTS

Architectural elements

The concept of intergenerational care can work very well, however, the crucial part is the operations. The concept will probably not work if the residential care unit and the preschool unit do not want to cooperate. If the operations want to cooperate, there is a chance that this type of building can work very well. As a designer or architect, there are several aspects to have in mind when designing a building to facilitate the meetings between the generations. One of the most important aspects is to understand the users, in this case, the children, residents, and staff members, and how they will use the spaces during the day and night. Below are some aspects to have in mind when designing a building for both young and old.

Create a beautiful environment in and around the building. The design should strive for activating all senses and to avoid confusion. If using glass walls inside, they should be designed to not create confusion.

Plan for an equal number of children and elderly. Due to infection risk, it is important to be able to divide the spaces between the young and the old. It is also important to define the spaces, so the user groups and staff members know what space belongs to who.

Living in a residential care facility, sometimes the days pass by slowly which means that all activities around the building are good. A delivery zone might be interesting for the users because it means that something happens.

Atrium yards are good to design since both children and the residents can use the space without wandering away. It is also good to design the loop, to ensure that the users easily find their way back to where they started.

When growing old, the hearing often becomes worse, and it is difficult to hear someone talking with a lot of background noises. Children are loud with their voices and therefore it is important to create an environment designed according to the sound.

Nature has a health-promoting effect on our bodies. Having nature close helps the body to relax and has a healing effect. It is therefore good to use nature as a design element, especially when designing for old, frail elderly.
The shared areas will be used by both children and the elderly. With the preschool on one side and the residential care on the other, the shared functions will be placed in between the units. Depending on the situation, one part, or the whole, may be used only by one user group, for example when the areas need to be divided due to infection risk. Examples of shared areas inside are a dining area, arts and crafts, a story room, a tv-room, an open kitchen, and a room for free play.
**SEPARATE SCHEDULES**

<table>
<thead>
<tr>
<th>Preschool</th>
<th>Residential care</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.00</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08.00</td>
<td>Outdoor activity</td>
</tr>
<tr>
<td>09.00</td>
<td>Outdoor activity</td>
</tr>
<tr>
<td>10.00</td>
<td>Gathering inside</td>
</tr>
<tr>
<td>11.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>12.00</td>
<td>Story time</td>
</tr>
<tr>
<td>13.00</td>
<td>Story time</td>
</tr>
<tr>
<td>14.00</td>
<td>Swedish “Fika”</td>
</tr>
<tr>
<td>14.30</td>
<td>Outdoor activity</td>
</tr>
<tr>
<td>15.00</td>
<td>Outdoor activity</td>
</tr>
<tr>
<td>16.00</td>
<td>Free play</td>
</tr>
<tr>
<td>17.00</td>
<td>Free play</td>
</tr>
<tr>
<td>18.00</td>
<td>Free play</td>
</tr>
<tr>
<td>19.00</td>
<td>Closed</td>
</tr>
<tr>
<td>20.00</td>
<td>Closed</td>
</tr>
<tr>
<td>21.00</td>
<td>Closed</td>
</tr>
<tr>
<td>22.00</td>
<td>Closed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preschool</th>
<th>Residential care</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.00</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08.00</td>
<td>Breakfast</td>
</tr>
<tr>
<td>09.00</td>
<td>Outdoor activity</td>
</tr>
<tr>
<td>10.00</td>
<td>Outdoor activity</td>
</tr>
<tr>
<td>11.00</td>
<td>Combined gathering inside</td>
</tr>
<tr>
<td>12.00</td>
<td>Lunch together</td>
</tr>
<tr>
<td>13.00</td>
<td>Resting in resting room</td>
</tr>
<tr>
<td>14.00</td>
<td>Story time for children awake</td>
</tr>
<tr>
<td>14.30</td>
<td>Swedish Fika together</td>
</tr>
<tr>
<td>15.00</td>
<td>Combined gathering inside</td>
</tr>
<tr>
<td>16.00</td>
<td>Free play</td>
</tr>
<tr>
<td>17.00</td>
<td>Free play</td>
</tr>
<tr>
<td>18.00</td>
<td>Closed</td>
</tr>
<tr>
<td>19.00</td>
<td>Closed</td>
</tr>
<tr>
<td>20.00</td>
<td>Closed</td>
</tr>
<tr>
<td>21.00</td>
<td>Closed</td>
</tr>
<tr>
<td>22.00</td>
<td>Closed</td>
</tr>
</tbody>
</table>

**COMBINED SCHEDULE**

<table>
<thead>
<tr>
<th>Preschool</th>
<th>Residential care</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.00</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08.00</td>
<td>Breakfast and getting dressed</td>
</tr>
<tr>
<td>09.00</td>
<td>Breakfast and getting dressed</td>
</tr>
<tr>
<td>10.00</td>
<td>Possible to join outdoor activities</td>
</tr>
<tr>
<td>11.00</td>
<td>Combined gathering inside</td>
</tr>
<tr>
<td>12.00</td>
<td>Lunch together</td>
</tr>
<tr>
<td>13.00</td>
<td>Resting in apartments</td>
</tr>
<tr>
<td>14.00</td>
<td>Possible to join story time</td>
</tr>
<tr>
<td>14.30</td>
<td>Swedish Fika together</td>
</tr>
<tr>
<td>15.00</td>
<td>Swedish Fika together</td>
</tr>
<tr>
<td>16.00</td>
<td>Possible to join activity</td>
</tr>
<tr>
<td>17.00</td>
<td>Possible to join free play</td>
</tr>
<tr>
<td>18.00</td>
<td>Dinner</td>
</tr>
<tr>
<td>19.00</td>
<td>Unspecified</td>
</tr>
<tr>
<td>20.00</td>
<td>Unspecified</td>
</tr>
<tr>
<td>21.00</td>
<td>Supper</td>
</tr>
<tr>
<td>22.00</td>
<td>Preparation for sleep</td>
</tr>
</tbody>
</table>
FLOWCHART OF UNITS

Based on guidelines from the city of Gothenburg from 2016 and 2019

FLOWCHART OF COMBINED UNITS

Preschool combined with residential care
SITE & CONTEXT

In Sweden, there are some examples of existing preschools and residential care facilities within the same building. However, there are no buildings like what I am proposing; shared units between the age groups. The purpose of this type of facility is to break the barriers that modern society has created between young and old and to develop a more meaningful everyday life for both the children and the elderly. The city of Gothenburg is facing extensive investments in new and existing residential care facilities to be able to meet the growing population in the area. The estimation is that apartments in residential care facilities will increase by around 100 per year from 2020 in the city. (Göteborgs stad, 2019)

A building shared between young and old is difficult for the municipality of Gothenburg to plan for, since there are different trade union committees for preschools and residential care facilities. The different committees make it hard to plan for a building with young and old even if they are located on different floor plans without interaction. (Göteborgs stad, 2022) The municipal facilities who cover both preschools and residential care units in Gothenburg are old. From the beginning, these types of buildings were planned for other purposes, but when there is a lot of unused space in an existing building, it might be possible to, for example, place a preschool on the ground floor in a residential care facility. (Göteborgs stad, 2019)

The assumption is therefore that the type of facility this thesis proposes might be easier to develop in the private sector.

The chosen site for the implementation of the intergenerational concept is in Utby, in Gothenburg, Sweden. Utby is a child-rich area, and the site is located at a spot where the municipality already is planning for a residential care facility. The municipality of Gothenburg states that the area can give good opportunities for cross-generational meetings. As Utby today only has one residential care building, this is a unique opportunity for the district to have a completely newly built residential care building. (Göteborgs stad, 2019)
Map over Gothenburg and the site in Utby (Geodataportalen - Chalmers, n.d.)
THE SITE

Criteria set from the beginning of the thesis

CLOSE TO NATURE

Nature has a great influence on our well-being since it has a healing effect and helps the body to relax. Therefore, it was important to take greenery into account when choosing the site.

CLOSE TO PUBLIC TRANSPORT

Even though most of the older people arrive to care facilities by car, it is important to have good infrastructure with public transport for families with children, visitors, and staff members in the facility.

AREA WITH ACTIVITY/MOVEMENT

For the residents, even the smallest movement outside of the building can be interesting to look at as the day pass by. Therefore, the last criteria was chosen; to find an area where people are passing by often.

Photos from site

Map over the site and its surroundings  (Geodataportalen - Chalmers, n, d.)
Utby 76:76 is an undeveloped property where the municipality of Gothenburg is planning for a residential care facility. The site consists of a hilly and green landscape with some trees. The entrance to the site is planned to be coordinated with the church at Utby 76:75. The municipality states that the hilly plot will affect how outdoor surfaces and walking trails can be arranged. The location up on the hill offers a view, but walkways can have steeper slopes than desired. (Göteborgs stad, 2019)

The site is large, which gives a great opportunity for architectural experimentation. It might be possible to create a building where all units have direct access to the outdoor environments.

The north part above the site is frequently used by the locals in the neighborhood. Pedestrians with dogs or strollers are enjoying nature at the site. When adding a building to this plot, I believe it is important to save parts of the green area for pedestrians. The area on the eastern side of the site can for example be kept as a green corridor for the pedestrians to move from north to south.

The surrounding buildings are mainly small-scale houses. Most of the buildings in the nearby areas are modular with low architectural value, lacking expression in form of care and details. The neighborhood would probably gain from a building designed with care, to lift the architectural value in the area to a higher level.

SWOT ANALYSIS:

**STRENGTHS**
- Area with movement
- A lot of greenery
- Big site

**WEAKNESSES**
- Souterrain site
- Outskirts of the city, enough movement?
- Could be closer to public transport

**OPPORTUNITIES**
- Might be possible to create a one-story building
- Opportunity to work with the hilly terrain and create interesting architecture

**THREATS**
- Risk of “taking” the green area from the neighborhood
- The souterrain site can make it hard to design good with daylight

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DESIGN PROPOSAL

Program:

Entrance/ waiting hall
5 intergenerational units
Exhibition space
Library
Restaurant
Main Kitchen
Exercise hall
Conference rooms
Staff room
Changing rooms
Administration
Outdoor areas
Green house
Pets’ corner

One intergenerational unit:

Part 1: Residential care
8-10 apartments
Clothing room for visitors
Guest toilet
Tv- room
Storage
Disinfection room

Part 2: Two preschool units
1 Shared clothing room
2 Resting rooms
4 activity rooms
1 small kitchen
Toilets
Storage

Shared spaces between the operations:

4 general rooms
1 dining room
Courtyard
Dialogue room
Staff room + toilet
Laundry
Kitchen + storage

Diagram of vertical connections and delivery points
During the site analysis, there was a lot of movement in the area, especially on the east side of the building. Keeping the “green corridor” in the east has therefore been of great importance when experimenting with the volume. It has also been important to place the building far to the west to follow the wishes of the municipality and combine the parking for the facility with the parking for the existing church.

The building consists of five units. On the entrance floor, three of them take place, and the users of these units can access the outdoor environments in the south and west, as well as on the roofs in the north and east. On the floor below, two units are placed. These units can access the outdoor environments towards the east, north, and south.

The visitors arrive at the site from the west and the parking is combined with the church up in the north part. In the south, a nature-hill is saved for the children to play on while the rest of the area around the hill is flat and accessible for everyone. The path that goes around the building is designed to be accessible according to Swedish standards and has many resting spots which give the opportunity for residents and children to walk around together.

Every preschool unit has its own private yard with a lot of greenery. The residents in the residential care unit have access to the outdoor environment direct from their unit as well. All the shared units within the building also have private courtyards that can be used by one, or both target groups. If there happens to be a fire in the building, the fire truck arrives on the south side of the facility and enters the stairwell direct from there.

Every apartment has its own private patio on a roof or on the ground. This gives the residents an extra quality to have their own private space, both inside and outside of the building.
The large site in Utby gives room for many types of volumes. During the research phase, one wish from a staff member in a residential care facility was to design a one-story building, to enable the residents’ direct access outdoors. This wish has been adapted into the design proposal and since the site is hilly, the building can consist of two floors and still give residents and children the opportunity to walk directly out on the ground from all the units. Since the building is designed with few floors, the footprint is large and therefore the volume is divided into smaller parts, to scale down the perception of the building. Another reason why the building only consists of two stories is to adapt itself to the surrounding since all the buildings in the neighbourhood consist of one or two stories.

The result from the research phase shows that it is important to create a beautiful and coherent environment in and around the building, and this is something the design proposal strives for. The building consists of wood inside and out, both out of environmental aspects and for health promotive reasons. The entrance hall and restaurant are designed with glazed facades, starting 450 mm above the floor, to differ from the unit buildings. The rest of the windows are also placed 450 mm up from the floor and the reason for not letting the glass windows go from ceiling to floor is to avoid confusion. Individuals who have dementia disease might get confused and mix up a fully glazed window with an opening in the wall. The same goes for some children with special needs and is therefore avoided in this project.

Research shows that nature has a health-promoting effect on our bodies and that the individuals relax more when having nature close. Therefore, nature has been used as a design element in this project, both with atrium yards, green roofs, and the surrounding trees. It is probably extra important when designing for old, frail elderly. The atrium yards are good to design both to get daylight into the dark cores, but also because both children and residents can spend time there without wandering away.

On the west facade, visitors, residents in the neighbourhood, and users of the facility have the opportunity to walk upon the roof enjoying the views over Gothenburg and the neighbourhood. Since the building is divided into different volumes, ramps are designed on the roof, making all the areas accessible to everyone.
Ground floor scale 1:400

0 m 10 m 30 m
There are several meeting places for young and old both within the unit and outside of the unit in this proposal. On the bottom floor, an exercise hall and a conference room are placed. The exercise hall can be used for bigger events or weekly exercises with residents and children. The hall can also be used during performances on holidays, such as Lucia and Christmas. The large conference room can be used for educational purposes for the staff, but also in meetings with residents.

The greenhouse on the ground can be used by both children and the elderly, planting vegetables, later being cooked in the shared kitchen within the unit. This gives the children the opportunity to take part in the process from plant to plate, and for the elderly the opportunity to contribute with the knowledge they are comfortable with sharing.

Other intergenerational meeting places within and around the building are the restaurant, the exhibition space, and the pets’ corner. There is also plenty of space outside of the building, for the operations to develop their own spaces.
All the units in the building are designed after the same concept. This type of concept is working best if there are three sides of the unit with facades and with daylight. On one side, the preschool is located, and this operation consists of two parts; one for children aged one to three years old, and one for children aged four to five years old. The children are sharing one entrance from the outside, to not mix flows with the elderly if the space needs to be divided in the future due to the flu or a new pandemic.

On the other two sides with daylight, the apartments are placed. In the middle of the unit, a big courtyard is designed, both to create a nice outdoor environment for the residents and children, but also to lighten up and make the corridor toward the apartments more interesting.

Towards the fourth side, between the preschool, the apartments, and the atrium yard, the shared spaces are placed. This area consists of one dining room and four general rooms that easily can be rearranged depending on what activities and events suit the chosen operations in the unit. Examples of activities in the general rooms are storytelling, playing, arts and crafts, and exercising. The unit also has an open kitchen, staff areas, a dialogue room, laundry and waste, disinfection, and a TV-room only for the residents in the unit.

The different shared spaces can be divided with sliding doors in many ways, to be able to use the space in different ways during the day, but also to reduce the noise from the children towards the residents who want to have a quiet time.

This type of concept can be adapted into units only having two sides with daylight. The outcome will then be one side for the preschool and one for all the apartments. This will lead to a very long corridor, depending on the number of apartments needed. Another solution might be to add some apartments towards the atrium yard, but the consequence that will bring is a dark corridor. If there is a possibility to design a unit with three sides of daylight, that is recommended. Due to the hilly terrain at the site, the units in this project are designed a bit differently even if they all are following the same concept.
A NORMAL DAY

The children arrive at the preschool between 06 and 08 and eat breakfast in their unit. After breakfast, it is time for an outdoor activity where the children can choose if they want to be in the preschool yard or the shared atrium yard where the elderly can join.

At 11 it is a gathering inside for both generations in the “middle room”. For one hour activity is made, examples of activities might be arts and crafts, a singing- or exercising session. At 12 it is time for a combined lunch. The residents or children who want to eat outside of the shared unit can easily do that in the divided areas.

At 14, after the resting hours, it is time for stories for the children who are awake. Here the elderly have the opportunity to read stories to the children, or just sit down and listen. If many children want to join the story time, the group can be divided into several smaller groups, since the sliding doors easily divide the spaces.

At 15, the Swedish Fika is served in the dining room. If it is good weather, the Fika can be served out in the atrium yard under the trees. At 16, the planned outdoor activity for children continues for the rest of the day until the young ones go home.

At the end of the day, the entire shared spaces belong to the residential care unit. During the evening the elderly can rest, enjoy the heat from the wood-burning stove or have the courtyard all by themselves.

The unit is designed to be flexible and general. The shared spaces between the units are designed with measurements allowing different type of furniture and activities. It is up to each operation what to do in the different zones. Below are examples of how the spaces can be combined and divided during a normal day. The dark grey color represents the children and the light the elderly. The white areas are shared.

One example of how the unit can be used

The children arrive at the preschool between 06 and 08 and eat breakfast in their unit. After breakfast, it is time for an outdoor activity where the children can choose if they want to be in the preschool yard or the shared atrium yard where the elderly can join.
DIVIDING SPACES

Different ways of dividing the spaces

The division to the right is a good base for which areas the preschool and which areas the residential care facility can be responsible for. The courtyard can be divided into two parts if the situation is needed. However, the staff areas will always be combined.

During some hours per day, there might be an interest from the operations to open the entire space for intergenerational meetings. The areas that cannot be shared are the apartments and the preschool unit.

To the right, the indoor spaces are maximised for the preschool. This type of division may be good during parent meetings or special workshops where the children should be divided into several groups. There is also a possibility for the entire courtyard to belong only to the preschool if it is needed.

If a new pandemic comes, there might not be much of a choice rather than divide the areas completely. In this case, the courtyard belongs to the elderly. The seasonal flu is another threat against especially the elderly, and then it is good for the spaces to work completely independently.

Another alternative to the pandemic situation is letting the courtyard belong to the children, while the rest of the area belongs to the elderly.

The floorplan of the unit is designed to enable the division of the spaces in several different ways. Below are some examples of how the spaces can be combined and divided. Use your imagination to come up with more alternatives. The dark grey colour represents the children and the light the elderly. The white areas are shared.

- Preschool
- Residential care
- Shared space

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- Preschool
- Residential care
- Shared space

- Preschool
- Residential care
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- Preschool
- Residential care
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- Preschool
- Residential care
- Shared space
CONCLUSION/DISCUSSION

“How can spaces within and around a care facility be designed to promote daily activities and spontaneous meetings between very young and old people to improve the physical, mental, and social well-being?”

This thesis investigates how architecture can promote interaction between very young and old people in a care facility. By defining the shared spaces, finding the common architectural elements for the user groups, and presenting united activities, the aim was to create a new type of concept that can be adapted into new facilities in the future. The end product is an attempt to implement the concept of shared spaces developed in this report into a design proposal on a larger scale and on a complex site.

There are many advantages and benefits with intergenerational care, however, the concept can also be problematic. For a successful sharing, there are many perspectives to consider. It can be difficult to understand how the spaces are used by the different user groups during the day, and therefore it is of great importance for a designer to understand their daily routines and activities. One of the biggest challenges with the concept is the infection risk, and it is important for the space to easily be divided in different ways depending on the circumstances.

In a concept like what this thesis suggests, the crucial part is the operations. Without the enjoyment from preschools and residential care operations, the concept will probably not work very well. Since it is important to define what space belongs to what user group, an uninterested operation will most likely end up only being co-located without very much interaction. Therefore, I believe that it is important for the building to be designed general, to offer variation, so the users and staff members can decide what kind of co-operation works best for them.

The biggest design challenge in the proposal was the chosen site. The souterrain collides with the concept of having three sides with daylight. The apartments in a residential care facility cover a large area, in other words, it is beneficial if the apartments are placed along at least two facade sides to avoid a too-long corridor. The preschool also needs daylight which means that it is beneficial to have daylight from three sides and therefore this type of concept is better to apply to buildings without a dark side due to hilly terrain.

What I think is extra interesting with this report is the way of design. During the spring I have researched a lot about existing buildings with this type of concept. There are a lot of international examples of intergenerational care facilities and all the buildings I have found have one thing in common; they are not designed for both user groups from the beginning. In most of the examples, there is a residential care facility from the beginning and some years later the preschool is built, or the other way around. This means that the user groups have adjusted themselves to the existing volume. This master’s thesis does the opposite, the building is designed for the users with the aim of interacting from the beginning.

The developed concept in this thesis is one way of designing, however, I am convinced that other good alternative concepts can be created in the future. There are probably several correct answers to the thesis question, and I am not saying that I have found the correct one. This thesis highlights the question of how our society is taking care of the aging population and that is what is most important.

If I would have more time to develop this thesis, I would research more about the existing programs for both preschools and residential care facilities, to come up with a more detailed flowchart and concept of how to combine spaces not only for health promotive reasons but also for economical. If I would do this thesis again, I would also choose to design a smaller building, to have time to work through the design one last time.

A good start for a new master’s thesis could be to work with how the spaces can be used more in detail during the day and night, to optimize the spaces in a more efficient way. If such a project was made, it would be very interesting to compare the findings from that concept with the findings presented in this thesis.
REFERENCE LIST


Illustrations made by author.
APPENDIX

Quotes from the process:

“I call the kids my medicine because they make me happy.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“In the last 10 to 15 years, places in residential care facilities have decreased dramatically. At the same time, the number of older people has increased. The entrance ticket to the accommodation is getting higher and higher, you must be really bad in order to get a place. It will not be very pleasant togetherness and other activities because you are a bit with one foot in the coffin when you come to a residential care facility.” - Anne Ekdahl, Chief physician in geriatrics at Helsingborg Hospital. (TV4, 2019, own translation)

“It is impossible to describe how my days are here at the residential care facility because we are not doing anything.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“Life gets pretty boring if nothing new happens, everything nowadays needs to be so safe. We can have a person in a residential care facility who may have been a war correspondent in his previous life and taken enormous risks. If you end up in a residential care facility, it may be the case that suddenly you are not allowed to walk outside to pick up the newspaper because the staff is afraid that you will stumble upon something.” - Ingmar Skoog, Swedish doctor and professor in Psychiatry. (TV4, 2019, own translation)

“It’s lonely in the care facility, no one wants to hang out. They do not talk. They are only sitting there, sleeping.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“It is a very nice accommodation here but I do not have much social exchange. I had a very nice friend here before but now she has started to forget, more and more, which makes it difficult for me. It can get lonely sometimes, especially in the evenings.” - Resident at Bagaregården residential care facility. (Personal communication, 2022, own translation)

“What’s an old person?”, “Someone who is walking with a stick”. - Child at preschool in Sweden, Mölndal. (Personal communication, 2022, own translation)

“When you are moving into a residential care facility, you may think that you will have lots of peers that you will be able to talk with, but since most of the others are very ill, and may have dementia, it will be difficult to have a conversation. Sometimes you may feel even more alone than before. Imagine having people around you, but not being able to talk to them.”- Ingmar Skoog, Swedish doctor and professor in Psychiatry. (TV4, 2019, own translation)

“My grandpa is so old... That he can’t even bend down to pick up something from the floor.” - Child at preschool in Sweden. (TV4, 2019, own translation)

“When I was young, the courtyards were full of children every day, they jumped with their ropes and played, but nowadays the courtyards are empty, I miss that. I get more alert and laugh more when I see children. They can come to me for a short time, make me smile, and then run away again.” - Resident at Bagaregården residential care facility. (Personal communication, 2022, own translation)

“I like old people because they can play with me.” - Child at preschool in Sweden. (TV4, 2019, own translation)

“I am very critical of dividing old people separately and the rest of the generations separately. I think you should try to introduce the elderly to children. We have time, middle-aged people don’t have it. Time is needed with children; they must be allowed to develop at their own pace. That is why I think we get along very well with the young people.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“I would like more movement in the care facility, it’s so quiet here.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“I hope that the residents will feel more meaningful when being with children, that they still have a place in society and actually still can contribute with something.” - Ingmar Skoog, Swedish doctor and professor in Psychiatry. (TV4, 2019, own translation)
“I think it’s good when we older people can be a part of things, I’m against just sitting and being a passive listener.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“I would love to read stories to the children because I’m enjoying reading. I would also like to plant in a garden with them, to teach them how that works.” - Resident at Bagaregården residential care facility. (Personal communication, 2022, own translation)

“I like to play hide and seek with an old person.” - Child at preschool in Sweden, Malmö. (Personal communication, 2022, own translation)

“I would like to read stories and watching TV with an old person.” - Child at preschool in Sweden, Malmö. (Personal communication, 2022, own translation)

“I would like to play football with an old person.” - Child at preschool in Sweden, Malmö. (Personal communication, 2022, own translation)

“I don’t like to throw a frisbee with an old person, they might get injured.” - Child at preschool in Sweden, Malmö. (Personal communication, 2022, own translation)

“I call the kids my medicine because they make me happy.” - Resident in care facility in Sweden (TV4, 2019, own translation)

“The best thing about lunch with the children is that I feel needed. It feels good. I can take it easy and quietly and I see that the children also need that. And I eat slowly nowadays, and it suits me very well.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“I think the concept of combining the elderly and children is very exciting and I was deeply impressed with how quickly the children made contact with the elderly, it only took a couple of days before they started looking for each other spontaneously. All we had to do was to expose them to each other, giving them the opportunity to interact, and that’s enough. That made me very impressed.” - Anne Ekdahl, Chief physician in geriatrics at Helsingborg Hospital. (Personal communication, 2022, own translation)

“Today there are several planned activities during the weekdays, but it would be ideal to create a community hub, both inside and outside, where children can play friendly and safe, and find different ways of interacting with the elderly all by themselves.” - Kathy O’Brien, Deputy Head Teacher at Apples and Honey Nightingale.

“I would recommend this type of project to others. A residential care facility should not be quiet like this. It’s more fun when there’s someone running around.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“I was sitting on the floor and playing with the kids, it was a way to make them happy, so I could be part of their game. But then it was hard to get up again and I had to get help getting up from the floor. The third time I’m on the floor playing with the kids, maybe I’m coming up myself!” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“Doing the intergenerational work is very exciting- the change we have seen in a short time in the residents has been amazing. All the regular spontaneous interactions with the residents are truly uplifting for us all. One of the residents, Fay, comes to see us as part of her daily exercise routine. She often races the children using her walker, while they run alongside her from within the playground.” - Relative to a resident at Apples and Honey Nightingale.
“The children are making it a little bit easier. Most people walking in that door never walks out. It’s depressing. The situation itself is such that you come here, and then you stay until you die. Of course, no one will be happy about that. It’s not good for me to sit here.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“The children are a kind of medicine, at least for me.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“I think it’s very useful for older and younger people to be together. I feel that I have become more physically active. I will miss the intergenerational project, there is no more to it. Therefore, I think that if it’s possible to do an intergenerational meeting a couple of days a week it would be good.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“It is the highlight of my week. I never had children of my own and I enjoy watching the children play and playing with them. It is such a joyful experience. I forget everything else going on and I share in their joy with them. One gentleman who comes never speaks to anyone else at all when he is upstairs. He doesn’t speak at all. But when he comes down here, he lights up and he does speak. He becomes himself and it makes me very happy to watch this.” - Resident at Apples and Honey Nightingale

“What we have seen is that the older participants seem to have a completely different self-confidence now. They are completely different from what we saw when we first met them. Having self-confidence is important at all ages, you feel that you are worth something. But considering that the self-confidence of the elderly can often be depressed, especially if you live in a residential care facility, it is very good that the children have increased the self-confidence of our older participants.” - Ingmar Skoog, Swedish doctor and professor in Psychiatry. (TV4, 2019, own translation)

“My mother has previously had a lot of anxiety and difficulty sleeping, now she calls and says in the evening that “now I will sleep well and be with the children all day tomorrow.”” - Relative to a resident in a care facility in Sweden. (TV4, 2019, own translation)

“I’ve never had children of my own, I’ve been out of England all my working life. I haven’t even seen my sister’s family. So, being with the kids is like being completely reborn.” - Resident at the intergenerational learning center in Seattle.

“It’s amazing how the project has enlivened me. It makes me feel like I enjoy living in this place and hanging out. It’s wonderful.” - Resident in a care facility in Sweden. (TV4, 2019, own translation)

“Just that old and young meet. Society in general is not made for it at all. It would be nice if a group of children could live in the same building. I think it would be good if you heard some laughter and screams, or that they run up stairs. It’s absolutely wonderful because they need us too.” - Resident in care facility in Sweden. (TV4, 2019, own translation)

“Me and my college have a dream about a preschool and a residential care facility in the same building and that you can have lunch and do other things together. That’s the dream. And that everyone can join, not just such a small group of people as in this experiment.” - Malin Andersson, Swedish preschool teacher. (TV4, 2019, own translation)

“I sit in my room all day long and so I thought I would like to come and watch the kids. And actually, I am a very good kid watcher.” - Resident at Apples and Honey Nightingale.

“I find watching the children play very stimulating. I can follow their thinking in their action and watching them problem solve and develop is very rewarding. I find it joyful and satisfying.” - Resident at Apples and Honey Nightingale

“I never had any children of my own, and now I feel I am a grandmother to so many of them. I have made wonderful friends and being with the children is the highlight of my week. When I arrived here at Nightingale, I was terribly depressed. I felt this was it, and I didn’t want to live. But now, I feel I have some use, and I have this joy of being with the children, and the whole nursery team. I visit with them, and I feel part of something that is truly wonderful.” - Resident at Apples and Honey Nightingale

“After this wonderful morning with the children, I could move a mountain.” - Resident in care facility in Sweden. (TV4, 2019, own translation)