

RETHINK THE SPACE

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ABSTRACT

For the past few decades, residential yards in the Swedish housing development have been the negative of the built volume, a space created as a result of something else, rarely something that has been in focus. It has been balancing on the edge between private and public, resulting in spaces with no true ownership and a hard read use. How is the residential yard affected by being accessible to the public and what purpose do the common spaces have for the residents?

With the leading research question being how can the architecture activate the residential yard and create space for social relations, this thesis will explore how the architecture can support an active yard and create a platform where the neighbors can meet and claim ownership. In addition, I will investigate how the yard relates to the dwellings, exploring the relationship between the private space and the common, social space. The importance of common spaces in a residential building will be investigated through literature and reference projects, which will serve as a base in the design proposal of the multifamily building in the city center of Gothenburg, Sweden. The proposal aims to create qualitative common space and housing for the residents, and create a defined cityscape, where the environment around the proposal is framed and more attractive.

The aim of the thesis is to create an innovative design proposal for a multifamily building where shared space and architecture is interweaved. This thesis underlines the importance of having common spaces in a residential building and create knowledge in how design affects the social life.

Keywords: social sustainability, yard, common space

MAIN QUESTIONS

How can the architecture activate the residential yard and create space for social relations?

How can the functions of the yard interact with the apartment layout?

PURPOSE

Residential yards are important spaces regardless of housing types. They are a big part of the neighbouring community since they are one of the few common spaces that the residents share. Because of the central location and the limited size of the site in Lorensberg, I want to explore how the relationship between architecture and yard.

AIM

The aim is to create an innovative design proposal for a multifamily building where outside space and architecture cooperates.

METHOD AND THEORY

I will investigate the role of the residential yard and the functions it possesses through literature and reference projects. Due to the location of the proposal, an investigation of the history and contemporary functions is required to understand the context. Through research by design I will apply the read material on the design proposal.

DELIMITATIONS

I have chosen to delimitate the thesis by leaving out the aspects regarding economy and construction.

STUDENT BACKGROUND



Educational background

Bachelor program in Architecture
Chalmers University of Technology
2015-2018

Master in Architecture and Urban Design
Chalmers University of Technology
2018-2020

Personal background

Raised on the countryside in Finland, I have always enjoyed the presence of nature and the possibilities of growing my own food. Since moving to a more urban context, Gothenburg, I instead started to appreciate the visual privacy that greenery can provide. These reflections on what I appreciate outside of my dwelling led me to the subject I will present in my thesis. I think it's important to understand both the interior and exterior spaces we create, not just one being the negative of the other.

THE YARD





Introduction

A residential yard holds a number of different functions such as social spaces, sound barriers, spaces for learning, growing food and providing visual awareness and anonymity. It can also possess recreational values such as qualitative views and practicing hobbies. It is one of the few spaces the residents share and plays an important part in creating social relations. Depending on the residents' interest, the way that they use the space differs. Jan Gehl simplifies in his book *Life between buildings* (2006) the three main types of outdoor activities; necessary, optional and social activities. Necessary activities are the everyday tasks such as going to work and waiting for the bus, I.e. the compulsory activities. Optional activities take place when exterior conditions are favorable and the individual got extra time to spend. Social activities are dependent on the presence of others in a common space, e.g. children at play, conversations, communal activities or passive contacts. Necessary activities are by their nature always present, whilst optional and social activities are signs of appreciated yards. The context, size and accessibility are important factors that plays a great part in how the space is used and experienced. When using the term *yard* in this thesis, I'm referring to the exterior space that is in direct contact to the building, that is common between the residents.



Figure 1. Birkastan, Stockholm. Storgårdskvarter on the left side and exploited yards on the right (Google earth 2019).



Figure 2. Järnbrott, Gothenburg. Built in the early 1950s, based on the idea of folkhemmet (Google earth 2019).



Figure 3. Big open lawns are characteristic for Miljonprogrammet (Hållbar stad 2017)

The role of the residential yard in Sweden

Until the early 1900s, the city blocks in the Swedish cities had been densely built and the yards were dark and cramped as a result of constant densification. During the 1910s, the housing crisis prevailed and the main question was how to create good housing, with limited resources, for the working families. The result was *storgårdskvarteren*, large housing blocks. Closed blocks with large, bright yard which compensated the small dwellings, normally one room and kitchen apartments (Eriksson, 2008). The yard played an important role for the residents, both as an extension of the private home, but also as a meeting ground for the neighbors.

Until the middle of the 20th century, the residential yard maintained its role as an important part of the dwelling with *folkhemmet*, low-rise multifamily buildings surrounded by semi-public yards. The yard became a compensation for those who could not afford to live in a single-family house (Kling, 2018).

In the mid-1960s the project to build one million new homes in ten years, *miljonprogrammet*, began. New construction methods provided the opportunity for large-scale construction, at a much higher pace than before. The target group was the nuclear family and the yards were designed to support that idea. Big lawns and playgrounds for the children became the standard, making the yards very monotonous and anonymous. The lack of understanding the importance and potential of the yards led to a commitment to environmental improvement in the 1980s and 1990s, where landscape architects tried to create more pleasant environments in dialogue with the residents (Kling, 2018). As of today, the most common type of household is single without children, making these areas poorly adapted to present times due to the lack of social spaces fit for adults (Boverket, 2008).



Figure 4. Binh House by VTN architects in 2016 (Archdaily 2017).

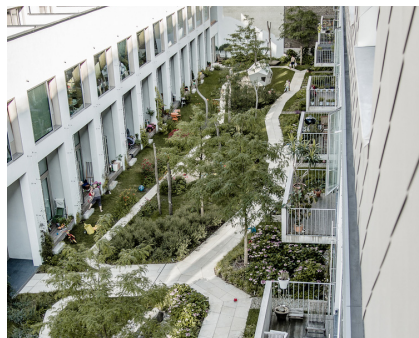


Figure 5. BIGyard (Zanderroth Architekten, 2010).



Figure 6. Charlottehaven (Lundgaard & Tranberg, 2004).

For the past few decades, residential yards in the Swedish housing development have been the negative of the built volumes, a space created as a result of something else, nothing that really has been in focus. The yards are very often a grey zone, neither private nor public, creating spaces that are difficult to use and difficult to determine if the space is shaped to enhance the public environment or to be used by the residents. There are however projects, both national and international, that have had the residential yard in focus in the design process. Depending on the scale of the project the concept of a yard and the desired outcome differs, but I am going to name a few interesting projects in different scales.

Small scale

Binh House (2016), Vo Trong Nghia Architects. The Vietnamese office have done multiple projects when they are integrating greenery into residential buildings. In the project Binh House, a single family house set in a densely built neighborhood, they worked with greenery as spatial dividers and visual disconnectors. The social spaces are mostly interior, defining them by surrounding the ground floor and glazed parts with plants fit for that purpose.

Medium scale

BIGyard (2010), Zanderroth Architekten. The joint building venture in Berlin consist of 45 apartments with a common narrow courtyard, only accessible by the residents. The private outside spaces are kept to the balconies and roof terraces, emphasizing that the yard is a common, social space. The apartments accessible from the yard are slightly raised, creating both a visual separation from the common and private space as well as creating a seat where residents can sit down and take a cup of coffee together.

Big scale

Charlottehaven (2004), Lundgaard & Tranberg Arkitekter. 222 dwellings, a hotel and a preschool share the big yard in Copenhagen. High grass, trees and paving create smaller spaces within the yard. The great size also holds a flexibility; multiple activities can partake simultaneously.



Figure 7. Bench outside of a dwelling.

PUBLIC AND PRIVATE

Eva Minoura points out in *Bostadsgården - Territoriell Arkitektur* (2019) that privacy is a complex concept and very multifaceted. It can refer to an individual sensation that one is protected from the observation of others, or feeling anonymous by being one in the crowd. It can be more practical - a space that is inaccessible for the public, either owned by an individual or shared by a group. I will discuss the relationship between public and private spaces connected to the yard.

The yard also affects how the interior spaces are experienced. Within the building, the door to one's apartment is a defined social border separating the private life from the neighbors and neighborhood (Olsson et al. 1997. p 36-37). It physically and usually visually separates the common spaces from the private whilst the visual connection between inside and outside through windows is continuous.

Generally, the higher up the more unchangeable is the connection between inside and outside. The lower the more changeable is the connection – affected by the use of others in the surroundings. A ball bouncing against the window and neighbors passing by makes the connection obvious and can affect how private the interior is experienced. Preferably, the rooms of the dwelling with a more public or social character is to be placed towards these spaces, keeping the intimate spaces of the dwelling protected.

Accessibility

Depending on how accessible a yard is, accessible in the sense of who's having access to it, affects how it is used and experienced. Accessible yards are often described as inviting and pleasant but the designer must question if it is the appreciation of outsiders that is the purpose or if the aim is to create a space that is appreciated by the ones who actually live there. Historically, the residential yard was a compensation for those who didn't afford living in a single-family house with their own garden (Kling, 2017). It was a space made for the residents to use and manage. A yard that is publicly accessible results in an unclear territoriality (ownership) where the residents don't have control over their outdoor environment (Minoura, 2019). It is also very much a question of safety; you can leave your bike on the yard without worrying that it will be stolen or a parent can let their child play outside without supervision. A yard that only is accessible to the residents tends to have a higher chance of creating social relationships between the neighbors, than a yard that is accessible for everyone (Olsson et al. 1997. p 71).

The separation between the public space and the yard can be formulated in a number of ways. It doesn't necessarily have to be a physical separation, the way the building is shaped, greenery, minor differences in height and the surrounding can give the experience of a closed off space, but the possibility that others will use the space remains. Having defined boundaries are not so much about not letting outsiders in, more about creating spaces that the residents have control over and feel as theirs (Minoura, 2019, p.61).

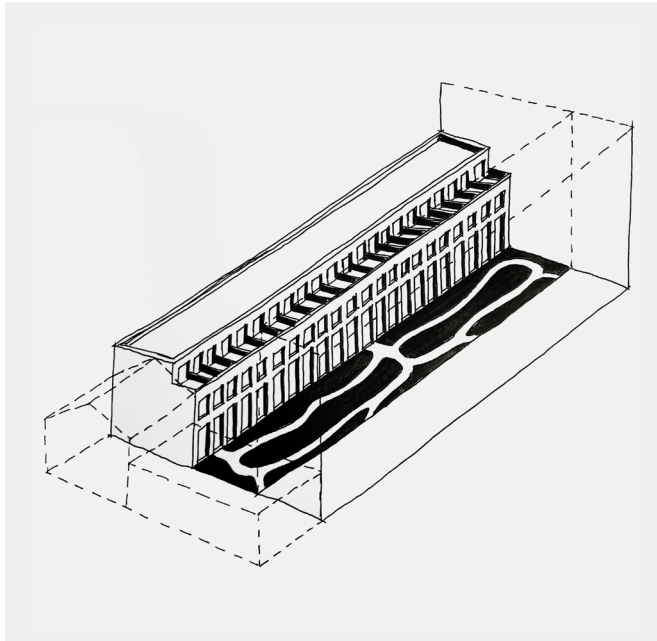


Figure 8. BIGyard by Zanderroth Architekten in Berlin.

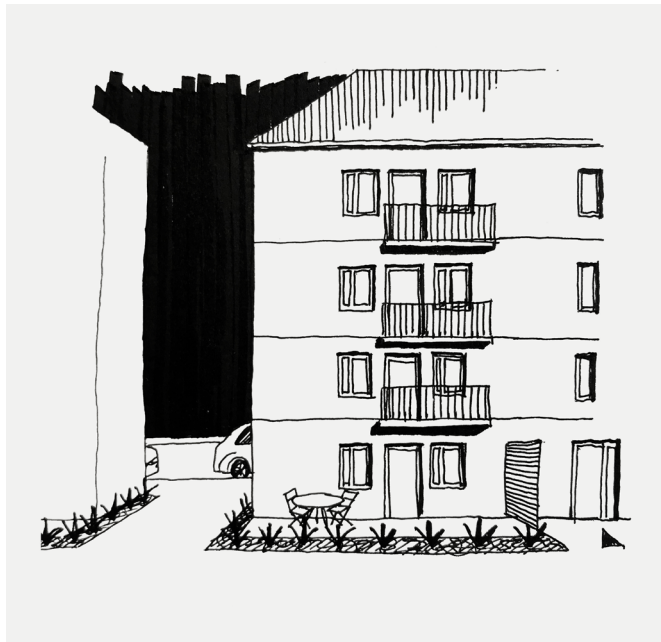


Figure 9. Residential block in Hägersten.

Private exterior spaces

As earlier mentioned, privacy can be achieved in multiple ways but the type of privacy may differ. I will discuss private spaces by comparing a residential area in Hågersten (2012) and BIGyard in Berlin (2010). The yard in the joint building venture BIGyard, can be described as private space even though there are 45 apartments sharing it. The private space can in this case, be described as a space only a few have access to since it's completely cut off from the public.

Balconies are also private exterior spaces of which only the ones living there have access to it. The feeling of privacy can vary depending on the location and height, but in general these are private spaces outdoors. Common factors for both BIGyard and the balconies in Hågersten are that they are unreachable and only accessible to the user(s).

Both projects have ground floor apartments, but the ownership of the space outside the apartment is completely different. BIGyard has no individual patios on the yard, emphasizing that it is a social and common space. In Hågersten, the common area is somewhat offset to accommodate individual patios for those living on ground level. Here, the patio is defined by wooden planking and flowerbeds to separate the private from the rest, it is separated but still accessible. The block is broken up, making it possible for anyone to enter and walk next to the patio. Jan Gehl writes in *Life between buildings* (2006) that a convenient distance to hold a conversation with little effort is within seven meters, which suggests that the user of the patio can suddenly be within the radius of a foreign conversation involuntarily. Since it is located at the same height level, the visual proximity to the surroundings is also very noticeable. The patio was seemingly designed to be a private space, but doesn't in my opinion succeed.

To summarize, if the vision is to create a private exterior space, the architect needs to understand the conditions and demands of the site in order to achieve a satisfying result. A yard that is accessible for everyone needs stronger marker to separate the private patio from the public space than what a common one needs. The sense of privacy can be achieved through distances, visual protection and seclusion. The sensation of privacy can also be felt by an individual if the yard is big enough to host several activities simultaneously, one is "one in the crowd". This is not as a result of the framing of the space, purely about size.

**“Locking is
stealing a
piece of
the city
from others”**

(Olsson et al.,1997, p. 150)

In the central parts of Sweden's old cities, closed blocks are a common sight. The building layout creates a courtyard that is automatically separated from the public space. In order to achieve the same result with other typologies, framing such as fences, walls, gates or hedges, are required to separate the public space from the yard. Those kinds of frames can be perceived as statements, as they are clear ways to keep others away from an area that without framing one would have had access to. Fences and gates added at a later stage by the residents to separate the yard from the public space are common sights (Minoura, 2019, p.38) in multifamily neighborhoods. This is a consequence of architecture that doesn't support the purpose and the result can contribute to an unattractive environment, since the residents don't consider the surroundings. Closed blocks, on the other hand, can be perceived as more natural, one doesn't know what's inside thus making it harder to understand what one "loses".

The site in Lorensberg have such a great historic value that I want to keep the functions on the ground floor completely public, it should be a space for everyone as it has been historically. Having control over a space by limited access implies that others can't use it, but the question once again re-emerges, for who is the residential yard made for? An elevated yard would create a space that is common among the neighbors whilst the ground floor is kept public. This would result in a space only the residents have access to, without jeopardizing the surrounding feeling private.



Figure 10. Hip hip hurra! Kunstnerfest på Skagen (Krøyer 1888).

THE YARD AS A SOCIAL SPACE

The common spaces, neighborhood arenas, are important when creating social relationships. Stairwells and laundry rooms are spaces where social interactions between the neighbors may occur, however, it is not their main purpose. The yard on the other hand is a space made for socializing and is one of the few spaces that are common with the rest of the neighborhood, making it a vital part in creating these relations. It is also a space where mutual interest such as growing vegetables, practicing hobbies or play can bring the residents together. Activities such as these puts demands on the yard, where factors such as size, context, exposure and access to daylight are crucial. Having a defined space where the residents can meet and get to know each other also affects the how safe the residents feel. Aspect like knowing the neighbors, having a pleasant social environment, having control over situations concerning the common spaces and the building as well as creating a safe environment are important for the residents (Olsson et al. 1997. p 47-50).

Different activities - different needs

Some spatial features such as spaciousness and size affect the type of use while clear boundaries affect the sense of belonging. Activities such as play and cultivation requires a yard that is spacious enough to allow these to take place simultaneously. In order to feel belonging to the yard, however, clear boundaries are required, so that those who have access to the yard have the opportunity to create relationships between the neighbors and feel that the space is theirs to manage (Minoura, 2019, p.63). Placing cultivation boxes on the roof can be beneficial, as they have access to sunlight and delay rainwater runoff, keeping activities such as play and sports closer to the ground level.

The age of the user also puts demands on the environment. The most frequent users of the yard are the ones with limited mobility; seniors and young children (Minoura, 2019, p. 59). Young children need a safe environment, preferably a framed space where the parents are in total control whilst older children can roam more freely in the proximity of the home, without parental supervision. Seating near the entrances serve a functional use as well as social, as it can be a suitable place for elderly to meet and socialize without having to walk a great distance.



Figure 11. Brf Viva is located in Guldheden, Gothenburg. The yards are located a few floors down, making them only accessible to the residents (Riksbyggen 2019).



Figure 12. Openings on the exterior corridors gives a far stretched view over the surroundings.



Figure 13. The yard follows the terrain and are connected via passageways and bridges, keeping the nature-like environment.

Activating common space

The project emphasizes the common social spaces. The exterior corridors activate the facades and combines compulsory and social activities, which makes them an important part of the creation of social relationships. By having the corridors facing the yards and the private balconies on the opposite side, there's a clear separation between the common and private spaces. The residential yards are set a few floors down, accessible via locked elevators and stairwells, marking them as a space solely made for the residents. They are characterized by the nature and are adapted to the topography with a variety of walkways and paths. In addition to the active facade a residential yard, there are a great number of other spaces that are shared amongst the residents. A bike-hub, orangery, greenhouse, workspace for distance-work and spaces for gatherings are some of the spaces where the residents can meet and bond (Riksbyggen, 2019, p.14)

“One of the greatest qualities in brf Viva are the built-in solutions for spontaneous meetings and conversations. The exterior corridors are one of the examples of social stops.”

(Riksbyggen, 2019, p.12)



Figure 14. Solhusen in Gårdsten have combined laundry rooms and greenhouses (Nordström Kelly Arkitekter 2000).



Figure 15. The cultivationboxes in Gårdsten (My New Desk 2017).

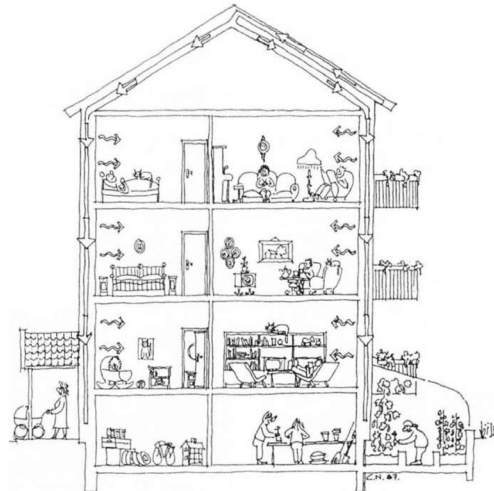


Figure 16. Sketch of Järnbrott by the architect (Nordström & Nordström 1991).

Combining functions

The area in northeast Gothenburg was built in 1969-1972 but quickly became a troubled area due to the lack of workplaces and communications. During 1999-2000, great reconstructions were made, with the help of the EU-project Sunshine, for technical-, living- and environmental improvements (Vidén & Botta, 2006). Three of the buildings had the laundry rooms relocated from the basements to new, bright and more accessible spaces on the ground floor. Greenhouses, big enough to host cultivation spots for all households, were built in connection the new laundry rooms. The combined functions were an attempt to create more pleasant and active environments for the residents.

The same office made another similar project in Järnbrott, Gothenburg, that was finished in 1986. Many of the residents lacked knowledge of cultivation, which led to the initiative to have a study circle where residents could exchange skills. The interest grew and the cultivation increased in size and extended outwards over time (Nordström & Nordström, 1991). It created an identity in the area and came to create a strong solidarity amongst the residents. It is a great example of the social qualities of common spaces.



THE SITE

The site marked in black.





The site is located in the city center of Gothenburg, Sweden, in the crossing of Södra vägen and Berzeliigatan. It is located in the midst of cultural expression, having the city library, city theatre, artmuseum and konserthall next to it.

I chose to work with the site because of the pocket in the cityscape that it creates. Due to the limited size of the plot and the central location, I want to explore how common spaces between the residents can be created and how these spaces would relate to the dwellings.



Figure 17. The site is as of today a parking deck, holding 286 spots (Google earth 2019).



Figure 18. The Lorensberg Circus, photo taken 1969 from Södra Vägen (Göteborgs historia 2019).



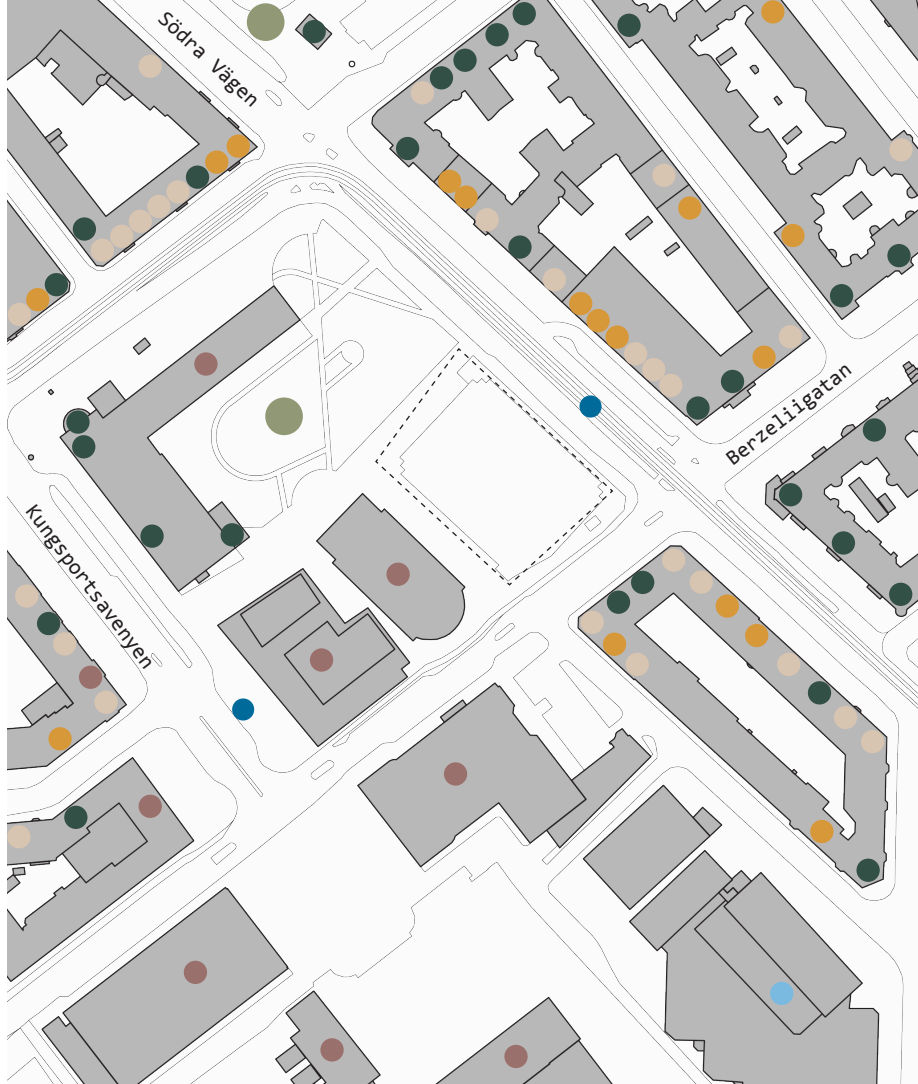
Figure 19. The parkingdeck as of today.

History

The site has long been a center of entertainment and culture. It has previously hosted a dramatic theater, Lorensbergteatern, a revue theater, Folkteatern, a circus, a park and an esteemed restaurant. Beside the park was also a riding track, shooting range and music pavilions, which made the location a popular and esteemed place among the Gothenburg citizens (Bogestad, 1994). Today only Lorensbergsteatern is left.

The first Circus building was erected in 1884, then rebuilt in 1900 after a fire. It was originally used to house traveling circuses, but was also used for other events such as political meetings, boxing matches, free wrestling and more. Folkteatern burned down in 1942 and the business moved over to the circus, where it was housed until the demolition in 1969 (Svensson, 2019). With the move, the focus was more focused on revue and theater, where well-known Swedish artists appeared as guest players. The building began to get worn-out and was demolished in late 1969. The site stood empty for a long period and a debate figured around the site and its historical importance to the city. There were plans to build a movie theater on the site, but was later built in Heden. In 1994, the municipality granted a temporary building permit of 10 years for a parkingdeck, which lit a new spark in the debate of the site (Bogestad, 1994).

In 2016 the municipality held an allocation competition, with the ambition of creating functions contributing to the public life and dwellings. The central location and the historical values makes it an attractive and interesting site to explore.



Recreation



Entertainment



Restaurants



Education



Shops



Bus & Tram stops

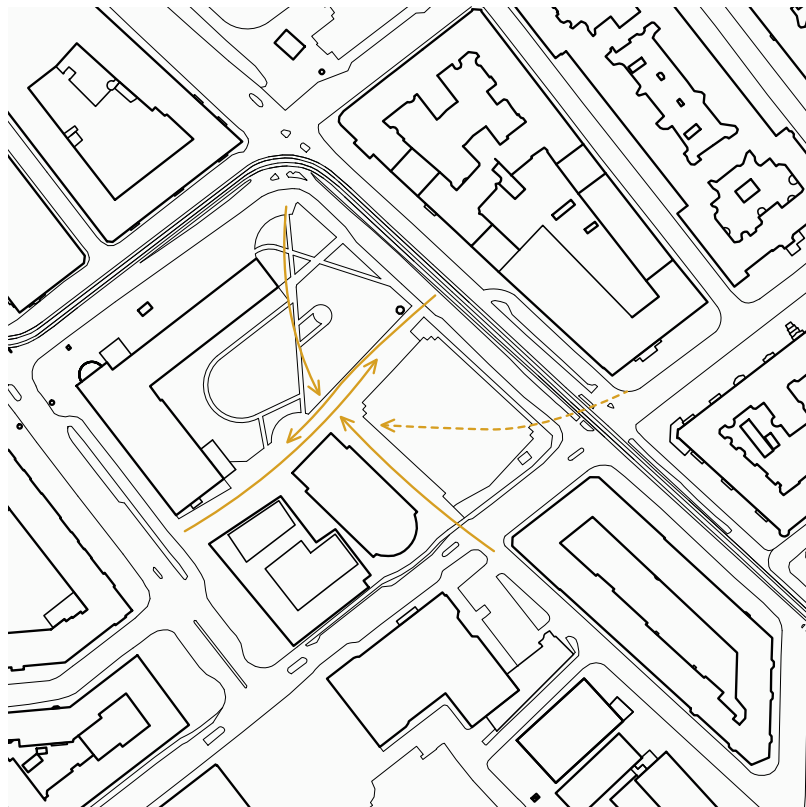


Health & Costmetics

Functions and Services

The buildings on the site have highlighted ground floors by separation of materiality and/or raised floor height of which the majority of the commercial spaces and functions are set. The surrounding functions and services are typical of a location in a city center, having a wide range of services in a short radius. The pocket in the cityscape that the parking deck forms is a great contrast to the very well defined blocks in the surroundings, also contributing to Lorensbergsparken appearing as a backside rather than an asset.

Since the, still active, Lorensbergsteatern holds a great historical value to the site and having its entrance facing towards the park, I want to make it more present in the cityscape by making one additional path from the crossing of Södra Vägen and Berzeliigatan.



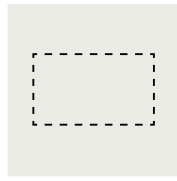
Movement on the site. Solid lines displaying the existing movement, desired additional movement marked as dashed.



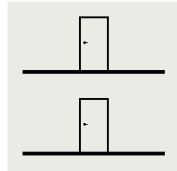
Figure 20. Visualization of the proposal taken from Södra Vägen.

DESIGN PROPOSAL

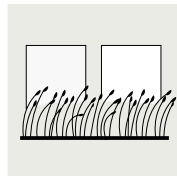
Design Methods



Framing the space. Marking a clear ownership. Creating a space which where the residents can tie social relations.



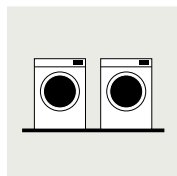
Exterior corridors, activating the exterior space.



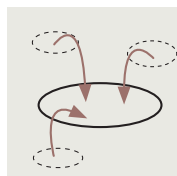
Greenery as a visual disconnect, framing interior spaces.



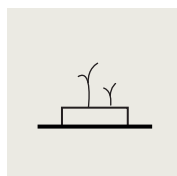
Circular paths making infinite movement possible.



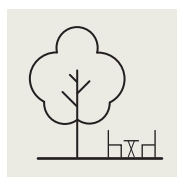
Common functional spaces in direct contact to the yard.



Private balconies will be smaller to activate the common exterior spaces.

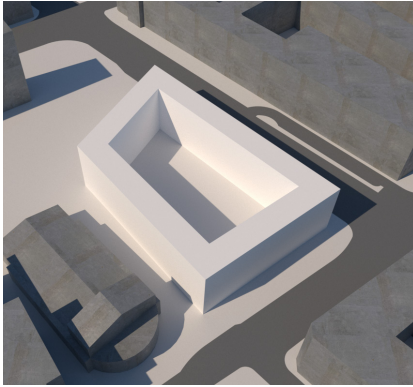


Growing food in proximity of other activities

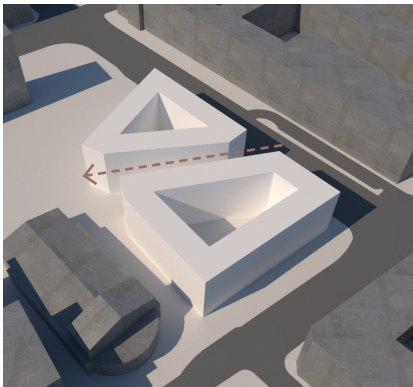


Qualitative and attractive spots near the entrances, supporting the ones with limited mobility.

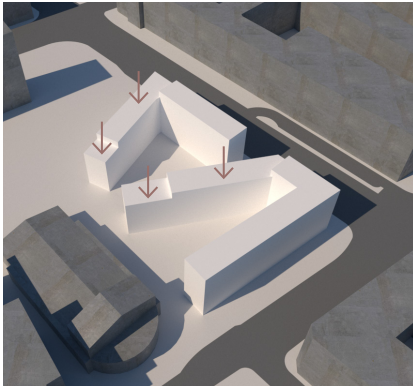
Volume Concept



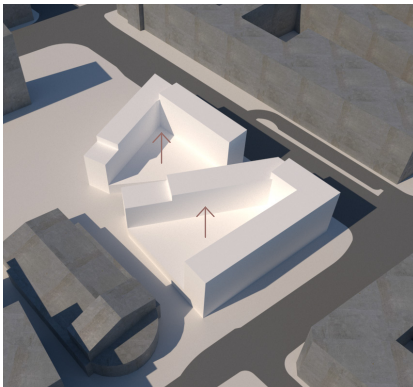
Main volume.



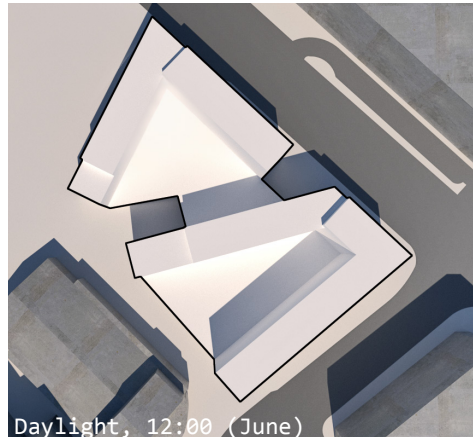
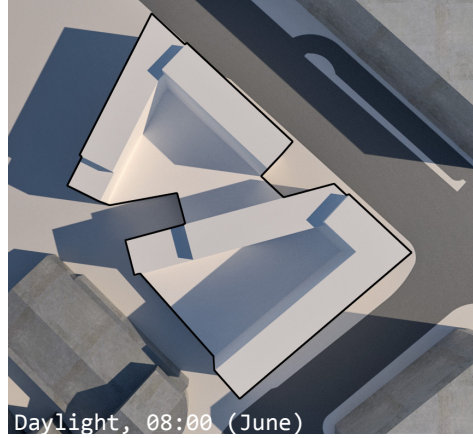
Opening up to allow movement towards Lorensbergsteatern.

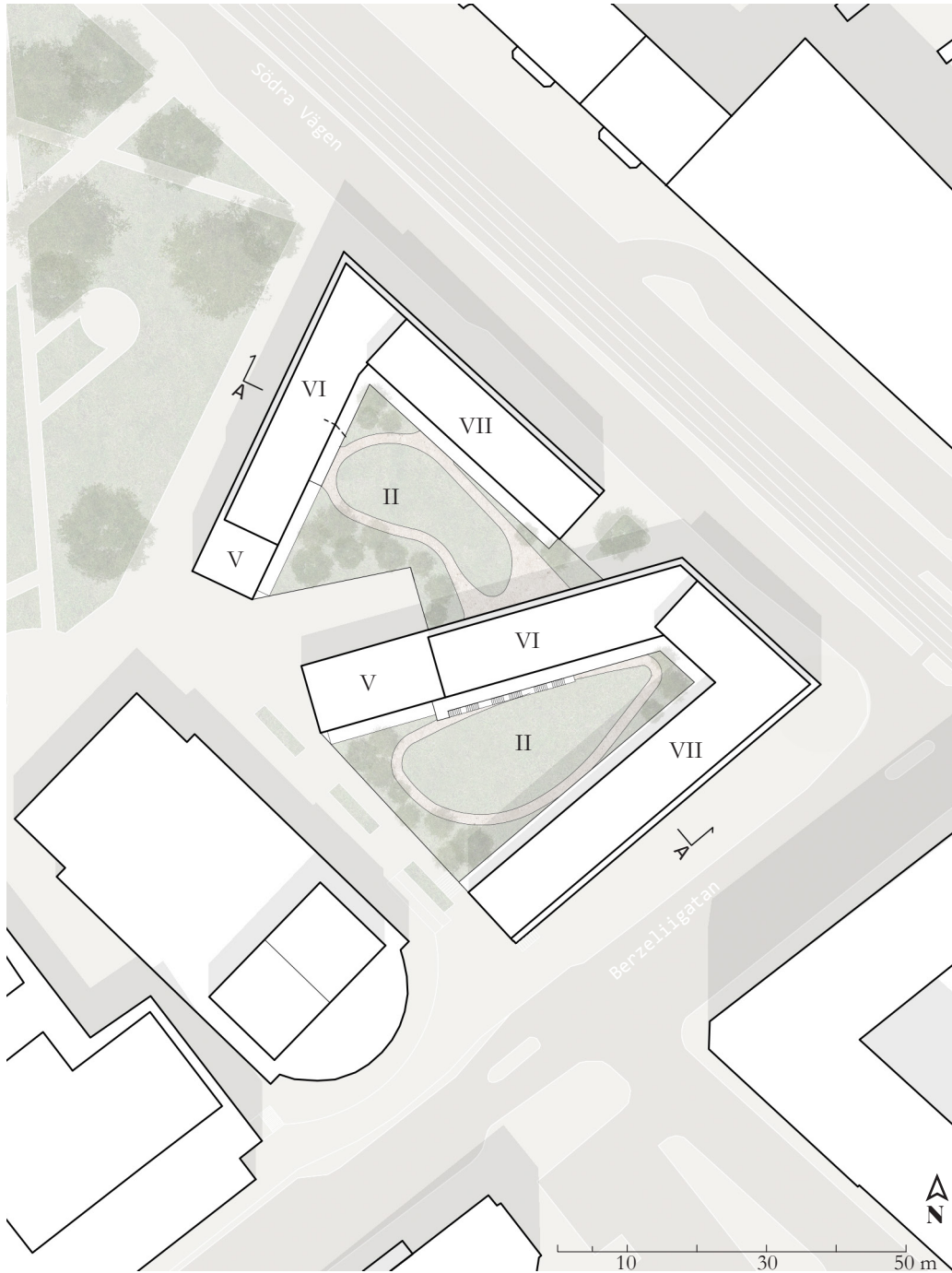


Differences in height to shield from noise and to allow daylight to access the yard.



Raised the residential yard to separate it from the public space.



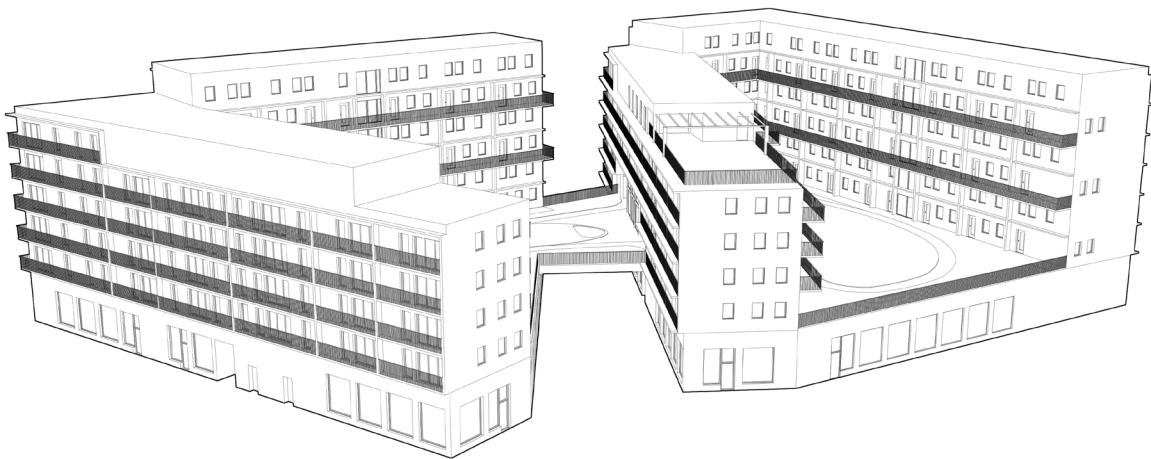


Site plan, scale 1:1000

The volume is shaped to maximize the amount of sunlight accessing the yard as well as shielding it from the noise coming from Södra Vägen and Berzeliigatan. The cut of corners of the two volumes makes the movement more natural in between the buildings for the ones passing by. It also makes both Lorensbergsparken and the theatre visible from Berzeliigatan.

The residential yard is placed on the second floor, where the two volumes are connected by a bridge. This results in a bigger yard and a greater space that always have access to daylight. The raised yard creates a space with a defined ownership, a place made solely for the residents.

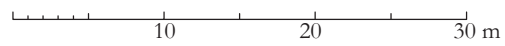
Exterior corridors towards the yard will activate the exterior. The ones parallel to Södra Vägen and Berzeliigatan are set to every second floor giving access to the duplex apartments. The rest are set on each floor.



Perspective of the proposal.



Ground floor, scale 1:500



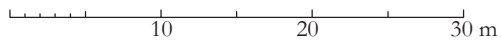
The first floor hosts commercial spaces in varying sizes to achieve a variety of services, contributing to an active city life. The space in the south building facing the crossing Södra vägen and Berzeliigatan, have an internal staircase and elevator reaching to the top floor, making it fit for either a big office or multiple smaller ones.

The entrances to the residential spaces are pushed in to separate them from the commercial entrances. From the residential entrances, bike storages, environmental rooms, technical rooms and storage units can be reached.

- | | |
|---------------------------------------|---|
| 1 Restaurant 313 m ² | 13 Commercial space 140 m ² |
| 2 Commercial space 50 m ² | 14 Office space 60 m ² + 6 x 83 m ² |
| 3 Commercial space 156 m ² | 15 Commercial space 75 m ² |
| 4 Commercial space 50 m ² | 16 Commercial space 100 m ² |
| 5 Commercial space 50 m ² | 17 Commercial space 50 m ² |
| 6 Commercial space 152 m ² | 18 Commercial space 103 m ² |
| 7 Commercial space 95 m ² | 19 Bike storage |
| 8 Commercial space 112 m ² | 20 Environment room |
| 9 Commercial space 166 m ² | 21 Technical room |
| 10 Commercial space 50 m ² | 22 Storage units |
| 11 Commercial space 50 m ² | 23 Commercial space 400 m ² |
| 12 Commercial space 64 m ² | |



Second floor, scale 1:500



On the second floor, the first residential floor, the 2000 m² common yard is located. The paths are circular and connected in a way that there is no start nor finish, making the movement continuous. Seats are located near the elevators, making them accessible and easily reached by the ones with limited mobility. Having them connected to the paths, everyone can participate on the activities taking place on the yard.

A social hub is located in the connecting point of the paths, where common activities, cultivation and hobbies naturally can take place. On top of the hub, on the third floor (page 50) a common gym is located. On both sides of the hub and in the northern staircase, are common laundry rooms to increase the activity on the yard, making compulsory and social activities meet. From the hub, the residents can take the exterior staircase to the sixth floor where the common roof terrace, living space and sauna are located.

Inside of the paths are lawns, suitable for activities of a more physical character. They are framed by dense greenery with a nature-like appearance, serving a more recreational purpose. The openings on each side of the hub are two stories high, letting the movement and activities naturally continue on both sides.



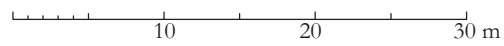
Figure 21. Visualization of the residential yard, marked (A) on page 46.



Figure 22. Visualization of the residential yard, marked (B) on page 51.

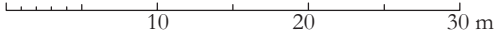


Third floor, scale 1:500



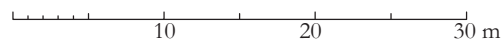


Fourth floor, scale 1:500





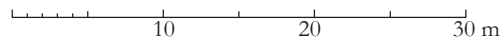
Fifth floor, scale 1:500





Storage units for the north volume are located on the sixth floor. In the south building, a common roof terrace, livingroom with kitchen and sauna are located. Glass panels can be attached to the existing beams over the roof terrace, creating more space for growing food, if the residents show interest.

Sixth floor, scale 1:500





5 10 m

Section A-A, scale 1:250





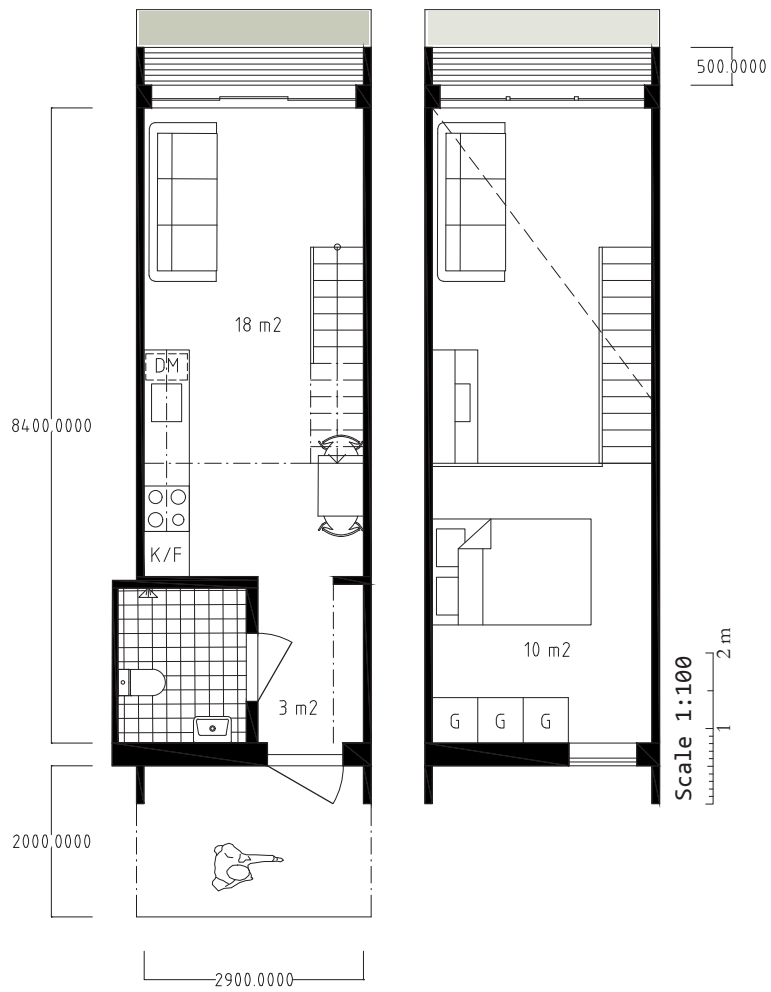
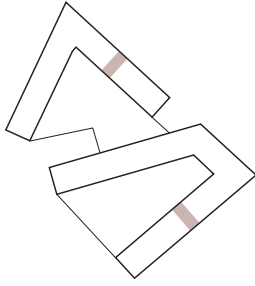
Figure 23. Visualization of livingroom, marked (C) on page 61.



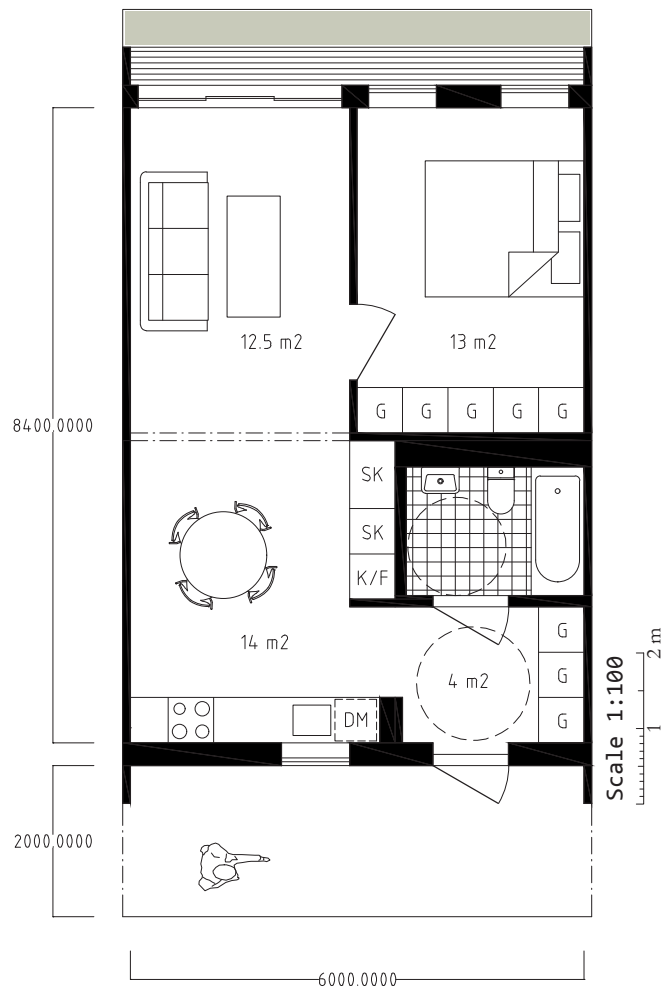
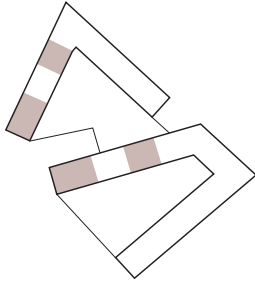
Figure 24. Visualization of the private balconies.

The dwellings vary in size, but one thing they all have in common are the folding doors leading out to the balconies. The balconies are narrow, made as a place for short term usage - making the common exterior spaces or the roof terrace more appealing as a space to spend a longer period of time on. The balconies are framed by a narrow strip of greenery to provide some privacy and delay the rainwater runoff. Wooden panels separate the both balconies from each other as well as defines each dwelling on the exterior corridor.

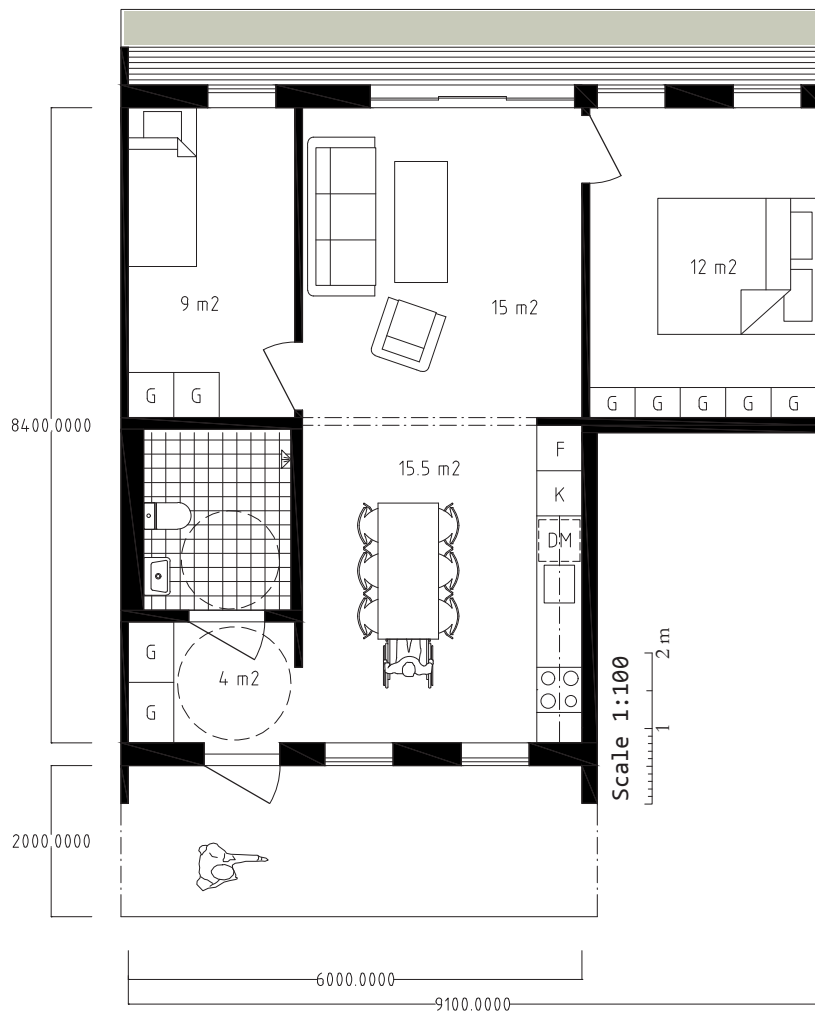
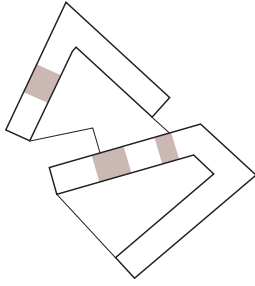
The spaces of a more social character in the dwellings are set towards the corridors and the bedrooms are located on the opposite side of the exterior corridors, or as in the case of the studio and duplex apartments, on the upper floor, to achieve privacy.



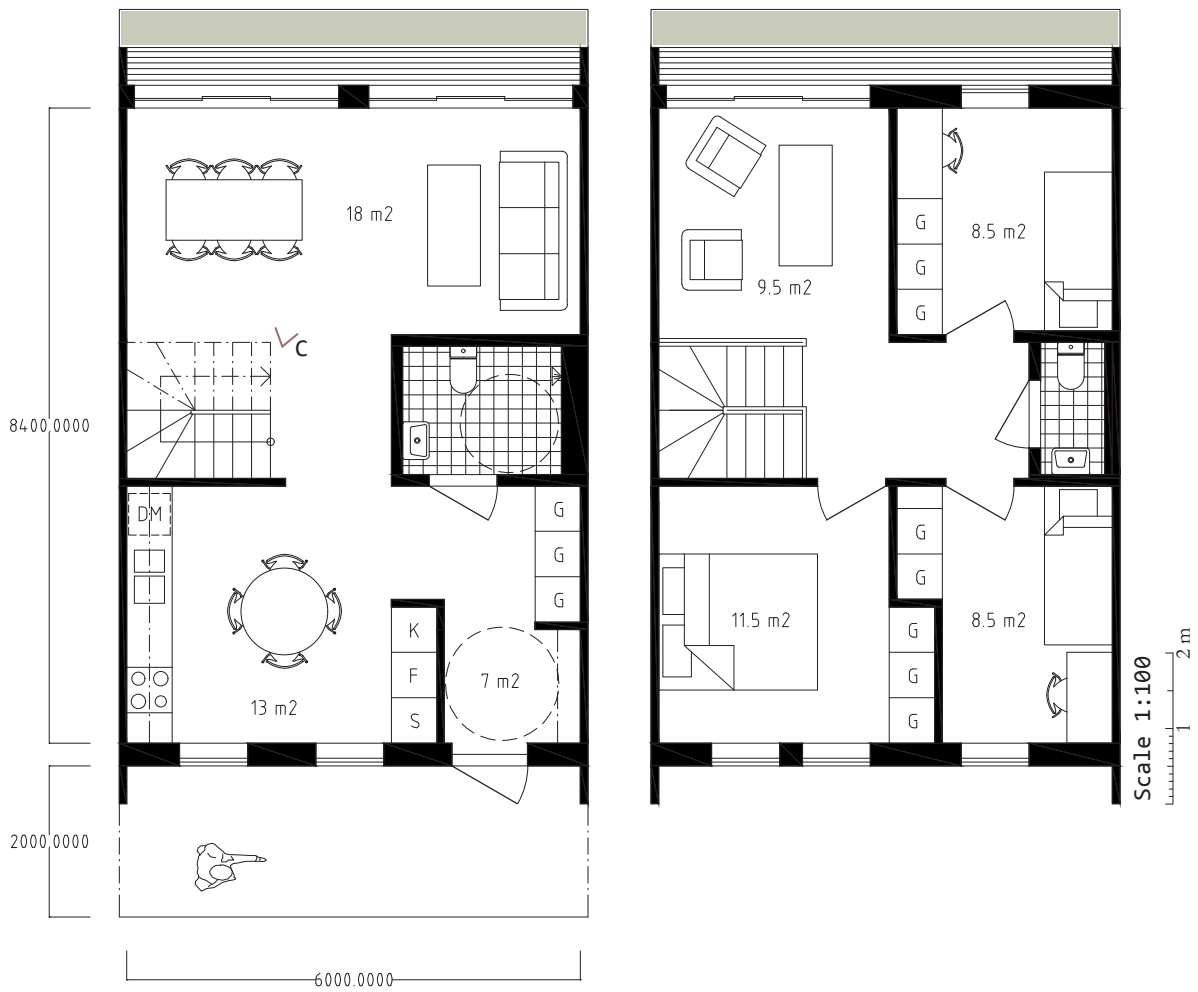
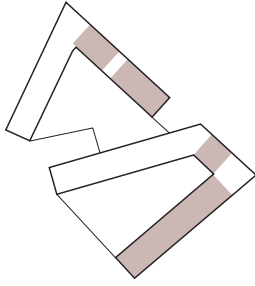
Studio apartment - 35 m²
Number of units: 6



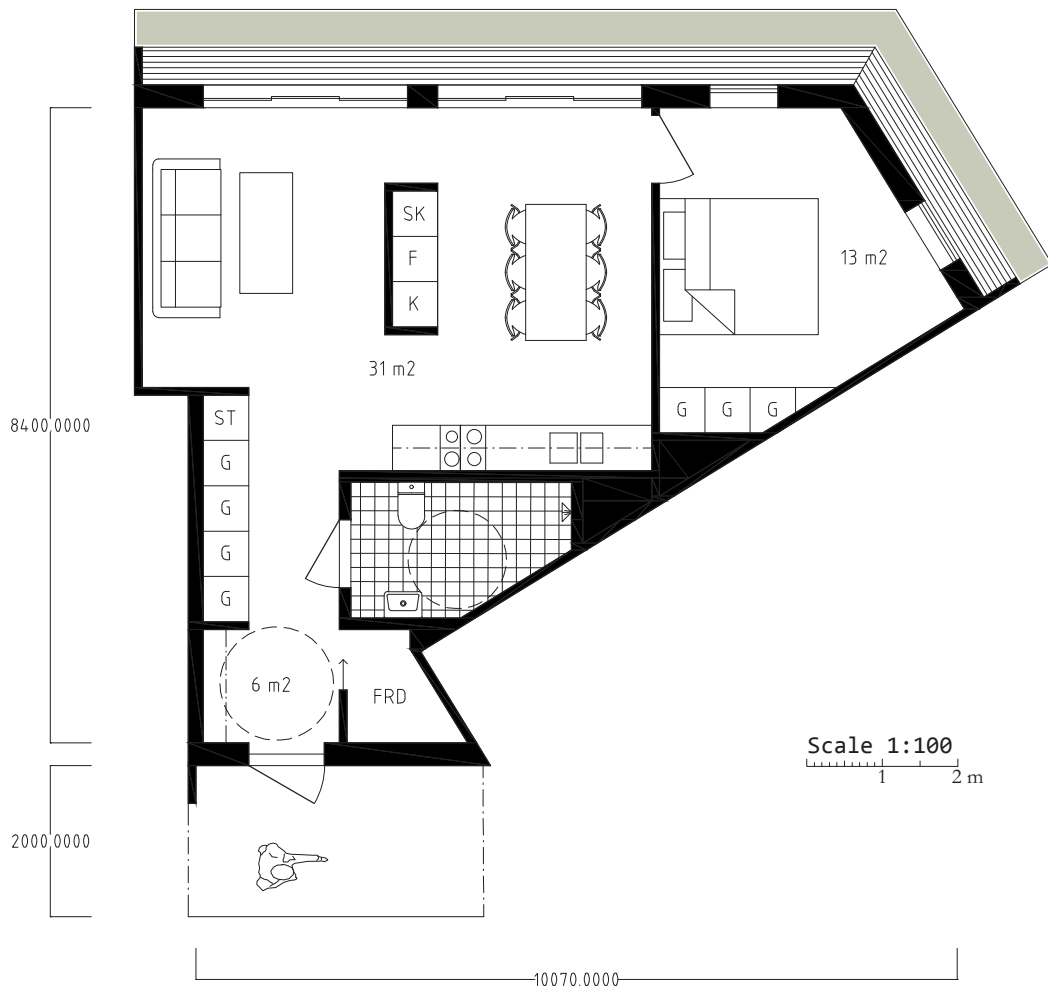
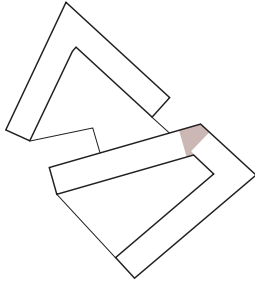
Two room apartment - 50 m²
 Number of units: 24



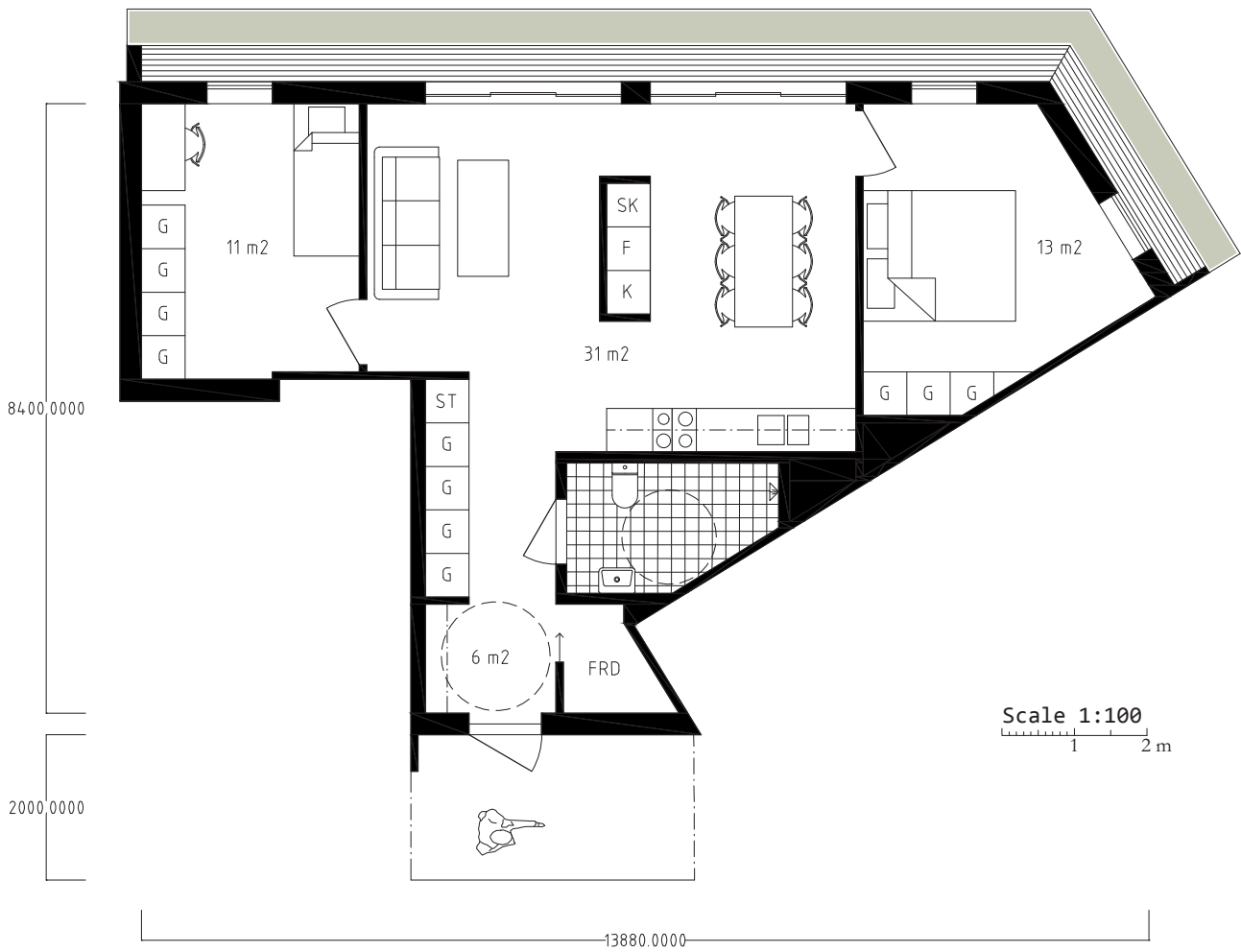
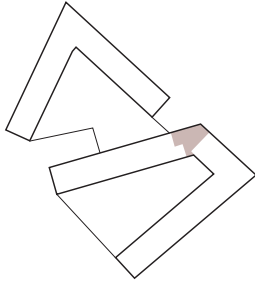
Three room apartment - 61 m²
 Number of units: 15



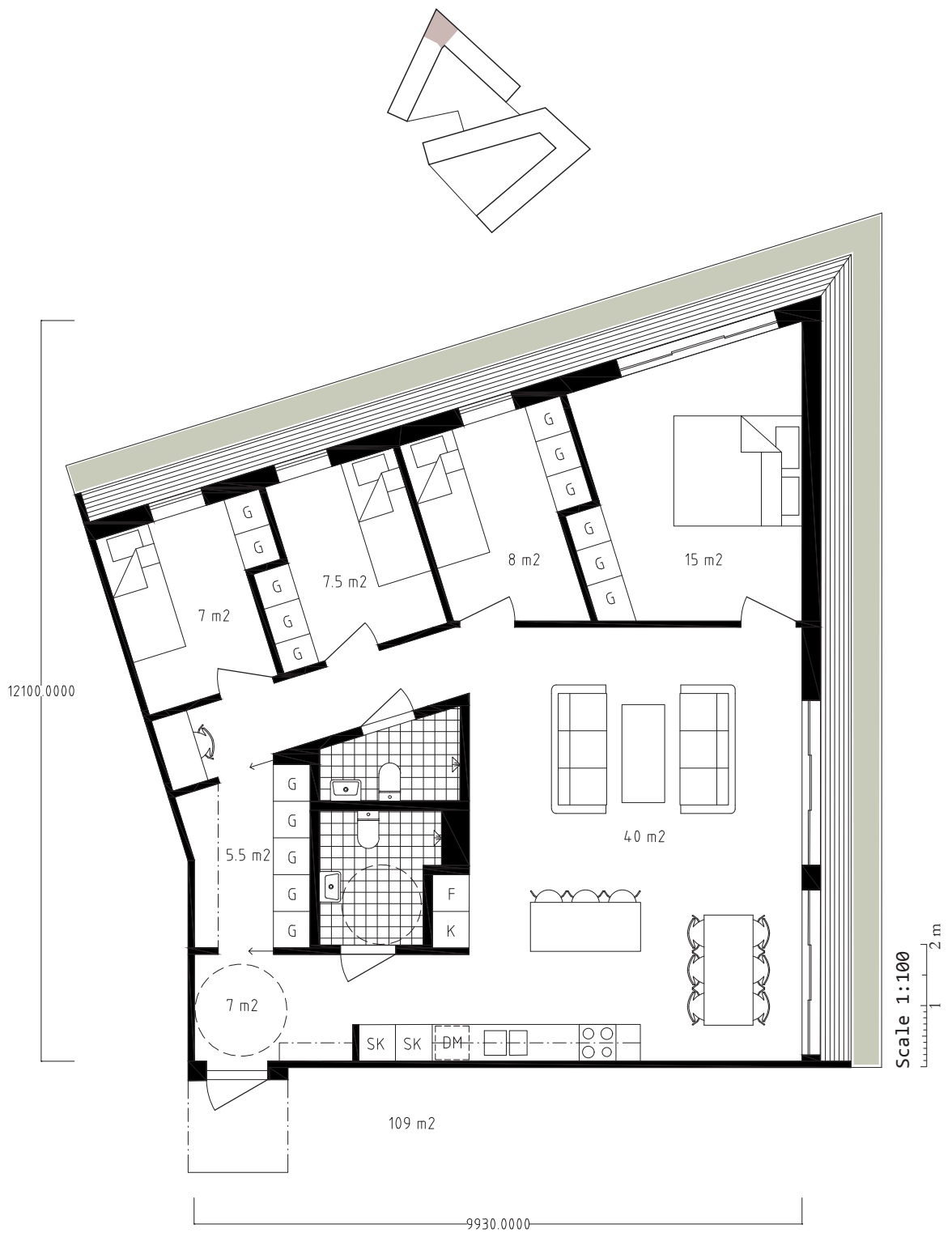
Five room apartment - 96 m²
 Number of units: 39



Two room apartment - 58 m²
Number of units: 4



Three room apartment - 70 m²
Number of units: 1



Five room apartment - 109 m²
 Number of units: 5

Studio apartment - 35 m² (page 58)

The studio apartment is the smallest of the apartments. The social spaces are located on the entrance floor and the bedroom is situated on the upper floor, with a window facing the yard. Since it is adjacent to the other duplex apartments, there is no exterior corridor outside the bedroom window, creating a private interior.

Two room apartment - 50 m² (page 59)

The second most common apartment. The kitchen and living room forms a clear social unit and the bedroom is placed behind the toilet, hidden from the views of the exterior corridor.

Three room apartment - 61 m² (page 60)

Behind the staircases, the two room apartments are extended by a room, creating a three room apartment. The center of the apartment holds the social spaces with bedrooms on each side of it.

Five room apartment - 96 m² (page 61)

The most common apartments in the proposal are the duplex apartment. Just as in the studio apartment, the social spaces are located on the entrance floor, having contact with the exterior corridor, keeping the private spaces situated on the upper floor.

Two room apartment - 58 m² (page 62)

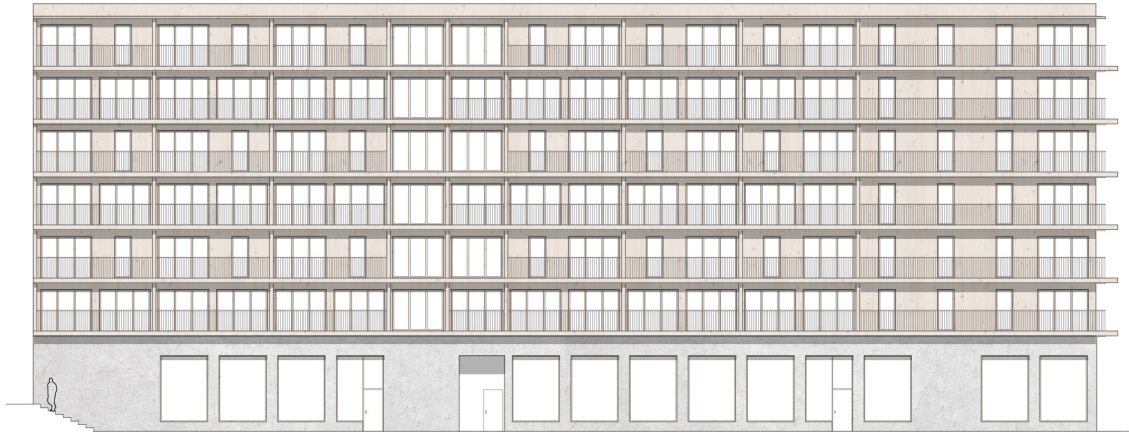
The corner apartments differ in appearance from the other apartments, but in terms of room disposition they are fairly similar.

Three room apartment - 70 m² (page 63)

On the third floor, the corner apartment is extended by a room. It is similar to the other three room apartment with a social core and bedrooms on each side of it.

Five room apartment - 109 m² (page 64)

The biggest apartments are located in the northern building, overlooking the Lorensbergparken. Since it is in the corner position and has limited contact with the exterior corridor, it has a larger hallway than the others. A larger hallway makes it possible storing, for example, a stroller directly inside the entrance. From the hallway one reaches the storage room/walk-in closet that leads out into a small study, further on to the bedrooms and the social areas.



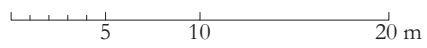
East Elevation, scale 1:400



West Elevation, scale 1:400



North Elevation, scale 1:400



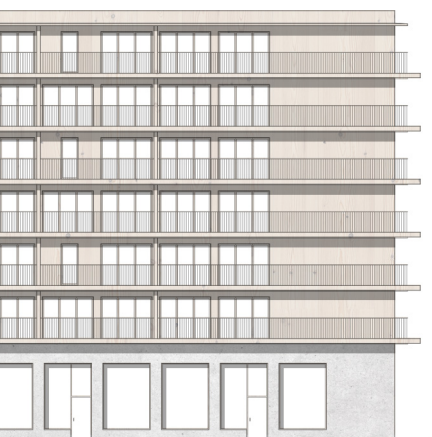




Figure 25. Visualization of the exterior.

The Ground floor is site casted concrete and the facade of the residential floors are heat treated nordic pine.

DISCUSSION

As stated in the beginning, the role of a residential yard has developed and, in many cases, lost its importance in the Swedish housing development. This is also a question of space, especially in the city centre, where it can be difficult to get enough space to make a qualitative residential yard for every multifamily house. This resulting in several multifamily buildings and public sharing the yard, which results in an undefined ownership and possibly even left unused other than necessary. Luckily in my proposal, Lorensbergsparken is an already existing asset in the area that the public have access to and can enjoy. My proposal is very much about creating a defined yard that is accessible to the residents and framing Lorensbergsparken to create a more easily accessible and attractive spot for the public.

I tried to emphasize that the yard and the dwelling are not two separate entities, they depend on each other and affect each other. The private exterior spaces accessible from dwellings should not compete with the common exterior spaces, since the common ones are less likely to be used and activated. Exterior corridors are a great way to get to know ones' neighbours, as the ones living in the same building becomes visible. They combine necessary, social and optional activities which possibly can increase sporadic conversations of which could lead to greater solidarity in the neighbourhood. By concentrating the social spaces and making space for different activities and different interests, the residents have a chance to create social relationships.

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Figures

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Figure 2. Järnbrott, Gothenburg (Google Earth 2019)

Figure 3. Miljonprogrammet (Hållbar stad 2017)
<https://www.hallbarstad.se/hallbar-arkitektur/miljonprogrammets-hemligheter/>

Figure 4. Binh House by VTN architects (Archdaily 2017)
<https://www.archdaily.com/868963/binh-house-vo-trong-nhia-architects>

Figure 5. BIG yard (Zanderoth Architekten 2010)
<https://www.zanderoth.de/en/projekte/ze05/255>

Figure 6. Charlottenhaven (Lundgaard & Tranberg 2004)
<https://www.ltakitekter.dk/charlottenhaven-en-0>

Figure 7. Bench outside of a dwelling (Photograph by the author)

Figure 8. BIG yard (Illustration by the author)

Figure 9. Residential yard, Hägersten (Illustration by the author)

Figure 10. Hipp Hipp Hurra! Kunstnerfest på Skagen (Krøyer 1888)
https://commons.wikimedia.org/wiki/File:Hipp_hipp_hurra!_Konstn%C3%A4rsfest_p%C3%A5_Skagen_-_Peder_Severin_Kr%C3%B8yer.jpg

Figure 11. Brf Viva (Riksbyggen 2019)
<https://www.riksbyggen.se/ny-bostad/aktuella-projekt/vastra-gotaland/brf-viva>

Figure 12. Brf Viva (Photograph by the author)

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Figure 14. Solhusen in Gårdsten (Nordström Kelly Arkitekter 2000)
<https://www.nordstromkelly.se/3847792/solhusen-i-gardsten>

Figure 15. Cultivationboxes in Gårdsten (Mynewsdesk 2017)
www.mynewsdesk.com/se/aptus_elektronik_ab/blog_posts/socialt-arbete-skapar-trygga-boendemiljoer-i-gaardsten-59593

Figure 16. Sketch of Järnbrott (Nordström & Nordström 1991)
Nordström, C. Nordström, K. (1991). Järnbrott. Tidskrift för
Arkitekturforskning, vol 4 (no 2), p.107-109

Figure 17. Parking deck, Lorensberg, Gothenburg (Google Earth 2019)

Figure 18. Lorensberg circus (Göteborgs historia 2019)
<https://goteborgshistoria.com/2019/02/05/da-nu-lorensberg-och-cirkus-1969-och-2019/>

Figure 19. Parking deck, Lorensberg (Photograph by the author)

Figure 20. Visualization of proposal (Illustration by the author)

Figure 21. Visualization of the residential yard (Illustration by the author)

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