



# THE GRASS IS GREENER



# THE GRASS IS GREENER

Shining light on the potential held by outdoor environments to support integration processes

2023

Master thesis in architecture by Nina Parot

Chalmers University of Technology  
Department of Architecture and Civil Engineering  
MPDSD - Architecture and planning  
beyond sustainability

Building design and Transformation for sustainability  
Examinor: Liane Thuvander  
Supervisor: Walter Unterrainer

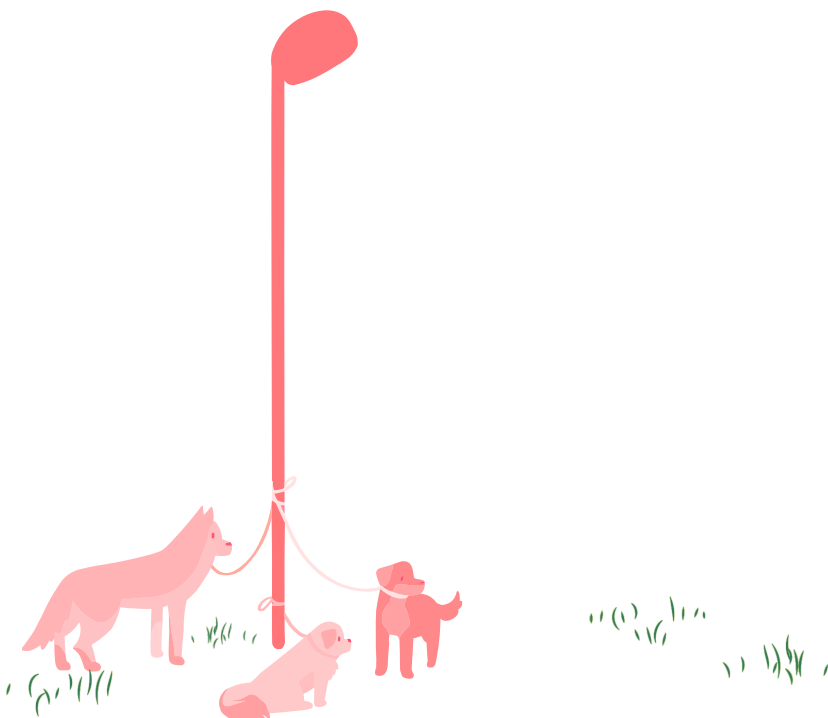


**CHALMERS**  
UNIVERSITY OF TECHNOLOGY

# Acknowledgement

1)1)1)1)

To my family and to my friends, on whom I rely greatly.  
A special thank you to my sister Sarah for her input and time, as well as to Anne Alessandri, Sarah Benhamdine, Armand DeGaulejac, Loris Peziere, Mathis Porte and Femy Sauvalle for not only being debate partners, but also for their support, their skills and their time.



# About the author

Nina Parot

## Education

Bachelor in Architecture at L'ENSA Versailles	2017-2020
Master of Architecture - Chalmers Architecture and Planning Beyond Sustainability, Msc Progr	2021-2023

ARK174 Planning and design for sustainable development in a local context

ARK626-22 Transformation projects and environmental care

AUT164 Future visions for healthcare, housing and work 1: Residential healthcare - housing for seniors

ARK177 Design systems

ARK590 History, theory and method1

ARK650 Sustainable development and the design profession

## Work Experience

Mediator, the museum of contemporary art of Versailles	2017-2019
Internship, DUCROC (carpentry)	2018
Architecture internship, NUEVOS DESARROLLOS URBANISTICOS (Madrid)	2019
Internship, ASPHALT architecture et urbanisme (Paris)	2021



# Abstract

In 2022, Gothenburg was ranked as the world's most sustainable city (GDS, 2022). The municipality prides itself in its effort to become more sustainable and often communicates on ecological sustainability (Miljö- Och Klimatprogrammet, n.d.). This contrasts with the growing disparities leading the city to be designated as one of Europe's most segregated (Thörn & Thörn, 2017).

The segregation issue in Gothenburg has existed since its modern development. In the second half of the 20th century, the city needed to accommodate the growing number of inhabitants while facing a housing crisis. Gothenburg quickly expanded, neighbourhoods were built beyond existing and continuously developed large scale infrastructures that became barriers within the city.

This layout is the source of many social and structural issues, as these neighbourhoods remain weakly connected to the urban system but highly dependent on the city centre.

The most affected districts are the migrant dominated neighbourhoods located in north Gothenburg, specifically north-east where the segregation is spatial and social.

This situation is a hindrance to the incorporation of its inhabitants. The barriers reduce the access to opportunities necessary for such a process to be successful.

Instead of focusing on breaking down these long standing barriers, maybe the focus could lie in reducing the dependance of these neighbourhoods by increasing the opportunities on a local level.

This thesis focuses on the neighbourhood of Hjällbo, recurringly affected by the socio-economical issues related to segmentation of the city.

By exploring the transformation of three sites in the neighbourhood, the goal is to lay the groundwork for encounters and the emergence of new programs.

The focus lies on the enhancement of local qualities and interventions that facilitate the use of outdoor spaces and support inhabitants' lifestyles. In doing so, it will promote the densification of uses and the diversification of local opportunities.

The three design proposals attempt to support integration by providing opportunities for interaction and connection of varying degrees, therefore enriching one's social network.

The identification of the sites and the design strategies are a result of territorial analysis at different scales, literature studies exploring urban design and integration theories, cross-referenced with knowledge acquired through site visits and studying reference projects.

The design proposal themselves are a result of iterations incorporating on site observations and studies of issues in the neighbourhood.

# Table of contents

## The issue

-Introduction

2 - 11	<b>Gothenburg, a sustainable city?</b> Dependency and fragile connections Segregation
12 - 17	<b>Integration, the theoretical background</b>
18 - 20	<b>Research questions</b>
21	<b>Aim</b>
21	<b>Limits and methods</b>

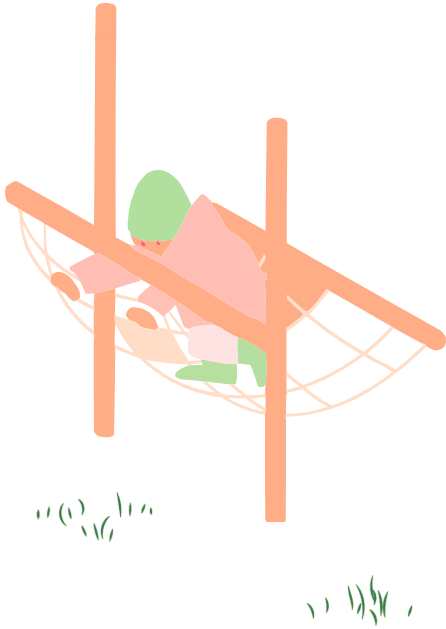
## The context

-Theory and analysis

22 - 37	<b>Hj ä llbo, exposed neighbourhood</b>
24 - 25	<b>Who lives here</b> Demographic analysis
26 - 37	<b>How is it?</b> Territorial analysis
38 - 39	<b>The system</b>





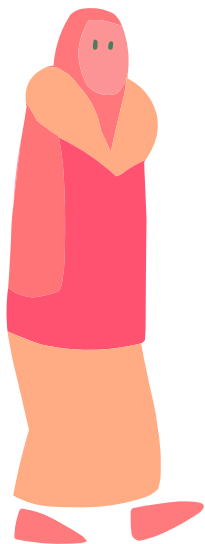


## The potential

- 42 - 43 **Strategies**
  - Urban Strategies
  - Design Strategies
- 44 - 45 **Key sites**
  - Qualities, potentials and limits
- 46 - 47 **People watching**
- 49 - 49 **Project concept**

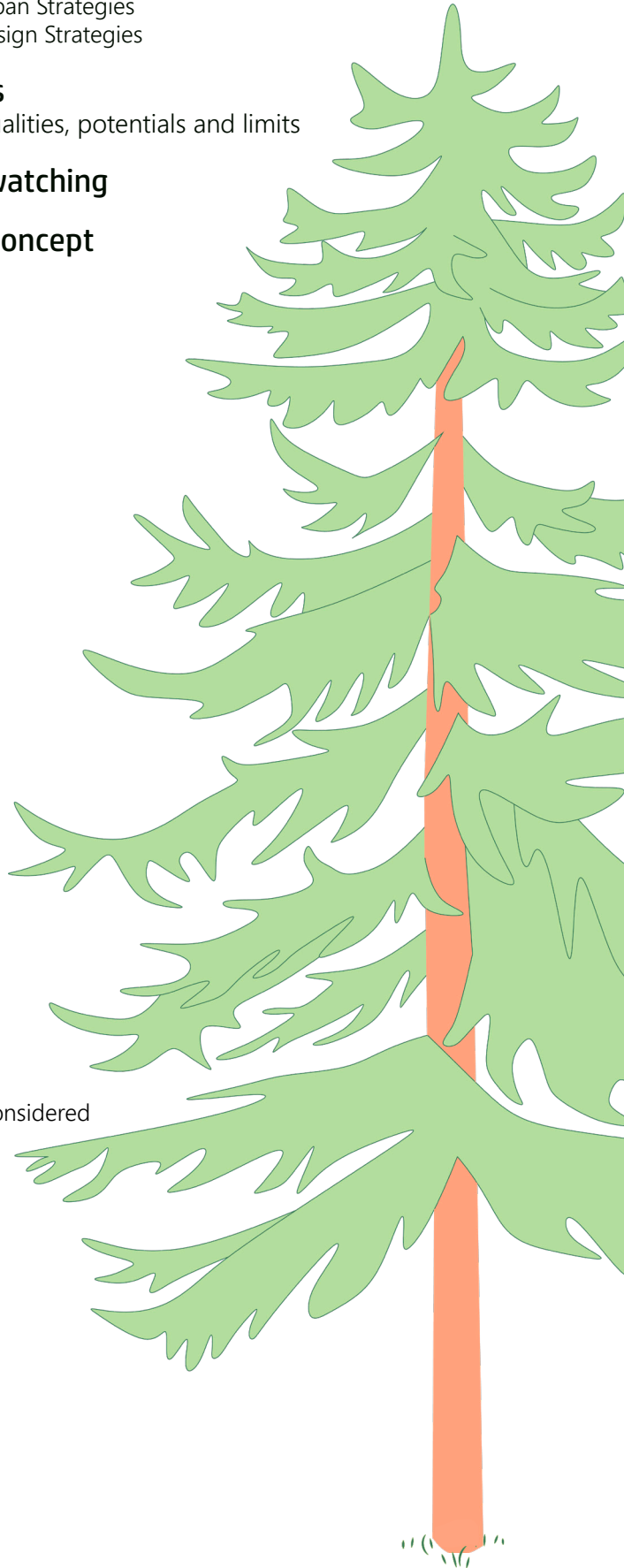
## The project

- 52 - 57 **The entrance to the forest**
- 58 - 65 **The neighbour's park**
- 66 - 73 **The parking lot**
- 74 - 75 **About the projects**



## Conclusion

- 76 - 77 All things considered
- 78 - 79 References







# Gothenburg a sustainable city?

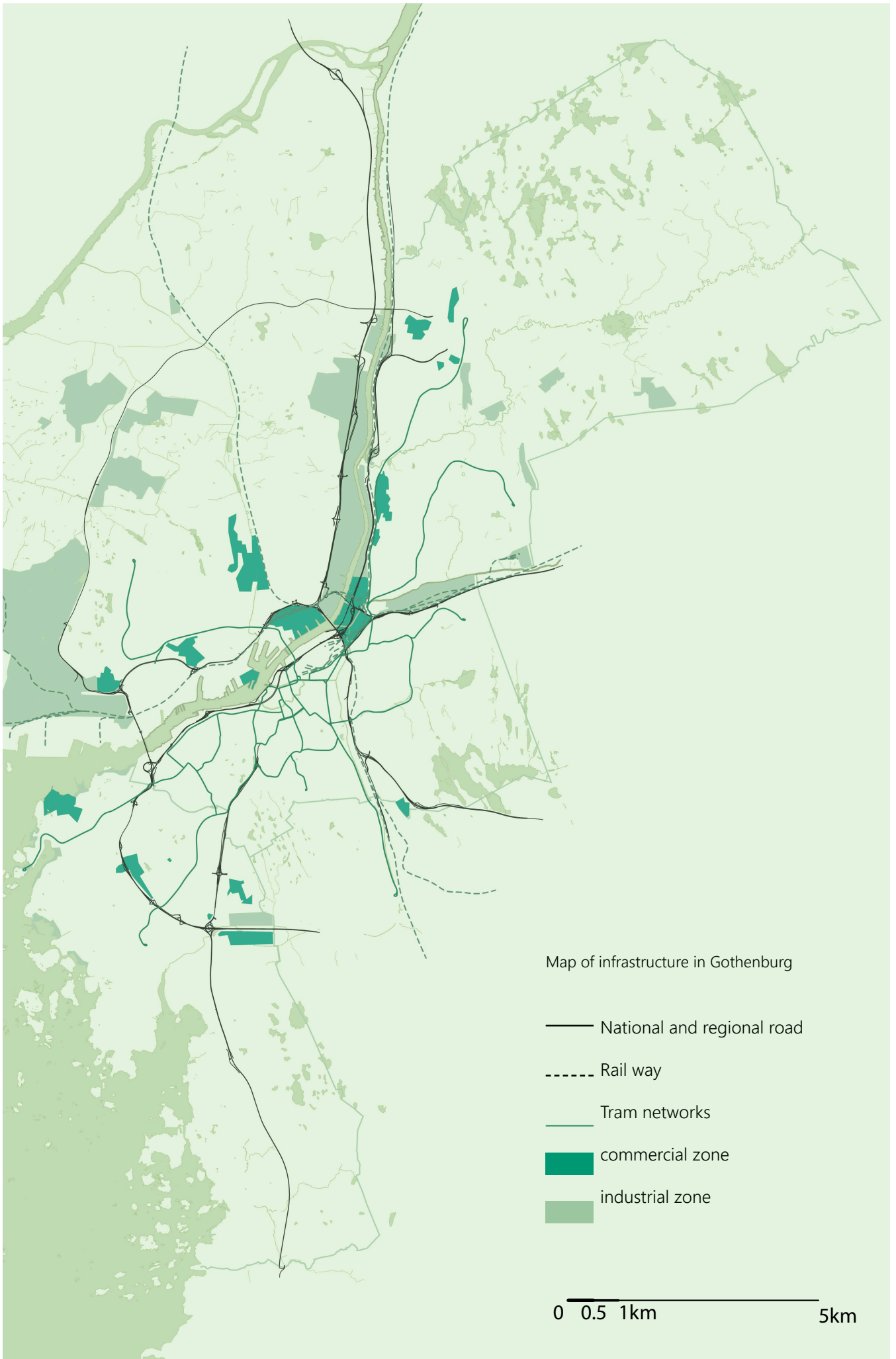
## Dependency and fragile connection

In 2022, for the sixth time, Gothenburg was ranked as the world's most sustainable city (GDS, 2022). The municipality prides itself in its effort to become more sustainable and communicates often on ecological sustainability (Miljö- Och Klimatprogrammet, n.d.). This is in sharp contrast to the growing disparities within the city leading it to be grouped, with other Swedish cities, as Europe's most segregated (Thörn & Thörn, 2017).

The phenomena is of course the accumulation of political, economical, structural and social decisions made at all kinds of scales (municipal, national and european) and the issue is not so easy to delimit. However, two major elements seem to have shaped the problem in Gothenburg: mobility and housing (Starbrink (2021) and Thörn & Thörn (2017)).

Gothenburg being one of Europe's most important harbours, has understandably developed the necessary infrastructures around the mouth of the Göta river, followed by industrial and commercial development in proximity to the water. The development was extended to the railway industry to expand commerce on land, followed by car related infrastructures. The city grew with roads, bridges, parking lots, highways, and so on. Reaching further past the previously built infrastructure was made possible and new neighbourhoods were therefore laid beyond. What used to be infrastructure connecting Gothenburg to the rest of the country and the rest of the world, became barriers within the city itself.

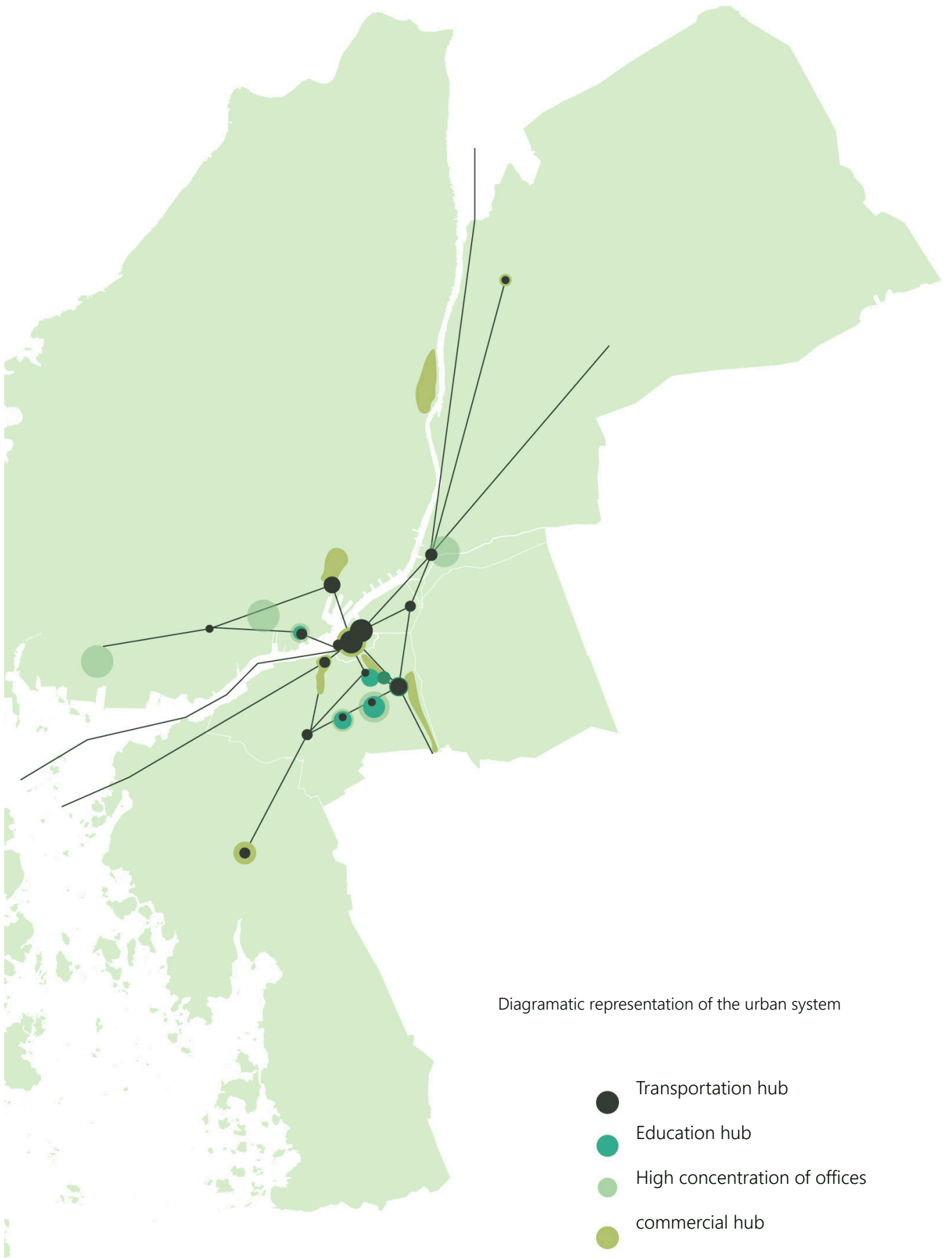




The previously mentioned urban development has influenced the organisation of activities throughout the city. The less connected neighbourhoods are deprived of any points of attraction and hubs therefore fueling their dependency to the city centre.

The river creates a divide in the repartition of activities in the city. The city has recently invested in the development of the south western bank through the creation of office dense neighbourhoods and extending it as a technology centre with the addition of Chalmers and GU buildings in Lindholmen. However, while the transportation systems creates a network between activities in the city centre, it remains a vertical connection towards the neighbourhoods in the north. Where there is a noticeable lack of connection across the river as well as in between the district themselves.





Diagrammatic representation of the urban system

- Transportation hub
- Education hub
- High concentration of offices
- commercial hub
- commercial zone
- Communication arteries

## Segregation

*"People and groups perceive themselves as being on the outside, and this is partly reflected in lower safety and security, and less faith in the future. There should be greater balance in people's life circumstances."*

-*"The City of Gothenburg Annual Report," 2017, p.14*

If these infrastructure obstacles inevitably divide the districts, the question is do they impact the cohesion of the city and its inhabitants?

In recent years, the municipality has noticed that major traffic routes and infrastructure create both physical and mental barriers between the districts. They affect living conditions by dictating the distribution of public and commercial services ((Översiktsplan För Göteborg, n.d.)). The built environment influences the perception one has of the city. The interaction born from moving through the city affects people's relationship with it and by doing so, maybe influencing the sense of belonging. ("The City of Gothenburg Annual Report," 2017)

To understand who suffers these consequences and to what extent they affect the social organisation of the city, three key aspects are essential to look at: distribution of tenure typologies, unemployment rates and immigrant population rate.

Why look at housing? In Sweden, three tenure types exist: private housing, bostadsrätt (tenant owned housing) and rental housing.

The rental format is the most accessible of the three and adopted by municipal companies providing social housing. However, since the 70's the government tried to move away from it, as it was perceived as less stable, and facilitated home ownership through different types of economic incentives. This process was followed in the 2000's, when Sweden entered the European Union, by the conversion of rented dwellings (especially municipal) into a tenant owned or private housing typology. This has contributed to the residualisation of rental properties and of the public housing stock (Andersson, Magnusson Turner, & Holmqvist, 2010).

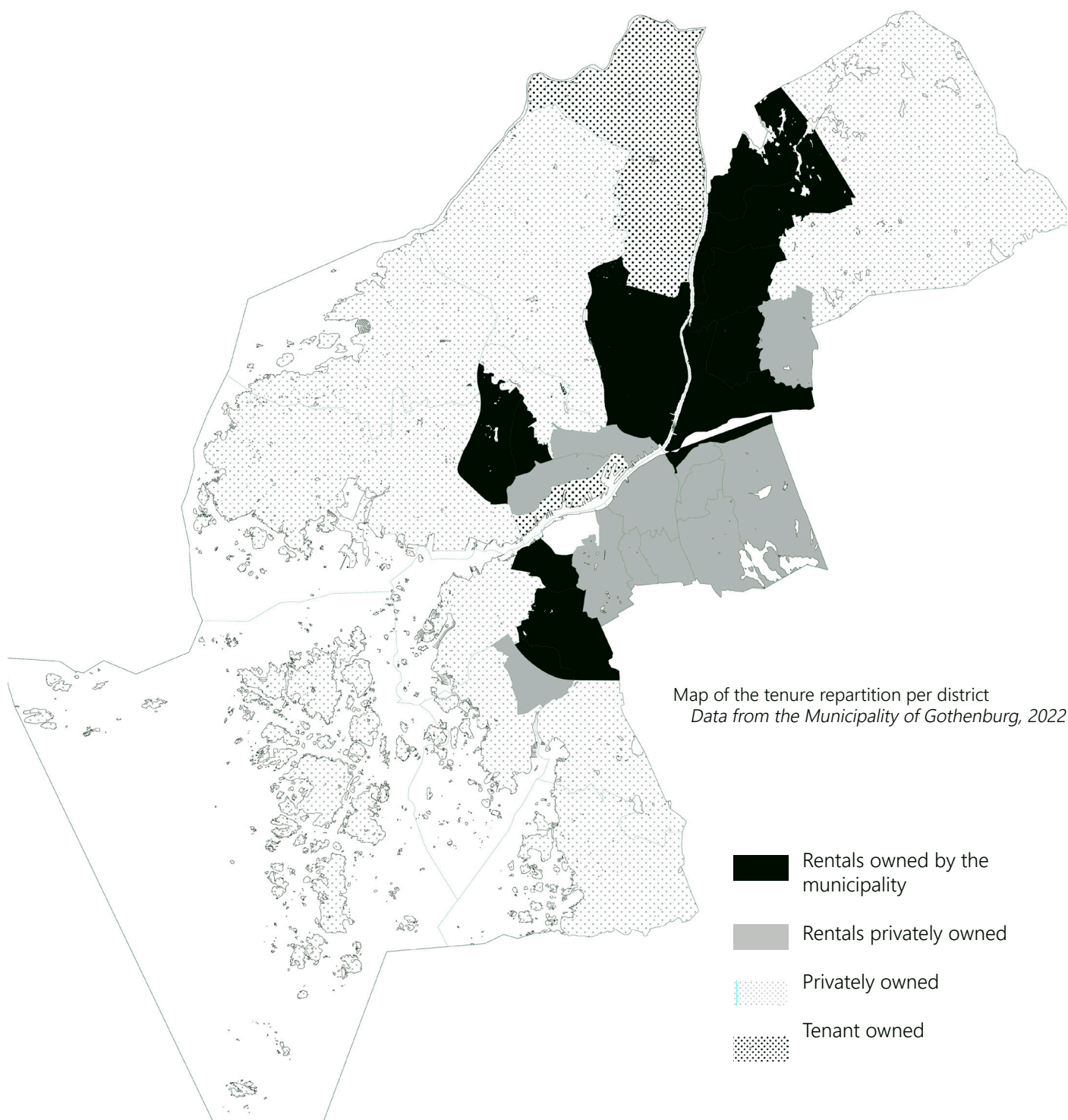
This process of residualisation can be considered as an instigator of segregation, or in any case, to have amplified patterns of segregation. By geographically separating each tenure typologies from one another, socially vulnerable groups have little choice but to secure housing in districts where it may be harder to find work. This is the case in Gothenburg (Starbrink, 2021). The districts with most of the rental housing properties are also the districts with higher migrant population, higher unemployment rates and with insecurity issues, as some have been designated as vulnerable areas (Utsatta Områden - Polisens Definition, n.d.). The districts where this pattern is the most noticeable are located in the North-east of the city, separated by the previously mentioned infrastructure. The urban development of Gothenburg has led to spatial and social segregation.



## A change in the housing market

When Sweden joined the European Union, it had to follow the EU market structures. The transition of the welfare state (sponsoring housing) to a neoliberal housing market meant that the state facilitated the private exploitation of urban land. This consequently led to uneven urban development as entrepreneurialism (private investors) focused on specific neighbourhoods perceived as more profitable, while others are

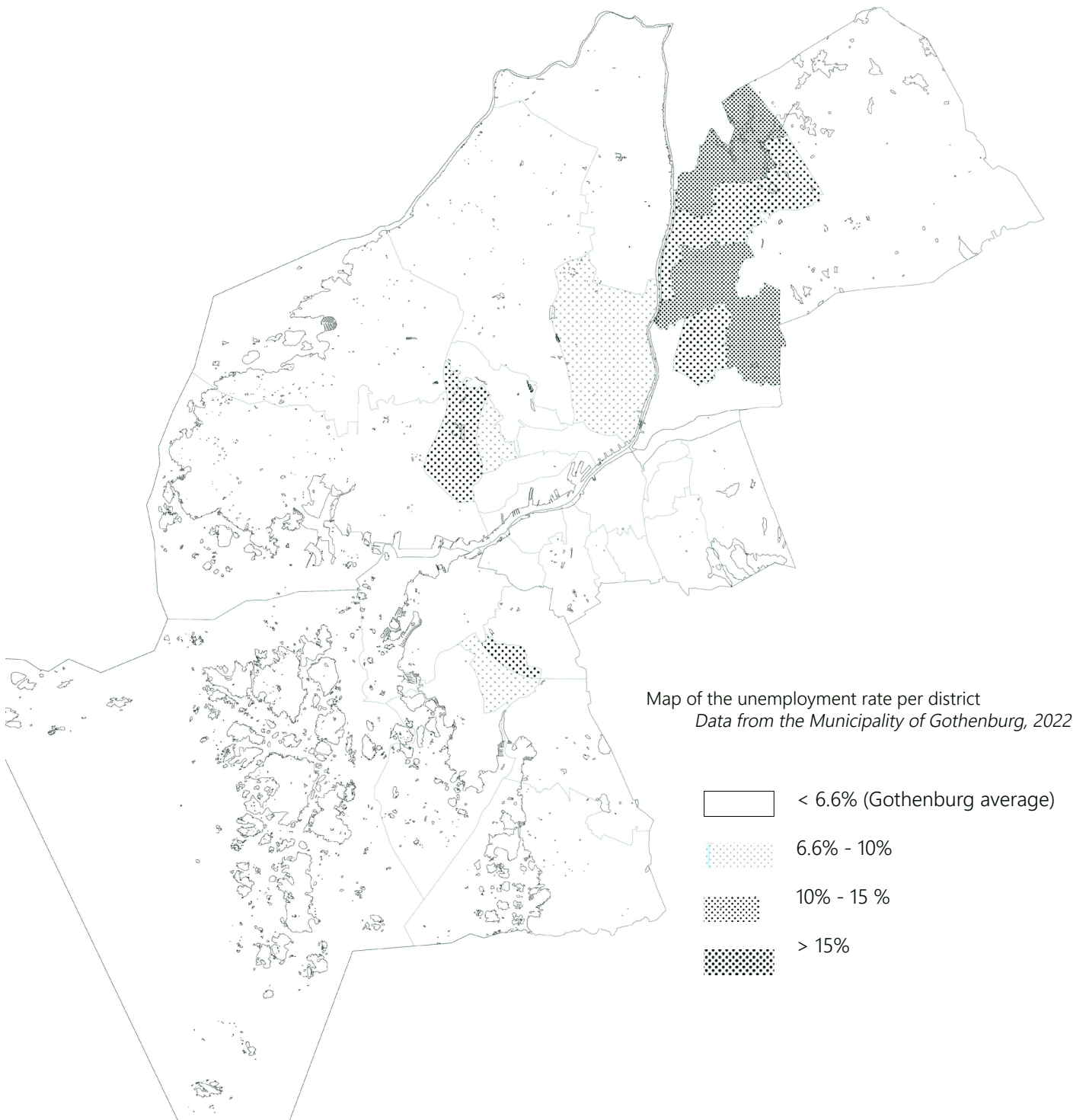
left to decline (Thörn & Thörn, 2017). As can be seen, rental properties are mostly located in the north-east districts with the infrastructure separating them from the city center, which they are highly dependant of.



## The influence on job opportunities

The unemployment rate is a parameter often used when investigating the health of a neighbourhood and is affiliated to quality of life, purchasing power but also social cohesion and integration, as employment promotes economic independence and allows individuals to plan for the future. Therefore it's an interesting parameter enabling us to evaluate the hypothesised fragmentation of Gothenburg (Macleod, 2021).

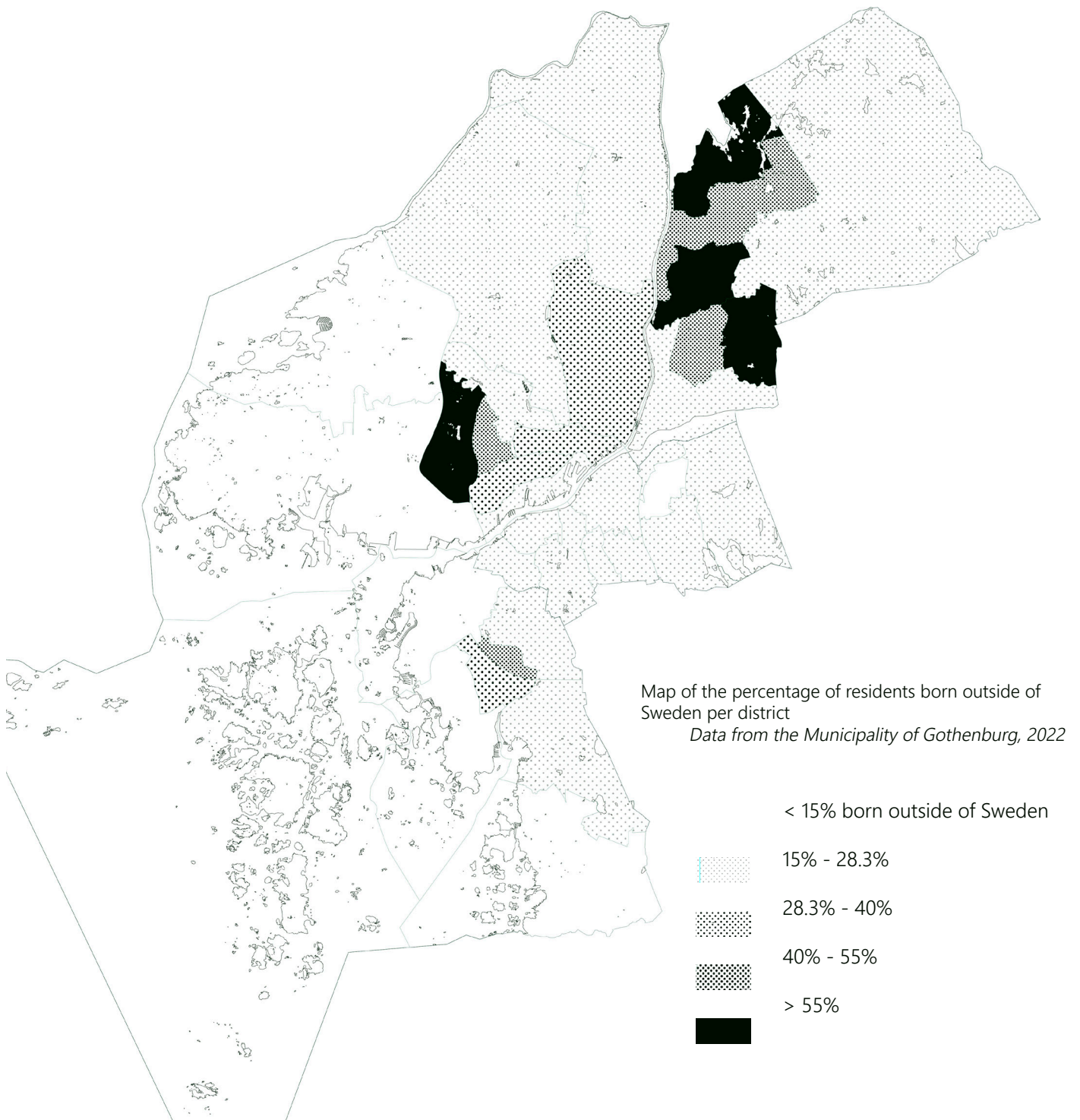
The north-eastern districts of the city are the ones presenting a higher unemployment rate.



## The influence on migrant repartition

The same can be said for the distribution of the migrant population throughout the city. This group is often considered as fragile and overexposed to instability.

The repartition of migrant populations is unequal throughout the city. The north of Gothenburg has a higher percentage of migrants as its inhabitants. These groups are therefore located beyond the aforementioned barriers.



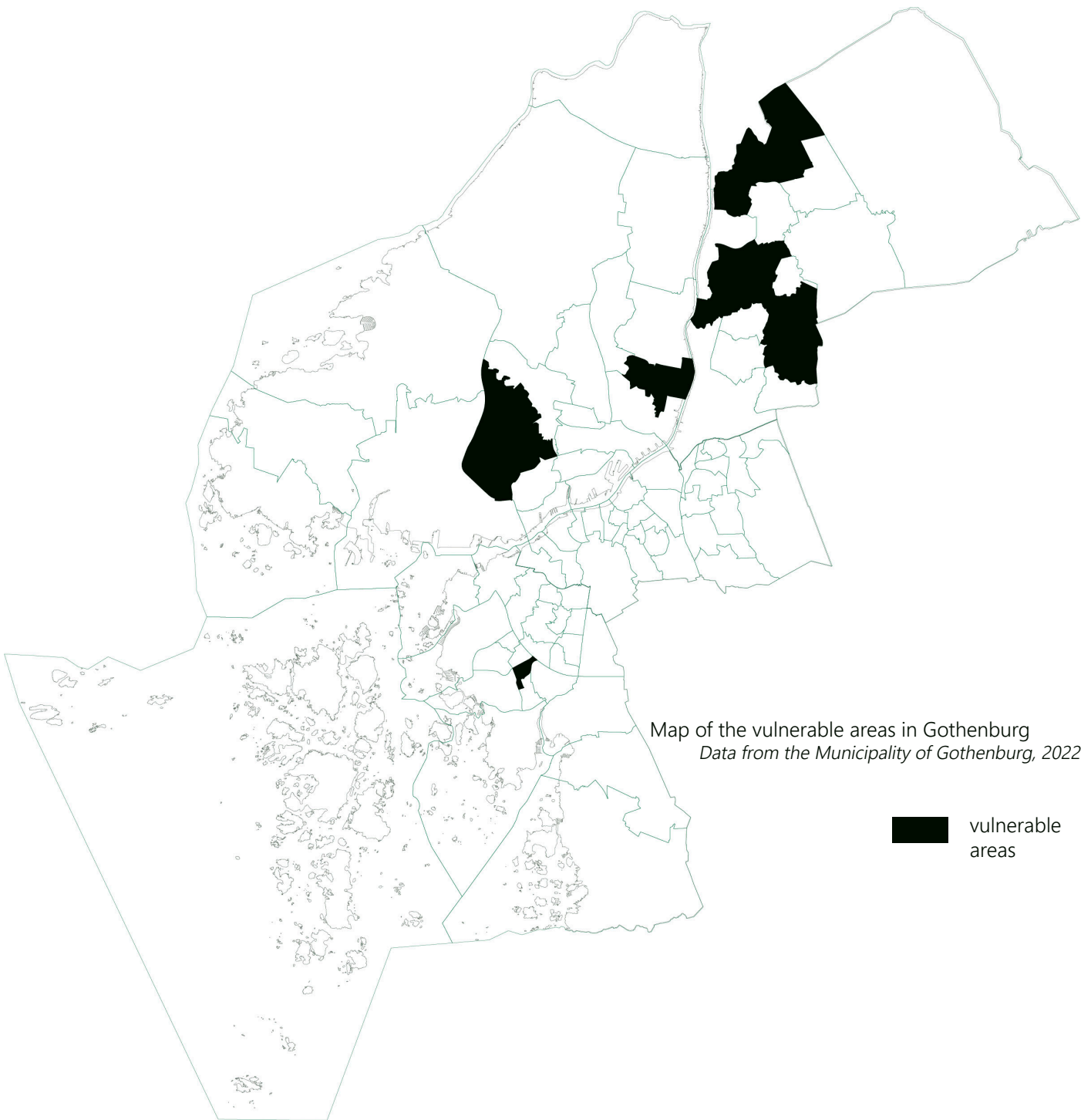
### **Defining vulnerable areas**

A vulnerable area is defined by the city of Gothenburg as "a geographically defined area characterised by a low socio-economic status where criminality has an impact on the local community. The impact is rather tied to the social context in the area than the criminals' studied desire to take power and control the local community. The effect is that the residents of the area experience insecurity, which in turn leads to a reduced inclination to report crimes and to participate in the legal process." There are a total of 61 vulnerable areas identified throughout the country. In Gothenburg, Bergsjön, Biskopsgården, Gårdsten, Hammarkullen, Hisings Backa, Hjällbo, Lövgärdet and Tynnered/Grevegården/Opaltorget have been designated as such. (Utsatta Områden - Polisens Definition, n.d.)


### **Repartition of vulnerable areas**

Out of the 8 identified vulnerable areas, 7 are located in the north of Gothenburg.

Socio-economical fragilities are recurring issues for districts laying on the northern bank of the river and beyond the developed transportation infrastructure. These barriers not only influence the repartition of activities throughout the city, but the repartition of the inhabitants as well.



Map of the vulnerable areas in Gothenburg  
*Data from the Municipality of Gothenburg, 2022*

 vulnerable areas

# Integration

## Theoretical Background

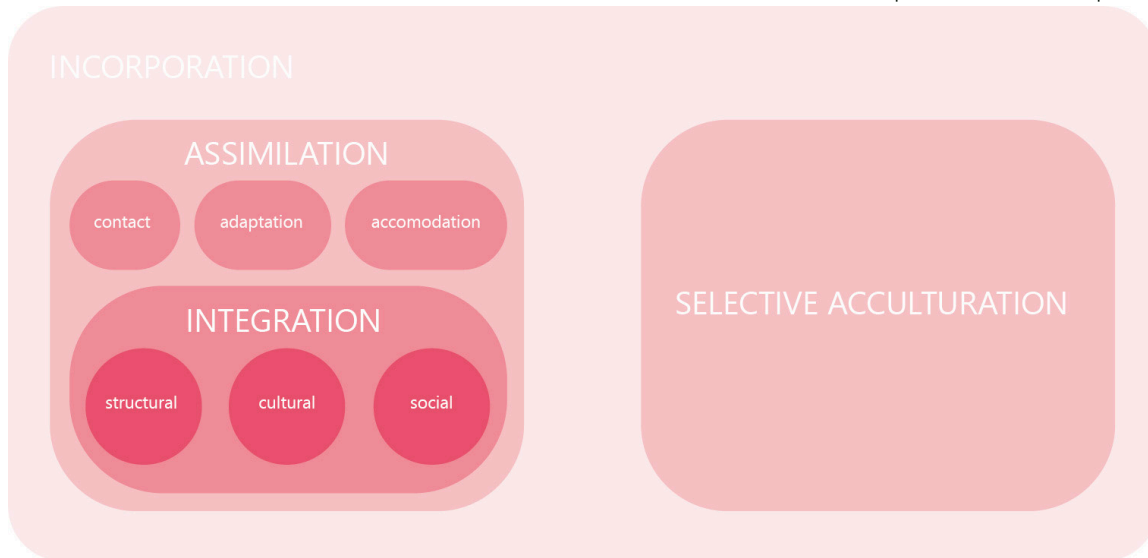
The sociological theories surrounding processes of what is generally understood as integration have changed and shifted throughout the 20th and 21st centuries. With them, the terminology and definitions of central concepts such as the ones explored in this chapter. Though there are no fixed definitions, as the context is ever evolving, they form a framework and help get a deeper understanding of the elements involved in this matter and the impact they have on each other.

The Classical assimilation theory was introduced by members of the Chicago school of Sociology in the 1920's. Though American centred, it remained the main sociological paradigm until the 60's. It defines incorporation as a linear process for all immigrants and that successful integration depends solely on the immigrants themselves. This is based on assimilation being understood as "the social processes that bring ethnic minorities into the mainstream of American life." (Alba & Nee, 1997, p.828).

This theory was later regarded as too general and defined distinctive traits of immigrant groups as shortcomings that needed overcoming to achieve success in American society.

Modern Assimilation theories usually define incorporation as a multigenerational process, individual but also reliant on larger structure of institutions. They tend to focus on interaction between host society and immigrant populations. (Lee, 2009)

Present day theories include: segmented assimilation, social networks and embeddedness, spatial assimilation, ethnic boundaries and communities, transnationalism



## Incorporation

A multidimensional process by which migrants become members of their host societies. The incorporation framework includes both acculturation and assimilation (therefore the consideration of social attitudes, ways by which individuals regroup and the influences within cultures, not only on a governmental or administrative level). (C. Macleod, 2021) Incorporation does not have "the annihilation of all ethnic differences as the end goal." (J. Treas, 2014).

## Assimilation

Is the result of a process that leads to a minority population being incorporated into the core of the host society. It strives for "the achievement of equal footing in the host society's primary groups and social institutions." (C. Macleod, 2021). This process relies on different phases of exposure (contact, adaptation, accommodation, integration (C. Macleod, 2021)) that in the end lead to a blurring of boundaries between social groups. This occurs when the discriminatory barriers and ethno-racial stereotypes are weakened. Therefore rely on a successful integration in all its realms. (Alba et Nee, 2003 ; Barkan, 1995)

## Acculturation

Taking up the culture of the dominant group (Gordon, 1964). "Selective acculturation" acknowledges that immigrants accept some aspects of the host culture but reject others (Portes and Rumbaut, 2001).

## Integration

The continuous process leading towards a cohesive society. Sociologists have differentiated between different realms of integration such as structural, social and cultural integration (Heckmann and Schnaper, 2003). Successful integration is a dynamic and multi-directional process that involves mutual adaptation of migrants and of the host society (UN International Organization for Migration).

### Structural realm

Refers to the access people have to common resources and main institutions of society such as labour, education, health services or natural areas and recreational opportunities.

### Cultural realm

Refers to acquisition of both knowledge and competencies regarding cultural aspects, common practices, general rules of behaviour, social cues that enable individuals to navigate in the society.

### Social realm

Friendships, partnerships, and other social aspects make up the interactive side of this realm, they translate the inclusion of immigrants into the primary networks and relationships of society. However the sense of belonging to the new society in terms of emotional bonds to places (or to other groups) is also an important aspect of the social realm



## The importance of nurturing the social area

Integration is most likely to be measured through components of structural and sometimes cultural areas. This is commonly done through indicators such as the level of employment, educational attainment, legal status of immigrants in their host country and host language proficiency (Macleod, 2021). Therefore cities are most likely to put the accent on developing these areas and Gothenburg is no exception.

Integration in Gothenburg is measured mostly through employability. The city sees working as contributing to society and a way of learning social cues. Integration is therefore measured and in the hands of Arbetsförmedlingen, the public employment agency (Regeringen och Regeringskansliet, 2023).

Gothenburg has developed programs, strategies and support systems focusing on structural and cultural integration (for example, Svenska för Invandrare (SFI) to help newcomers to learn Swedish). They are diverse, adaptable and often long-term. This is reflected in the high scores Sweden achieves in terms of granting immigrants access to and rights in the labour market in the Migrant Integration Policy Index (MIPEX- a policy indicator that has been developed "to create a rich, multi-dimensional picture of migrants' opportunities to participate in society." (Migrant Integration Policy Index | MIPEX 2020, n.d.))

The social realm's impact is harder to measure and therefore, to structure. It is more subjective and experience focused. However it is not of any less concern to municipalities. Its importance lies in its intimate connection to the two other realms of integration and the physical environment.

The networks formed through relations are essential to the settlement process of migrants

as they can help secure jobs and housing but are also a form of support (emotional, financial, etc.) which limit the repercussions of weak bonds to local culture, capital or even the lack of a stable legal status (M. Kindler, V. Ratcheva et M. Piechowska, 2015).

The opportunity for encounters is the base for strong social cohesion (M. Kindler, V. Ratcheva et M. Piechowska, 2015). Rather than in-depth relations, exposure and exchanges are fundamental. This way of existing in the same space and sharing it (co-presence) can be supported by how the urban form is configured. Space is the backdrop for interaction with emergent and planned effects (E. Minoura, 2021).





Illustration of China town in Liverpool

**China Towns.** A remarkable example of networks contributing to settlement process of migrants (highlight and interpretation of M.Samala and M. Remali 's study, Urban traditions in the midst of the chinatown of Liverpool and the quasi-enclave of Glasgow)

What are ChinaTowns? "A concentrated district of a non-Chinese town in which the population is predominantly Chinese." (M.Samala and M. Remali, 2018). First appearing in the United States in the 19th century, most districts have been created due to extreme cases of racial exclusion. These ethnic enclaves are recognisable as they contrast with the rest of the city's environment and contribute to social capital by highlighting migrant networking inside of the community (M.Samala and M. Remali, 2018). The first ChinaTown was built in San Francisco around the mid 1800's. Chinese immigrants developed a complex structure with 3 levels of organisation: social, spatial and structural (housing, legal services, work) (T. Yarlalagadda, 2021), which, we can notice, share similarities to the three realms of integration.

In the United-Kingdom, migration patterns frequently resulted in the formation of ethnic enclaves in urban areas, and both the host city and the immigrant community benefited from this behaviour.

The spatial segregation of the migrant communities had led them to create necessary internal social networks based on commitment between its members, accompanied by economic activities based on community relationships. These community dominant spaces, whether commercial or not, allowed people to practise shared traditions, fueled trust within the community and strengthened internal social networks.

This has shown to create stability for the

Chinese businesses within the ethnic enclave and supports a correlation between social connections, cohesion and the community's socio-economic capital.

In addition, by manifesting itself through food, craft and retail, migrant tradition became more accessible to the host society. This exposes both cultures to one another through different settings and, though spatially concentrated, greatly influences how each community is perceived.

This way, migrant traditions became a part of the general urban practices and to be a part of national identity.

From this study, two key interpretations are to be noted. The possibility or ability to shape one's environment was of key importance for the Chinese community as it supported familiar social constructs, led to strong social networks and promoted financial independence. In addition, by making visible and accessible aspects of the Chinese culture in the urban environment, these became spaces of encounter not only for the migrants but also supported interactions between host community and migrant traditions. This being a crucial part of the incorporation process.

*"Close-knit ethnic enclaves foster cohesion and a clear sense of cultural identity while enabling strong socio-economic cycles that advantage the community's welfare and independence in the city." (Salama & Remali, 2018, p.14 )*



*“Appropriation is here seen as these patterns of use and engagement with spaces that suggest a relationship between the user of the space and the built environment itself.”* (E. Minoura, 2021, p.13)

In general, the development of ethnic places, such as shops, businesses and restaurants throughout the city is a manifestation of appropriation (M. Kindler, V. Ratcheva et M. Piechowska, 2015). Important factors, such as proximity and strong ties within a community, provide support for such a development to occur. However, the socioeconomic, cultural and physical particularities of the local areas in which migrants live and work must be seen as defining the opportunities and resources migrants can access to develop such places (S. Wessendorf et J.phillimore, 2018).

Structural deprivation in neighbourhoods, poor quality of housing, education and employment possibilities for example, influence motivation to create social networks and embedding strategies ( M. Kindler, V. Ratcheva et M. Piechowska, 2015). An underdeveloped environment impedes the creation of social networks due to a lack of opportunity and goes hand in hand with a decrease in interactions (as spontaneity and encounters are not fostered). In addition, if developed in an incoherent fashion (meaning with no regards for the urban system in place, flows, attraction points, population etc), a dissonance between users and environment appears, born from an impossibility to practise one’s habits and daily routines (I. Virkkala et E. Tenho, (2011)).

Ethnic places help lower the chances of dissonance between lifestyles and environment, as they contribute to an ease and control of daily life, which is a foundational element of integration (I. Virkkala et E. Tenho, (2011)).

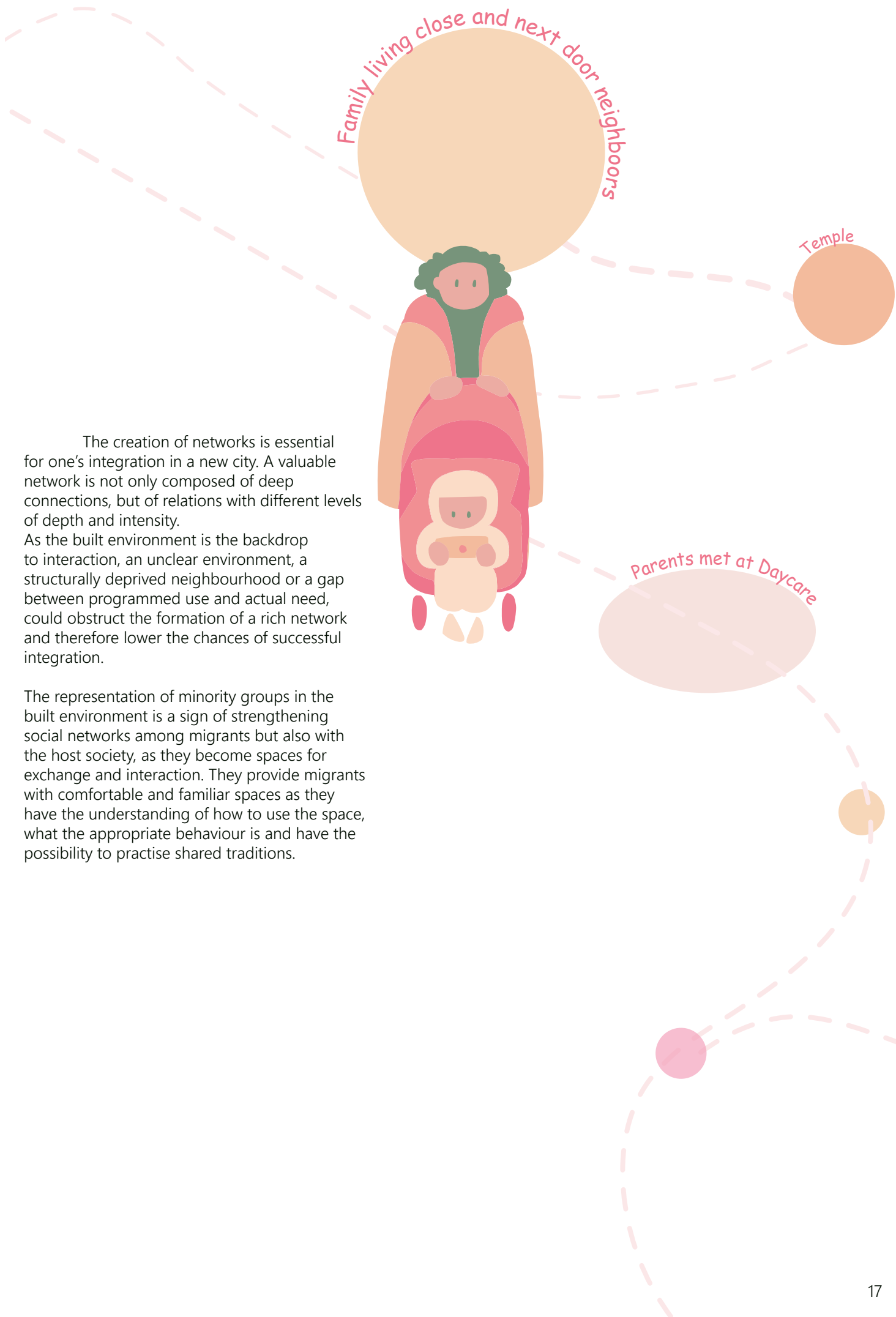
Another important aspect to ensure cohesion and appropriation of the environment, is its clarity. There is a need to understand what is

where (especially if it is different from one’s cultural norm) and how to interact with it (Virkkala and Tenho, 2011).

With every culture comes a different understanding of spaces, whether public or private, and with each individual, comes a different practice of space. So much so that individuals and groups can coexist in various fractions of the same public space (Virkkala & Tenho, 2011).

*“If one’s own perception of a space differs enough from the common understanding the feeling of segregation gets stronger.”* (Virkkala and Tenho, 2011, p.3)

Spatial misunderstandings can occur when multiple minority groups of different cultures are present in the same space. They impact the number of users, the probability of appropriation and can be a source of tension between different parties. To limit such issues, the hierarchy of accessibility (public, semi-public, and private) should be made extremely obvious and take into consideration the different perceptions of the potential users (Virkkala and Tenho, 2011). Boundaries are a good tool to that end, they reduce the complexity of a space and facilitate collective action, they help regulate who interacts or controls a space. If access is granted to a large body of users, the use, engagement and appropriation pattern will differ compared to spaces where access is granted to a specific group (immediate residents, associations, etc). Clear access to territories is the first step into clear environments. (E. Minoura, 2021).



The creation of networks is essential for one's integration in a new city. A valuable network is not only composed of deep connections, but of relations with different levels of depth and intensity. As the built environment is the backdrop to interaction, an unclear environment, a structurally deprived neighbourhood or a gap between programmed use and actual need, could obstruct the formation of a rich network and therefore lower the chances of successful integration.

The representation of minority groups in the built environment is a sign of strengthening social networks among migrants but also with the host society, as they become spaces for exchange and interaction. They provide migrants with comfortable and familiar spaces as they have the understanding of how to use the space, what the appropriate behaviour is and have the possibility to practise shared traditions.



## Tackling segregation on deeper levels

The issue of segregation is affecting the city of Gothenburg on a deep social and structural level. The development of the city in the 20th century has made it a large-scale issue, affecting not only the repartition of activities and service, but also the population. Transportation infrastructure, the lack of connection between the districts and the affordability of housing are issues connected to the consequences of segregation.

In this regard, there is no doubt that they need to be addressed if Gothenburg wants to become a more equal city. These are complex, lengthy, costly endeavours and not the only elements that need to be dealt with at present. Moreover, maybe urban development following strategies that led to the divide of the districts should be questioned. There might be potential in exploring solutions that move away from it, for example the creation of local opportunities to limit the dependence to the city centre, leaning towards decentralisation.

What is certain, is the need to reflect on the effects and consequences of segregation in the municipality, to be able to provide adapted answers, not only regarding the cohesion of the city as a whole but also to counter the various disruption that appeared locally.

In the previous chapter, we were able to identify the north-eastern districts and their migrant dominated population as the most affected by the issue. In an attempt to address segregation locally and to start building solutions from within the districts for the affected groups, this thesis will focus on the topics of the neighbourhood's environment firstly as a resource for its inhabitants.

# How could the redevelopment of outdoor spaces support the process of integration?

**How can contextualised interventions, through the enhancement of local qualities, facilitate the use of outdoor environments and create more sustainable neighbourhoods?**

**How can the implementation of community oriented spaces in migrant dominated neighbourhoods mitigate the consequences of segregation?**

## Aim

(Tackling one aspect of the segregation issue: quality of the environment and consequences on integration)

This thesis focuses on the neighbourhood of Hjällbo. Located in North-East Gothenburg, this migrant dominated neighbourhood is one of the most segregated and is heavily dependent on the city centre.

Built in the 60's, Hjällbo was designed with generously sized outdoor spaces to complement the building blocks. These spaces could be characterised as underperforming as very few are being used by current inhabitants.

By exploring the transformation of three sites with distinct outdoor characteristics, the goal is to help create more cohesion and interconnection within the neighbourhood.

The focus of the transformation efforts lies in the enhancement of local qualities and interventions that facilitate the use of outdoor spaces, support the inhabitants' lifestyles and cater to their habits. By doing so, promoting the densification of uses and diversification of local opportunities.

The three design proposals attempt to support integration by providing opportunities for interaction and connection of varying degrees, therefore enriching one's social network.

## Limits

In Gothenburg, neighbourhoods suffering the consequences of segregation, fragmentation and polarisation, would greatly benefit from city scale transformations to revisit the connections between districts. Their isolation has led to a rise in criminality and a feeling of insecurity. These questions are considered but not the focus of the thesis.

Though several sites have been identified as remarkable and have the potential to enrich the neighbourhood's urban system, not each one will have a design proposal.

## Methods

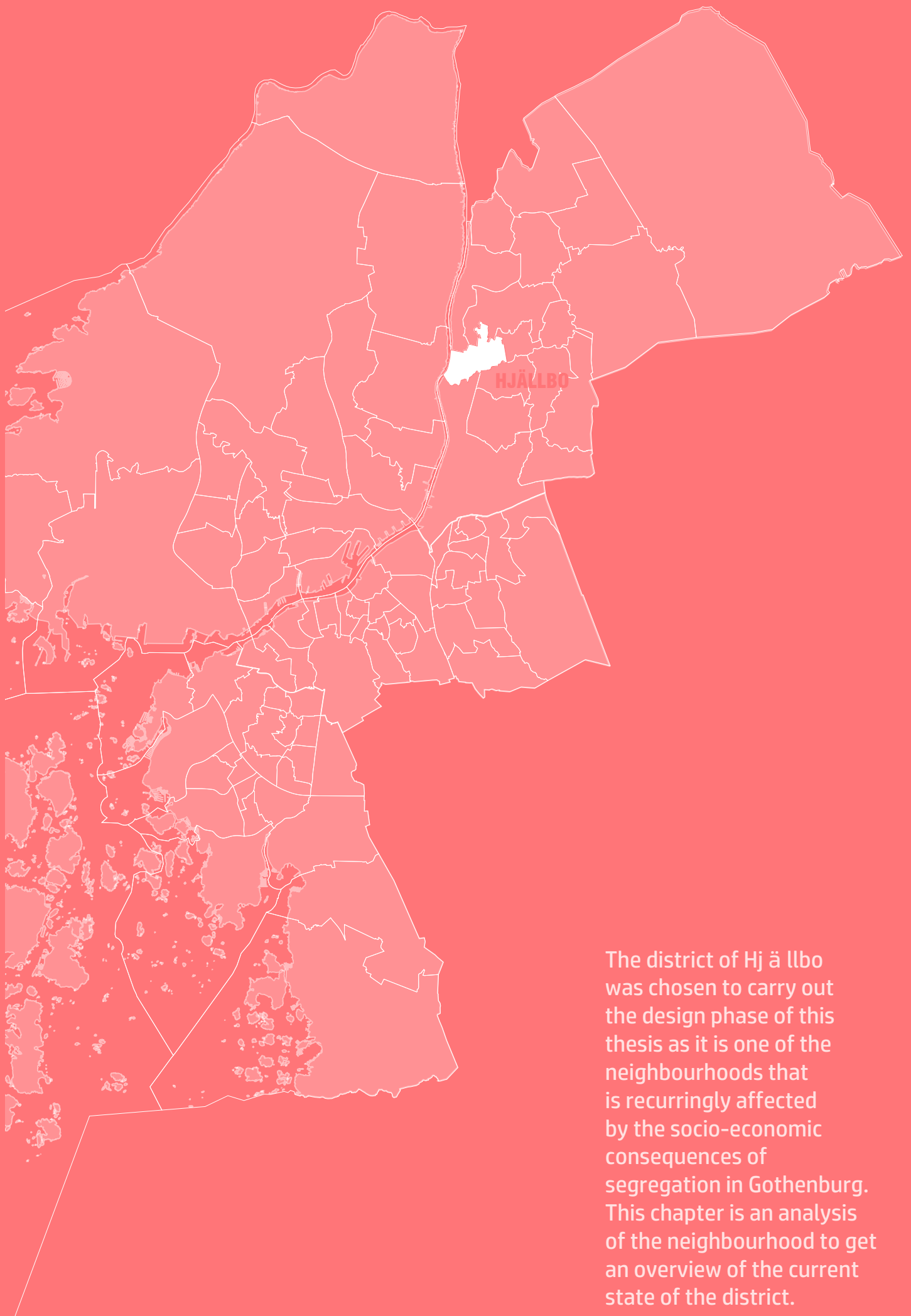
Literature studies in the fields of social science, urban theories and Swedish modern history to try defining and get an understanding of the source of segregation in Gothenburg and the mechanics of integration were used.

At the same time a territorial analysis was conducted by mapping different scales from the city to the neighbourhood to understand the context and how one could influence the other.

The elaboration of urban and design strategies are a result of these explorations in combination with study visits which led to the identification of the sites. The design process was a back and forth between strategies, analysis of local contexts and the study of reference projects that focused on the transformation of the urban environment by its users or to cater interaction between environment and users. The design proposal themselves are a result of iterations incorporating on site observation and studies of issues in the neighbourhood.







The district of Hjällbo was chosen to carry out the design phase of this thesis as it is one of the neighbourhoods that is recurrently affected by the socio-economic consequences of segregation in Gothenburg. This chapter is an analysis of the neighbourhood to get an overview of the current state of the district.

# Who lives here ?

## Demographic Analysis

Data from the Municipality of Gothenburg, 2022  
(Statistik Och Analys - Göteborgs Stad)

### A migrant dominated population



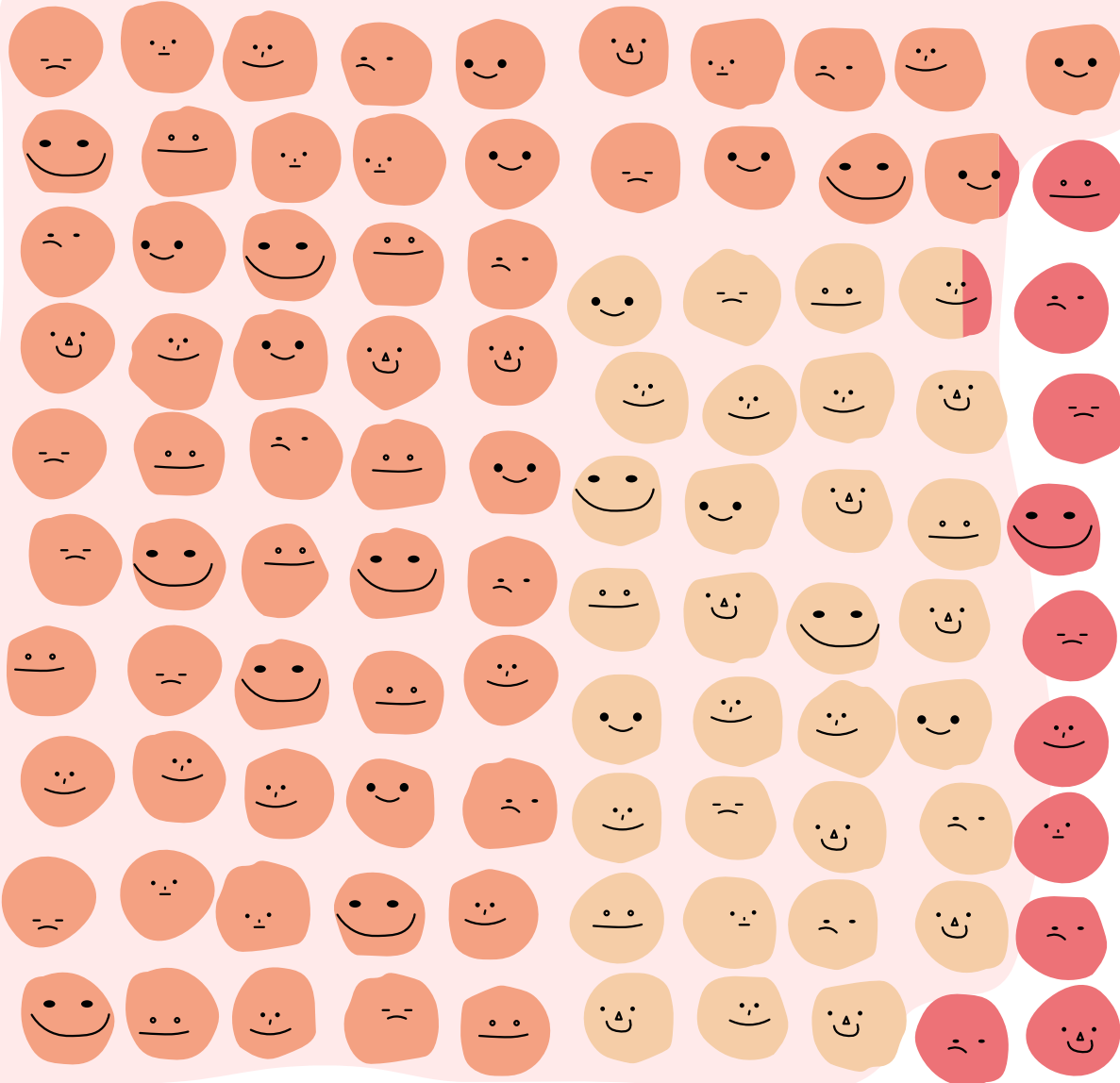
residents born  
outside of sweden



residents with migrant  
background



residents with swedish  
background



6 688 / 7 390 inhabitants

Most present ethnic groups:  
**Somalien, Irak, syrien, bosniak, turk**

59,8% residents born outside of  
sweden, 90,5% immigrant background

*Gothenburg in comparison*

*587 549 habitants - 28,3% born outside of Sweden, 38,1% immigrant background*

## Households

Single and 2 person households represent the majority

Households with children are a minority (37.7% of households have children, 8.6% are single parents)

3 or more children per households is the norm

*Gothenburg in comparison single and 2 people household represent the majority, however only 23.2% of household have children*

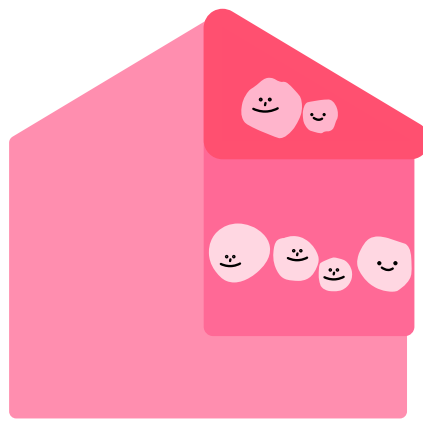


Diagram showing the proportion of single and dual parents households

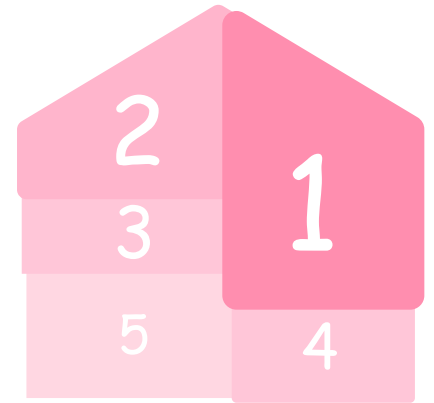


Diagram showing the proportion of person per household

## Income

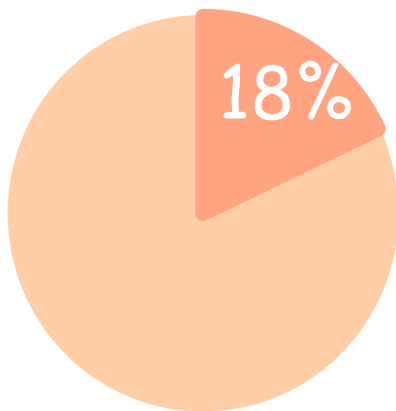


Diagram of the unemployment rate

197 500 SEK/year

Unemployment Rate: 18% (Gender division more or less equal / Age group: higher in 30-64, highest for 45-64)

Average yearly income: 197 500 sek ( gender income gap in yearly average, women : 171 100sek / age group: highest earner 45-64/ inhabitants with migrant background earn less than those with a swedish background)

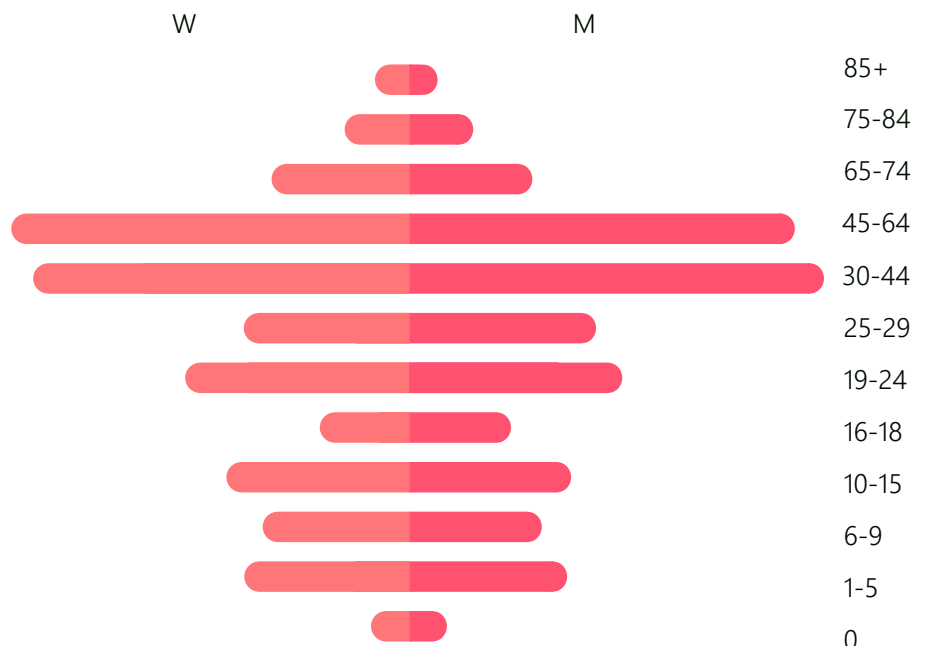
*Gothenburg in comparison 6,6% unemployment rate, 332 400 average income*

## Residents in their prime

Balance gender ratio across all age groups

Dominant age groups  
28% under 18 years old (8,8% teenagers)  
41% between 30-64 years old

*Gothenburg in comparison Similar age repartition, facing the same risks of an ageing population.*



# How is it?

## Territorial analysis

Is this the case in Hjällbo? In this chapter, the district is analysed through different parameters. This is an assessment of the current state of the neighbourhood. By understanding the historical background, the goal is to get an overview of the current urban system.

## Nature, a prevalent quality in Swedish cities.

In Gothenburg, access to nature follows different models depending on the districts. The city has created multiple strategies to develop its relationship with nature in many forms, such as Blue-Green lines, Ecosystem services, Green infrastructures, Green wedges, Green lines, etc. (Översiktsplan För Göteborg, n.d.). A noticeable scale difference in natural structures sets apart the city centre and western districts to the north-east and outskirts of Gothenburg. The central city is rich with green pockets evenly spread throughout, with some bigger parks. Whereas northern districts have mostly access to wilderness (often designated by the municipality as valuable nature). The north-eastern districts are the neighbourhoods where this wilderness is the most present (Översiktsplan För Göteborg, n.d.). These green spaces surround the built environments, separating the districts, maybe even creating barriers.

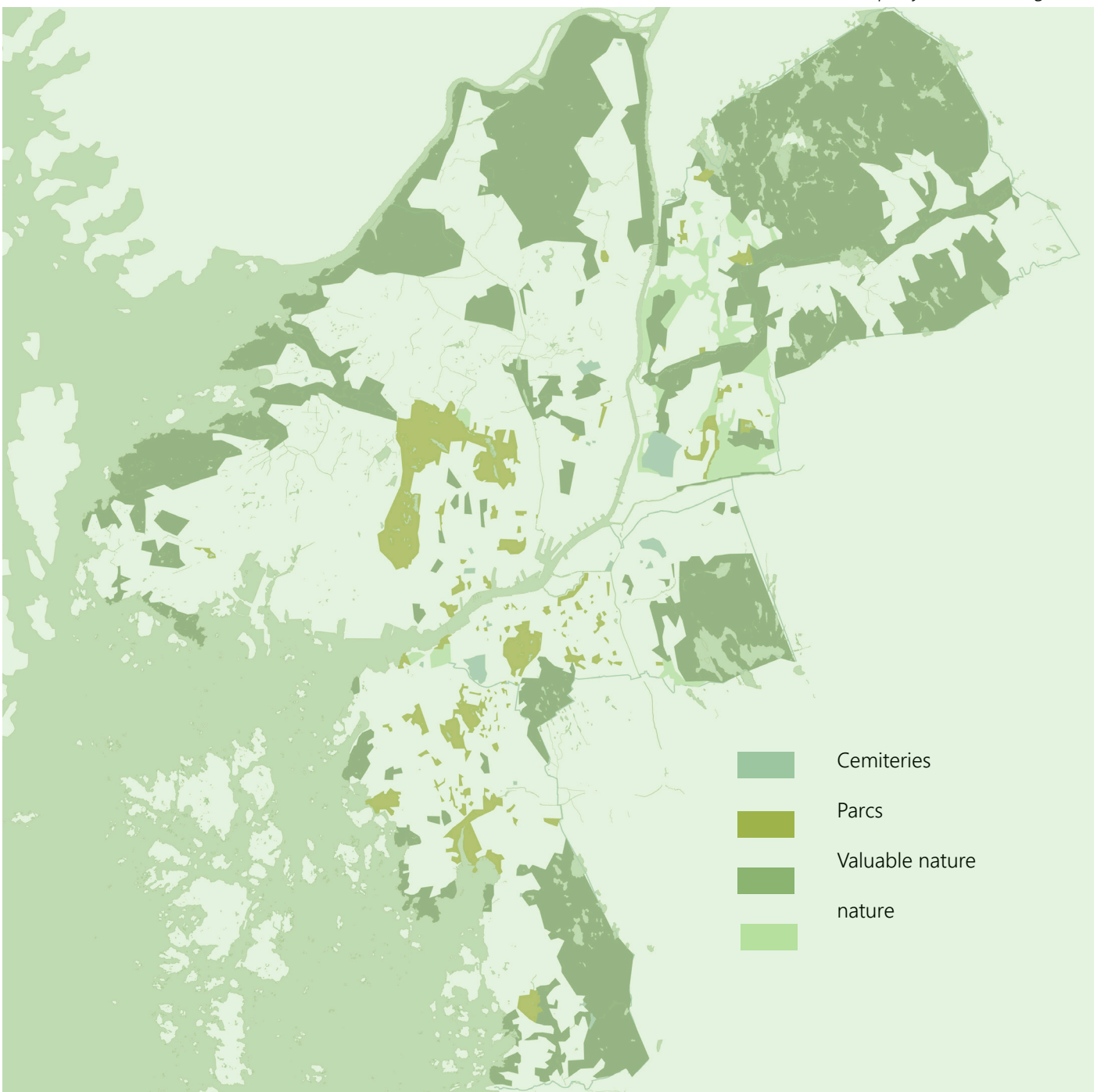
Access to nature and outdoor spaces played a big part in the modern design ideology (Braae et al., 2020). So it is no surprise that it is so prevalent in the outskirts of Gothenburg that were built at that time. The movement developing in Sweden at the end of the 19th century alongside functionalism, was well established by the end of the 1930's. The established models and theories were vastly implemented after the second World War as it was seen as a possible solution for urgent housing needs. Though criticism grew louder with time, construction of housing estates following modernist planning models was mostly stopped by the oil crisis in 1973 that put an end to the million program (Vall, 2015). Social justice, health and equality were

important drivers of the modernist movement and green spaces played an interesting role to achieve such prospects. They provided sunlight and fresh air, as well as inspired healthy lifestyles.

Often described as pastoral landscapes, they were to contrast with dense, over populated, unsanitary and unregulated urban environments of the 19th and early 20th centuries (Van Haeren, 2021).

This continued a long tradition of European thought in which green urban spaces were seen as universal symbols of liberty and equality that reflected a humanistic and collective vision for a better and more fulfilling life (Braae et al., 2020). Unfortunately these ideals did not travel through time. Today the uses, understandings and materialities of these outdoor spaces have changed and have found themselves the subject of negative public discourse (Braae et al., 2020). These neighbourhoods are a combination of both mass produced large scale housing estates and large open spaces. The lack of boundaries and defined functions, supposed to create fluidity in use and movement, have led to anonymous, unclear and unclaimed spaces (E. Minoura, 2021).

Map of the green spaces in Gothenburg  
Data from the Municipality of Gothenburg, 2022





## Taking a closer look at Hj ä llbo

In the neighbourhood, five main categories of outdoor environments were identified: Wilderness, barren vegetation, the lawn, the park and the square.

The wilderness area is the most present, characterised by the density of its vegetation and the presence of natural minerality. The wilderness area includes the forest, is hilly and not very accessible except for the occasional path.

The barren vegetation is found alongside transportation infrastructure such as the river, the E45 and road 190. It is defined by its sparse plant growth as it is mostly composed of high grass and bushes.

The lawn is a green space more central to the neighbourhood and is found in between buildings and alongside internal roads. It is identified by the dominating presence of grass. The parc typology is similar to the lawn, but differs by the presence of paths, planted greenery and designated programmed areas, such as playgrounds.

While technically the square typology isn't predominantly a green space, it has got the occasional flowerbed or trees piercing the mineral flooring.

5 identified typologies:

- a. Wilderness
- b. Barren vegetation
- c. Lawn
- d. Parc (lawn, path, activity),
- e. Square



a.



b.



c.

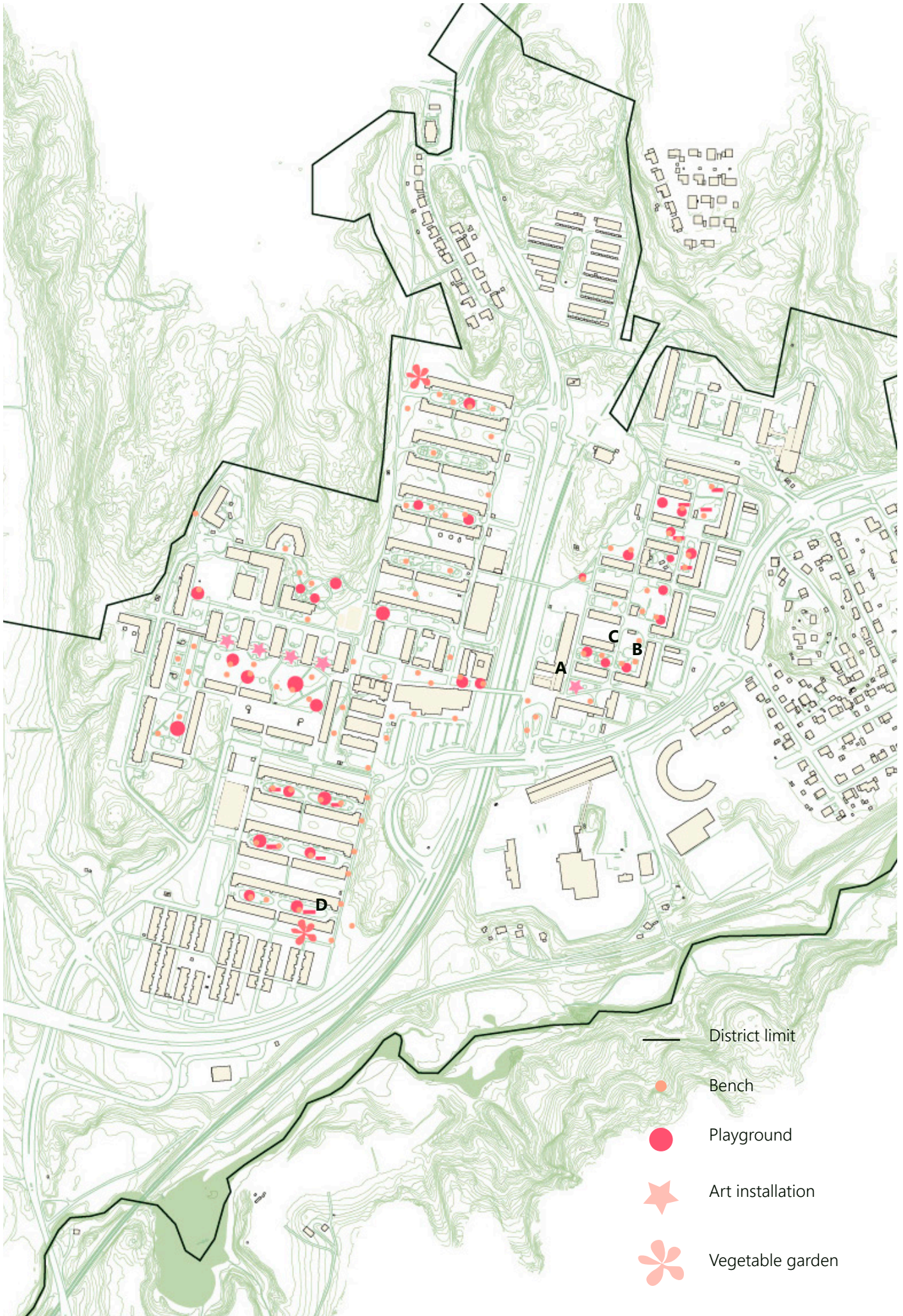


d.



e.

Map of surveyed amenities in Hjällbo





## Amenities

What equipment has been installed in outdoor spaces?

The map on the left is the result of an onsite survey of the current amenities. To some extent, these are an indicator of the behaviours, habits and activities supported by the municipality. To whom are they destined? To what age group?

Four configurations of equipment have been recorded through onsite surveys. The two main categories identified were playgrounds and benches, while the appearances of art and gardening spots were more occasional.

### The Playgrounds

The playgrounds have a designated user group targeting children approximately from age 1 to 7 and have a defined function.

They were found in every outdoor space following the parc typology aforementioned but also in close proximity to schools or to the Hjällbo Centrum.

Most of these interventions were repetitive, exhibiting the same play elements: swings, a slide, spring riders, and didn't seem to be placed with consideration for the effect its closeby environment would have.

As can be noticed on the map, a number of them are placed in close proximity to the façades of housing blocks or in such close proximity that they remain in the shadows for a good portion of the year.

Some playgrounds stand out by their accurate placement, whether they are in range of a school, exposed to direct sunlight, have a wider variety of elements supporting more diverse ways of playing and are sometimes connected to natural spaces.

### Benches

The benches do not cater to any specific user group and do not have as specific a function as playgrounds. They answer to a wider audience. They were found all over the neighbourhood, with an increased presence around activities (Hjällbo centrum, playgrounds, bus stop, etc) and sometimes accompanied by a grill (barbecue spot). However most of them seemed isolated, with no specific consideration for local qualities or views. They seemed scattered in between the buildings.

### Art

The occasional sculpture or mural made an appearance. These were often placed towards the entrances of apartment blocks, bringing colour or a change of pace to a square, but seemingly unconnected to the context.

### Gardening spaces

Gardening spaces used by a group of neighbours were found at the back of an housing estate plot. These interventions have a defined group of users, a defined function and are often well located getting both sunlight and shade.



A. typical playground, located at Bondegärdet 25



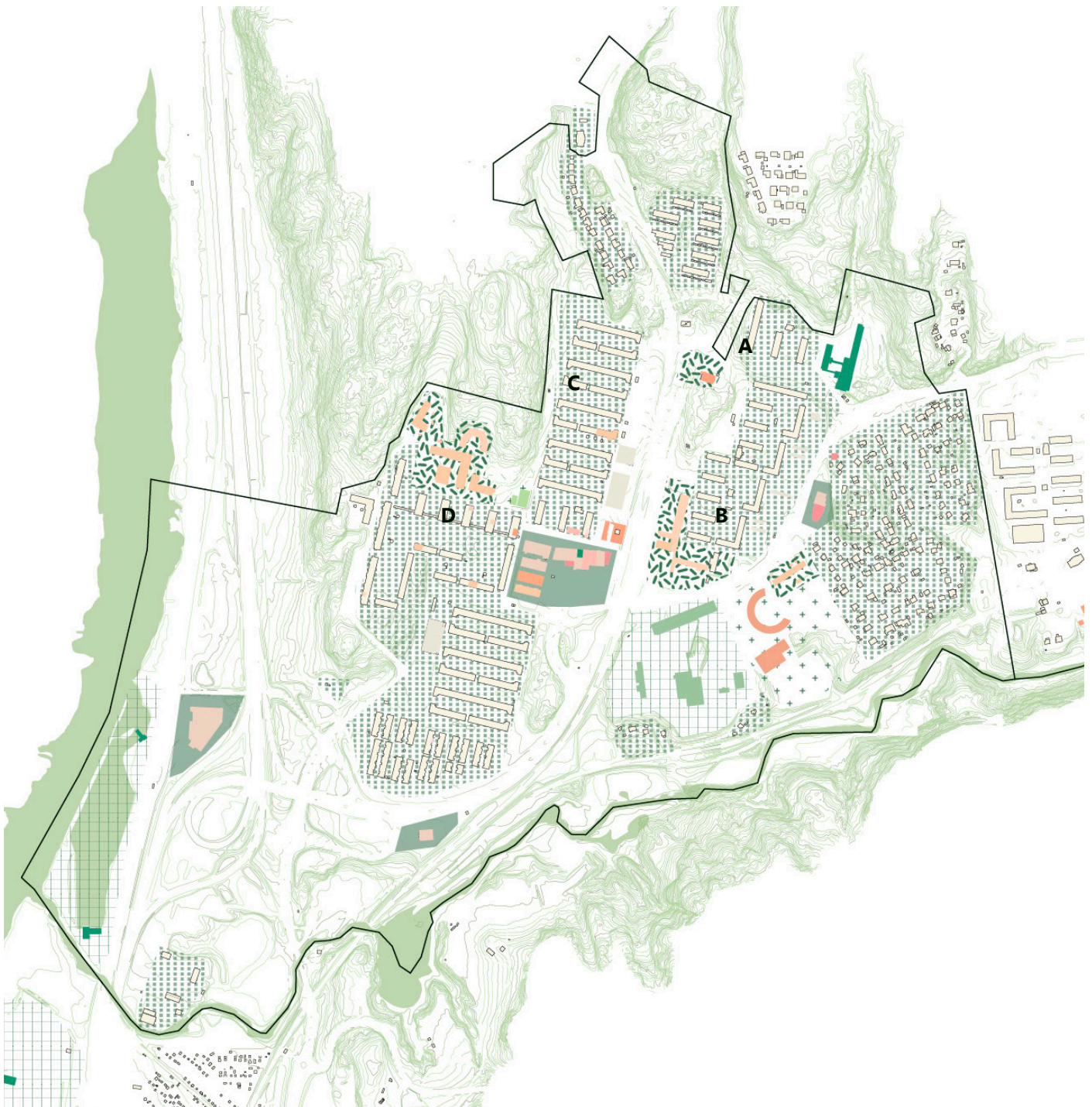
B. bench associated to the playground, located at Bondegärdet 25

C. vegetable garden, located at Bergsgårdsgärdet 90



D. Art installation, near Hjällboplatsen 1





Commercial functions

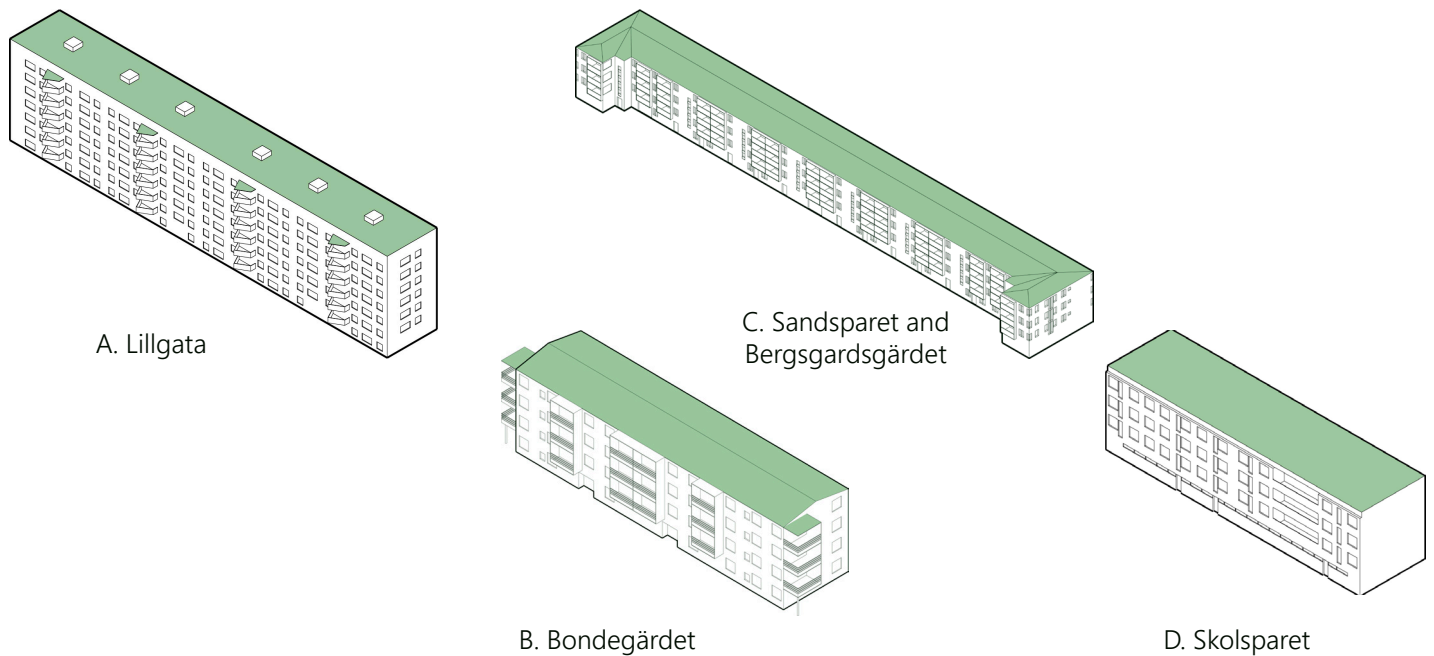
- Restauration
- Supermarket
- shops
- public service

Cultural functions

- School
- Library
- Health centred
- Sports centre

Zoning according to function

- Housing
- Culture related
- Commercial activities
- Large commercial (industrial scale)
- Sports facilities



## The built environment

Hjällbo was built under the million programme elaborated by the Swedish government. The programme was a response to the long established housing shortages. The goal was to build a million new housing units in the span of 10 years, officially launched in 1965 but cut short by the 1973 oil crisis (Hall & Vidén, 2005). The million program housing projects follow the theories established by modernism and functionalism that were spreading across Europe. They are characterised by large estates of slab or point buildings.

In Hjällbo, the housing blocks are mostly slab buildings of 4 to 9 stories. The ground floor is usually without apartments or shops and closed off to house bicycle rooms, laundromats and other functions. This has contributed to the feeling of a closed, dark and unsafe environment (Gregorowicz-Kipszak, Bröchner, Hagson, 2021). The neighbourhood layout seems to be following a specific zoning according to function. As can be seen on the map, four categories have been identified: residential, school and associated culture, sport facilities, and commercial. There is no interlacing of functions. The zones are homogeneous and lay next to each other, sometimes separated by infrastructure, roads or nature. The residential type is the most present and commercial activities are limited to Hjällbo Centrum. This separation of function is in alignment with the reproducible and economical model promoted by the modernist approach to urban planning. However, the fragmentation of the neighbourhood in such a distinguishable way does not invite inhabitants to move through the whole neighbourhood or explore. Most residents

experience the neighbourhood while going about their daily life (grocery shopping, school, commute to work, etc). Most of the movement is then limited between the home and basic necessities, therefore the outdoor spaces being used are mainly around the home or on the way to the home.

Though the neighbourhood is quite small and there are many roads and paths prioritising pedestrian movement, car centric infrastructure (car parks, petrol stations, etc), the road 190 and the tram rail create harsh divides. The wilderness circling around Hjällbo is hardly penetrable and furthers the impression of division. Together, these elements seem to suggest a more transport focused movement.

*96,2% of the neighbourhood was built between 1961 and 1970 (Statistik Och Analys, 2021).*

*Most of Hjällbo was built around 60 years ago and has yet to see major redevelopment or structural changes. (Gregorowicz-Kipszak, Bröchner, Hagson, 2021).*



## Available services and activities:

- \* convenience store / minimarket: 2
  - \* restaurants: 5
- \* bar: 0
- \* preschools: 6
- \* primary schools: 2
- \* libraries: 1
- \* youth centre: 1
- \* churches: 4
- \* other temples: 0
- \* gym and sports related facilities: 5
- \* municipal services: 3 (post office, police station, poseidon offices)
- \* health centres: 1

It is noticeable that the neighbourhood has a limited variety of services in comparison with the number of inhabitants and their diverse backgrounds. There are no ethnic related services such as specialised supermarkets or other economic activities based on community relationships. Though Islam is a growing practised faith in Hjällbo there are no official mosques in the neighbourhood. There are no highschools or higher education or training spaces, few offices or office spaces, no maker or creative spaces and few social services or civic spaces.

In other words the ratio of services to users is low and does not reflect the diversity of cultures of the residents. They are related to activities conducted during the day and show no possibility for nightlife. In addition there are few work or training opportunities in the neighbourhood itself, therefore most inhabitants need to commute daily after the age of 14. Preschools are one of the rare functions that transcend the zoning, they bring some diversity as a couple are integrated on the ground floors of apartment blocks.

What is the city planning for these neighbourhoods?

In the 2023 master plan, the city has been explicit about wanting to tackle the segregation problem. For the district of Östramellanstaden (specifically Hjällbo and others) the strategy laid down is to invest in sports facilities, school environments and public parks to try and raise the value of the area and bring in private investment. In addition, the municipality is planning new housing to diversify the tenure type in the neighbourhood.

*"Spatial organisation can undermine the performance of the territory as an "arena for life".(E. Minoura, 2021, p356)*

In the case of Hjällbo the neighbourhood is split into sub areas because of the transport related infrastructure, aggravated by the zoning and the lack of interlacing between functions. The latter contributes to most areas of the neighbourhood becoming dormant at similar times of the day. The design of the outdoor environment is uniform across the entire area with the same type of vegetation, pavements, etc. Due to the fluidity of the outdoor spaces and the lack of boundaries between public environment, semi-public, the environments lack ownership initiatives, stay indistinguishable and tend towards anonymity which contributes to the sense of insecurity. The areas rarely have the dynamic patterns that occur in environments where more defined private activities take place. For example, activities that residents of the surrounding housing estates can partake in or engage with, that take place side by side with neighbourhood flows (visitors from other areas walking by, cyclists going through the area, etc) (Gregorowicz-Kipszak, Bröchner, Hagson, 2021). Amenities are seldom used due to their lack of connection to their context, relation to their surroundings or to specific activities. In addition, they do not contribute to defining the characteristics of outdoor spaces, to structuring them or to creating a hierarchy. They seem scattered through the spaces, repetitive but with no clear connections between them.

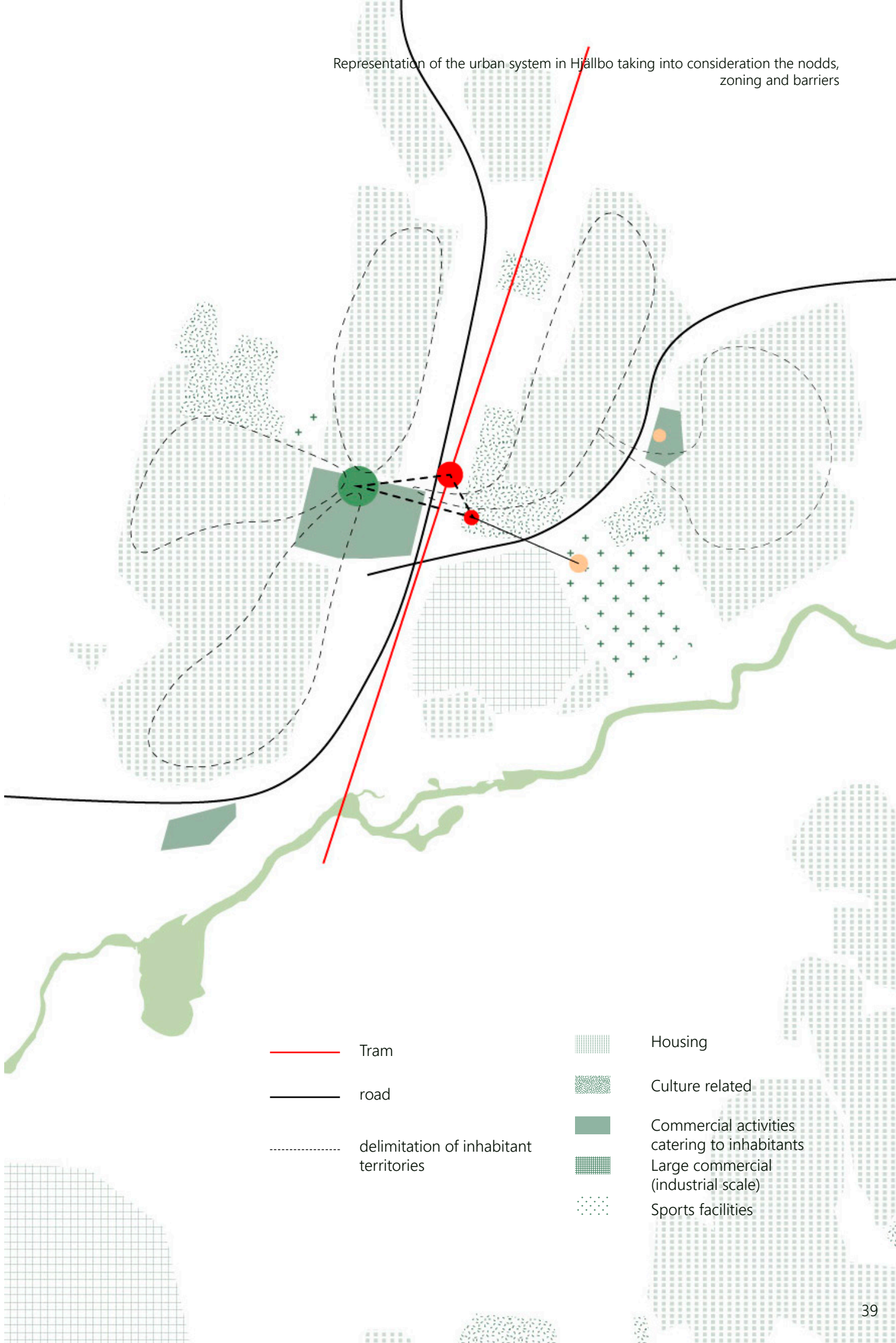
Open spaces built around housing estates are part of the modernist urban planning theory, promoting equal access and qualities for every resident in the district. However, with such similar and fluid designs, they have become indistinguishable outdoor environments. New interventions and amenities, though intended

to promote use, lack diversity, are generic and repetitive throughout the space. They continue the pattern of anonymity. Their lack of obvious connection with the surroundings and delimitation, makes them seem scattered through the space and reinforces the impression of fluid large scale outdoor areas. Remarkable interventions distinguish themselves through orientation, making use of natural qualities (light, terrain, wind protection, etc) and their placement in relation to other services or by targeting specific user groups and creating clear boundaries (such as the gardening spots or small football fields).





Representation of the urban system in Hjällbo taking into consideration the nodd, zoning and barriers



- Tram
- road
- delimitation of inhabitant territories

- ▒ Housing
- ▒ Culture related
- Commercial activities catering to inhabitants
- ▒ Large commercial (industrial scale)
- ▒ Sports facilities





# Strategies

## Urban strategies

### The goal of the following strategies is to support the creation of networks for social integration through sustainable interventions in outdoor spaces.

These strategies are a result of the assessment of Hjällbo and of its inhabitants. They are intended to be applied throughout the neighbourhood and provide guidance for its redevelopment. Sites where these intentions can best be applied can then be located.

### Diversification (of use)

The intention is to counter urban homogeneity (zoning and categorisation of space) by answering to different needs and acknowledging the diversity of uses in one space. By doing so, the intention is to reduce the dissonance between the environment and the lifestyles lead by inhabitants.

### Overall densification (of function)

By introducing a greater amount of activities and functions, more opportunities are created (whether it is regarding work, economic or social activities). This would also lower the existing dependency to the city centre through the proximity of necessities.

### User oriented approach

With an in-depth understanding of inhabitants' practices, local actors and social organisations, the goal is to develop adapted and sensible living environments that take into consideration lifestyles and habits. This could lead to the presence of specifically catered commodities.

### Site specific approach

It is an important facet of sustainability to work with and make use of local characteristics and enhance existing qualities, whether these are naturally present (climate, materials, etc) or existing because of the built environment (enhancing existing functions, reusing and transforming underperforming elements, etc). This approach also promotes a positive outlook on the neighbourhood and supports appropriation through familiar elements.

### All year round presence

By taking into consideration seasonal characteristics, understanding meteorological elements and their repercussions on the quality or enjoyability of current outdoor environments, there is a possibility to make use of them and ultimately to extend the period of use of outdoor spaces.

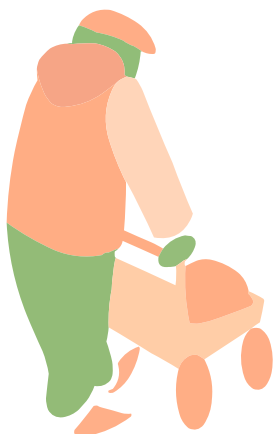
This strategy considers the addition of adaptive or transformative architecture as a way to complete outdoor spaces, but also the network they can create throughout the neighbourhood. This way different spaces are in use at different periods of time or under different weather conditions.

### Consider mobility and accessibility

Hjällbo has the advantage of being a small scaled neighbourhood. Crossing the neighbourhood on foot takes about 20 to 30 min on average. By taking into consideration walkability in the design of spaces, through clear pedestrian access, entrance points and boundaries, the chances of experiencing outdoor spaces and creating connection with one's environment increases.

### Enabling development of future functions

By creating a qualitative environment (spatial and social), the opportunity for outdoor spaces to become a supporting factor for future businesses is more obvious.



## Design strategies

### Time awareness

The desertification of the neighbourhood's outdoor environment is also exacerbated at sundown. As the days become shorter, the window of use shrinks as well. To enjoy these spaces for a longer period of time, adapting activities to this natural pattern is key. Another solution is to link the use of the environment with and around light sources.

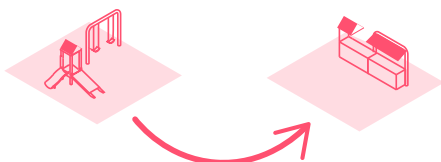


### Clear boundaries

Boundaries reduce complexity of spaces of movement and rest. Reading and understanding the spaces can be eased by physical distinction (through materiality for example), clear access and help define the user group (private, semi-public, public).

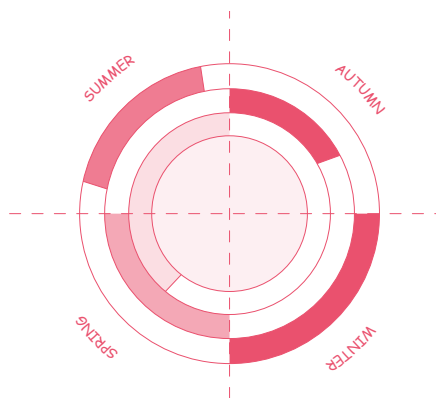
### Re-use

To re-use or make use of what is available locally highlights the qualities of the existing and plays into one's sense of familiarity. This can be interpreted in many ways, making use of natural environmental qualities (orientation, wind, shade, etc), re-using onsite materials or abandoned buildings, making use of existing functions to encourage growth, etc.

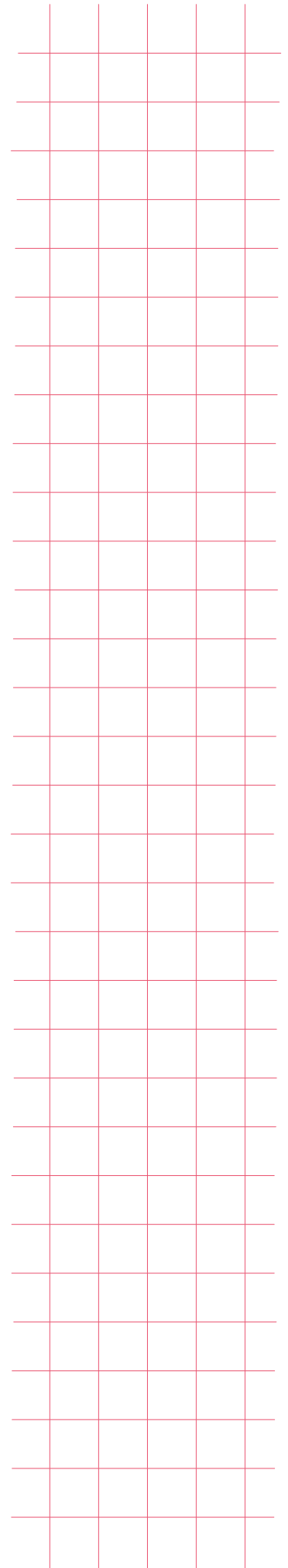


### Climate awareness

The change in weather conditions greatly affects the use of outdoor environments in Gothenburg. A noticeable desertification takes place during late fall and winter months. The design of new interventions should seek to extend the usability and enjoyability of the neighbourhood's environment. This includes the addition of indoor spaces that support the use of its surroundings irrespective of the weather conditions, evolutive architecture that responds differently to summer or winter conditions and correlation strategies, meaning that the sites and activities around the neighbourhood might be in use at different time of the year (active/dormant correlation)



representation of dormant and active use potential



# Key sites

These sites have been identified as having greater local qualities and have the potential to become part of the identity of Hjällbo.

## Sites 1, 2, 3 and 11 have undeniable natural qualities.

1 and 2 have the advantage of being close to wilderness, which if rendered accessible could contribute to a larger pool of activities for the residents.

Site 3, though a little further, is spacious and has access to both indoor spaces and the river, which could be used for recreational or economical purposes.

Site 11 benefits from good weather conditions as it is protected from the wind, and has great sunlight exposure. Inhabitants have started a vegetable garden here, which could be good to support.

## Sites 4, 5, 6 and 7 are close to existing well functioning activities.

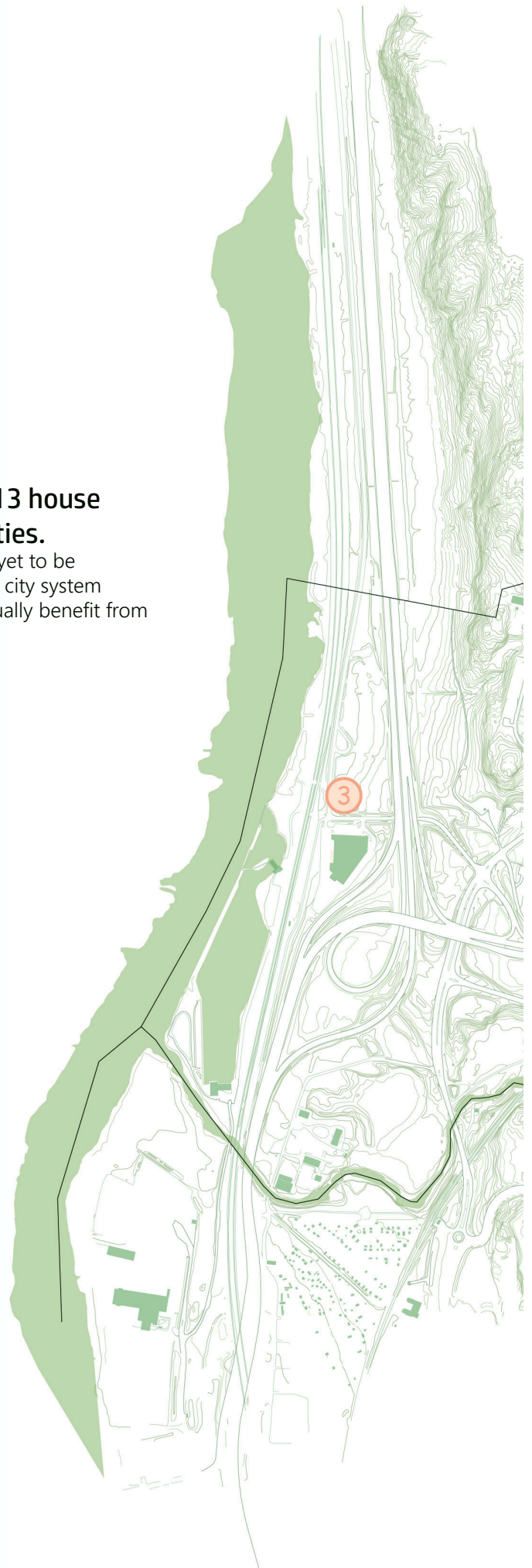
They benefit from flows of users that are closeby and could easily be integrated into the city system.

## Sites 9 and 10 are calm sheltered outdoor spaces.

These site hold potential to be a designated meeting space for surrounding neighbours.

## Sites 8, 12 and 13 house economic activities.

These however have yet to be incorporated into the city system even though they usually benefit from exterior flows.





# People watching



Up until now the understanding of the residents of Hjällbo has been quantitative. The collected demographic data has helped understand the general, shared and recurring characteristics of the inhabitants and therefore to understand them as groups. However, this exercise is based on observation and assumption, to get an insight into the daily lives, flows and behaviours of individuals. Through these observations, the goal was to find out more about personal habits as, at the end of the day, integration is an individual process.

Some behaviours were recurrent per age group and time, some actions were more spontaneous and isolated and so appeared as more dependent on favourable conditions.

**Recurring observations.** The preschools' workers often take the children out for activities around the neighbourhood.

Often the groups can be seen going to the centre where small bicycles have been brought out by the housing company Poseidon or to the nicer playgrounds close to the forest. During the day, inhabitants encountered are mostly women, children or elderly people.

At lunch time, women and children are seen together walking home or back to school.

The amenities towards the centre or around the bus station are seen being used by men.

Most people walk alone, except children who are always in groups, the occasional couple or mothers with their children.

A woman of around 55 years old is always seen begging on the bridge between Hjällbo centrum and the library or at the door of the grocery store.

The schools let the pupils run around at recess, there are no fences around the elementary schools, so from time to time, you will meet them having a stroll quite far away. However, it mostly livens up the surroundings of the schools.

On sunny days, teenage boys were hanging out around the city centre where more people (a majority of men) gathered in groups to have a chat.

Less people seem to wait for the buses than for the trams.

The observed interactions seemed to follow these patterns:

Type 1- Individuals share common characteristics (dress codes, children, language, age, etc) and cross paths at the same time.

In this case, individuals could be seen as a group for example, walking back to the station together, stopping in front of the grocery store and having a chat, if not already together, they often could share a quick interaction.

Type 2- Individuals with seemingly different habits and lifestyle share spaces

People with very different characteristics were seen sharing a space, experiencing it differently at the same time. This contact is a lighter connection, closer to an awareness of others and exposure to different individuals.

Type 3- There have been times when individuals with seemingly similar characteristics were seen in different places doing the same kind of activities. Could this be a missed connection?



**Thoughts.** By observing people at different times and under different weather conditions (this exercise was done on multiple occasions from January to April), one thing was made apparent. On sunny days, more inhabitants are seen outdoors and make use of amenities placed in connection with different activities. The benches in Hjällbo centrum were being used and playgrounds around schools were full of children. The isolated amenities though are still left unused. However when the weather conditions are less fortunate (cloudy days, light rain, snow, etc) these places are completely disregarded.





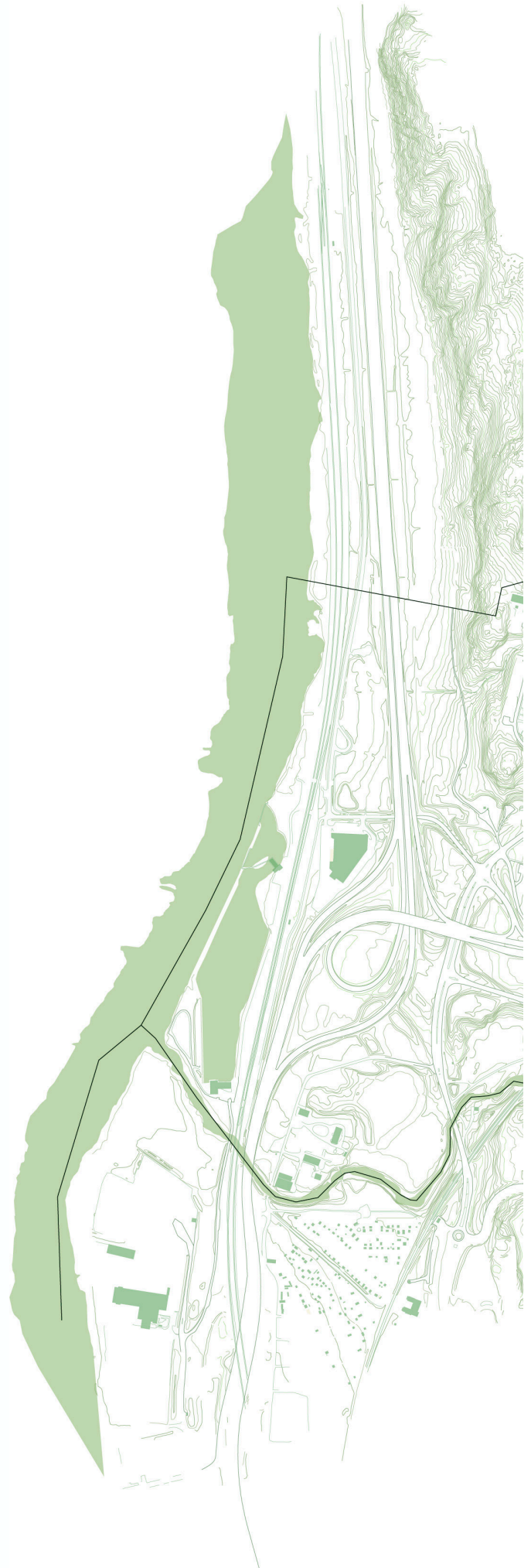
# Concept

The project's intention is to promote and facilitate the extended use of outdoor spaces as a way to support the making of connections.

The redesign of the selected sites try to respond more specifically to residents' interests and pique their curiosity. The goal is to improve the chances of using and practising these spaces, therefore inhabitants will interact with and connect to their surroundings. Moreover, the redevelopment will provide outdoor spaces with unique characteristics, which helps identifying and remembering them. These are important factors that play into the sense of belonging.

The goal is to incite others to join in on activities, to pique the interest of bypassers by highlighting the moment of use of these new spaces. Since sunlight has been identified as a facilitator of use, it will play an important role in the design of the environments. However in the case of its absence, artificial light in combination with other elements should encourage use and help connections to be made.

Three sites have been chosen to carry this same concept. The sites belonging to different types of nature present in modernist urban design (identified in territorial analysis) have been selected as they showcase different qualities. Moreover it will demonstrate that it is possible for these environments to retain some of their current qualities, to fulfil their original goal and yet be distinguishable and more unique. However, being different types of environments, they promote different experiences and interactions therefore support different types of connections of varied depths. This helps build a richer social network.





# The project

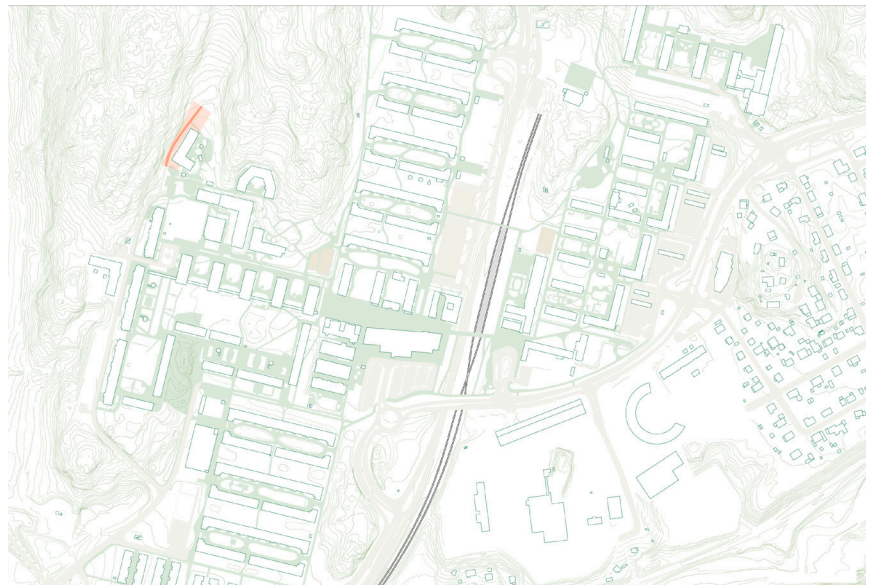


## The entrance to the forest

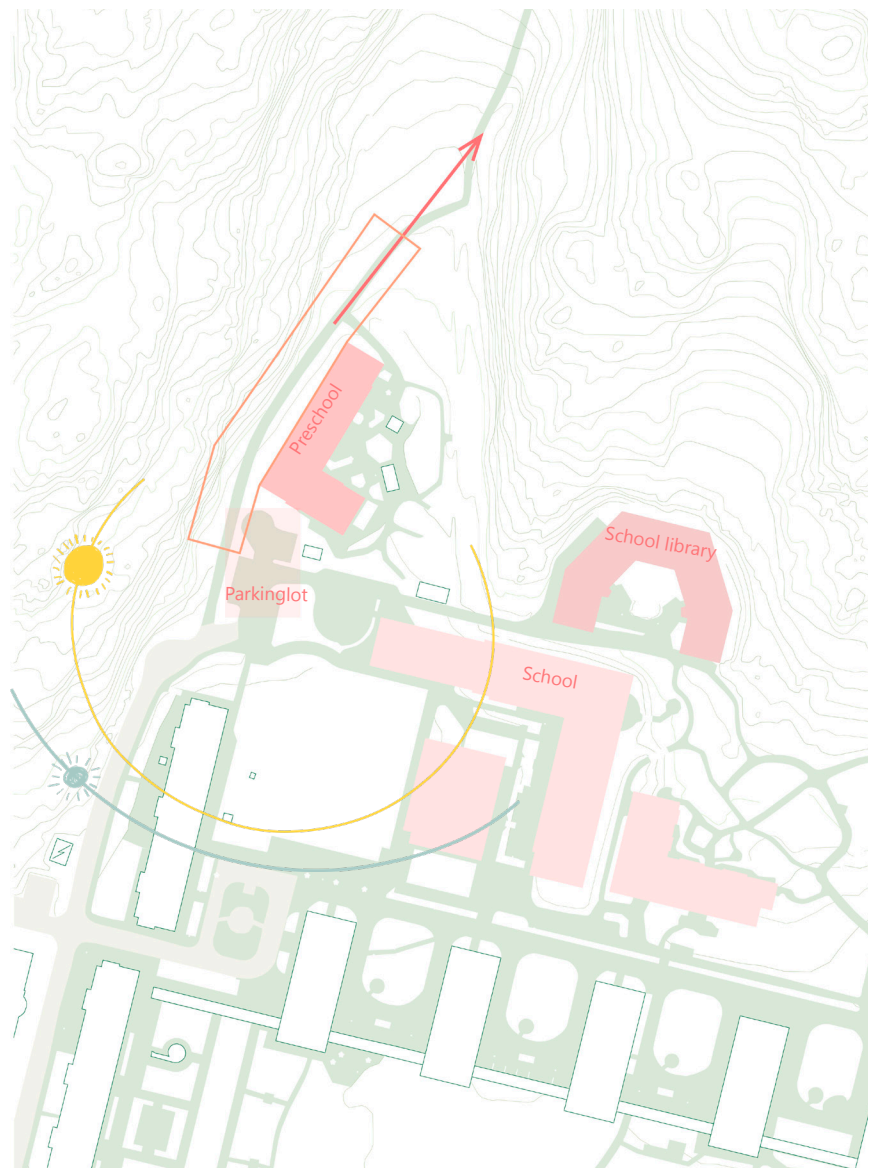
Skolspåret 75

The third and last site is situated at the edge of town, at the limit between Hjällbo and the forest. The forest is a potentially rich and fun environment to explore, for example it gives access to good view points over Hjällbo. However, although the entrance to the forest is actually sufficiently accessible with its shared car park and defined path, unfortunately it remains hidden to most due to the location of the preschool. In addition, this path leads to a sports facility right outside of Hjällbo and can save a detour or the need for a car ride. This site has an intimate connection to the preschool but is also really close to an elementary school.

Localisation of the site in Hjällbo



Map showing existing qualities and surroundings



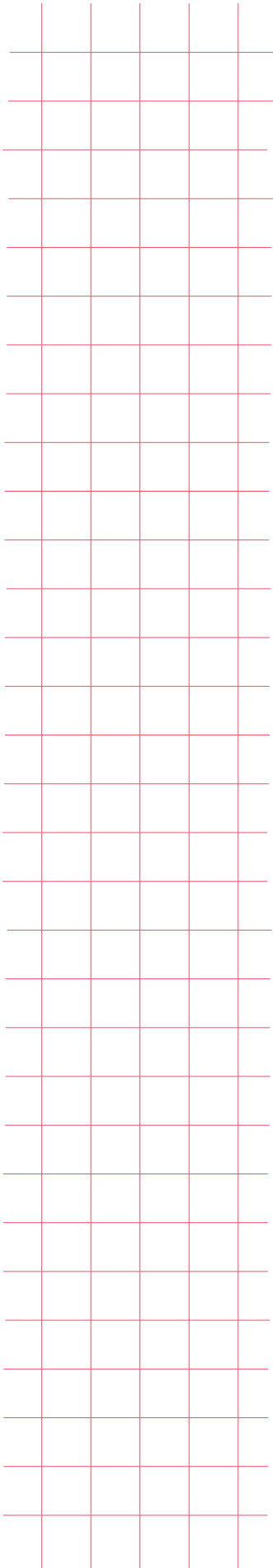
Photograph of the path leading to the forest, the preschool on the right



Photograph of the entrance to the forest



## The applied strategies





**Site specific approach**

The project is designed with the nearby preschool in mind and the surrounding wilderness' potential for activities and new knowledge.

This approach also promotes a positive outlook on the natural environment and supports appropriation through familiarity.

**Consider mobility and accessibility**

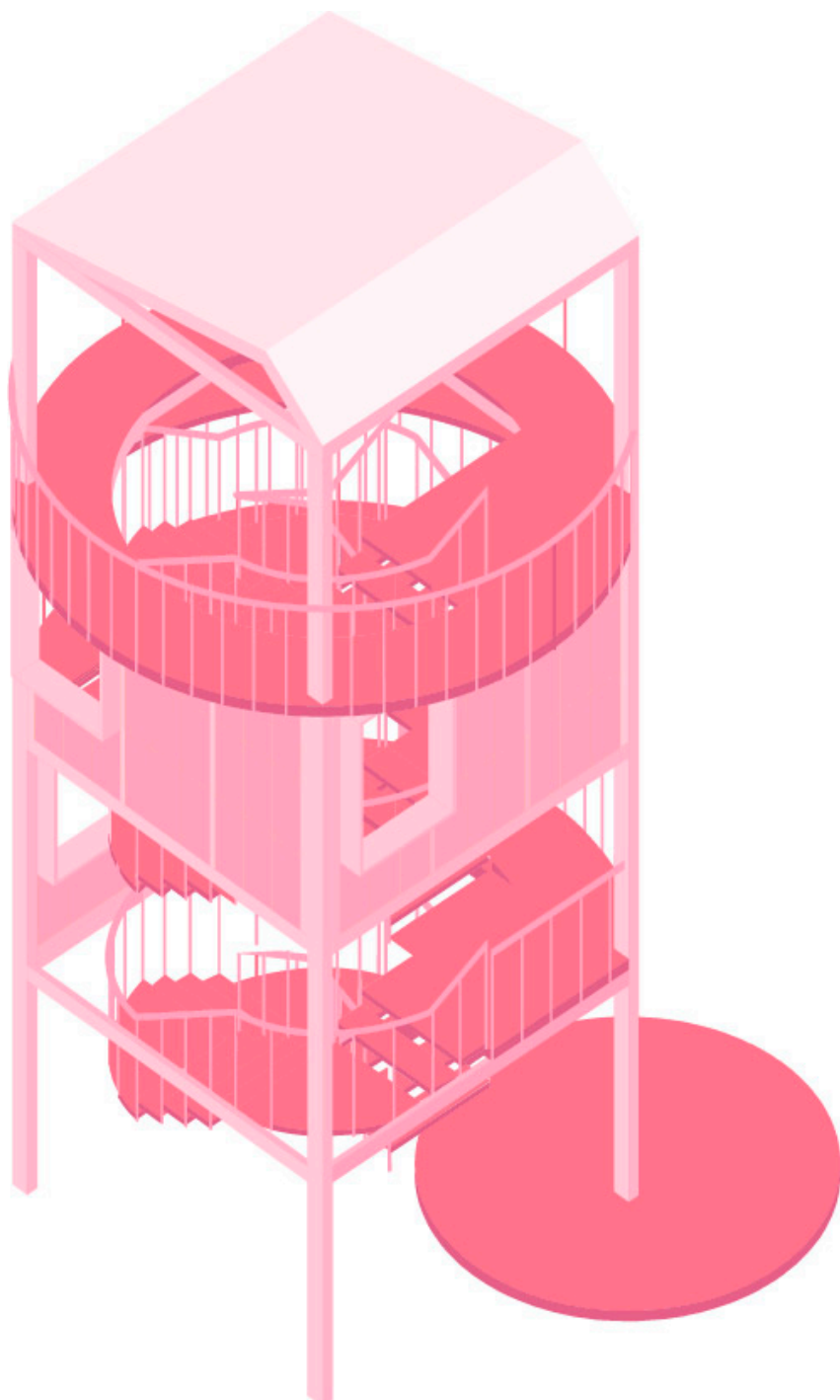
By taking into consideration walkability in the design of spaces, through clear pedestrian access, entrance points and boundaries, the chances of experiencing outdoor spaces and creating connection with one's environment increases.

**Time awareness**

The desertification of the neighbourhood's outdoor environment is also exacerbated at sundown. As the days become shorter, the installations rely on the implementation of light that help these spaces to be enjoyed for a longer period of time.

## Elements implemented onsite

The project has the intention of bringing attention to the forest, by easing the transition between the built environment and nature through playful installations. They give new viewpoints and bring users closer to the ground, to the branches and to the treetops, but also provide some light protection to be able to spend more time outside. Their proximity to the schools invites them to make use of the educational potential the forest can hold.



Axonometry of the observatory tower

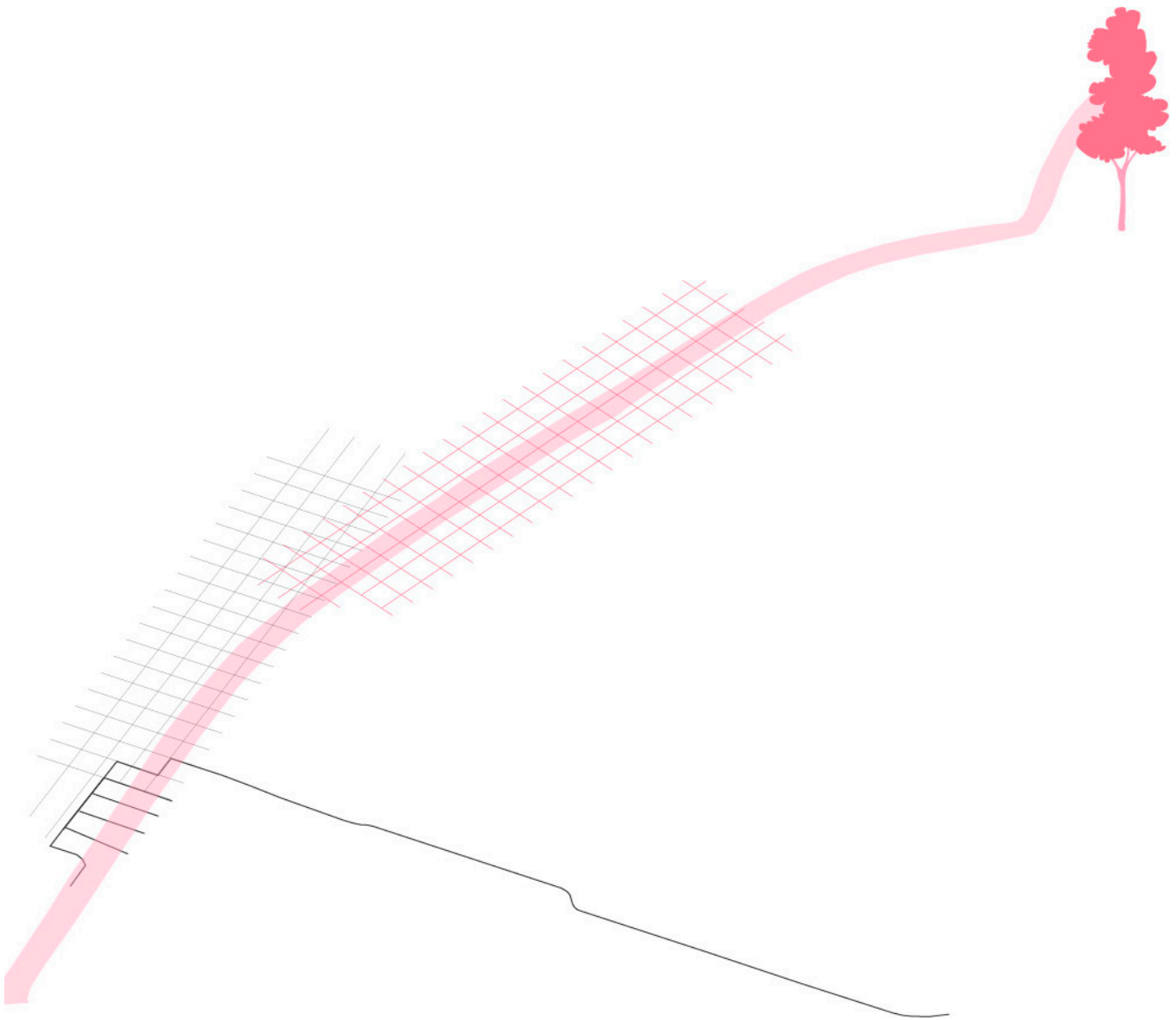
## Elements of the design

Two main elements are the focus of the design to the path leading into the forest: an observatory and two organisational grids.

**Observatory tower.** The observatory brings the user deeper into the forest and offers new viewpoints to the inhabitants. Its main purpose is to spark curiosity and incite play.



Diagrammatic representation of the two grids, the urban alignment following the street orientation and the second mimicking the forest path



**Grids.** Two grids are superimposed acknowledging the transition between the two environments and used as a tool for design. The first one following the urban alignment connects the interventions to the neighbourhood and the second accompanies the existing forest path.



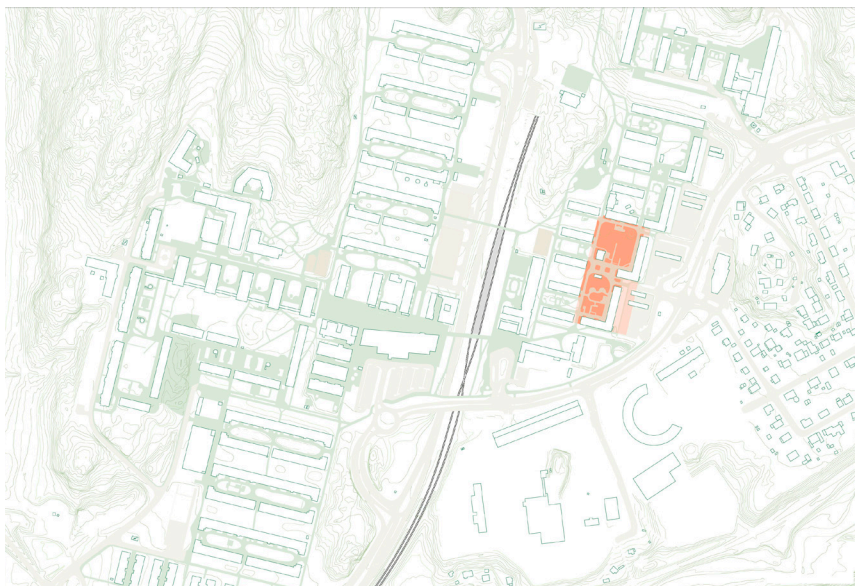


# The park

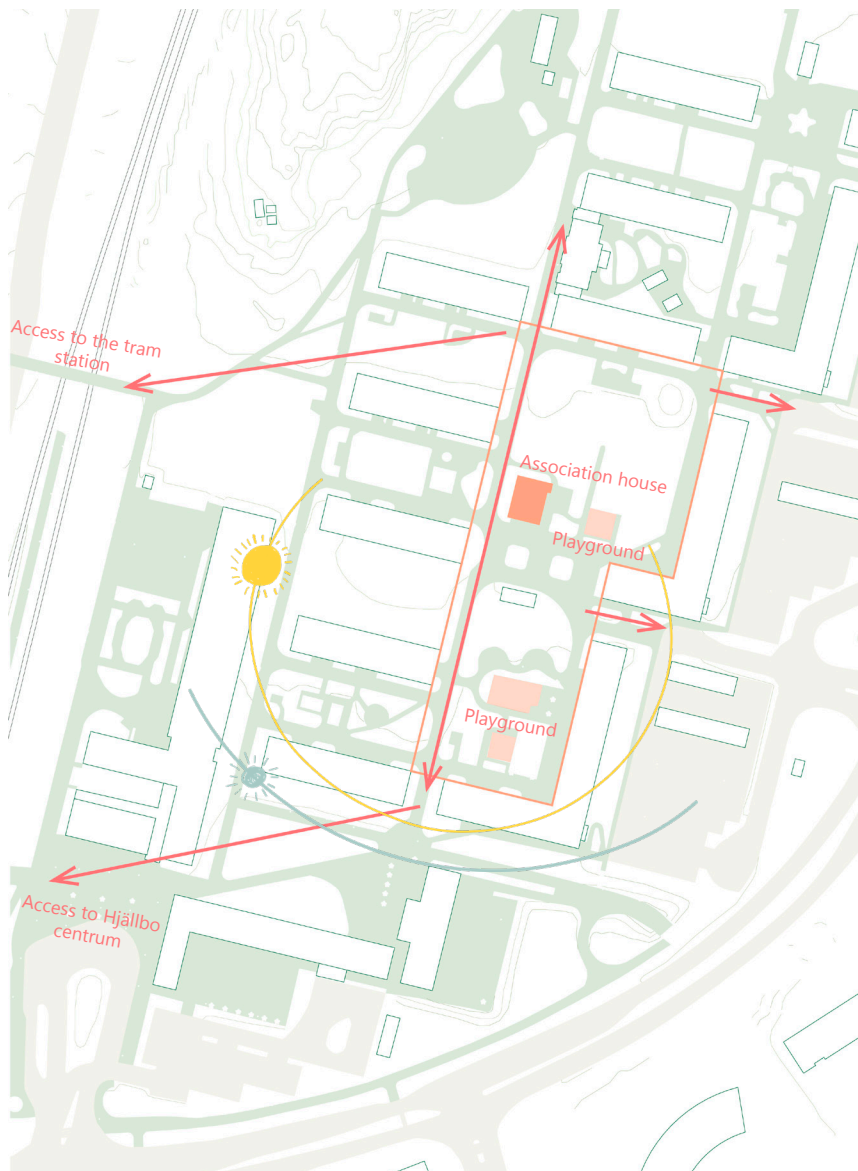
Bondegärdet 25

The park is a typical outdoor space for a modernist housing estate of Hjällbo. The large grassed open spaces are punctuated by small amenities (two playgrounds with similar games, a few benches, a grill and a flagpole), designated planted areas and trees. The paths, leading to the centre of the neighbourhood and out to the parking areas, have been laid along the buildings. This set up reduces the interface between public and private, leaving the impression that the apartment blocks have been set in the park. In addition, this highlights the closed off ground floors to pedestrians. Though the positioning of the buildings helps create a calm seemingly sheltered environment, the space is still very fluid due to the complete absence of boundaries. However the park has one distinctive element, an association house at its centre. Unfortunately, it seems to be hardly used, except for an invitation for older people to meet there once a week during lunch, no other activities were proposed. The site benefits from a range of conditions, some areas are very exposed to sunlight and others are often completely in the shade of the surrounding buildings.

Localisation of the park in Hjällbo



Map showing existing qualities and surroundings



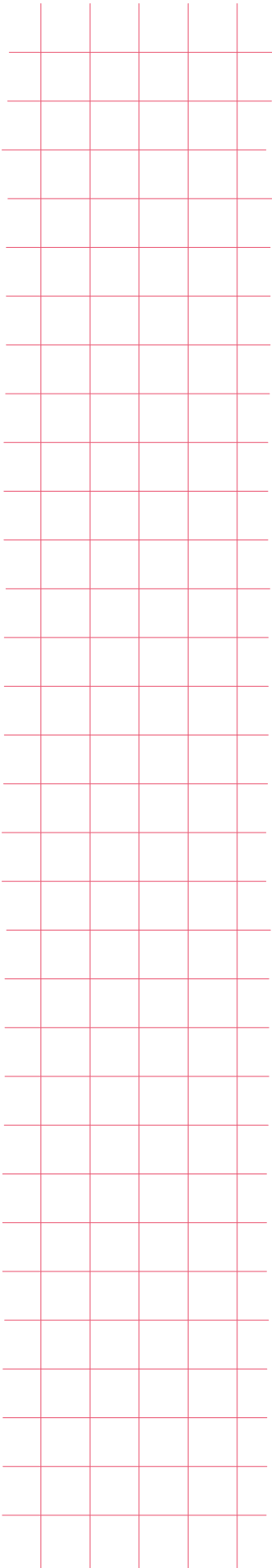
Photograph of the northern half of the park in which we can see the association house and a playground



Photograph of the southern half of the park



## The applied strategies





**Re-use**

To re-use or make use of what is available locally highlights the qualities of the existing and plays into one's sense of familiarity. This is applied by the reuse of the existing association house and playgrounds, which are central elements of the project.

**Clear boundaries**

Boundaries reduce complexity of spaces, of movement and rest. The reorganisation of the activities are accompanied with clearly defined spaces, to create clear access and support appropriation.

**Site specific approach**

The design of the association house and playgrounds takes into consideration the local climate and weather conditions which are incorporated to provide a new outlook on these natural elements.

**Climate awareness**

To avoid the desertification that takes place during the late fall and winter months, sheltered sitting spaces are added to the playgrounds and a greenhouse prolongs the gardening activities.

**All year round presence**

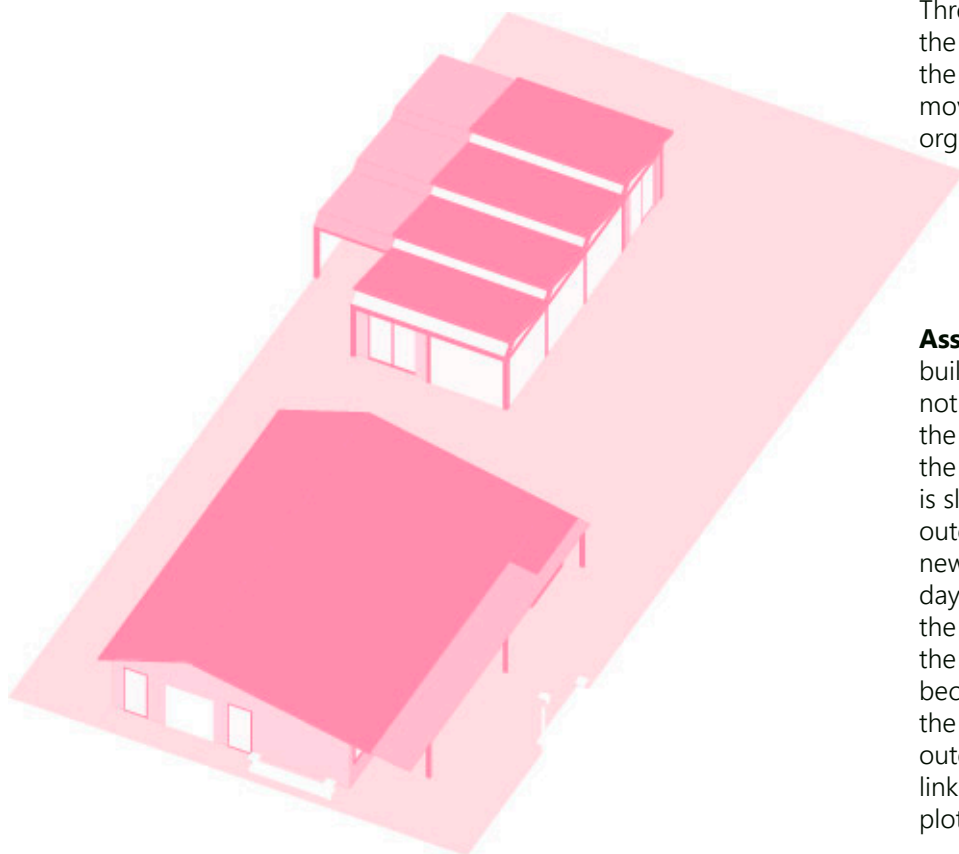
By taking into consideration seasonal characteristics, understanding meteorological elements and their repercussions on the quality or enjoyability of current outdoor environments, there is a possibility to make use of them and ultimately to extend the period of use of outdoor spaces.

## Elements implemented onsite

The project focuses on redeveloping the existing activities by reorganising them taking into consideration their exposure to natural elements and introducing boundaries. This way spaces are more clearly targeted towards specific groups increasing the likeliness of use. In addition, movement is facilitated through the park rather than around it to help build familiarity with the environment and with its activities.

## Elements of the design

Three main elements are key in the redevelopment of the park: the association house, the natural movement of the residents and an organisational grid.



**Association house.** The existing building is a unique meeting place not only for neighbours but also for the people who do not reside on the estate. The association house is slightly transformed to increase outdoor indoor connections. Through new openings, not only can more daylight reach the meeting rooms but the house can radiate light towards the park and the paths, simply becoming more inviting. In addition, the use of outdoor spaces and outdoor activities is encouraged by linking a greenhouse with a gardening plot to the association house.

diagrammatic representation of the associatin house and its new plot

**Natural movement.** Paths are created to accommodate the flows through the park. By doing so, bypassers create a relationship with the park rather than having to go around it. Without the need to actively participate in the proposed activities, the paths still create exposure and can help lower the threshold that active exchange can present.

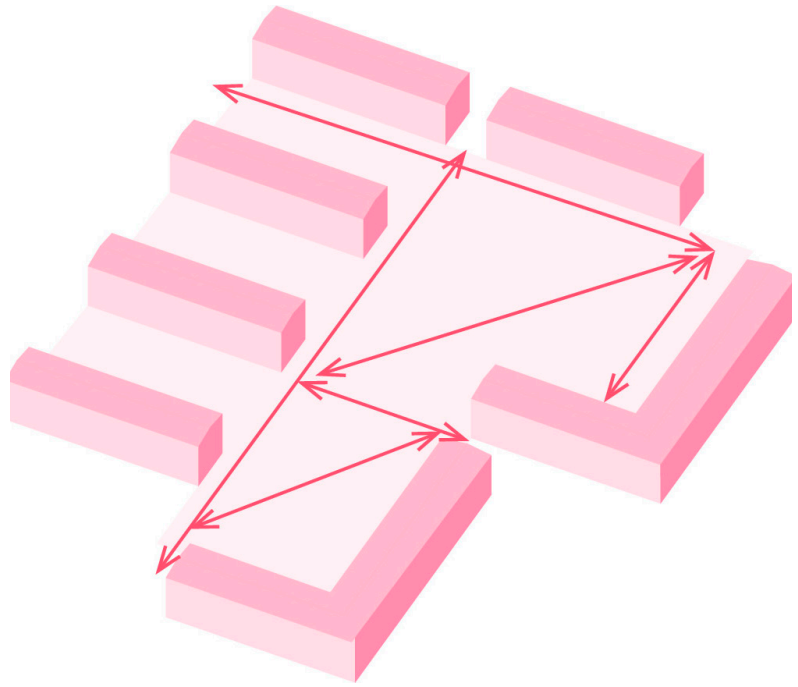
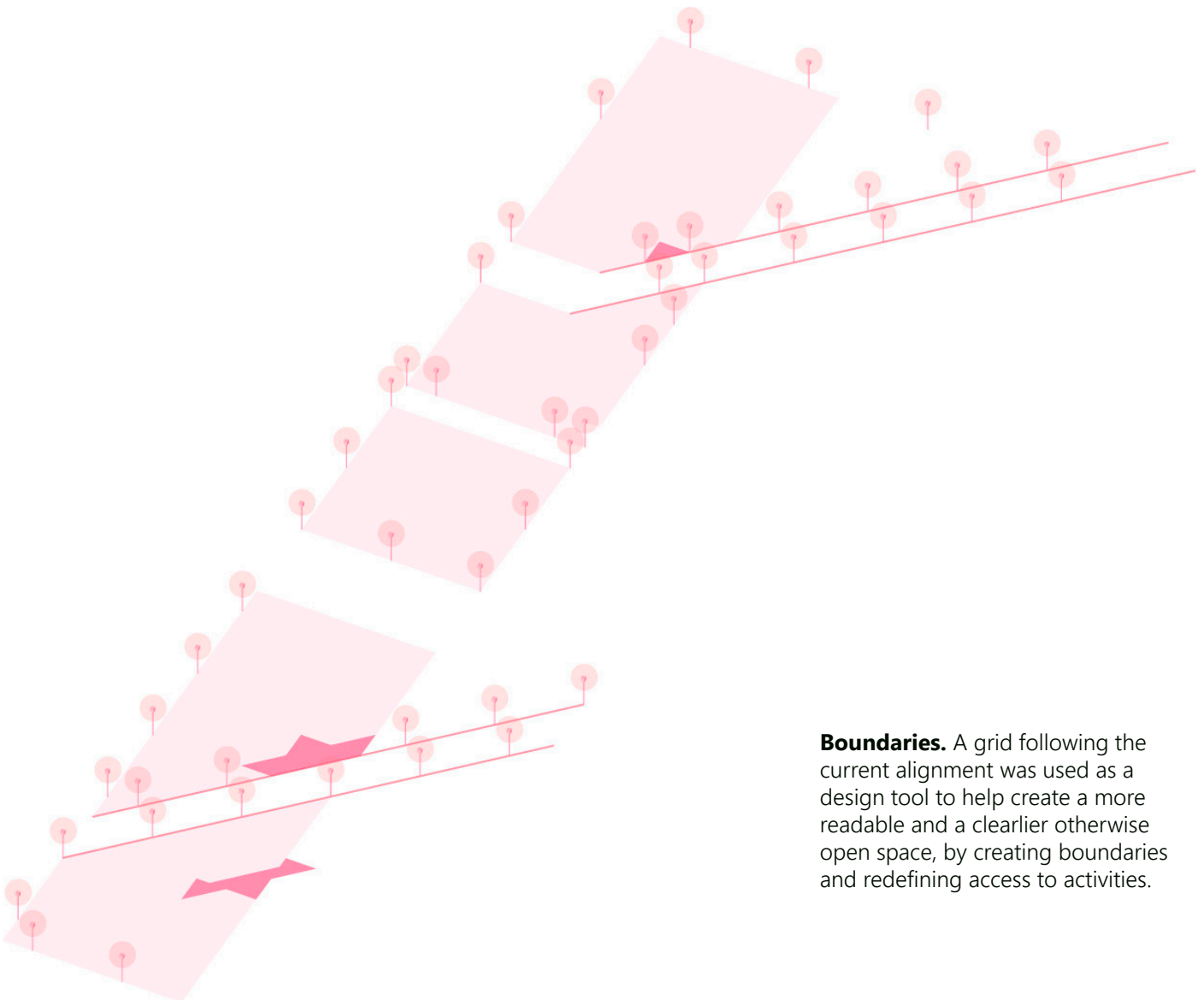


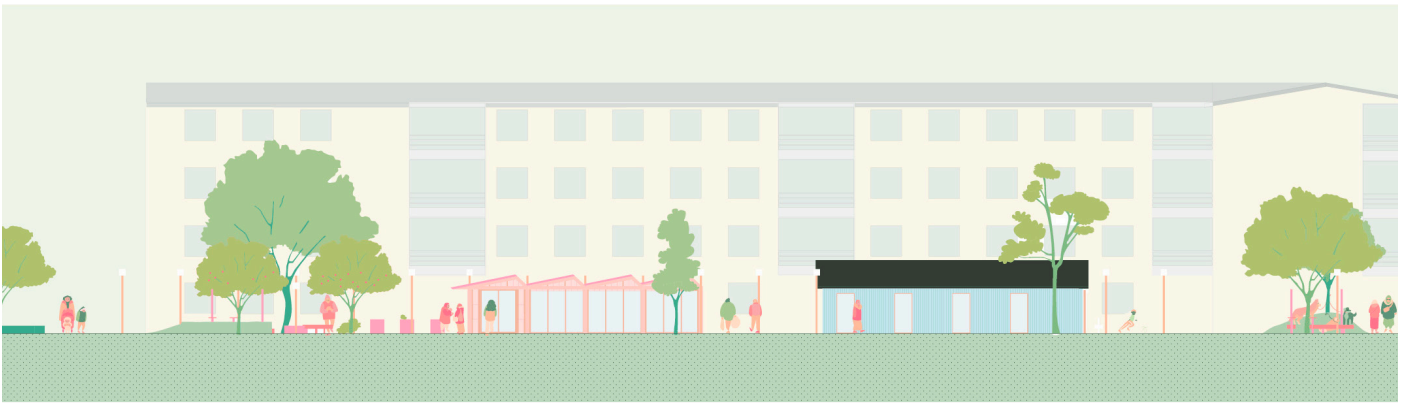
Diagram representing the main trajectories through the housing estate



**Boundaries.** A grid following the current alignment was used as a design tool to help create a more readable and a clearer otherwise open space, by creating boundaries and redefining access to activities.

Diagrammatic representation of the organisation and the new defined spaces

Floor plan of the association house and the greenhouse



Water collection

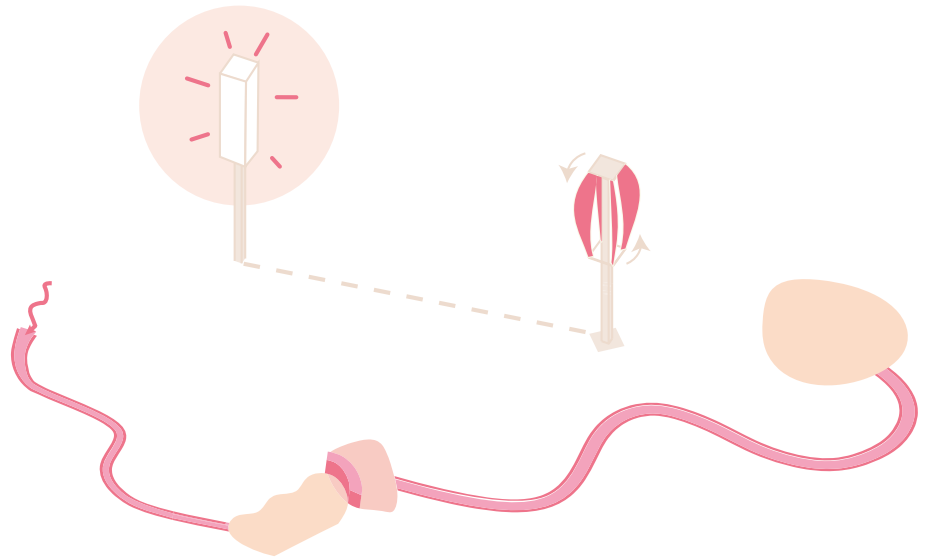
redira



Activities are reorganised and extended on each side of the plot. The association house's layout remains close to its original state. An additional door is added on the façade opening a connection to the green house. The playground on the other hand is restructured and new games using natural elements (such as the wind and the rain) are incorporated into the playing habits.

The slight incline of the plot is used as a tool to collect and redirect water, first to contribute to the gardening and then to feed the playground river and ponds.

diagram representing the games connected to the wind and to the rain



action

Incorporation of water to play







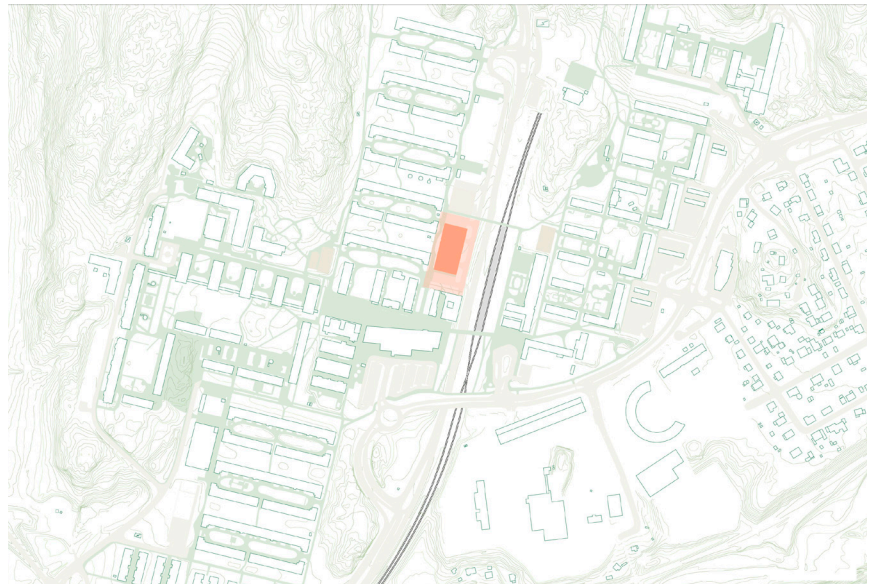
## The parking lot

Bergsgårdsgärdet 69

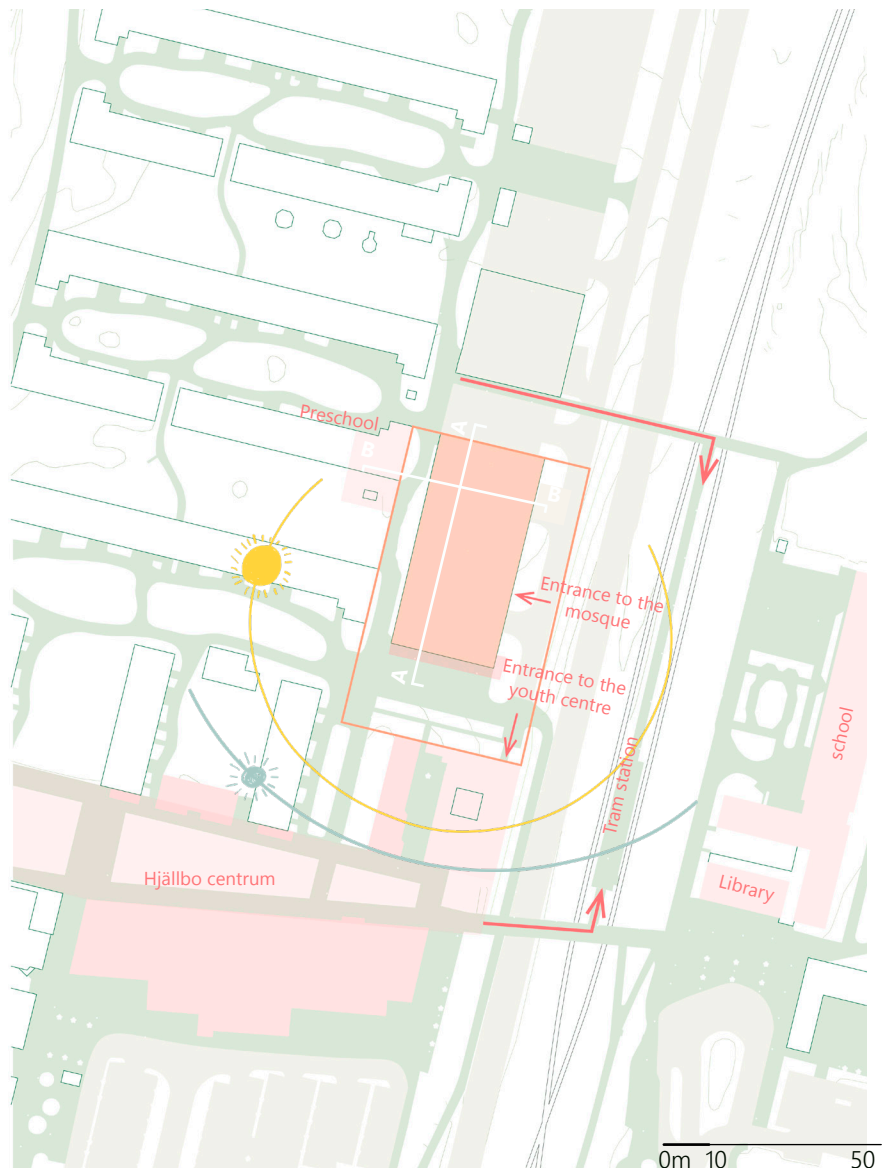
The parking lot can be considered as an underperforming structure. Originally, it supported an additional building and exterior parking area on its rooftop (floor 1), multiple services and associations (ground floor) as well as another level of parking space (floor -1). However, these days most activities have left the building. Only one association remains on the ground floor, the rooftop is no longer accessible to cars and the additional building has been demolished. By being used at less than 50% of its capacity, this 30x70m structure has become dead space at best and a looming black shadow creating a sentiment of insecurity at night. Nevertheless, the plot has many qualities. It benefits from a very good location in correlation to the urban system identified previously. Situated alongside housing, the parking area is directly connected to Hjällbo Centrum. It is also between the two bridges leading to the tram station as well as the other side of the neighbourhood, where a school with a much used playground can be found. Though the road and tramway on the eastern side can be quite noisy, it also creates distance with surrounding buildings, leaving the area well exposed to sunlight.

There are currently three ongoing activities in its direct surroundings. A preschool is located on the ground floor of one of the apartment buildings, a youth centre targeting teenagers and young adults is found at the back of the church and an unofficial mosque is the last remaining association making use of the building's available rooms. Unfortunately, being located down the slope and towards the road, the mosque, as well as the youth centre, are at a disadvantage as they are quite hidden.

Localisation of the parkinglot in Hjällbo

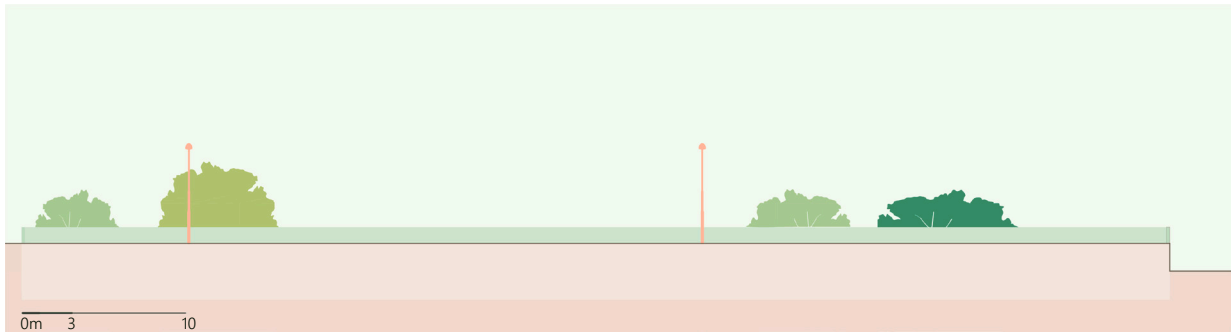


Map showing existing qualities and surroundings

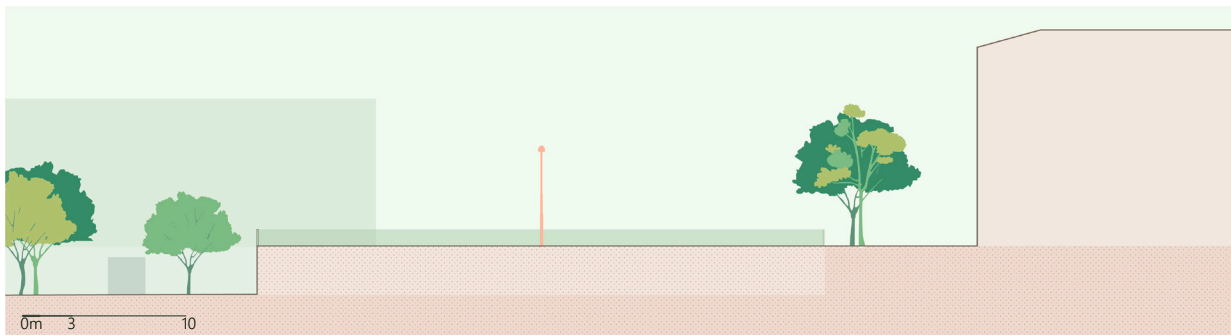




Section AA through the parking lot



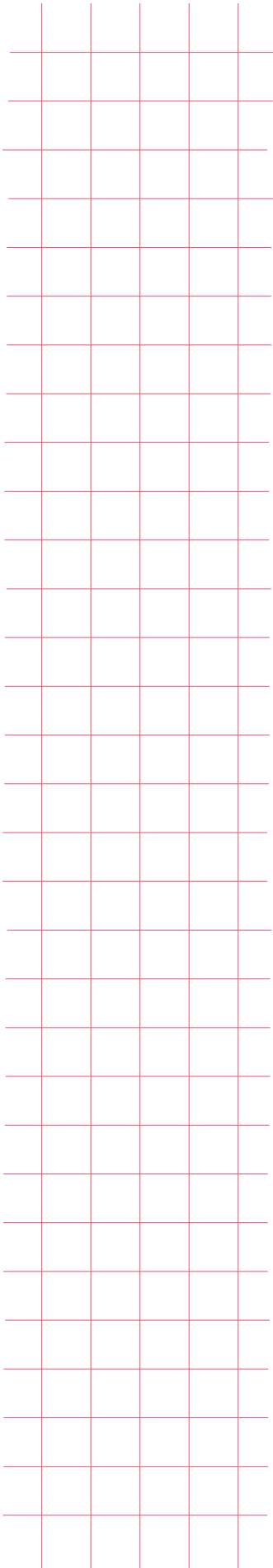
Section BB through the parking lot



Picture of the parking lot from the north bridge



## The applied strategies



### **All year round presence**

The redevelopment of the site takes into consideration the openness of the parking area, which means an increased exposure to the south-west wind, and the difficult use of it during winter. In that regard, interior spaces and the sheltering of the main activities has been added to provide quality and enjoyability all year round.

### **Time awareness**

At sundown the already empty plot becomes a deserted dark structure. The use of light is essential throughout the design to counteract this effect as well as to attract attention to the moments of use.

### **Enabling development of future functions**

By redeveloping the surroundings, the empty rooms located inside of the parking lot structure might see future businesses move in. The outdoor spaces in correlation with the new visibility that the added program brings to the plot, become a supporting factor working.

### **Site specific approach**

The close at hand activities and existing flows have been incorporated into the design of the parking lot and of its surroundings, not only to support the new program but also to increase local participation. In addition to the new connections, the climate and environmental condition have been drivers of the organisation of the new program on the plot.

### **Clear boundaries**

To facilitate movement, ease the access and use of the plot, paths and spaces are clearly defined and marked through the use of light and distinguishable ground design.

### **Diversification (of use)**

The implementation of a new program in connection to Hjällbo centrum works towards the blurring of the zoning aspect of the neighbourhood's layout. In addition to which the adaptable spaces intends to counter urban homogeneity by answering to different needs and acknowledging the diversity of uses in one space.

### **Consider mobility and accessibility**

By addressing the high differences of the area and taking into consideration clear pedestrian access, entrance points and boundaries, the usability of the spaces increases.

### **User oriented approach**

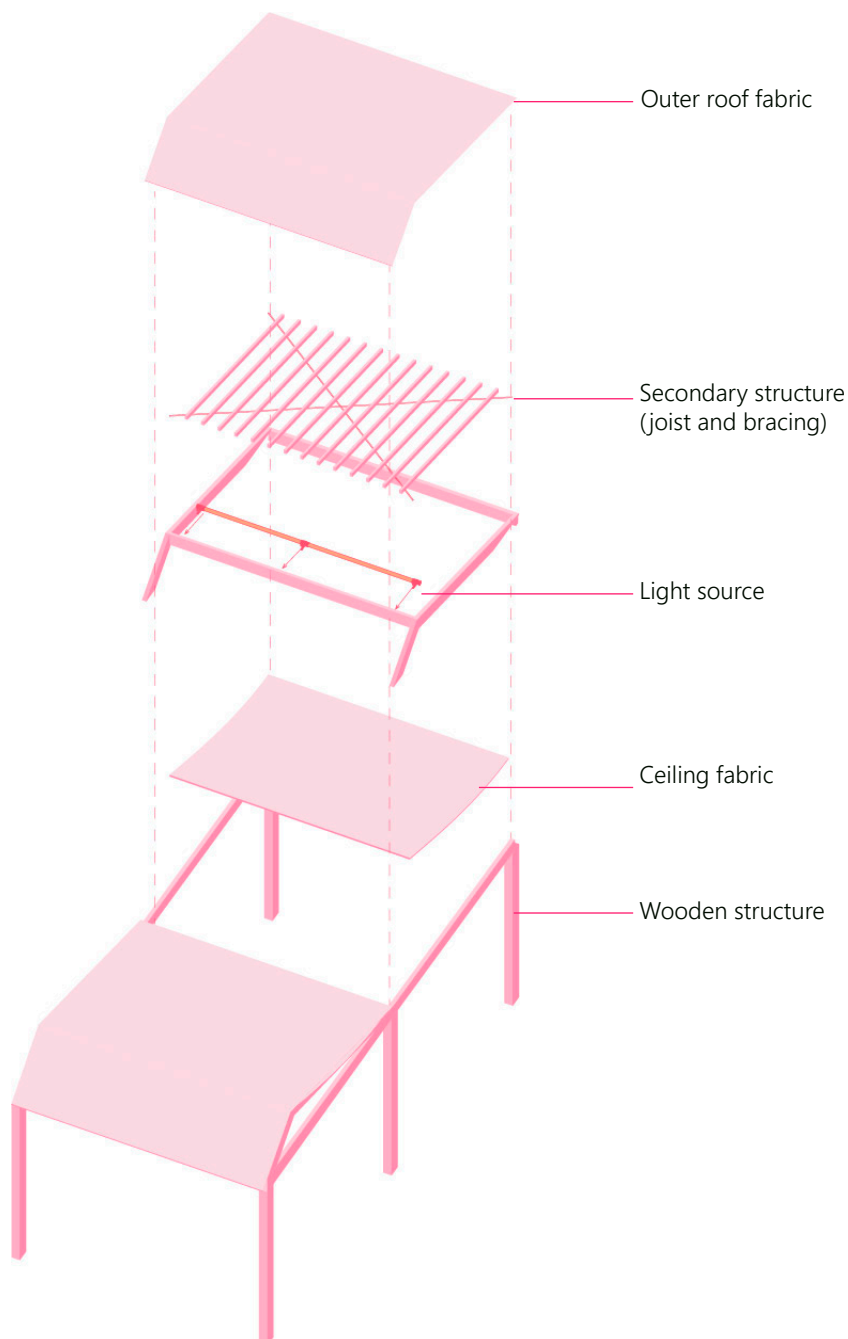
The new program has been built upon an understanding of inhabitants' practices, local actors and social organisations, the goal is to develop adapted and sensible living environments that take into consideration lifestyles and habits. The flexibility and openness of the spaces support an ever changing program.

## Elements implemented onsite

The project has the intention of making use of the existing parkinglot structure. By redeveloping the rooftop to create a new public space the goal is to extend the economic centre to start breaking down the sharply delimited zones and to better cater to the needs of the inhabitants.

The design is based on the introduction of a market space in Hjällbo. A fixed roofed structure is able to host the weekly events. Stands and contents can therefore evolve quickly with the consumers and so better cater to their needs. Multi purpose halls are added to the structure to broaden the period and type of use on site. The suggested program works as an extension of the market and connects to local functions.

The redevelopment of the close surroundings helps to ground the new programs and connects the different activities (existing in the surroundings and new). Though each function has a clearly defined indoor and outdoor space, the cohesion and new gained visibility promotes movement between each of them.



Exploded axonometry of an element of the market structure

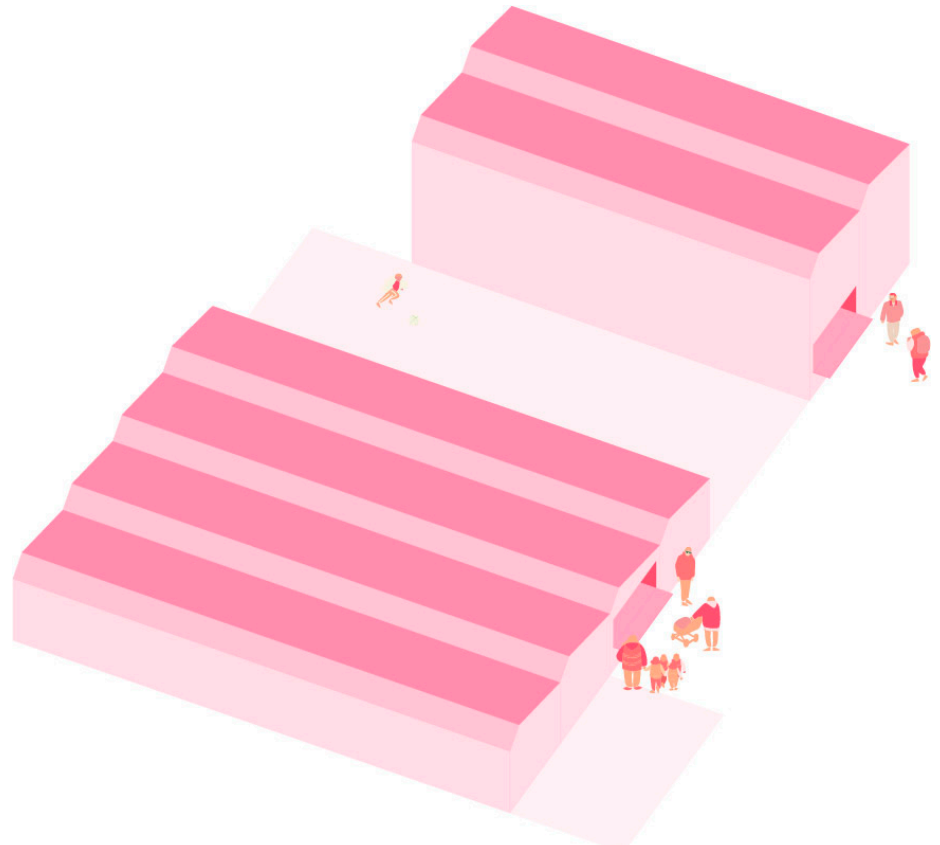
## Elements of the design

Three main elements come into play regarding the elaboration and redevelopment of the parking lot: the market structure, the multipurpose hall and an organisational grid.

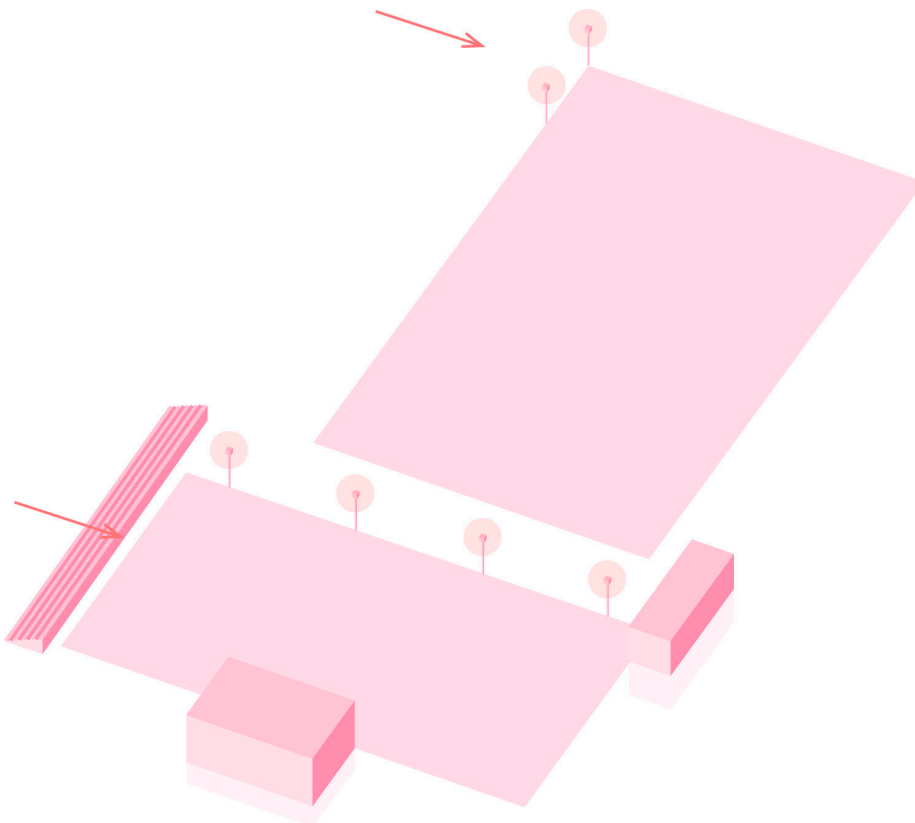
**Market structure.** The 3m x 3m structure is dimensioned to easily insert stands as well as making two way circulation possible. The orientation and angled roof lets in the winter sunlight, limiting projected shadows. The structure is made out of wood, while the roof is made out of a waterproof fabric capable of diffusing light. Though this element intends to gently let as much natural light through the roof as possible, the doubled skin design hides an artificial light to take over when the latter is no longer sufficient. Each stand has its individual light as a way to reveal ongoing activity but also guide towards it.

**Multipurpose halls.** These indoor spaces are a way to continuously bring people to the parking area, even during the harsher months. Their placement onsite will invite its users to interact with outdoor spaces, by creating a sheltered courtyard for example. While following the 3x3 structure of the market, the building's simple layouts are able to adapt to evolving use. It can host a variety of programs as a way to support inhabitants to take over.

The proposed program:  
 1: a child care centre (day, holiday, evening) or during events such as the market, to remove pressure for parents working different shifts or coming back late due to commuting. Include a kitchen that can be used by the market.  
 2: work space for small businesses, training and after school support + tea/coffee shop with a room that stays open and a kitchen that opens onto to the market. This is in response to the apparent lack of meeting/ staying/ discussing spaces.



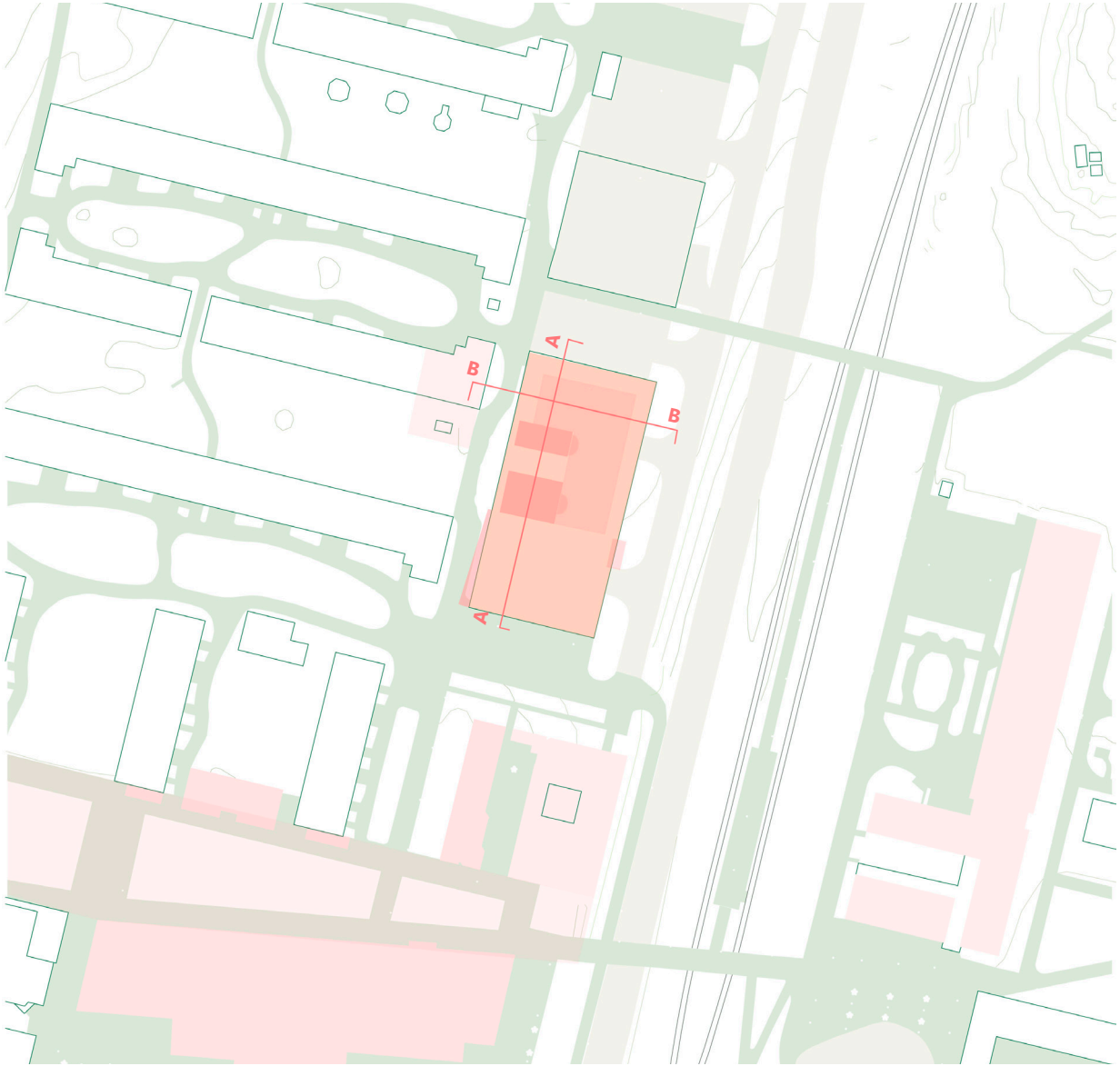
Diagrammatic representation of the interactive spaces created by the multipurpose halls



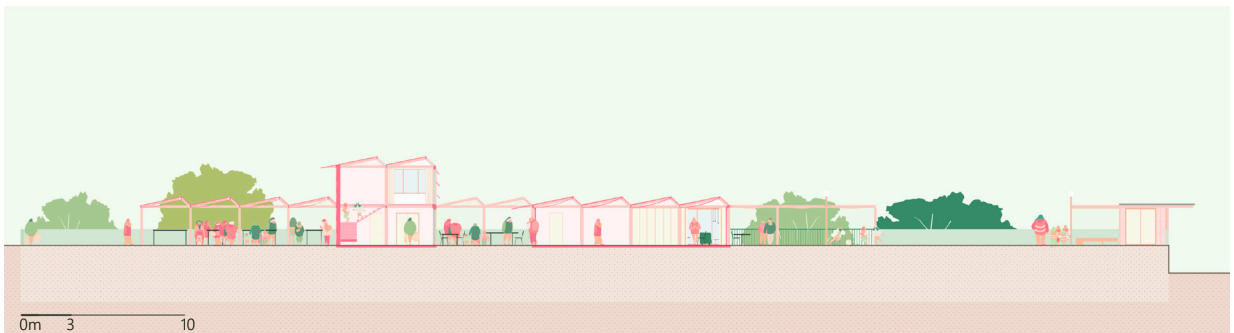
Diagrammatic representation of the organisation and the gripping elements of the projects

**Boundaries.** A grid following the existing orientation of the plot has been used as a design tool to help the insertion of elements grounding and connecting the rooftop to its environments. It helps to define clear access to the activities and creates soft boundaries.

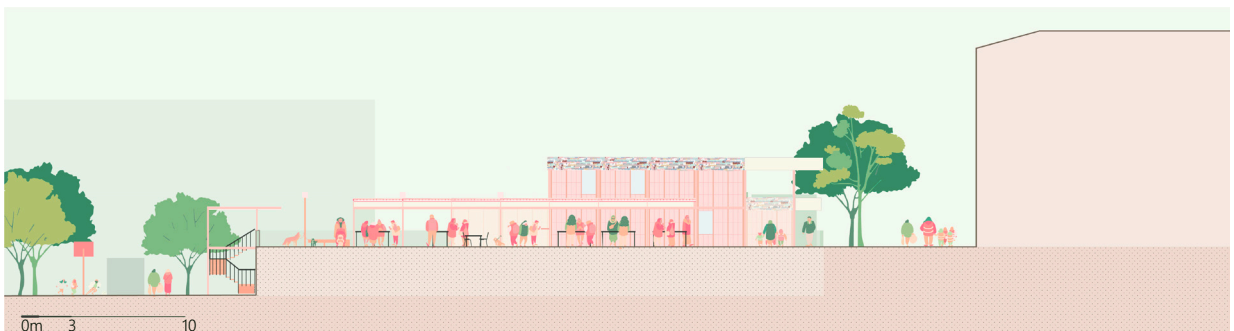
Map of the footprint of the interventions on the parkinglot



Section AA through the parking lot



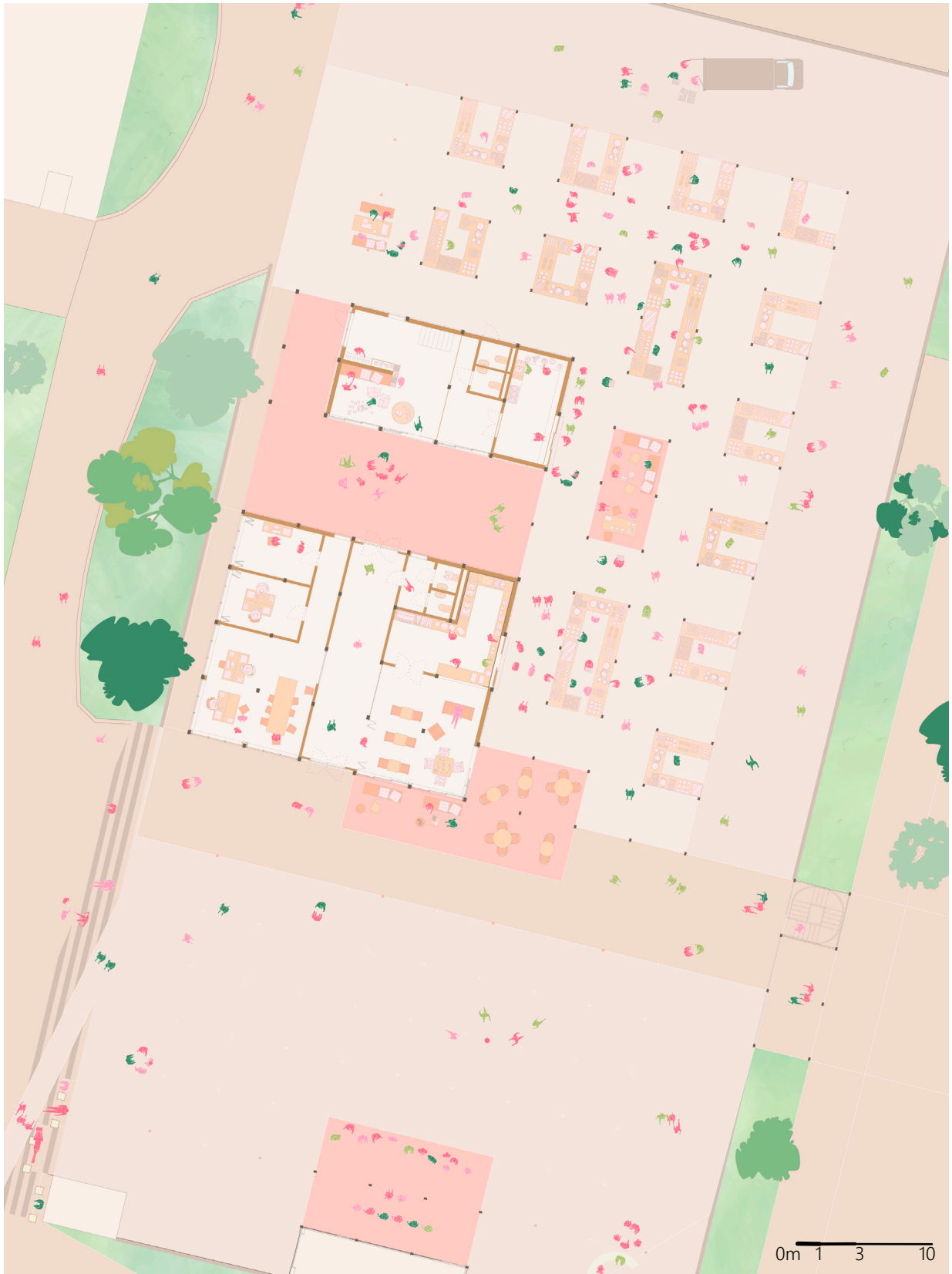
Section BB through the parking lot

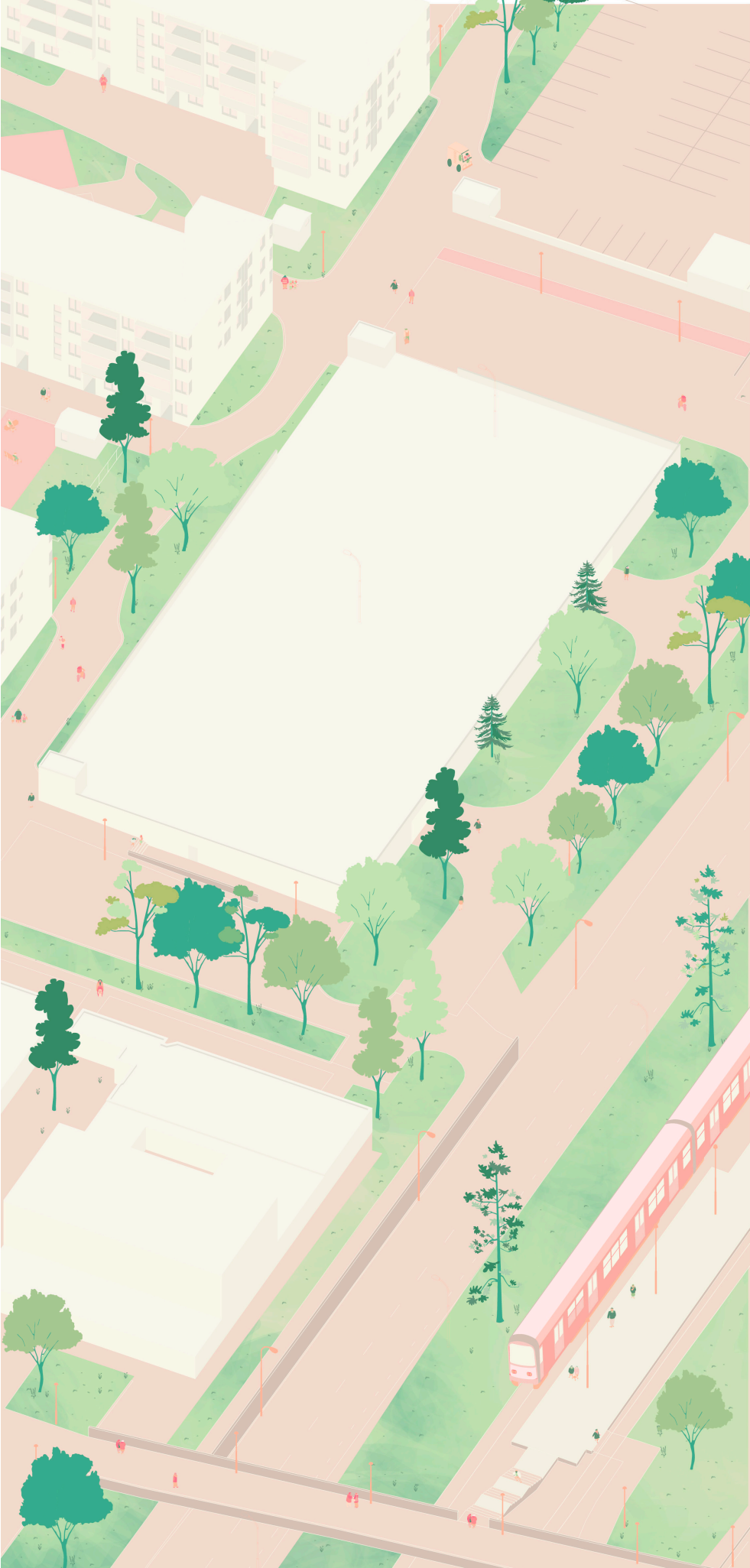


Floor plan of the 1st floor

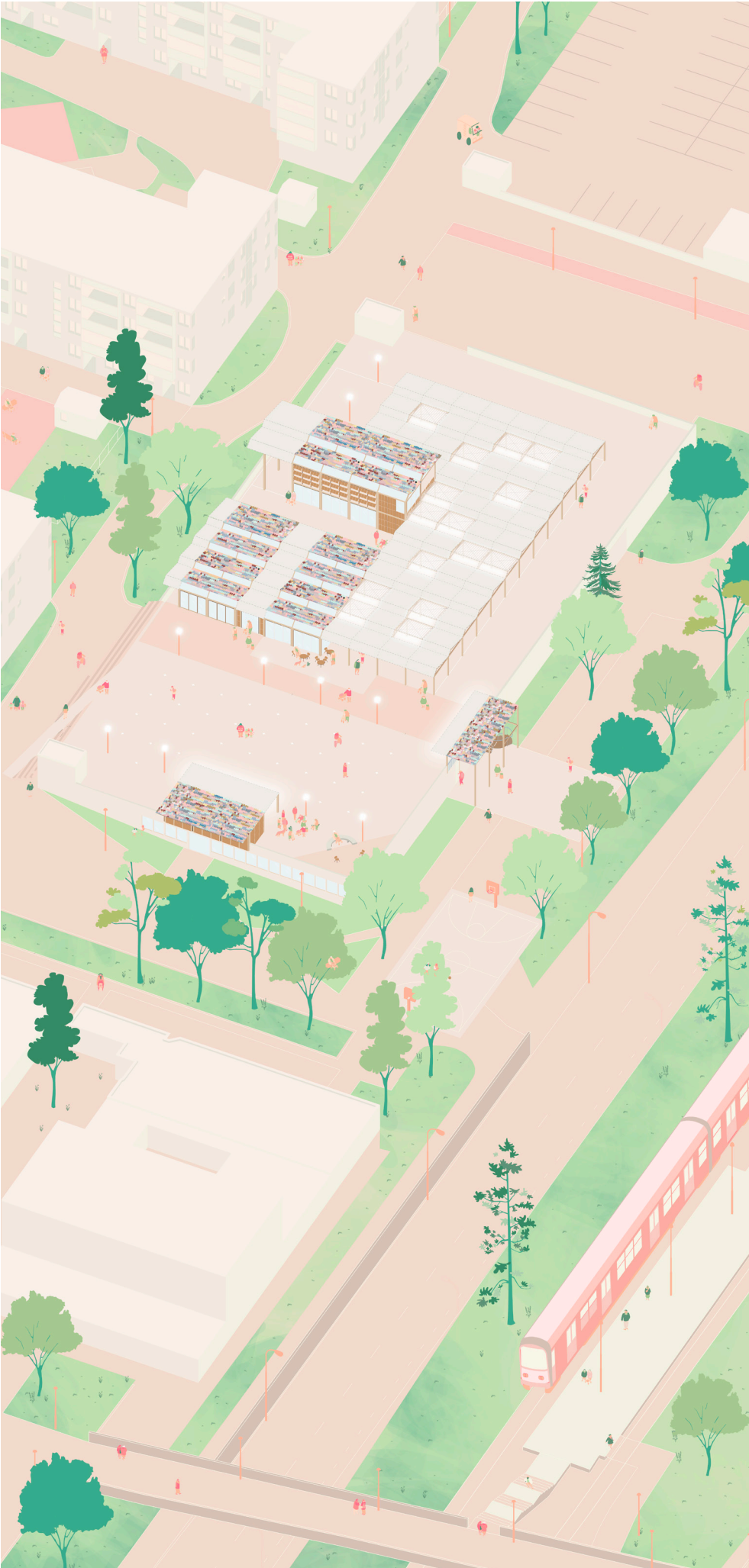


Floor plan of the ground floor









## About the projects

### **The Entrance to the forest.**

The aim of the project is to bring visibility to the existing path, to ease the transition between the urban environment and the forest as a way to promote use of the surrounding wilderness.

### **The Park.**

The intention of the reorganisation of the park is to give better conditions to the existing programs through visibility and facilitated flows. Together these help raise awareness of the ongoing activities.

The project intends to create connections and a sense of familiarity with the environment. This is achieved by facilitating movement through the park and by showcasing natural elements as contributors to the diverse use of the site rather than a limit to it.

### **The Parking lot.**

The goal of the redevelopment of the parking lot site is to extend the economic centre of Hjällbo, to blur the zoning effect and cater to the evolving needs of the inhabitants.

The design proposes a program relevant to the site's surroundings, in addition to the new market space and tries to make use of existing flows. This transforms the area, adds an attraction quality to the neighbourhood and reconnects its existing elements at the same time.

The focus lies in the interfaces between outdoor and indoor spaces as a way to facilitate the use of the outdoor spaces.

### **Overall.**

Throughout these three designs, boundaries, existing qualities and the use of light (whether natural or artificial) are essential factors to facilitate the use of outdoor spaces. Therefore, when looking at the bigger picture, to contribute to the diversification of opportunity.

The project made use of three sites to showcase three different levels of intervention that promote various types of interaction.

The parking lot is a place to exchange, interact and to be a part of that is also incorporated in daily lives with the possibility to stay and linger. The park is a place to partake, interact with, to co habit and to familiarise with.

The entrance to the forest gives inhabitants the opportunity to remain in nature, to discover and to grow more familiar with the surrounding wilderness.

The spaces created have varying levels of activation and propose different possibilities for appropriation depending on the time of year. However all of them tend to extend the period of time during which it is enjoyable to interact with the outdoor environment.

# All things considered



Segregation in Gothenburg can be read and understood differently depending on the scale we analysis. It affects the inhabitants in different ways, but is mostly felt by fragile groups such as the migrant population of the city. While part of the answers seem to lie in the reshaping and development of the transportation system, as well as the connection between the districts, urban planning on a smaller scale should not be neglected. To opt for neighbourhood size redevelopment is to lower the dependance to the city centre. The creation of opportunities within the neighbourhood will directly impact the daily lives of its residents directly as it will ease the creation of a social network, which as established, is essential to the process of integration.

In that regard, the neighbourhood's environment is of great importance. It is the backdrop of everyday life and can be the support for encounters, exposure and exchanges.

In Hjällbo, the low number of services available in combination to the generically fluid outdoor spaces are hindering the integration process and should be addressed.

There seems to be a need for environments that allow people to linger, to share the same space, to interact casually but also that support the creation of a relationship with the environment itself. In other words, places that call and encourage appropriation, to successfully increase the sense of belonging.

The gap between (the few) opportunities provided by the environment and the residents' habits and needs, should be bridged. The three proposed projects intend start this process by providing spaces for inhabitants to invest. The use of outdoor spaces is of the utmost importance in each intervention and is addressed in its different forms (from more natural to the most urban). The environments which inhabitants visually connect to on a daily basis are of great relevance as they can present a low threshold and seem casual because of their familiarity.

The project made use of three sites to showcase three different levels of intervention that promote various types of interaction.

The spaces created have varying levels of activation and propose different possibilities for appropriation depending on the time of year. However all of them tend to extend the period of time during which it is enjoyable to interact with the outdoor environment.

When looking at the bigger picture, the redevelopment of outdoor spaces should be seen as the groundwork for the diversification

of opportunity, the enrichment of one's social network and so, has the capacity to ease the process of integration and diminish the impact of segregation on Gothenburg's inhabitants.



## References

- Alba, R. D., & Nee, V. (1997). Rethinking Assimilation Theory for a New Era of Immigration. *International Migration Review*, 31(4), 826. <https://doi.org/10.2307/2547416>
- Andersson, R., Dhalmann, H., Holmqvist, E., Kauppinen, T., Turner, L. M., Andersen, H. S., Søholt, S., Vaattovaara, M., Vilkkama, K., Wessel, T., & Yousfi, S. (2010). Immigration, housing and segregation in the Nordic welfare states. Department of Geosciences and Geography C 2, University of Helsinki. <https://helda.helsinki.fi/handle/10138/25849>
- Andersson, R., Turner, L. M., & Holmqvist, E. (2010). Contextualising ethnic residential segregation in Sweden : welfare, housing and migration-related policies. R. L. <https://blogs.helsinki.fi/nodesproject/files/2010/12/Sweden.pdf>
- Braae, E., Riesto, S., Steiner, H., & Tietjen, A. (2020). Welfare Landscapes: Open Spaces of Danish Post-war Housing Estates Reconfigured. ResearchGate. [https://www.researchgate.net/publication/349251280\\_Welfare\\_Landscapes\\_Open\\_Spaces\\_of\\_Danish\\_Post-war\\_Housing\\_Estates\\_Reconfigured](https://www.researchgate.net/publication/349251280_Welfare_Landscapes_Open_Spaces_of_Danish_Post-war_Housing_Estates_Reconfigured)
- Braae, E., Riesto, S., Steiner, H., & Tietjen, A. (2021). European mass-housing welfare landscapes. *Landscape Research*, 46(4), 451–455. <https://doi.org/10.1080/01426397.2021.1914568>
- Bevelander, P. (2011). Naturalisation: A Passport for the Better Integration of Immigrants? In OECD eBooks, 238 - 250 . <https://doi.org/10.1787/9789264099104-en>
- Dahlstedt M. (2017). Look at what's happening in Sweden: Young people in suburbs feel discriminated, but hopeful. *Sociologisk Forskning*, 54(4), 341-346.
- GREGOROWICZ-KIPSAK, J., BRÖCHNER, J., & HAGSON, A. (2022). Bygga bort utsatthet? En kunskapsöversikt. *Framtiden*, 978-91-88041-51-7.
- Hall, T. D., & Vidén, S. (2005). The Million Homes Programme: a review of the great Swedish planning project. *Planning Perspectives*, 20(3), 301–328. <https://doi.org/10.1080/02665430500130233>
- Hjällbos problem är inte aktiva muslimer. (2012, June 24). gp.se. <https://www.gp.se/debatt/hj%C3%A4llbos-problem-%C3%A4r-inte-aktiva-muslimer-1.733057>
- Lee, C. (2009). Sociological Theories of Immigration: Pathways to Integration for U.S. Immigrants. *Journal of Human Behavior in the Social Environment*, 19(6), 730–744. <https://doi.org/10.1080/10911350902910906>
- Macleod, C. (2021, September 22). The Changing Concepts around Immigrant Integration. [migrationpolicy.org. https://www.migrationpolicy.org/article/changing-concepts-immigrant-integration](https://www.migrationpolicy.org/article/changing-concepts-immigrant-integration)
- Metsämuuronen, J., & Lehikko, A. (2022). Challenges and Possibilities of Educational Equity and Equality in the Post-COVID-19 Realm in the Nordic Countries. *Scandinavian Journal of Educational Research*, 1–22. <https://doi.org/10.1080/00313831.2022.2115549>
- Migrant Integration Policy Index | MIPEX 2020. (n.d.). [www.mipex.eu. https://www.mipex.eu/](https://www.mipex.eu)
- Miljö- och klimatprogrammet. (n.d.). Miljö Och Klimat Göteborg 2030 - Göteborgs Stad. <https://goteborg.se/wps/portal/enhetssida/miljo-och-klimat-goteborg/miljo-och-klimatprogrammet>
- Översiktsplan för Göteborg. (n.d.). Översiktsplan För Göteborg. <https://oversiktsplan.goteborg.se/>
- Regeringen och Regeringskansliet. (n.d.). Integration. Regeringskansliet. <https://government.se/government-policy/integration/>
- Regeringen och Regeringskansliet. (2023, January 24). Government agencies. Regeringskansliet. <https://government.se/government-agencies/#2165>
- Safi, M. (2011). Penser l'intégration des immigrés : les enseignements de la sociologie américaine. *Sociologie*, 2, 149-164. <https://doi.org/10.3917/socio.022.0149>
- Salama, A. M., & Remali, A. M. (2018). [https://strathprints.strath.ac.uk/65271/1/Salama\\_Remali\\_TDS\\_2018\\_Urban\\_traditions\\_in\\_the\\_midst\\_of\\_the\\_Chinatown\\_of\\_Liverpool.pdf](https://strathprints.strath.ac.uk/65271/1/Salama_Remali_TDS_2018_Urban_traditions_in_the_midst_of_the_Chinatown_of_Liverpool.pdf). University of Strathclyde.
- Seitanidis, S. (2008). Urban design and immigrants' integration: Case study, Municipality of Sykies. In Future Urban Research in Europe International Conference "The ethnically diverse city." [https://www.researchgate.net/publication/348805072\\_Urban\\_design\\_and\\_immigrants\\_integration\\_Case\\_study\\_Municipality\\_of\\_Sykies/references](https://www.researchgate.net/publication/348805072_Urban_design_and_immigrants_integration_Case_study_Municipality_of_Sykies/references)
- Starbrink, M. (2021). Housing Affects Equality - Equality Affects Housing [MA thesis]. Chalmers School of Architecture.
- Statistik. (n.d.). Statistik Och Analys - Göteborgs Stad. <https://goteborg.se/wps/portal/enhetssida/statistik-och-analys/goteborgsbladet>
- Statistik och analys. (n.d.). Göteborgs Stad. <https://goteborg.se/wps/portal/enhetssida/statistik-och-analys>
- The City of Gothenburg Annual Report: The

Equality Annual Report 2017: Differences in Living Conditions. (2017). In goteborg.se. Gothenburg Municipality. [https://goteborg.se/wps/wcm/connect/375081e6-e64f-41da-a111-a2eda31ac756/Annual+Report+City+of+Gothenburg+2017\\_eng\\_minskad+storlek.pdf?MOD=AJPERES](https://goteborg.se/wps/wcm/connect/375081e6-e64f-41da-a111-a2eda31ac756/Annual+Report+City+of+Gothenburg+2017_eng_minskad+storlek.pdf?MOD=AJPERES)

Thörn C., & Thörn H. (2017). Look at what's happening in Sweden: Swedish cities now belong to the most segregated cities in Europe. *Sociologisk Forskning*, 54(4), 293-296.

Utsatta områden - Polisens definition. (n.d.). Statistik Och Analys - Göteborgs Stad. <https://goteborg.se/wps/portal/enhetssida/statistik-och-analys/geografi/utsatta-omraden>

VALL, N. (2015). Two Swedish Modernisms on English Housing Estates: Cultural Transfer and Visions of Urban Living, 1945–1969. *Contemporary European History*, 24(4), 517–536. <http://www.jstor.org/stable/26294113>

Van Haeren, K. D. (2021). The good life vision on the landscape scale. *Landscape Research*, 1–13. <https://doi.org/10.1080/01426397.2021.1881767>

Virkkala, I., & Tenho, E. (2011). Role of Architecture in Immigrants' Integration Process [Pdf]. In Cultural and Regional issues. SB11 Helsinki Conference.

## ART

Bedoya, F. (2019). 1 x U n o [Graphite , Inkjet, Color pencils].

Kira, Kiracyan.design (2021, March 27). The big picture. Instagram.

## PROJECTS

Assemble (2016) The Voice of Children. Assemble. <https://www.assemblestudio.co.uk/projects/the-voice-of-children>

Cityförster. (2020). - Unusual living KIDS. Cityförster. [https://www.cityfoerster.net/projects/unusual\\_living\\_kids-422-2.html](https://www.cityfoerster.net/projects/unusual_living_kids-422-2.html)

Helen & Hard. (2008). Geopark - Helen & Hard. <https://helenhard.no/work/geopark/>

Kengo Kuma and Associates (2011.). Mèmu Meadows. Kengo Kuma and Associates. <https://kkaa.co.jp/en/project/memu-meadows/>

Shen Ting Tseng Architects. (2016). The floating pavillion. Shen Ting Tseng Architects. <http://www.shentingtseng.com.tw/#Page7>







