



IT TAKES  
A VILLAGE





# IT TAKES A VILLAGE



Master thesis

Anna Styf  
Chalmers University of Technology

Department  
Programme  
Studio

Architecture and Civil Engineering  
Architecture and planning beyond sustainability  
Rurban transformation

Examiner

Nils Björling  
nils.bjorling@chalmers.se

Supervisor

John Helmfridsson  
john@bomanarkitektur.se



**CHALMERS**  
UNIVERSITY OF TECHNOLOGY

# ABSTRACT

An ecovillage plans to be built in the northern outskirts of Gothenburg municipality. The ecovillage association - Grönbo - requests a master plan to be formed and designed within the area. This thesis investigates how the village can be built in order to foster social cohesion, cooperation and inclusion. In order to do so, aspects of social resilience is researched. Case studies of different housing projects such as co-housing and ecovillages are investigated to better understand and highlight some of the aspects that fosters social cohesion and use of the common arenas. Additionally, knowledge from city planning and the municipality's own visions of a socially sustainable Gothenburg is enhanced.

The result of the theory and the adaptation to the site's context and size of the village, the village plan suggests to include a diverse supply of housing typologies where also smaller house sizes are included. The diversity is put together within courtyards with high amounts of shared outdoor space and indoor space that facilitates sharing and cooperation within the area. The spectrums of spaces are a unique variety within this farmland context, and aims at pushing boundaries of our conceptions of private and public. It hence invites the ecovillage association to create groups and undergroups with different responsibilities within the cooperative structure. Apart from the *diversity* and *spectrums of spaces*; a third aspect is highlighted, that is to *direct people to the common arenas*. The shared spaces can be considered common arenas, but the community facilities in the heart of the farming landscape and intersection of existing and new roads are crucial for the social cohesion. It aims at bringing people of the neighboring housing areas together. It provides functions that are needed on a daily and weekly basis, and functions that can be of extra value for the community, individuals and other local networks. Creating visibility

and foundations for spontaneous meetings are made through mixed functions within the community house. A co-managed cooperative food store becomes an important factor for facilitating the life within the village where the distance to other food stores risks at creating a daily dependency on cars. The food store could offer core amenities for the inhabitants. The farmland also have a prominent position within the village. Interests of gardening and farming can bring people together in allotment areas, but also highlighting the potential of Grönbo to become one of the areas within Gothenburg that could contribute to an increased self-reliance within the region. Lastly, a village road - Grönbo bygata - cuts through the landscape and connects the village with a bigger villa area that further takes you onto a commuting node from where you easily reach both Kungälv and Bohus towns and Gothenburg city centre. This forms an increased connectivity to other housing and infrastructure through making it easier to bike and walk. This gravel road invites a sustainable way of travel, and additionally works as a community backbone that links the different courtyards and community space together.

**Keywords:** Community, housing, village, rural planning, social resilience

# INTRODUCTION

This chapter contains the framework for the thesis. The table of content is followed by the Background, the aim and questions of research; the thesis' delimitations, some notions explained and lastly the methods used within the process.

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# BACKGROUND

## Grönbo ecovillage cooperation

The background to this thesis is mostly due to an ecovillage initiative - called Grönbo - in which this thesis became incorporated. Grönbo ecovillage aims at be situated within the area of *Rödbo*, in the northern part of Gothenburg municipality. The vision of the association is to become highly self-sufficient, and build a community of residential influence.

## Aspects of resilience

The ambition for this thesis has come to be proponing the social aspects of the community and investigate how foundations for increased social cohesion, cooperation and resilience can be fostered through how the housing and common arenas are planned and situated.

During the early process of the thesis work, a theoretical conflict between local self-sufficiency, ecological lifestyles - within the village - and the distance to the city centres and other nodes of interest was pinpointed. It formed a question on how to avoid highly increased commuting by car, and most importantly; how to avoid Grönbo developing into a so called sleeping city. Questions on how to create an inclusive neighborhood was formed, through asking how the situation of the village, and its design, can propone interconnections with neighboring housing areas and lay foundations for sustainable commuting and eventual collaborations.

## Local self-sufficiency

Followed by the russian war in Ukraine (2022) together with the ongoing climate crisis; the need for increased local self-sufficiency has been actualized. It shines a light on new ways on how to plan our regions and local societies. Our social cohesion and abilities to cooperate within an ongoing crisis can also affect how well we manage. This also actualizes the design and planning of new settlements, and how well architecture can facilitate us to cooperate.

## The site

The area of *Rödbo*, where the ecovillage is aimed at being placed, is situated on old farmland and thus has the potential to foster a local self-sufficient neighborhood. Does it also have the potential to foster the community to sustain these cooperative structures?

The curiosity of this project lies within how a suggested plan for the village can foster structures that sustains these cooperations over time. For this, comprehensive aspect of social resilience is to be investigated, and ingredients to what can strengthen social cohesion and inclusion are to be explored.

## AIM

An ecovillage called Grönbo is planned to be built in the northern outskirts of Gothenburg municipality. This thesis aims at investigate how the village can be built in order to foster social cohesion and inclusion. In order to do this, aspects of social resilience is researched. Case studies of different housing projects such as co-housing and ecovillages are investigated to better understand and highlight some of the aspects that fosters social cohesion and use of the common arenas. Additionally, knowledge from city planning and the municipality's own visions of a socially sustainable Gothenburg is enhanced.

The designed ecovillage aims at being a result of the theory of social resilience, city planning and community building - and yet an adaptation to the site and the current association making use of the land. The resulting design can hence be seen as a conceptual suggestion for further developments of the village.

## THESIS QUESTIONS

*What potentials do Grönbo ecovillage have to create a socially resilient neighborhood?*

*What architectural aspects of the planned village have the potentials to support developments of long-term social cohesion within the village?*

*How can Grönbo ecovillage be planned, formed and situated to foster inclusion rather than isolation, both internally and externally?*

## NOTIONS EXPLAINED

### Community

The word community derives from the Latin word *communitas*, meaning "public spirit". (Oxford Dictionary, 2014) It is a social unit with commonalities such as space, norms, religion, values or identity. It may also share a sense of place situated in a specific area. (Community, 2022-04-01)

### Cohesion

"Strong social bonds infused with a sense of togetherness." (Scanlon foundation research institute. N.d.) The most related word in Swedish would be "*gemenskap*".

### Co-housing & collective house

The difference between *co-housing* and *co-living* is that co-housing include different aspects of shared space, while co-living refers to a shared home. Sharing laundry room is a form of co-housing concept. A collective house is a form of co-housing which can contain both collectives and other apartments separate from each other, while high amounts of shared space are available for everyone in the building. (TIP architects, 2021)

### Co-living & collective

Co-living explains the core concept of what a collective is. It's a house, apartment or floor where people unrelated by partnership or family to different extent share important space such as kitchen, bathroom and livingroom. It should not be confused with collective houses (described above).

### Villages

"A village is a clustered human settlement or community, larger than a hamlet but smaller than a town". It's often situated within a rural context and having a population ranging from a hundred to a few thousand. Despite this, the word *Village* is often used to describe both hamlets and smaller towns. Historical hamlets was small settlements without any church. (Wikipedia. 1/4. 2022) Within the framework of this thesis; the word village will despite this refer to neighborhoods of around 20-100 households.

### Ecovillages

The concept of ecovillages was formed during the 70's, during a time when climate change was first officially recognized as an international issue. The first ecovillages in Sweden had the most focus on energy saving and sustainable housing inventions such as ventilation. (Berg, 2002) Through time, many initiatives have increasingly focused on materiality. The villages have many times a high rate of collective thinking - such as organizing and planning for common activities and sharing things. The eco-village concept is not bound to size and numbers of inhabitants.

## DELIMITATIONS

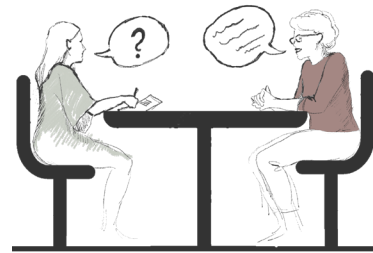
This table aims at clarify what the thesis mainly explores, what topics and themes it touches upon, and lastly states what it is not about to explore.

It is about:	It touches upon:	It is not about:
Foster community through architecture	Community building, & cooperation	Organizing social structures
Community spaces	Co-housing & co-living	Public buildings
Co-owning & managing	Common & private	Sharing economy
Less private; more shared	Tiny houses	Temporary housing solutions
Village structures	Ecovillages	Urban sprawl
Suburban areas	Countryside development	Cityplanning
Sustainable strategies for planning a village	Living closer to - and adapting to - nature	Ecological materials and constructions
Social resilience	Good health & Wellbeing	Equality

# METHODS

## Dialogues with association members of Grönbo ecovillage

In september 2021 a dialogue with association members of Grönbo ecovillage was formed. They were searching for someone to help them with a suggestion for a master plan for their initiated village project. The thesis foundation was initiated through a workshop weekend with them in september. At this event increased understanding of where in the process they were was reached. Additionally, increased understanding of who the people where, what they dreamed of and needed was increased through initiating rounds of questions and discussions. Specifically an investigation on what the different future inhabitants wanted - and where open to - sharing was performed.



## Case studies

Through case studies of other ecovillage and co-housing projects the thesis explores aspects of community: How they initially aimed at forming their communities, and grasping how they transformed through time. In focus lies the architectural formation, and the functions it enhances, but also organisational aspects are touched upon. The case studies have been performed through one site visit, two interviews and further reading.



## Site visits & context analysis

Regular site visits have been made - investigating different potential places for housing within the area of interest for Grönbo ecovillage. Topography, natural values, quality of ground and farming potentials, have been core aspects to look at. Different ways to commute to the site have been explored. For the analysis of the context specifically different accessibility aspects and natural values have been in focus.



## Design studies

Looking at how the spaces in between the buildings relate to the private and common, and how you create spaces where one feels integrity and invited to the shared space.



## Literature studies

Literature studies within the field of joint building ventures such as ecovillages, co-housing and co-living projects have been studied. Theories of social resilience and city planning focused on social aspects have been researched.



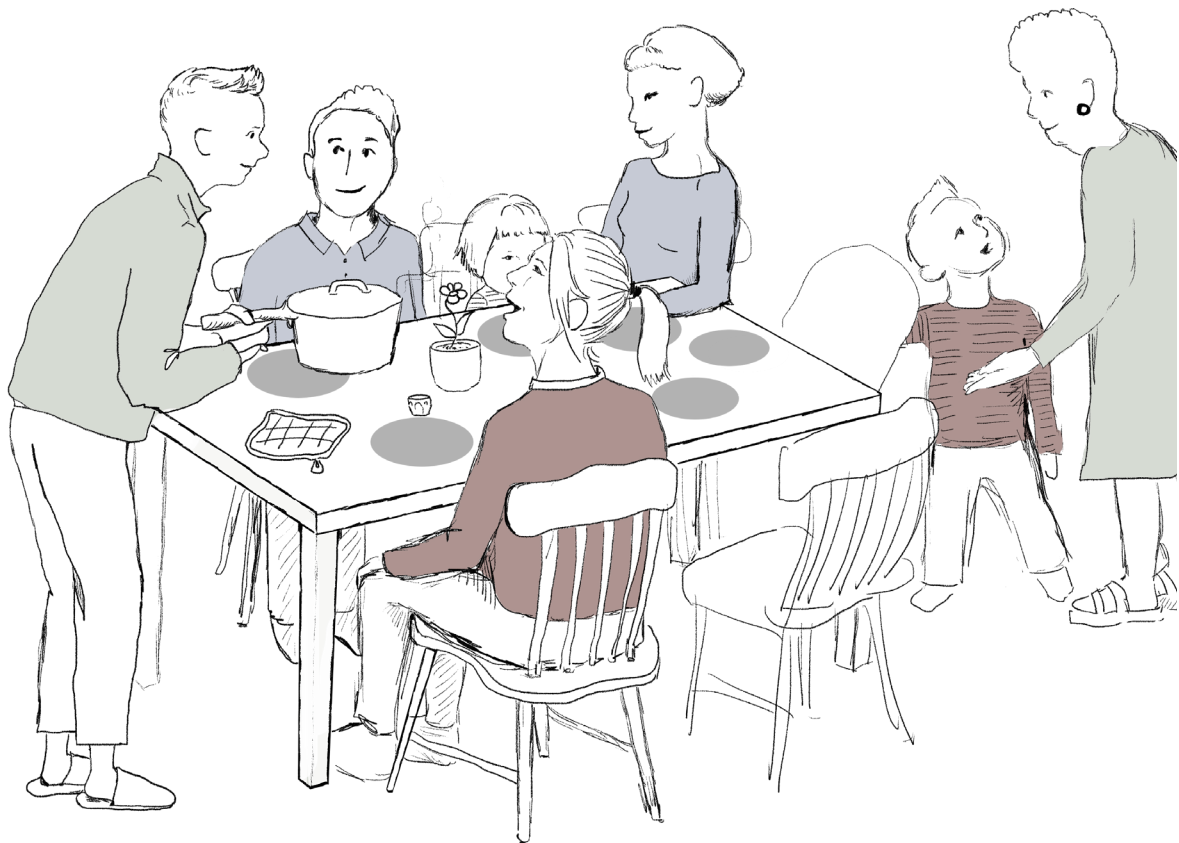
## Interviews

An interview with the architect and author Helena Westholm focused on her work with the co-housing project Under samma tak, and around the knowledge developed through the work on the book *Att bygga gemenskap* (2019). Additionally a talk with Ingrid Westerfors about forms of lease and future potentials for the tiny house movement gave some inspiration to the project. Last, but not least, the opportunity to talk to Jan Ohlin - inhabitant of the ecovillage Understenshögden - was valuable. It formed around their struggle to sustain common goals, and the development of the use of their community house and other common spaces.



# BUILDING & SUSTAINING COMMUNITY

Building and sustaining a community over time is one of the most important elements in this project. But the answers are numerous, and not obvious to trace. Following chapter presents theory and reference projects that frames some of the aspects of how a community can be formed, sustained - or fizzled out. The chapter also presents theory of social resilience in todays societies and architectural practice.



## HOUSING COMMUNITIES

In the recent book *Contemporary Co-housing in Europe- Towards Sustainable Cities?*; the authors states that:

*"rising concerns over climate change and other ecological and social impacts of modern ways of living have contributed to a growing interest in developing more socially, ecologically and economically sustainable modes of living."*  
(Hagbert, et. al. 2020).

Different forms of co-housing has increasingly become a way to face these challenges. It forms a meeting point for different housing inventions and often provides for both low-cost-, community building and ecological housing. What if also new-built villages can get inspired by these initiatives and form around their social - and economical - modes of living? What if there are examples of villages that actually forms around these aspects? How do they work, and how are they planned? - How do they sustain social cohesion by time?

Living in a rural village, a co-housing or even a co-living unit are fundamentally different things. In a village you might have facades and garden plots between you and your neighbor and the spaces you share. In a co-house you might only have an apartment wall and a hallway separating you from the common spaces shared with your neighbors, while you in a co-living unit on the other hand only have a bedroom as your very own private space. A village also implies a somewhat rural condition, that a co-house or co-living unit might not really share. At the same time, these different phenomenons can be grouped into one shared category. This category is made up of people that want to create their own living conditions - conditions that the housing market of today do not really meet. Seen from this bottom-up perspective; from where the groups themselves create these housing solutions, they actually do share some fundamental aspects. These aspects are: planning housing together; striving towards a common goal, aiming towards something other than what the conventional buildings can fulfill, sharing a plot of some sort, and; many times actually aiming for a higher amount of commitment and sense of community from the residents. Following pages presents some summed up aspects that has shown to be forming resilient communities over time. Aspects of what contributes to their social cohesion are brought forward.

## SOCIAL RESILIENCE

Talking about social structures, it is natural to start to talk about their resilience to eventual outer stressors. A first definition of social resilience was provided by Adger (2000: p 361) who considered it *“as the ability of communities to withstand external shocks to their social infrastructure”*. (Keck., Sakdapolrak. 2013) It is difficult thought to state what the posed risks for the social structures are to be. Resilience to what?, one might ask. What is the threat or risk we need to be resilient for? In the article *“What is social resilience? - Lessons learned and ways forward”*; Keck and Sakdapolrak (2013) sums up what the different stressors for a social structure can be, and sorts them into:

*Natural hazards and disasters; Lack of natural resource management, and; Economical crisis, migration, health risks, urban socio-spatial transformation etc* (Keck., Sakdapolrak. 2013.) They further argue that social learning, participative decision-making, and processes of collective transformation are central aspects of social resilience. This strengthens the idea that structures for cooperation founds basis for resilient neighborhoods.

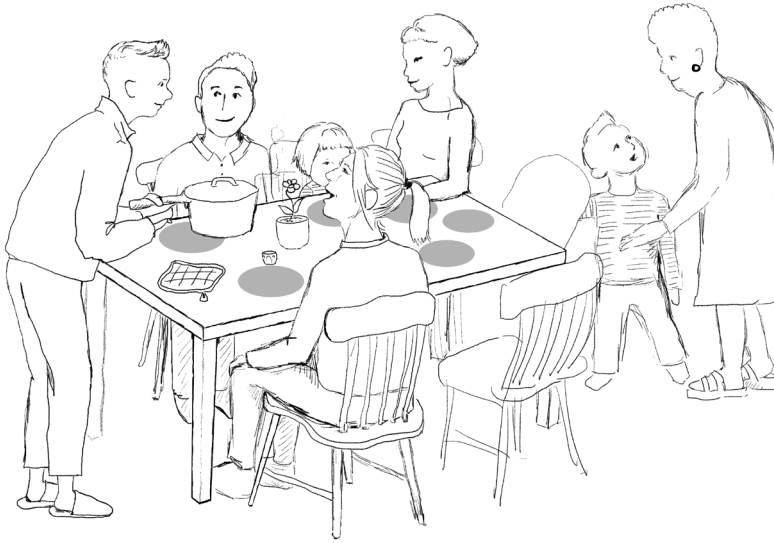
The anonymous author(s) of *The power of neighborhood and the commons* (2014) weave in some other aspects as well. The tools similar to Keck and Sakdapolraks definitions are; *transparency, communication, cooperation and democracy*. The other tools are what they call; *modularity (1), decoupling capacity (2), decentralization (3) and relocalization (4)*. *The modularity (1) and decoupling capacity (2)* are described to be interchangeable (decoupling) clusters (modules) that provides for self-sufficiency within a local context and additionally makes the democratic system more manageable. Decentralization follows the same principle. Relocalization (4) on the other hand argues for what a smaller community can provide for; which is adaptation to local needs and prerequisites. (2014. P. 10) Additionally ecological design, adapted size, cognitive diversity, graduated commitment, and belonging are brought up as important tools. They explain the *“cognitive diversity”* as the importance of having people of different viewpoints and preconditions within the neighborhood; the *“graduated commitment”* as the acceptance that people engage to different extent; and they state the importance of belonging through that:

***“When real, personal belonging is lacking, people resort to fictive or mythic forms of belonging: nationalism, brands, religious or political fanaticism, football-clubs [sic], racism, fashion, lifestyle trends etc. that can easily be misused by demagogues or business agents.”*** (2014. P. 11)

They further argue for a high amount of cooperation, and write that:

***“Humans cooperate if they are not prevented from it. Even biologists now recognize the role of cooperation in evolution. The struggle of all against all is a myth.”*** (*The power of neighborhood and the commons*. 2014.)

## SOCIAL PRACTICE



A social practice is a form of structure for doing things together - sometimes for a practical reason and sometimes just for socializing - that has an underlying purpose of getting to know each other, keeping up relationships and balancing every friction that naturally arise in every relationship and community. How cohesive a community becomes, is to a big extent dependent on this social practice - eating, cooking, and for example; taking care of the common ground together. Bodil Arlif, resident of the co-housing community of Munksøgaard, says in an interview for the report *IMAGINE (SPACE 10. & Urgent. Agency publication. 2018. P. 150)* that they have voluntary dinners together three times a week, and the social activities like these are of high importance:

*"We have other co-housing projects nearby where they don't eat together or share activities. Their social life is very different from ours. Here, we socialise and share a lot." And she continues: "The big difference is that you know people. It is very promoting for the health for older people to feel secure – to know that there are people around, so you don't feel so exposed. It is really nice; it is like a small village."*

Food and the ritual of sharing meals is in other words central to shared-living communities. *SPACE 10. & Urgent Agency* writes in their report on sharing that:

*"[Eating together] is a fundamental aspect of our existence and one of the most important ways that people come together. Eating around a table as a group has known benefits, but sadly it's on the wane. An increasing number of people eat at the computer or in front of the television. But eating together builds relationships and the dinner table can act as a unifier, a place of community. Recent research from the University of Oxford has revealed that the more often people eat with others, the more likely they are to feel happy and satisfied with their lives."*

*(SPACE 10. & Urgent Agency. 2018. P. 138)*

## CO-OWNING & MANAGING

Sharing can be affordable, decrease the need for new goods, and ultimately make people meet through cooperation around sharing. Through the report of sharing communities by *SPACE 10.* and *Urgent Agency*, some examples of sharing initiatives that strives for a higher amount of connectivity between people are presented:

*"There are now services that allow us to share anything from solar panels and skills to food and tools. For example, apps such as OLIO, EatWith and Meal Sharing connect neighbours and strangers so that food can be shared, reducing waste and creating new connections between people."*  
(*SPACE 10.* & *Urgent Agency.* 2018. P. 63.)

These are aspects that highlights the trends of longing for sharing, but also of creating better connections between people. At the same time, aspects of the social structures are here invisible in the argument. The anonymous writer of the book *The power of neighborhood and the commons* (2014), argues that:

*"What we primarily need are functioning communities of sharing rather than so-called alternative systems of exchange. Sharing without community – as it is proposed in many forms on the internet – will not lead to egalitarian uses of the commons and to mutual support, but will privilege those who have something to share, and ultimately is just a new form of business."*

Co-owning implies another form of sharing, that does not build on someone owning and gaining money by sharing it. In the ecovillage Tuggelite the village organization owns and manages the land. This means everyone in the neighbourhood has to put in a little effort on taking care of the common plots as well. At the same time, everyone has equal rights to the land where functions for the common good can be arranged. There are few incentives for for example privately owning a lawn mower, since this needs to be owned and managed together anyhow. (Tidäng. K. 1992.)

In the co-housing project of *Vindmøllebacken* everyone owns an equal size of the common areas, which means everyone has some sort of interest in it. Managing the common rooms and organization forms the work groups that manages different parts of the space - both through material and immaterial means. The social practice of activities and organization is in other words mainly what runs the community. There are simply both economical, environmental and social aspects to owning and managing properties together. (Archello. 2020.)

One can also express it straight forward as Lars Lundbye, who is the founder and creative director of *Almenr*, which is helping people and companies come together to realise co-living communities:

*"Do stuff together and co-own stuff. We have thousands of years of experience showing that those two principles really work."* (*SPACE 10.* & *Urgent Agency.* 2018.)

## FORMING SHARED SPACES

Through better use of space and by sharing costs, shared living could enable more affordable housing. The architecture office *Theory into practice (TIP)* have under the project name *Max 4 Lax* developed a concept of living on more shared space - higher quality - but for less cost. Their programme studies the "sharing home" - delningsbostaden - where two families (or rather; clusters of three to four people) can share the same floor with one kitchen and livingroom. In this way, kitchen appliances can be reduced and a more social everyday life be reached. The floorplan, shown below, has been developed by TIP in dialogue with a resident group as the method for developing the house sharing concept and explore what learnings can be found. Read more about these findings on next page.

The "sharing home" is based on the concept of co-living (such as a collective), but are developing a situation where two "clusters" on each side of the floor have a bit of private space for themselves, which is a shared hallway/office and one to two toilettes. What they share with the cluster on the other side is a big kitchen, a veranda, a hall, and a livingroom. Stepwise private spheres, and shared spaces, in this way, reduces the risk of intrusion when you need to be alone. The method that TIP has used is the dialogue with future residents of the building. Through this, they have tested many different floor plans, where different spectrums of sharing are suggested. The evaluation have been made together with them. One of the findings made during dialogue, is that the plan shown below - for most of them - was found to be the best one in relation to what functions you got for the related rent that could be gained from the sharing. It was important for the participants that the common spaces had a high quality of light and space. They wanted to reach a sense of home, and avoid characters associated with houses with corridors. (TIP. 2021.)



- CO-OWNED
- SEMI-PRIVATE
- PRIVATE
- THE SUITE

The co-owned space is shared between around 7-9 people on every floor. Here, one of the rooms in every cluster are called "the suite" and have its own toilette.

FLOOR PLAN: TIP Architects. 2021. (My colours)

## FINDINGS FROM THE "SHARING HOME"

- > Simplified market surveys don't reach to the questions of what people are prepared to share. The work requires a more humble and investigating way of working, with more time to reach to the core.
- > With the question: 'what suggestion gives the most quality to you?', the architectural qualities such as balconies, window-placements and daylight from different latitudes are valued the most within both the private and shared spheres.
- > When sharing more of the home space with others; the most private room (bedroom) needs to be adapted for spending more time within over several hours of the day. It generally needs to be bigger.
- > "Do you have many functions within your own private space, you wont use the shared ones", the participants stated during a reflection of the development. (TIP. 2021. P: 27)
- > There are potentials within what they call the "fourth zone" - that is shared with the whole house. The potential, they state, could be for example a community facility, library or a workplace. A guest room for the whole building could save some space to the floors, in order not to disturb when having a bigger party or guests over.
- > The more the participants workshop around the concept, the more solutions for sharing are developed. The question of pricing are crucial for choosing between the suggestions.
- > The "sharing house" are seen as "attractive" by the participants.

(TIP. 2021. Max 4 lax. Delningsbostäder för allmännyttan.)

## EYES ON OPTIONAL ACTIVITIES

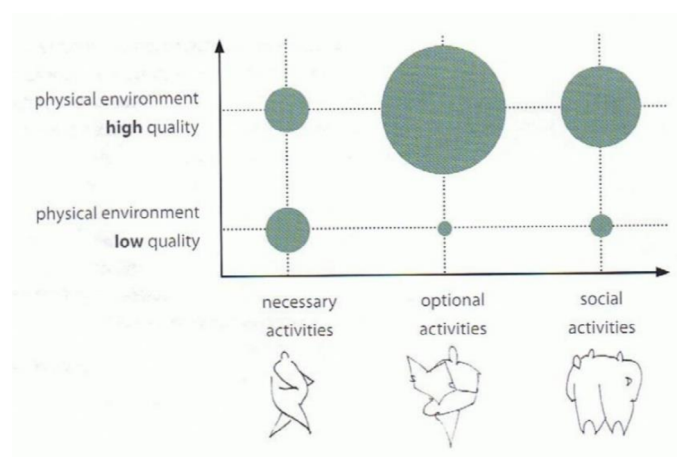
From the architect and city planner Jan Gehl and his work we can learn that it is inherently human wanting to be around other people – to see what other people are up to – and engage with them somehow. Being in the presence of other people is for us highly interesting and we should, from his argument, build our cities and neighborhoods accordingly – at the human scale.

*Gehl architects* writes, in their book *Cities for people* (2010), that;

*"in city after city where conditions for life on foot are improved, the extent of walking activities increases significantly.", "more roads invite more traffic. Better conditions for bicyclists invite more people to ride bikes, but by improving the conditions for pedestrians, we not only strengthen pedestrian traffic, we also - and most importantly - strengthen city life."*

To the right shows a graphic manifestation of how the outdoor optional and social activities increases (bigger dot) when the physical environment is increased in quality. It's here stated that:

*"Invitations to do something outdoors other than just walking should include; protection, security, reasonable space, furniture and visual quality."* (Gehl. 2010).



GRAPH: Gehl. 2010. P. 21

They also state the fact that:

*"[If] city life is reinforced, it creates the preconditions for strengthening all forms of social activity in city space [necessary and optional]"*. (2010. P. 22)

From this, it becomes clear that the spaces where necessary functions are placed, the amount of activities are independent of the quality of the space, but that optional activities more easily can be invited if these spaces are developed in a way that feels secure, are of reasonable space, visual quality and provides shelter and furniture. Additionally, if people need to go to these sites; the usage increases even more. Because, as Gehl has pointed out, people attracts people. In other words, one can draw the conclusion that spaces and functions that invites for both optional and necessary activities attracts each other - if they are built and planned in a pleasing way for the human eye and the other senses.

Architect John Helmfridsson explains how he sees the planning of common spaces: *"I see it as the practice of making a fire. One needs to have several different parts that solitarily can't burn on their own, but together make a full fire."* (Helmfridsson. 6/4-2022.)

## THE OUTDOOR AS THE SOCIAL ARENA

According to Gothenburg municipality's *Social Consequence Analysis* (2011); a cohesive city is described as laying foundation for encounters through visibility, density and diversity. Important is how barriers can be avoided; variations and mixtures created. A cohesive city, they write, is namely a place where people from different social groups enables to meet on day to day basis. This requires a mix of typologies and housing forms. (Göteborgs stad. 2011. P: 18) Aspects of health and equality are also included into the category of outdoor spaces. Walkability is as good for the mental- as for the physical wellbeing. (Göteborgs stad. 2011. P: 19) The *Child consequence analysis* - the tool for turning the UN child convention into practical strategies - pinpoints that a cohesive city is a place where the kids can move around in their neighborhood without getting disturbed by barriers such as car roads, which shines a light on beforementioned aspect of walkability. (Göteborgs stad. 2017.) Additionally they write:

*"Green areas and water creates opportunities for interaction between people and the usage is often for free, which makes them even more important in the city's public spaces."* (P: 21)

Following the thoughts of Jan Gehl; we humans like to watch each other. Additionally Gothenburg city planning office (2011. P:21) explains through the expression *Collective Neutral Arena* (GNA); that we need spaces where people becomes visible to each other but can choose to act "actively" or "passively". It's a space where there is no requirement of initiating contact, but that presents possibilities, they write. The outdoor arena can in other words strengthen relations between different groups, provide low-cost meetingplaces and increase wellbeing. It requires spectrums between private and official - where we can be introverted, bystanding or actively engaged.



PHOTO:  
Full service chimney. 30/4-2021.  
How to Light an Outdoor Fire Pit.  
<https://fullservicechimney.com/how-to-light-outdoor-fire-pit/>

## ROOM FOR COMMUNITY

Community houses can be co-owned by a regular association, tenancy association or housing cooperative, and provide spaces where people within the association or cooperative have the opportunity to come together on bigger occasions and certain events - or through everyday life. It can also provide for functions and spaces that gives extra space for each individual and household within the area.

Spaces for residential communities are of high importance for residents to be able to spontaneously, and organized, meet and socialize in both smaller as well as bigger constellations. Being able to cook together, eat together, discuss difficult topics and share particular interests are, as previously described, of high importance for the social practice that embodies communities over time.

Gothenburg municipality's comprehensive plan envisions that;

*"facilities for culture, club activities, sports, public transport and commerce should be located in accessible areas that easily can be reached from areas of different characters, so that meetings can occur."* (Göteborgs stad. 2011. P: 20)

In rural areas, and co-housing projects; this is what the community spaces can provide for. The community house at the ecovillage of *Understenshöjden* in Stockholm gives the residents a space for events. Here, meetings take form and food can be cooked. The former boiler room is today in transformation and many people of the village now wish for spaces for creations such as ceramics and painting to be given space, resident Jan Ohlin says in an interview during a site visit (10/4-2022).

Some of the community houses within the coming case studies have been placed centrally in the area for communicative reasons, and some of them directed towards the outside in order not to disturb private households. Some community spaces are of outdoor character, and some are part of a full co-housing space within a residential building. Three forms of community spaces can be found through the case studies that will be presented on following pages. These are:

1. Shared within the community and used by the community for common purposes and individual use; 2. Shared by the community and rented out to other actors as well; 3. Certain functions, such as workshops, that serves purposes for giving extra space and use for different interests within the area.

Independent on how the spaces are designed, some form of social practice needs to be maintained and organized, but as Kathryn McCamant, US architect and co-housing consultant, says when referring to co-housing units:

*"There has to be a social design. You have to get people connected, for there to be a sense of community, otherwise the common facilities will never be used, people will go straight to their room."* (SPACE 10. & Urgent Agency. 2018. P: 56.)

The city planning office visions the common meetingplaces to be centrally placed, visible and connect different areas and everyday movements. (Göteborgs stad. 2011.)

# CASE STUDIES

To further explore what creates and sustains a community over time, some case studies will here be presented. Learnings from these projects will also be brought forward.

The projects mostly stems from citizen initiatives. On the other hand they range from co-housing units to villages, who's situations differ from each other. Why this is done, is mostly because there are different aspects on how these projects are planned that can teach us about how communities can form. By looking at these five very different, relatively contemporary, projects, there might be a potential of finding what the common factors that comes into play actually are.



# LUNDS BY

## CASE STUDY 1

Year of construction: 1623

Architects: unknown

Housing types: Villas with barns etc

Households: 8

Place: Västervik municipality, Sweden

Shared facilities: A forge, band saw, brewery, sauna & smokery

The village of Lunds by is formed around a "main street", that passes through the village where it opens up into a square to which every entrance is directed. In the backyards the barns, workshops and the smaller houses (historically for the elderly couples in the families) are situated. This makes the space between the houses, both a square, a street and a courtyard. The other aspect that makes this village interesting is the way in which it was organized up until the beginning of the 1900. All households had obligations shared between them, such as giving official horse carriages and keeping hostelry. They shared all land and forest between them, and likewise was the brewery, saw mill, forge, sauna, smokery and the eel house collectively managed and owned. (Gladhammars hembygdsförening. N.d)

## CONCLUSIONS

This is an example of that co-owning and sharing, within a village, is nothing new. Nevertheless, this shines a light on that historical systems of sharing required some form of co-owning; or at least co-management. In Lunds by, the obligations, and maybe the stakes, were high; which makes it strange to compare it to contemporary villages. Despite this; one can say that having a personal or economical interest in a shared function increases engagement.



# TUGGELITE ECOVILLAGE

## CASE STUDY 2

Year of construction: 1984  
Architects: Helena Westholm & Hans Grönlund  
Housing types: Row houses  
Households: 16 +  
1 house for daycare  
Place: Karlstad municipality, Sweden

Shared spaces:

- A community house
- Sauna (shower & toilette)
- Workshop facility
- All outdoor spaces

Tuggelite ecovillage is Sweden's first officially known ecovillage, and was formed around two topics - energy efficiency and cohesion. The beforementioned was the most elaborated part within the project. Energy technologies was during the time the most prominent aspect that the ecovillages were dealing with. This was much due to the debate around nuclear power. Nevertheless one can also see many solutions that aims for a higher use of the common - with shared space, co-owning and resource saving aspects. The community house - placed in the middle of the area - consists of a laundry room, kitchen, assembly hall and four smaller rooms and a big loft. Storages, a sauna, shower and toilettes. A workshop was placed just beside. The idea was that this should be a place where everyone meet, hang out, and also share more expensive tools as garden tools. In the book *"Att bo i Tuggelite. Gemenskap och resurshushållning."* K. Tidäng reveals the core concept that was to *"make it cheaper for everyone, save resources while getting reasons to meet"* (1992).



## WHAT HAS HAPPENED SINCE?

The community house was planned with one bigger social room with a fireplace, and a couple of smaller rooms planned for being a guest house. The house needed some more financing though, and so the association began to rent it out to a nursery centre through the municipality. This created a win-win situation where the inhabitants still could use big parts of the used daycare centre during evenings and weekends, gained money for financing while at the same time got a kindergarden within the housing neighborhood. The nursery staff unfortunately expressed some discontent with this solution, because of the extra work load it gave them with the cleaning up every afternoon, and because the facilities were poorly adapted to being a nursery. The solution seemed to satisfy the inhabitants though. All the facilities were in this way very effectively used during all of the hours of the day (Tidäng. 1992). Per G. Berg writes in the book *Living dreams* (2002) that; *"when a school is situated within the neighbourhood, and most of the kids are going to that school, it becomes a place where adults and kids meet and get to know each other."* This was also made clear in the book by Tidäng (1992), while presenting the challenges and responsibility that comes with it.

Further, one can read about the strategical placement of the post boxes that are situated under a sheltered roof together with the bulletin board for the area. The idea was that here was the place where everyone would go - at least once per day. The chance of then meeting someone at the centre either getting some tools, going to the sauna, picking up the kids, or alike, where very much likely.

## CONCLUSIONS

Needs and usage usually change over time. Architecture should adapt to these changes, as much as possible.

Centrally placed common - shared - facilities and spaces can give social synergies to each of the function. The principle is that if Hampus goes to the post box, he might also end up talking to the one going to the sauna, and his afternoon might turn in another direction than at first expected.

Co-owning and co-managing facilities can be challenging, and need to be adapted to the functions at place.

Co-owning and co-managing can also give synergies to the area, and utilize every inch of the spaces' potential. It also engages more potential people into the same spaces. You save space, material resources and money.- at the same time as gaining lively areas

*"When a school is situated within the neighbourhood, and most of the kids are going to that school, it becomes a place where adults and kids meet and get to know each other."* (Berg P. G. 2002. *Living dreams*)



LEFT PHOTO: Kai Virihaur



## UNDERSTENSHÖJDEN ECOVILLAGE

### CASE STUDY 3

Year of construction: 1995

Architects: Bengt Bilén (HSB)  
Form of lease: condominiums  
Amount of houses: 44  
Where: Stockholm, Sweden

Shared spaces:

- A 250 m<sup>2</sup> facility for bigger events and meetings
- a room for "give and take"
- a small workshop facility
- outdoor garden

The houses of Understenshöjden ecovillage consists of 44 apartments in rowhouse- and twinhouse-units of 14. They share similar basic floor plans, but are adapted to each households' needs and wishes. The village is placed in a pine tree forest on small hillocks where kids run around on the bark-covered pathways, which creates a winding green landscape surrounding the buildings. Main focus of the project was; sustainable materials, topographically adapted foundations and narrow gravel roads without cars. The southern pathway - Ekostråket - connects the district with the nature reserve of Nacka. In the edge of the forest; benches, swings, storages and houses for firewoods are situated. (Site visit. 10/4, 2022)



The community house, situated on the southwest corner of the area - consisting of a bigger hall with a fireplace, a smaller room, toilettes and a laundry room - is the place where community gatherings and meetings are held. Here the kids usually have their sleep-over parties. (Berg., Cras-Saar., Saar. 2002.) It's courtyard is directed towards the outside, which wasn't the initial plan but thought to create less disturbance for the closest neighbours during events. Since the community kitchen and the boiler room needed access to a bigger parking space and infrastructure, the community house was also chosen to be situated on the fringe of the area. This, Jan Ohlin - resident since the beginning of the project - says; is less convenient for the residents further away, that wants to use the area's only common laundry room. Marie, landscape architect and resident of the area, reveals that her household, that lives in the eastern part, managed to use the common laundry room for around 10 years. "After that we didn't have patience enough, and bought our own washing machine." (Site Visit. 10/4, 2022.) Beside the community house lies a small wooden workshop with some machinery inside. Storages, parkings, waste management and "exchange room" is also situated here. The smaller "roundabouts", within the area, was meant to also be used for communal purposes, but are now mostly a space for logistics. Marie says that the spirit of the social community was continuing for around 15 years after the construction phase - now they have mostly lost the connection due to some key persons moving out. And she adds:

*"In the end; the feeling of conviviality is still made up by people, and not architecture"*

(Site visit. 10/4, 2022)

Jan Ohlin argues that the way we envision "ecology" has been changing since the 90's. Today, mostly electrification is on topic, and many people to a bigger extent use online orders of food, argues for extra parking space, and are changing the urine separating toilettes to conventional ones. (Site visit. 10/4, 2022) In the early years; ecological food was collectively ordered from a local farmer and the nearby Coop food store; and cooking gatherings were arranged. Today this has been fizzled out, and we mostly use the community house for gatherings regarding the association, and for private events such as bigger parties, Jan Ohlin continues. In an interview for a master thesis about joint building ventures (Svensson. 2013) resident Mia Torpe says that the community spirit have been moving on due to the community house, and that people got to know each other during the construction and planning phase. At the same time she adds that a threat to the area's character is that very few people today can afford to buy the houses once it needs to be sold. The sky-rocketing prices, leaves a risk of that the people moving in have no interest in either ecological principles or the community that comes with it. Despite this, Jan Ohlin says that *"many people now wish to create Understenshöjden 2.0; with more workshop places and a common green house"*. (Site visit. 10/4, 2022)

## CONCLUSIONS

A community house needs infrastructure, but it also needs to be centrally situated to all residents in order for it to be used by the neighbours on a regular basis. When you do not need to use the space - it stands more empty. One can additionally ask if empty space invites more usage.

Even though a community house is used occasionally, it can give a sense of being a part of something that is prioritized with a space of its own. For a community to be able to gather for parties gives an extra quality to the social spaces.

Practical use of shared spaces are wished for, while "Open outdoor spaces" does not invite and inspire to social activities per se.

The outdoor space is considered as an important space for the community, but should not be in conflict with the need for private space. The forest is a meetingplace for the children in the area, while providing a neutral arena. Here they can build treehouses and explore nature just outside their home window. (Berg. 2002)

Owning the home is presumably of high value for the resident, but pose a risk at gentrifying the area. Will the character and communal engagement then fizzle out by time?

# VINDMØLLEBAKKEN

## CASE STUDY 4

Year of construction: 2019  
Architects: Helen & Hard architects

Form of lease: condominiums  
Amount of apartments: 40

Where: Stavanger, Norway

Shared space: 500 m<sup>2</sup> kitchen, dining, workshops,  
rooftop green house, library, guest room, etc.



PHOTO: Sindre Ellingsen. 2019.



## CONCLUSIONS

The more functions, the more organization around them. It creates a social binder between the people of the same interest within the community.

A hypothesis about the spaces can be formed: being able to take the entrance from the courtyard into the common hall by the kitchen and the amphitheatre creates a "social opening". It opens up for official events, and makes the social life more transparent towards people spontaneously joining an ongoing conversation.

Photos: Helen & Hard architects. 1/4-2022. (<https://helenhard.no/work/vindmollebakken/>)



# UNDER SAMMA TAK

## CASE STUDY 5

Year of construction: 2020  
Architects: Ferrum architects

Form of lease: tenancies (individual contracts)

Amount of apartments: 59, of which  
3 for students  
7 service apartments  
rented by municipality

Where: Gothenburg, Sweden

Shared spaces:

- 430m<sup>2</sup>

13% of the full housing area  
(excl. laundry room, staircase etc)

- These areas includes: Kitchen, dining,  
livingroom, 2 hobby rooms, 2 guest rooms,  
1 small office, 2 rooftop terraces  
(of which one is shielded in glass)

(Helena Westholm. 2019. De byggde gemenskap.  
Erfarenheter från tio bygg- och bogenheter i Sverige.)

The association of Under samma tak was founded by eight women at 2009. They all dreamed of living together, and their vision were clear: *"We don't want to become isolated as a group of middle class women"*. (Westholm. 2019) The architect Helena Westholm writes about their process in her recent book *De byggde gemenskap* (2019) that *"the association wanted to take a social- and environmental responsibility."* This takes form in that seven out of the 59 apartments are rented by the municipality, to people that needs physical service in their home (bmss), and are interested in this form of housing. (p. 57) The student rooms are small, and have less daylight.



VISUALIZATION: Ferrum architects

These people hence make more use of the whole building when, for example, studying, Westholm argues in an interview about the project (22/02-2022). The cost is 1996 sek/m<sup>2</sup> and year, which leads to a rent of 3326/month if you rent a 20m<sup>2</sup> student room. A 58 m<sup>2</sup> two room apartment would costs around 9647 sek. At the same time you get a common social space of 430 m<sup>2</sup>. This forms a priceworthy housing solution. Another character of the social areas of this project is that they are spread out in the building, so that one can use the common spaces while choosing if you want to be socializing or not.

Top floor.

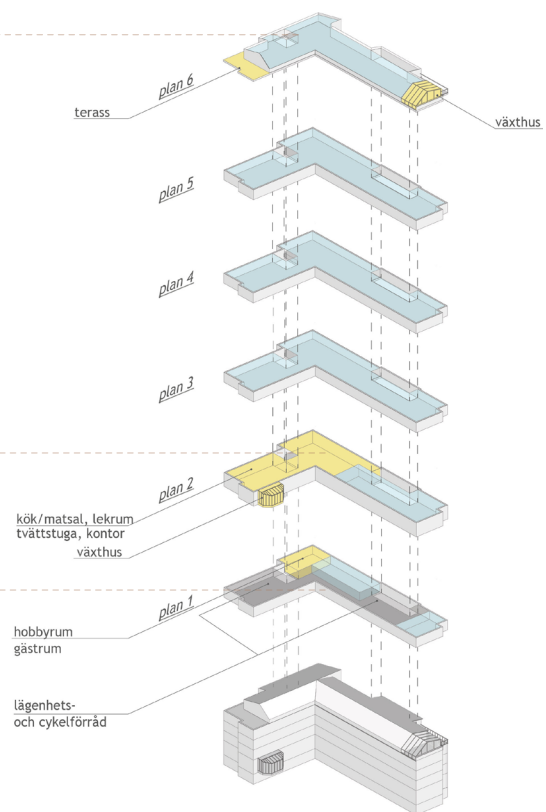
A terrace (t.l) and a green house (t.r).

- Apartments
- Community rooms
- Service

Entrance level to the inner yard.

A kitchen, dining room, play room, laundry room, office and a green house.

Floor 1. Basement from the inner yard. Hobby room and guest room. Apartment storages, bike storages and apartments.



Drawing: Ferrum architects. 2019

## CONCLUSIONS

The diversity is created by the different sizes and forms of lease that invites unassociated people to the same project. Here, the common social activities plays a bigger part in creating a sense of community within the group - than if the group were homogenous.

Mixing functions that are needed with functions that are of bonus to the house, can make the tenants use the common spaces to a higher extent and meet each other while having different purposes for their visits.

The people living in smaller apartments use the common spaces to a higher extent, which helps activating these areas.

## SUMMARY OF THEORY & PRACTICE

This chapter have presented theories of Social resilience and Social consequence analysis, that both pin point the importance of diversity within neighborhoods, of recreational areas, walkability, bridging barriers and having access to social and cultural meetingplaces. Immaterial factors such as democracy, decentralization and modules of different engagements are brought forward. Keck and Sakdapolrak (2013) were arguing for social learning, participative decision-making, and processes of collective transformation to be recognized as central aspects of social resilience. This shines a light on organizational aspects that often plays a big part in citizen initiatives such as ecovillages and co-housing projects. It highlights cooperation as an important prominent part of cohesive neighborhoods. Often do initial citizen initiatives such as ecovillage projects risk at being gentrified by time. For creating neighborhoods where long term social inclusion and cohesion goes hand in hand one can pose the following aspect as the most prominent:

### DIVERSITY OF HOUSING TYPOLOGIES

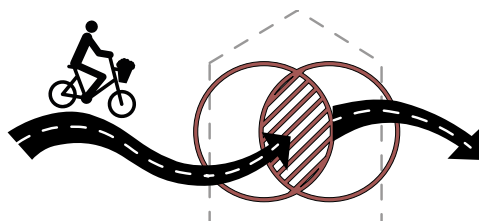
Diversity is good for bridging socioeconomical barriers. To understand, and know, other's life circumstances is good for developing a society that fosters inclusion and egalitarian mindsets.

Diverse neighborhoods additionally builds foundations for sharing - based on co-management and cooperation - if this is also favoured by a community spirit. This favors the whole community rather than individuals. Living smaller also increase usage of the common spaces. Shared living, such as co-housing units, are a housing form that builds strong networks while enabling a more economical and sometimes ecological way of living. Taking these aspects into account; a diversity of housing forms and typologies has the potential to build resilient neighborhoods where cooperation and social bonds bridges economical barriers.



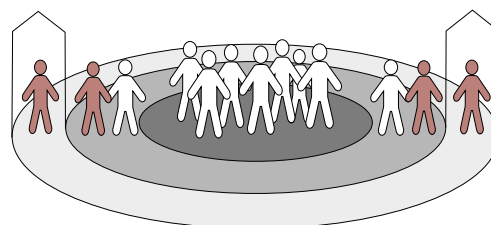
## DIRECTING TO THE COMMON

Directing people to the common arenas or-  
chestrates interaction, helps people to get  
to know each other, and can hence lay foun-  
dation for cooperations. This can be done  
through bridging functions people need to  
use with functions that are optional, quali-  
tative and invites social activities. This re-  
quires the common arenas to be central, ac-  
cessible, visible and inviting. If the common  
arenas are too far away for everyday usage;  
it risks at being more seldomly used by tho-  
se who live further away. Increased usage of  
the common spread social ripples within the  
neighborhood. The common arenas simply  
helps to build community. Through enabling  
social practice such as farming, cooking and  
dining together; social networks decrease  
the risk of social isolation.

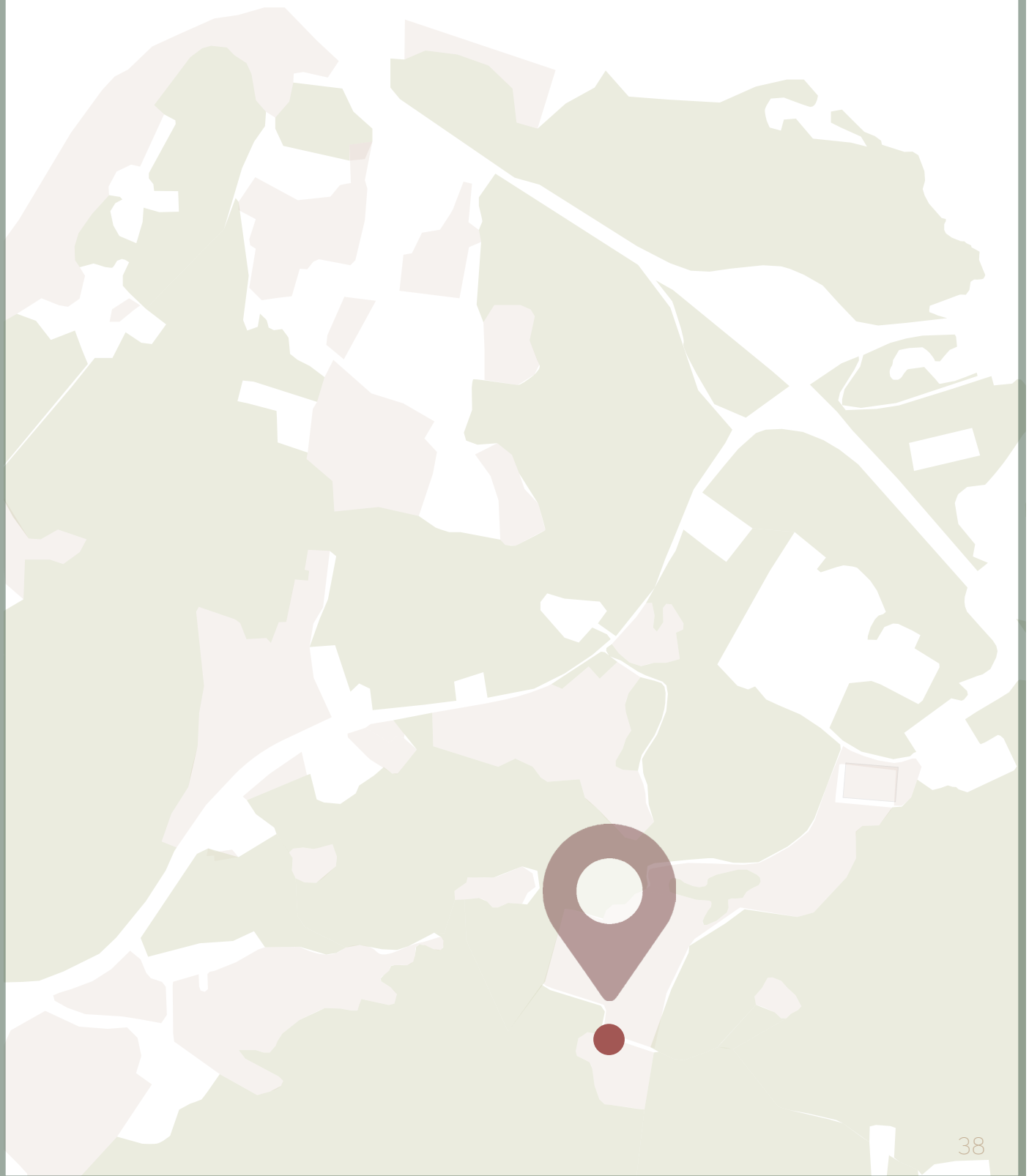


## SPECTRUMS OF SPACES

Spectrums of spaces - from private, through  
shared, to public spaces - lastly enables  
neighbors to stepwise choose to interact  
to different extent. An increased amount of  
shared spaces likewise requires clear and  
intimate private spheres. Introducing hou-  
sing forms such as co-housing and co-li-  
ving units can enable a more affordable way  
of living, avoid isolation and build social  
networks that lasts over time. Diversity of  
common areas additionally enables people  
of different interests to make use of them.  
This relates to both functions (interests) and  
to qualities of spaces, from calm and serene  
to active and social. Here, nature and other  
neutral arenas plays a big part in creating  
shared spaces. Nature promotes healthy ac-  
tivities and enables you to both stay neutral  
or choose to interact.



# GRÖNBO ECOVILLAGE





The association of the not yet built *Grönbo ecovillage* writes on their webpage (09-12-2021) that:

"The purpose of the ecovillage is threefold:

- **Ecological.** Creating a housing neighbourhood - adapted to the site - that with help from accessible methods and materials is exemplary sustainable, energy saving, and has a circular principle built into it.
- **Social.** Creating a housing area that is socially stimulating and pleasant, and where there are real housing influence - where everyone participates in some way and shares the responsibilities.
- **Economical.** Create a housing area where costs of living, as the housing costs, can be lower than average, through a sharing and resource saving way of living. All of these things can seem obvious, but are in today's society rather a pilot project."

The Grönbo ecovillage association aims at creating an ecovillage in Gothenburg municipality's northern forests and farmlands. The area is situated on the northern part of Hisingen island, in a district called Rödbo. Getting to know each other, and the place, the group has initiated an association called *Aspelunden cottage and forestry garden* that meets every week, farming on permacultural principles and renovates the old cabin. Building and farming together is what forms and keeps the association together. Today they are leasing around 2 acres of land around Aspelunden cottage (see point on map, and picture above). The leaser is Gothenburg municipality, who owns a great piece of land in Rödbo. Looking at the potentials of the site and reinforcing the farmland can create a higher extent of local self sufficiency of food.

What do an ecovillage at this site bring for potential of becoming a socially inclusive and cohesive neighborhood? Analysis on the area's context will investigate the community potentials that can be developed at site.

# CONTEXT ANALYSIS

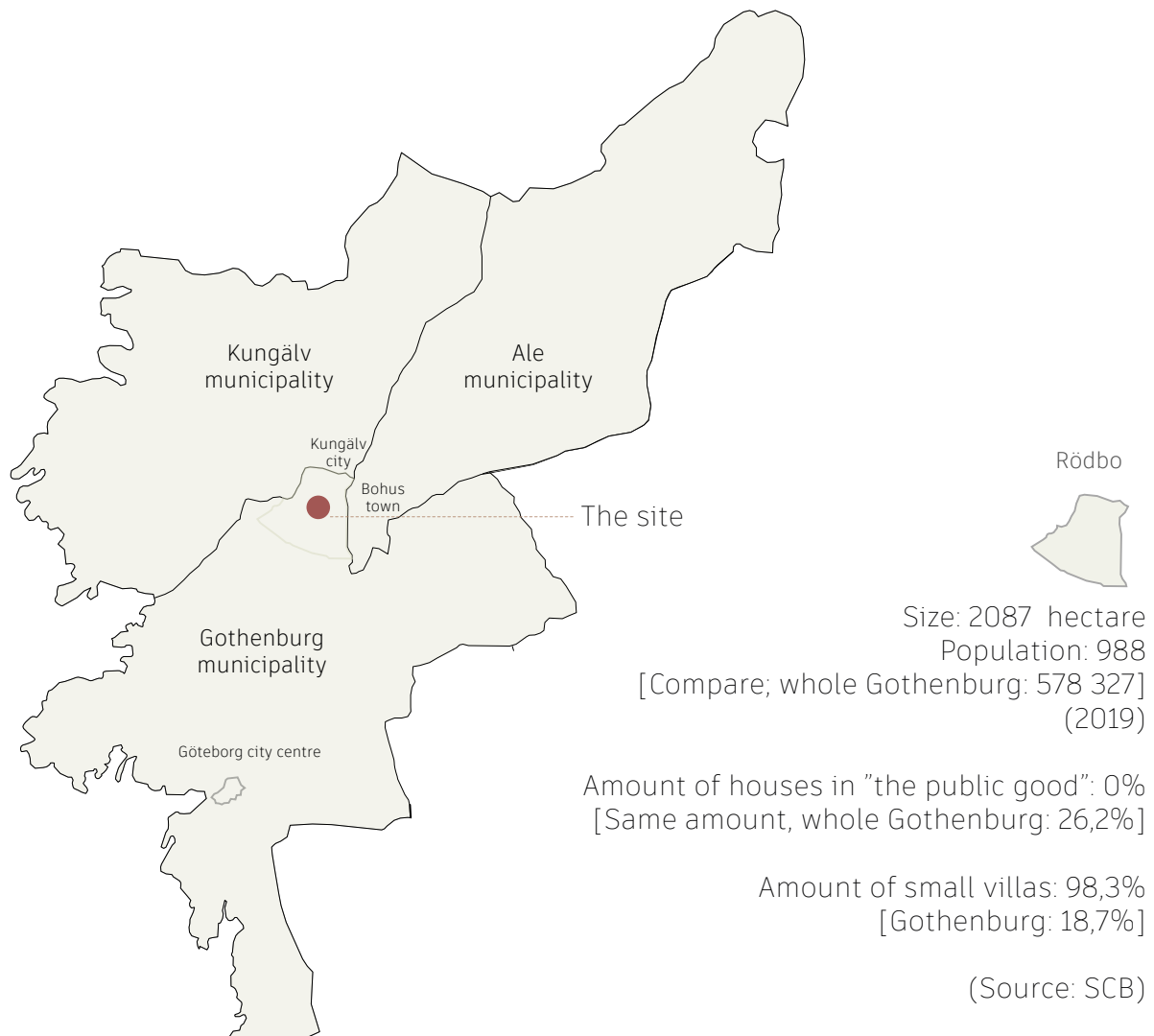
The area of *Rödbo* has been chosen by the Grönbo ecovillage association to be of potential placement for the village. This has been done, considering the size of the property, as well as the qualities it enhances with both farmland and forests.

A rich amount of land is here owned by the municipality, which is what enables both the leasing contract as well as an eventual bargain.

This chapter presents site analysis and considerations of different placements of a housing site, and its potentials for creating an inclusive and cohesive neighborhood.



## ON THE BORDER OF THREE MUNICIPALITIES

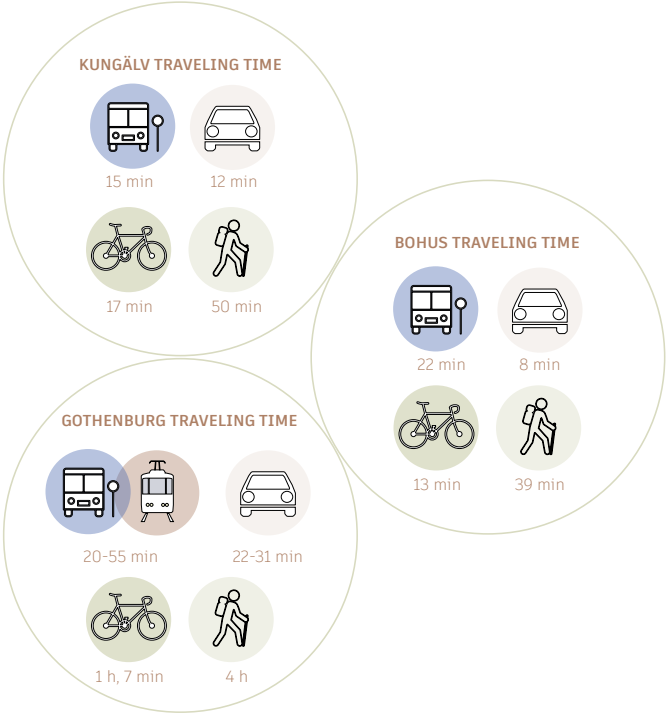


Rödbo is a small area on the sharp northwestern top of Gothenburg municipality, which it became a part of during the 1970's. Before that Rödbo was part of Kungälv. Today, most of the land is owned by the municipality and many of the properties are leased out to other actors.

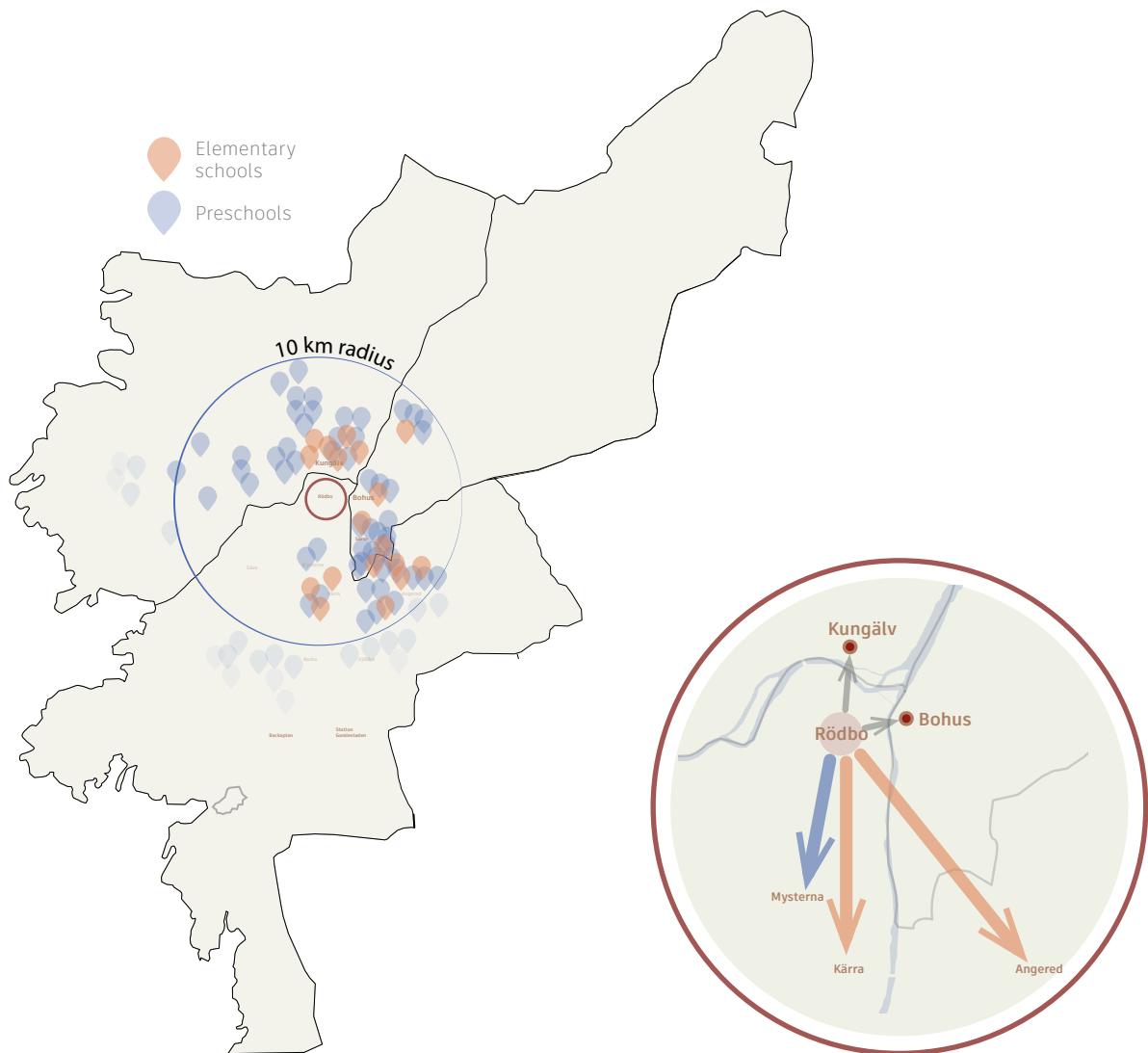
The location within the city region makes the area in close relation to infrastructure such as railways, express busses and highways. The site can be considered a countryside, but situated within a big city region thus makes it neither urban or rural. A development of new housing areas must hence be adapted to these rural conditions, but can at the same time attract people that wants to access functions associated with a bigger city. The close connections to both Kungälv, Bohus and Gothenburg must be equally considered to create an attractive housing situation and living conditions for current and future inhabitants.

# COMMUTING OVERVIEW

The city of Kungälv is situated only 17 minutes bike ride from the area of interest. The town of Bohus, where the railroad of Västlänken stops, is by train reached within 13 minutes from Gothenburg central station. The question is; how are you favoured to travel?

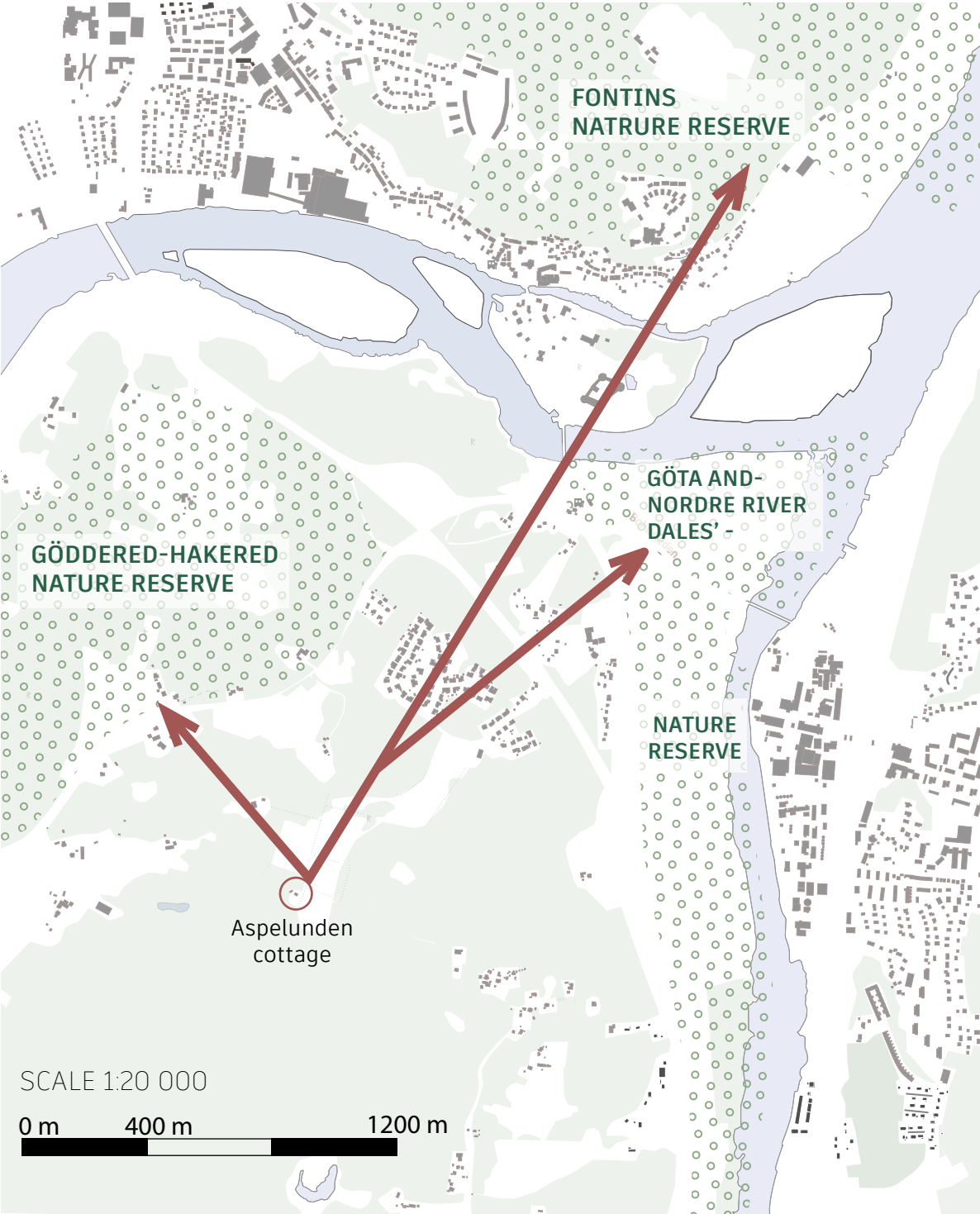


## SCHOOL PLACEMENTS



Taking the bike to purchase groceries, with an estimated time of 13 minutes from Rödbo's main villa area to the centre of Bohus, is manageable. But the inhabitants might now depend on car and public transport to access school. The accessibility of schooling for the inhabitants of Rödbo has since the 1970's been favourable, since the children of Rödbo have had allowance to attend schools of Kungälv. This however is a situation that recently has changed. The municipality of Gothenburg stated 2020 that it is too costly. Further on the children will be reduced to attend elementary schools in Kärra and Angered, and the kindergardens in Kärra and Mysterna. This instead gives a commuting time of 20 - 40 minutes to the elementary schools, and 12 minutes by car to the kindergardens. This, is stated, will have the potential of bringing integrational effects, but will have no major consequences in ecological footprints. (Grundskoleförvaltningen. Göteborgs stad. 2020)

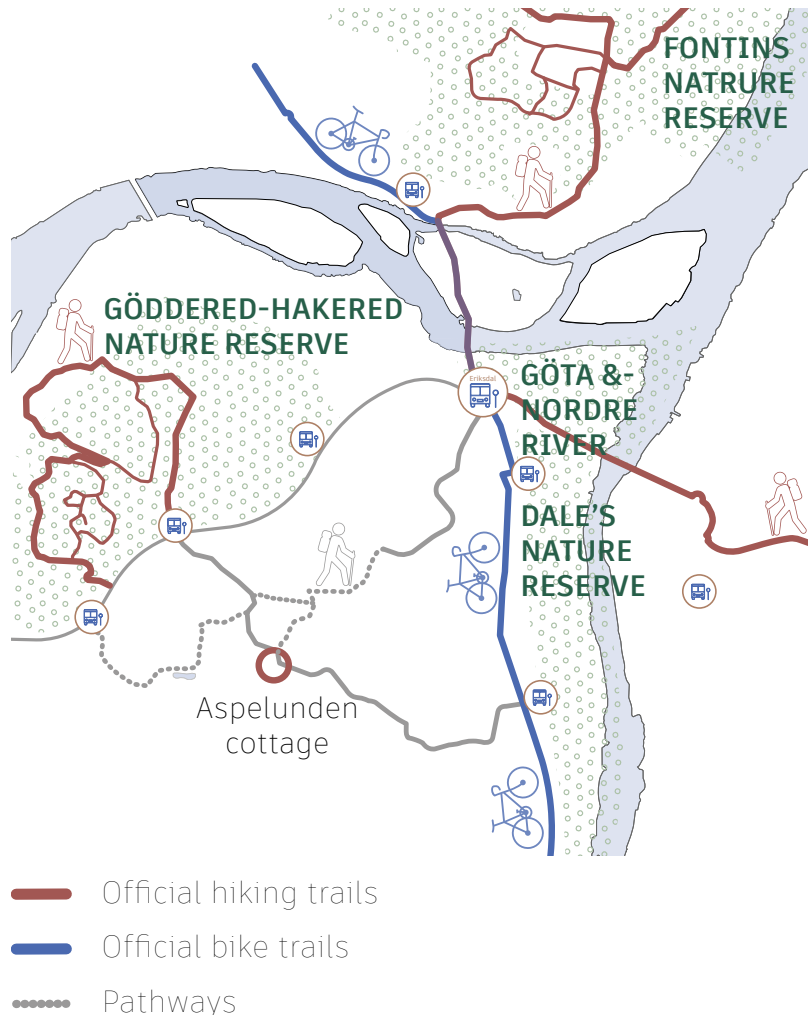
# CONNECTIONS TO THE NATURE RESERVES



- Forest
- Nature reserve
- Property leased by the association
- Directions to nature reserves, from Aspelunden cottage

The area around the cottage of Aspelunden has prominent rich nature. Hills and dales creates a dramatic landscape, and many small creeks and cobblestone fences form the old agricultural landscape.

This map shows the connections Aspelunden has to the nature reserves in the area. To access the nature reserve of **Göddered-Hakered** one can walk Backeredsvägen and enter the hiking trails in only 7 minutes from Aspelunden cottage. This nature reserve is rich in cultural remains.



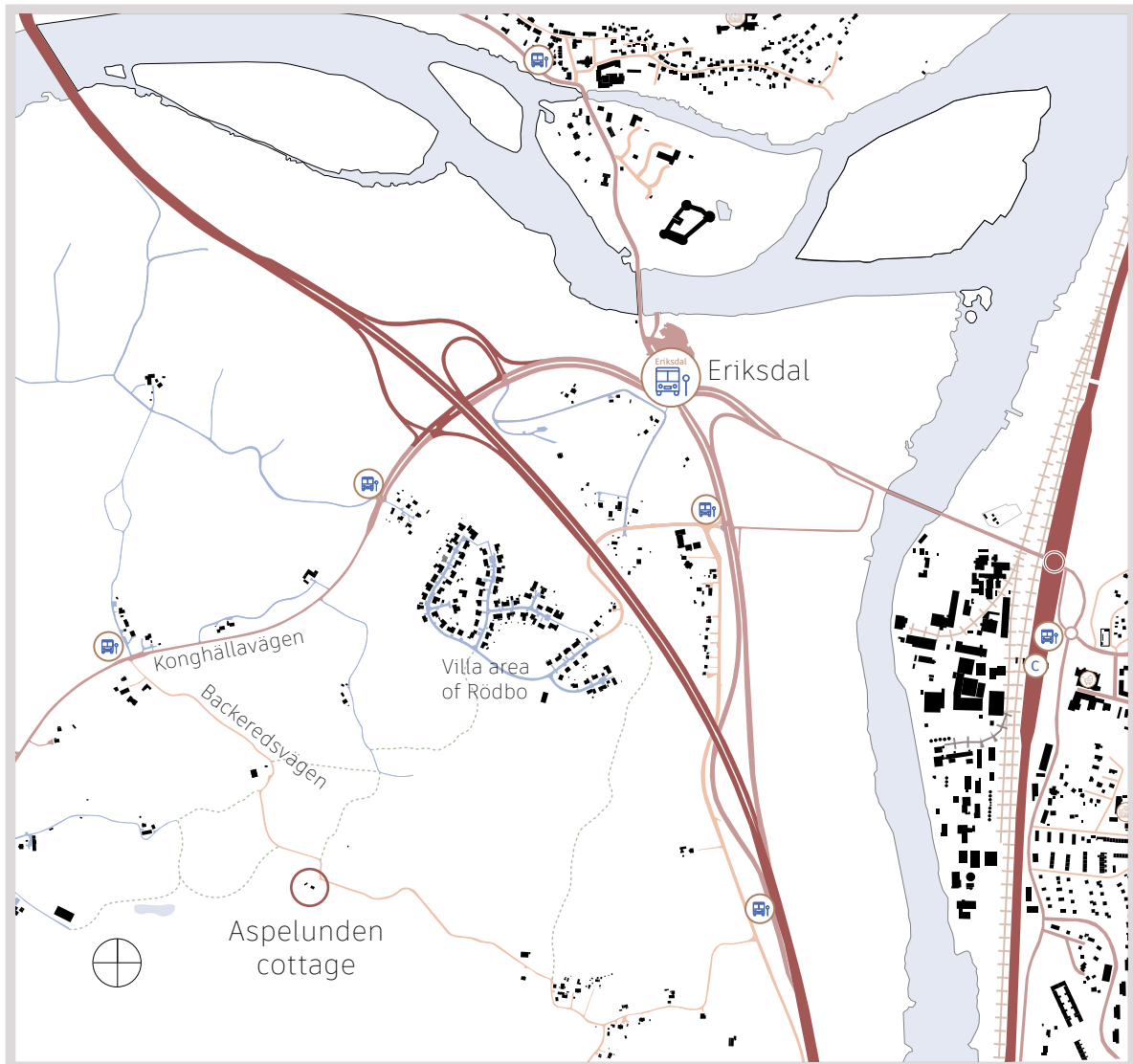
By the commuting node of Erikssdal, the hiking trail of Bohusleden (of 37 swedish miles) passes and leads through the **Göta and Nordre river dales' nature reserve**.

To further walk on Bohusleden that leads you through **Fontins nature reserve** in Kungälv, one continues on the road over to the Bohus fortress (1300 a.c) on the island between Gothenburg municipality and Kungälv city. In this way the

site is closely situated within a natural landscape that provides with both nature reserves, historical relics and counties' necessities.

Today the car roads has few accessible and separate passages for bikes and people on foot. One simply have to walk and bike on the car roads. But on the parallell roads of the highway to the east; the biking trail of the "West coast trail" passes the Backered road.

## NODES OF INFRASTRUCTURE

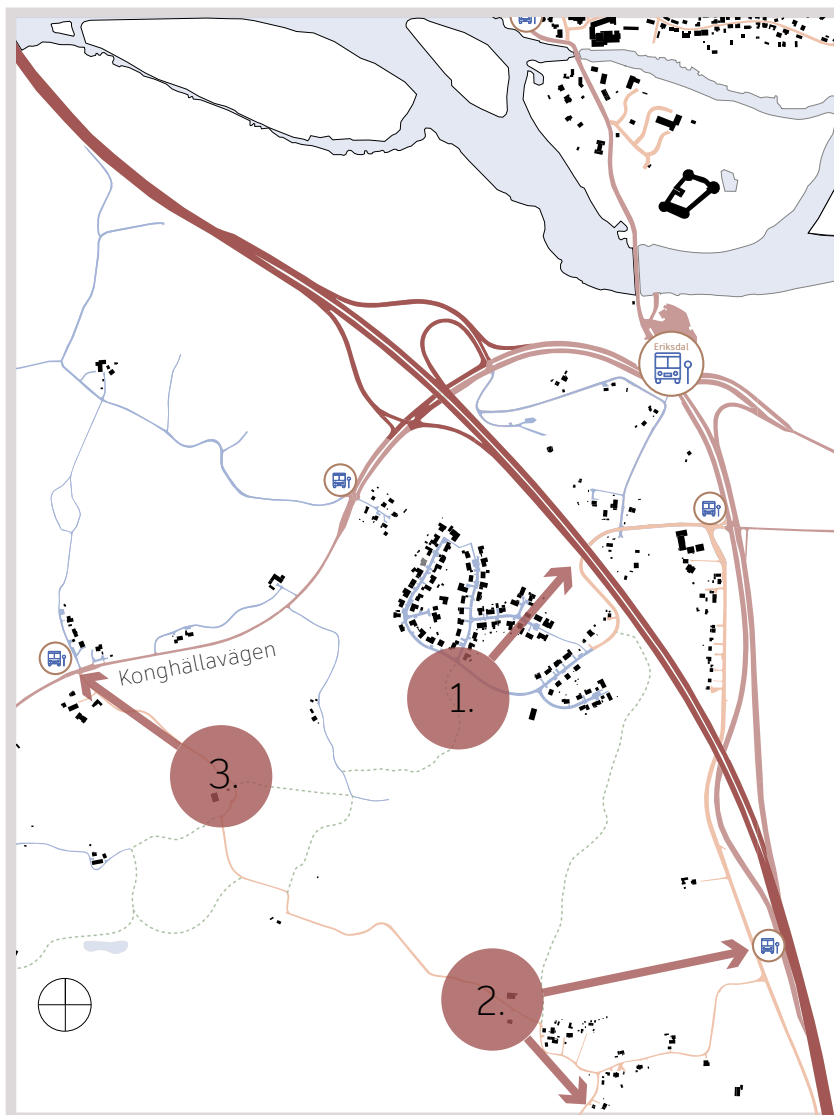


The Rödbo area is framed by the northern coast line, but also characterized by the **highway E6** leading through Kungälv down to Gothenburg. **Konghällavägen** is the other road passing through the area, that connects it with the southwest of Hisingen island.

The bus stops where Konghällavägen meets **Backeredsvägen** - that passes Aspelunden cottage. Another bus stops by the highway to the east. A bigger commuting node - **Eriksdal** - connects Kungälv and Bohus with Rödbo. Reaching Eriksdal, you might take the bus. From the cottage you can also reach Eriksdal by foot walking the north heading pathways through the forest and villa area of Rödbo. This takes around 15-20 minutes.

-  Pathways
-  Local street
-  Trafficked road
-  Highly trafficked road
-  Highway

## CONNECTING THE ECOVILLAGE



### 1. TO ERIKSDAL

From an infrastructural point of view; a possible connection to the villa area of Rödbo could connect the ecovillage with a bigger housing area, and hence increase the sense of safety. The distance to Eriksdal connects different directions and sites.

### 2. TO BIKING TRAIL

This potential lies within its connection to the biking trail and the housing by Backeredsvägen.

### 3. TO KONGHÄLLAV.

Relations to the nature reserve of Göddered-Hakered, to the bus stop and housing by Konghällavägen are the potentials of this site.

A new housing area, such as an ecovillage, could be thought to have a relatively easy access to the commuting nodes - as to Kungälv and Bohus for purchasing groceries. The roads that takes you on to these places all passes Eriksdal. Taking the bike to the future closest preschools in Gothenburg municipality; you instead follow the Backeredsvägen to the east (2), and turn south and travel further on the west coast trail to reach for example the preschool in Mysterna. These three possible infrastructural connections poses different potential placements of the housing area of the ecovillage of Grönbo - one builds on the biking accessibility towards Kärra and Mysterna; another creates a better connection to Eriksdal (1), while the other have a close relations to the nature reserve of Göddered-Hakered (3). This (3) also connects the housing area beside Konghällavägen and takes advantage of already exploited and invested infrastructure. This could have a positive effect on the early cost of constructing Grönbo ecovillage.

# BUILDING FUNCTIONS

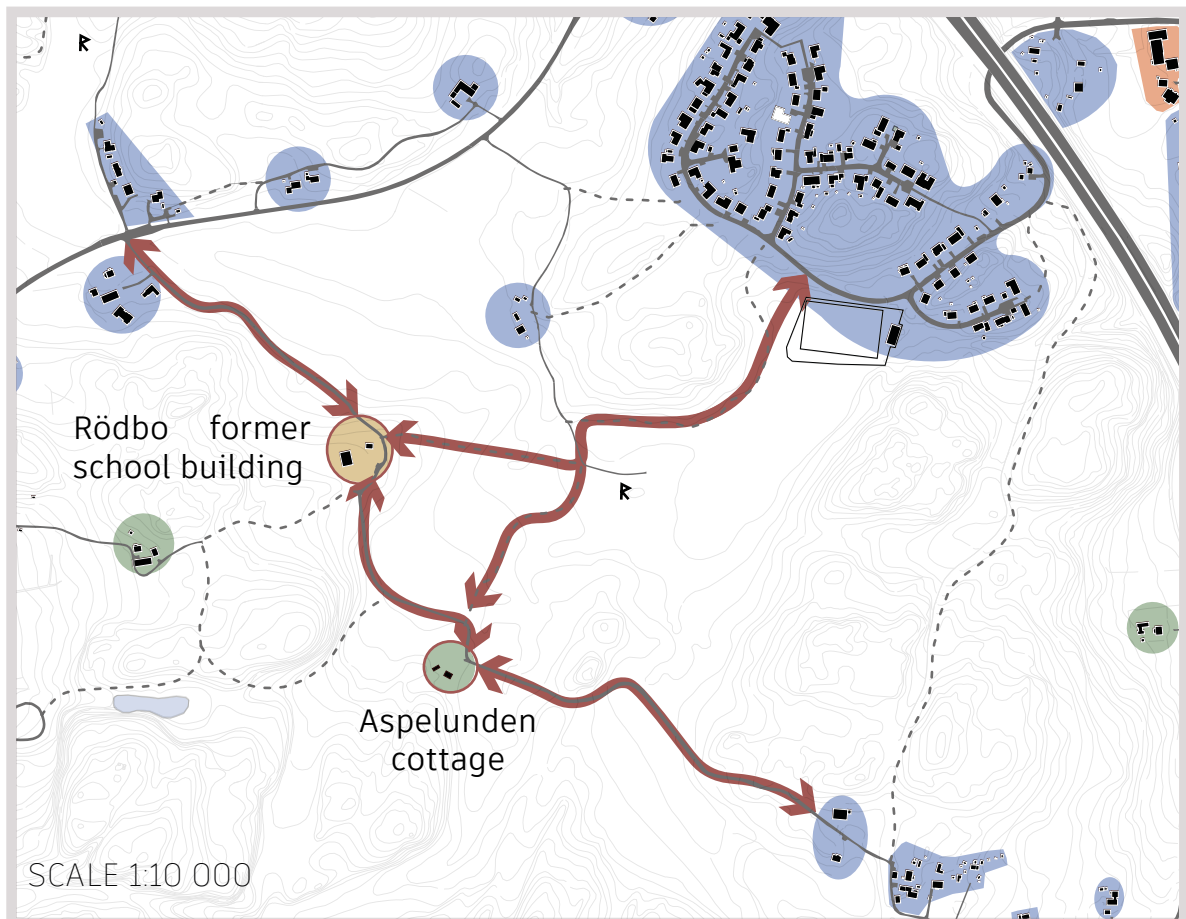



- Housing
  - Housing & business
  - Farm properties
- Public buildings, shops, business & education
  - Buildings of cultural history
  - Industries
  - Food store

The closest food stores, shops, and educational- and cultural centres are situated in Bohus and Kungälv.

## DIRECTIONS

98% of the houses in Rödbo are small villas, and some of them are older farmhouses and cabins. No amount of houses are rented out from the public good. This could create a homogenous housing supply. On the other hand, many of the old farmhouses and cabins in the area are leased out from the municipality to private families, which enables another socioeconomical group to live in rural conditions within a big city region. These houses are generally situated far from each other, and the possibilities of creating bridges to these housing areas can be considered. Apart from the main roads; the housing areas are connected through pathways through the forest. Could they pose potentials bridges? If connecting existing housing areas with each other, the showcased positions and directions can be considered for a new housing village such as Grönbo.



 Approximate stretch of the site for a housing development; and to what direction of other areas it can connect to. (each arrow = different choice of site)

## SWOT ANALYSIS

A SWOT-analysis aims at highlighting the most prominent Strengths (S), Weaknesses (W), Opportunities (O) and Threats (T) within an area or a project foundation. Doing so, can bring forward contradictions but also opportunities within the struggles it faces.

# S

- The farmland as a resource for local farming; building the community spirit by the garden plots and permacultural visions.

- The nature reserves, and its cultural remains, providing recreational surroundings for inhabitants and visitors around Kungälv, Bohus and Gothenburg.

- The close distance to an infrastructural node (Eriksdal) that connects 3 municipalities with each other within a short time span.

# W

- The recent change in accessibility to schools and preschools

- The long biking distance to Gothenburg as the biggest employer in the region

- The distance to food stores creating a high demand on cars

- The highway may create mental barriers for enjoyable biking habits towards Gothenburg.

# O

- Allotments for inhabitants, neighbors and others; could form bridges between people

- A learning community centre for sust. farming methods has potential to strengthen relations between city and countryside; create inspiration for permaculture and provide a stop for visitors within the nature reserve.

- A purchasing association could enable people to purchase food close to home

- Diversity of housing could enrich Rödbo and create a thriving community.

- Shared space to strengthen senses of togetherness

- An easier access to Eriksdal  
- Improving biking conditions

# T

- An increased use of land risks being followed by increased uses of cars, bigger roads and bigger properties for human exploitation of valuable land.

- Increased use of land can invite more housing construction. This risks at be followed by other investors that do not follow ecological principles.

- Gentrification. A diverse, social and inspiring community risks at being gentrified, and with time disable affordable housing situations. How can one secure the diversity of the housing area?

## STRATEGIES & OPPORTUNITIES

From the context- and SWOT-analysis some prominent potentials emerge. These potentials are; *community farming and allotments; recreation; a food store; connecting areas and nodes, and; diversity of housing and shared space.*

### FORMING ALLOTMENTS, A FARMING COMMUNITY CENTRE & CONNECTING TO THE NATURE RESERVE



Allotments, such as Sjöbergen in Gothenburg, can be rented out for private gardening, and thus make the farmland a meeting point for many neighbors with shared interest.

A learning community centre for sustainable farming can attract many people, and become a stop for many hikers on the way to the nature reserves.

### A FOOD STORE FOR FARMLAND VEGETABLES & PURCHASED GOODS



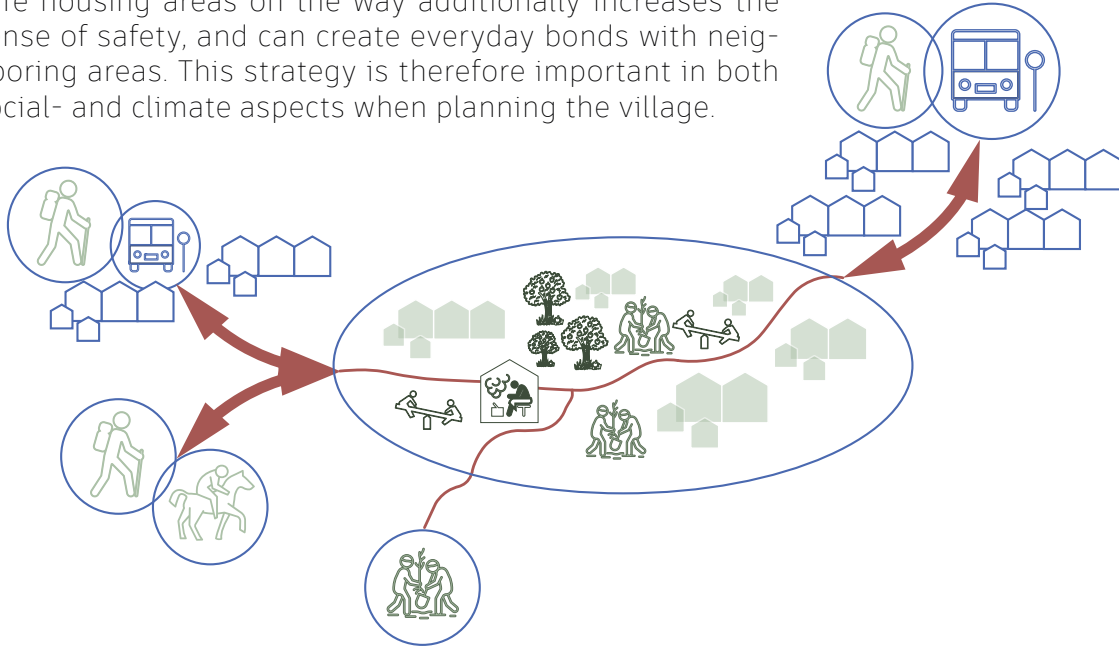
Most of us value easy access to nature from home. Generally, close access to food stores is regarded even higher for us.

A small food store can enable the farming community to sell vegetables meanwhile being a place for association members to buy purchased goods and food.

A place like this can make people both consumers and creators of the space, while working as an everyday meetingplace.

## CONNECTING HOUSING AREAS & INFRASTRUCTURE

Having an easy access to the infrastructural nodes increases the chances of sustainable commuting. Passing through safe housing areas on the way additionally increases the sense of safety, and can create everyday bonds with neighboring areas. This strategy is therefore important in both social- and climate aspects when planning the village.



## DIVERSITY OF HOUSING & A HIGH AMOUNT OF SHARED SPACE



A diversity of housing is important for a housing area such as Rödbo, that has a low housing diversity. Enabling different economical groups into the village decreases the risk of speeding gentrification, pose an integrational potential, and additionally lay foundations for sharing structures due to different amounts of time and resources. A high amount of shared space also requires cooperation in management, while enabling shared activities, bigger events and arrangements.

## REFLECTION

Concluding what has been brought up in this context analysis, and connecting it to the theory chapter of how to create a socially inclusive and cohesive neighborhood, some strong outlines can be formed:

**Social contexts** to build this village around is lacking in compare to new housing built closer to cultural centres, neighborhood nodes and so on. On the other hand, the connections made to existing housing areas can potentially become more personal. The potential for an ecovillage in Rödbo largely builds on the farming potential, and becoming a hub for interests in using nature in different ways. Farming, selling and buying sustainably harvested- and local - food, as well as enjoying being in the midst of nature is a tool. A meetingplace for both inhabitants and visitors of the village also becomes of value, regarding the close relation to nature reserves and if Grönbo would become a learning centre for sustainable farming. Directing people to these common arenas plays a big part in bringing people together, creating a welcoming atmosphere.

### **Directions to the common.**

Since the infrastructure is mostly adapted to the use of cars - and the site is situated relatively far from centres where you can buy food, go to work and so on - it becomes important to create infrastructural connections where biking and public transport becomes a fair alternative. Connecting to other housing areas and make the roads feel safe also becomes important. Additionally a shop that stores and sells food for a village purchasing association, can also become a place for selling farmland food, increase local sufficiency, mitigate the use of cars, foster local engagement and additionally create foundations for attracting people to make use of this arena.

### **Shared space.**

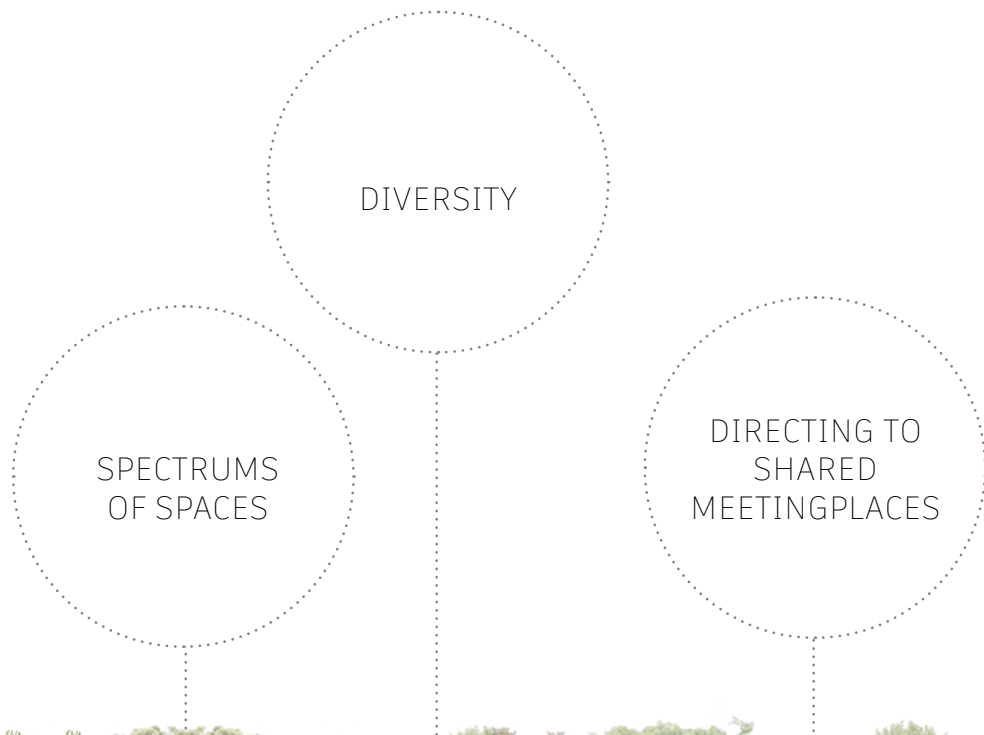
Making the Grönbo ecovillage association own, or at least manage, most of the common land in the village, can bring people together while additionally hinder future unsustainable exploitation of the land. Private properties can be made smaller, to leave room for shared space that can consist of collectively managed playgrounds, forest gardens and indoor community space.

### **Diversity of housing.**

Different types and sizes of housing can diversify Rödbo, hinder gentrification and enable a socioeconomical integration in everyday life. It can also pose encouragements of living smaller, with an instead increased use of the shared spaces. Smaller and bigger homes in the same housing area can enable people to stay within the neighborhood when family constellations changes, such as enable young adults to slowly move from home. Lastly, the tiny houses can work as rentals for newcomers and others that either urgently need somewhere to live, or wants to try out how it is to live in Grönbo village.

# IT TAKES A VILLAGE

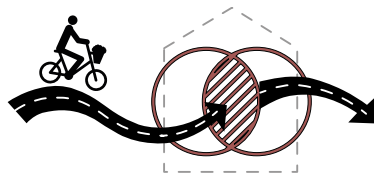
This chapter presents the resulting design proposal for Grönbo Ecovillage.



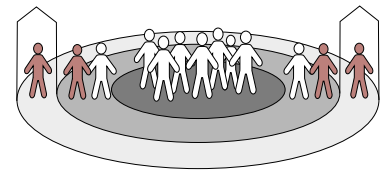
# INTRODUCTION



DIVERSITY  
OF TYPOLOGY



DIRECTING TO  
THE COMMON



SPECTRUMS  
OF SPACES

The house types within Grönbo range from villas and rowhouses to tiny houses and co-housing apartments. This appeals to a diverse group of people and may enable affordable living.

The designed plan aims at creating close relations between the different houses, where visibility is aimed for with the core village street and shared courtyards.

A village needs to direct people to the common spaces for it to create a foundation for everyday interaction and social cohesion. The new village street - Grönbo Bygata - have the purpose of bridging barriers and connecting to other housing areas as it directs you through the

spectrums of outdoor and indoor shared spaces. This plays a big part in creating different social meeting-points, and spaces for interaction

Spectrum of spaces within the area contributes to a rich supply of different activities. Special emphasis is put onto the shared spaces within Grönbo. A high amount of shared space contributes to a sense of engagement and ownership within the community. These spaces additionally works as bridges between private rooms and the public.

# VILLAGE CONNECTIVITY



— The new Grönbo bygata      - - - - New pathways

The placement of the village, that stretches over 3-4 acres of land, is thought to connect to different points of interests - such as the nature reserve, the commuting nodes and other housing areas.

The west upper hill of the village, is situated close to the pathways that leads through the forest towards the nature reserve. It is also close to the bus stop by Konghällavägen. From this point, the village street (red) creates a new potential path of travel taking you towards the villa area of Rödbo and further on to Eriksdal commuting node. The current design can be seen as a first step of construction, and opens for further developments along the village road.

The new pathway for bikes through the south facing fields leads you down to Aspelunden forest garden. These situations aims at potentially making Grönbo Ecovillage one of the stops on a Hiking trail from Eriksdal up to the reserve, and creating accessible alternative paths of travel. Potential further developments can stretch further on to the bus stop by Konghällavägen or towards the soccer field by Rödbo villa area. Both directions builds onto existing housing and hence lays foundation for neighboring meetingplaces.

The meetingplaces within the village aims at, with its functions and placements within the village, bring value for both inhabitants, members of the community and neighbors within Rödbo.

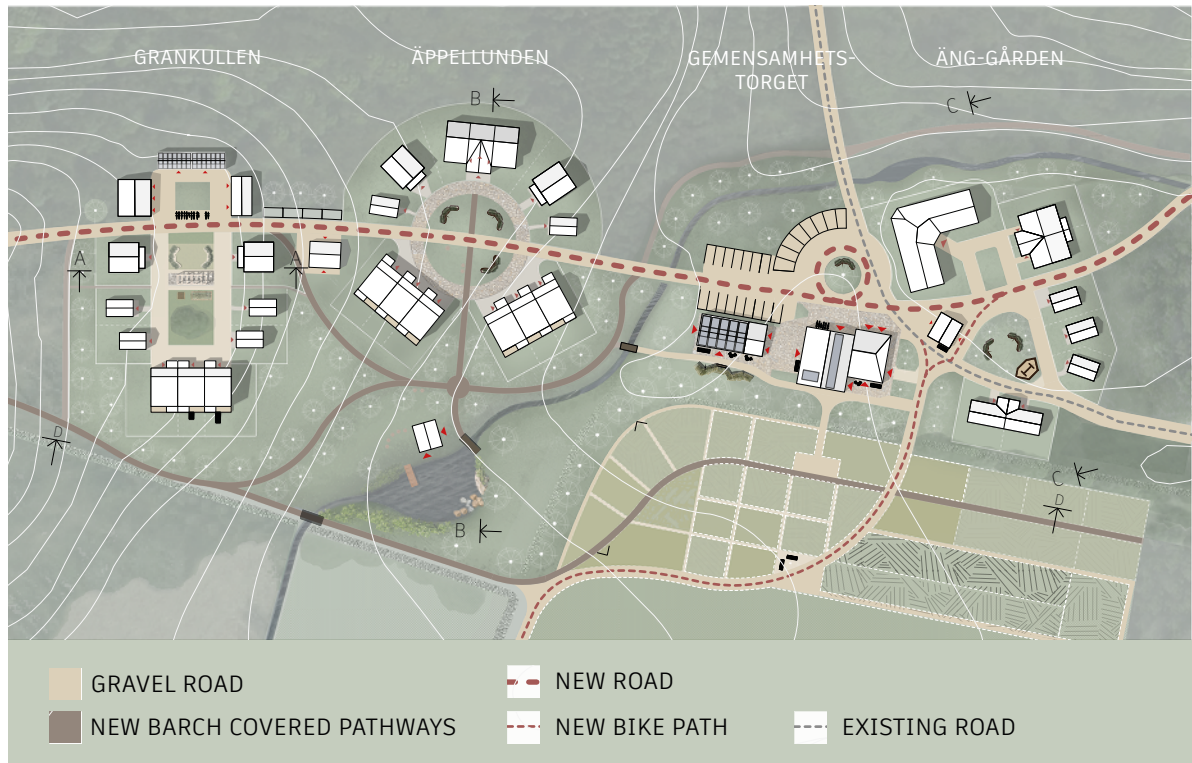
## SECTION D-D VIEW FROM SOUTH TO NORTH



The village street starts at the hilltop of Backeredsvägen, right beside Rödbo former school building. Due to some steep parts of the upper hill, the houses are placed some meters below Backeredsvägen.

This section shows the area of where the suggested village street are distributed with housing, at this particular phase of construction. The houses stretch over a distance of 260 meters, out of the around 655 meters that the new village street stretches from Rödbo old School building towards the soccer field of Rödbo villa area.

## ROADS THROUGH THE VILLAGE



Grönbo bygata is partly constructed on the old pathways leading through the forest. As this graveled road gives a natural feeling to the village, and invites walking; the barch-covered pathways (brown) blend into nature as it winds through the area. It enables shortcuts through the backyards of the village, and creates a wilder atmosphere to the housing situation.

The roundabout by the community building is intersected by the old gravel road of Sandvadet that leads you towards the bigger road of Konghällavägen to the north.

The southleading gravel road, that you can see weave through the farmland, is constructed on an old pathway, and takes you on to Aspellundens cottage and the Backeredsvägen further south.

## GRÖNBO BYGATA



When you turn into Grönbo bygata, the houses unfolds into courtyards where gardening and other outdoor activities can take place. The Grönbo village street is suggested to be a gravel road, promoting running, playing, biking over the use of cars.

According to the child consequence analysis, kids should live in neighborhoods with outdoor arenas where they can feel safe to move around in their neighborhood without getting disturbed by barriers such as big car roads. (Göteborgs stad. 2017)

A gravel road that invites to for example dog walks, rather than car rides promotes health, since walkability is as good for the mental- as for the physical wellbeing. (Göteborgs stad. 2011. P: 19)

A common main village road additionally brings visibility to the area's inhabitants. Houses directed towards the road increases the sense of security for strollers on dark winter days. Likewise seeing people walk within the public- and shared spaces create a lively and relaxed atmosphere.

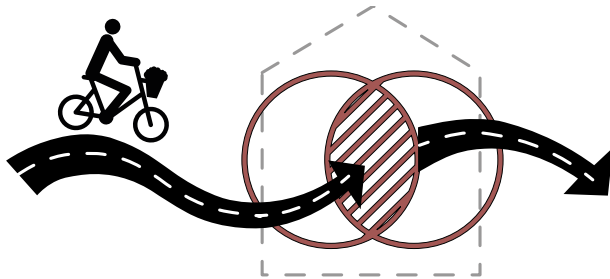
## THE HOUSING CLUSTERS



The three housing clusters in Grönbo - Grankullen, Äppellunden and Äng-gården - are thought to create smooth transitions between the private spaces, as your garden, through the shared courtyard towards the public village street. The shared spaces within the clusters plays a role in creating a common management and interest within the cluster. The spaces enables access to bigger gardens and courtyards even for those who owns a smaller property of land.

Walking down 20 meters from Backeredsvägen, you reach the first cluster - Grankullen, pass some of the shared facilities, and then come down to the round courtyard of Äppellunden. Further on you pass a bridge over the stream and reach the greenhouse and community building to the south. Beside this courtyard lies the cluster - Äng-gården - that is the last group of houses presently built by the Grönbo village street.

## TWO PRINCIPLES OF ACCESSIBLE SHARED SPACES



A combination of two different principles of accessibility to the shared spaces have been adapted in the design of the village. One principle is the close distance to the functions that you need - like a laundry room, bike storage, workshop etc - in order for people to use the shared spaces and things instead of buying private versions. The other principle is to gather the community functions as close to each other as possible.

These two have both influenced the village plan, but the last example have been highlighted as the most important concept of the ecovillage.

Next spread shows the different common functions and spaces situated within the village.

The housing cluster of **Grankullen** contains bike storages - to always have close to your home -, a smaller workshop and a guesthouse together with a toilette and a laundry facility. Additionally a small greenhouse and outdoor kitchen is situated here.

Further down the hill you find the sauna. You reach it from smaller barch covered pathways winding through the area. The apple alley also directs you

from Äppellunden housing cluster towards this place. It's situated beside the damm constructed from the stream floating through the area.

Passing Äppellunden on the village street you soon reach the community house. By this site lies a bigger greenhouse and a recycling room, the parkings and the farmlands to the south.

The community house contains functions that you need - such as a laundry room - but also things creating extra value - such as space to work from distance, somewhere to grow your own vegetables, invite a lecturer or throwing a bigger party. But first and foremost the community spaces should invite inhabitants to arrange common activities such as eating regular dinners together. For everyone to feel urged to participate, the kitchen is placed in a central and accessible part of the village.



You also come here to pick up your post, do the laundry and buy food in the small community store.


# GRÖNBO VILLAGE COMMUNITY SPACES

**SHARED COMMON FACILITIES, TOTALLY: 800 m<sup>2</sup>**  
 GRANKULLEN: 215 m<sup>2</sup>  
 BIKE-STORAGES/STORAGES: 50 + 45 m<sup>2</sup>  
 SAUNA: 42 m<sup>2</sup>  
 GREENHOUSE: 110 m<sup>2</sup>  
 RECYCLING: 38 m<sup>2</sup>  
 COMMUNITY HOUSE: 300 m<sup>2</sup> (120 + 180)



- 1  

- 2  

- 3  

- 4  

- 5  

- 6  

- 7  




## DIVERSITY OF TYPOLOGIES



Grönbo ecovillage consists of different typologies and invites differing forms of housing solutions such as cooperatives. The combination of rowhouses, twin houses, tiny houses, collective house and villas may bring diverse interests and preferences into the community. It also enables living with smaller amount of private space, such as within the tiny houses. This is made possible through giving close access to common amenities. Some of the houses, such as the tiny, could be rented out by the association. The thesis suggests enabling these typologies to be flexible for different futures such as renting out and sharing parts of the buildings.

A cohesive city is, through Gothenburg Social consequence analysis (2011), described as laying the foundation for encounters through visibility, density and diversity.

It is important to highlight that each cluster in Grönbo ecovillage consists of the different typologies. This prevents homogenous alignment, builds relations while avoiding to strengthen eventual differences between different parts of the village. Visibility is aimed for with the core village street, and the three housing clusters creates smaller communities within the village.

## DIFFERENT NEEDS WITHIN THE COMMUNITY

In the process of forming Grönbo ecovillage, some people realized they didn't have enough money to build a private villa or a row house, but were with this suggestion enabled to buy a smaller piece of land and build their own tiny house. Some of them chose to engage collectively in a co-housing project within the village. Many others created housing cooperatives and bought a plot together with friends, to together own the land but privately build their own units of a rowhouse. Some are renting and some bought their own. Here are some stories.



*"I always wanted to live in a rural context with friends close by. This is exactly what I get here. I live in a tiny house at the moment, but I have so much more space just around the corner. I sometimes work from distance in the community house. And we also arrange yoga classes there every Sunday morning. The wonderful part is that neighbors around Rödbo sometimes join as well! Bringing people of the area together really warms my heart."*



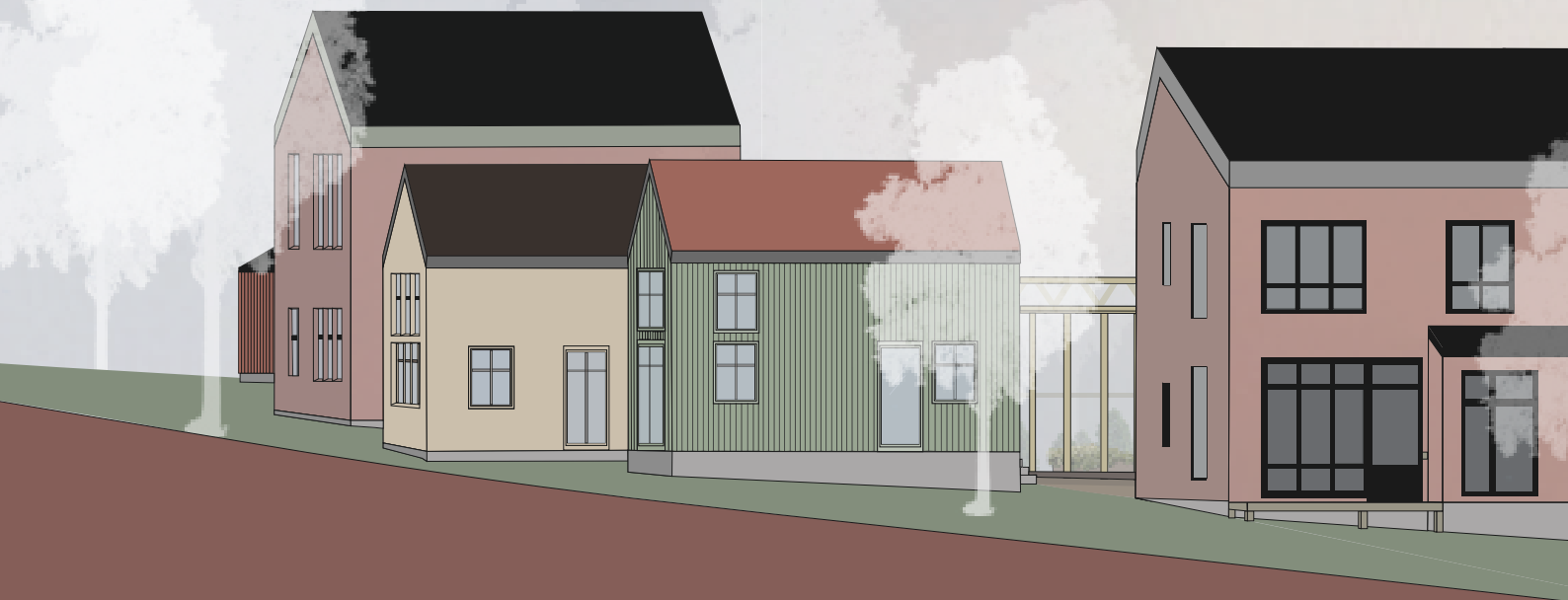
*"We live in a rowhouse and are members of the farming community. We have our own allotment, but also work a bit on the field and greenhouse for Co-farm. We love sharing ideas of ecological building techniques and farming. Being able to invite lecturers to the community house, and having it this close to the farmland really helps keeping the spirit within the community. People who only rent an allotment also use the community space. We're all a part of this."*



*"To live in a village where the community does stuff together - arranges community dinners and collective workdays taking care of the land - makes me see a bright future as retired. I know that someone will notice if I don't show up, and then come to visit me. To the small food store - the purchasing cubicle - I can order my groceries. I sometimes join game nights and creative workshops in the community house. Two times a week I go to the community dinners. I have everything I need here. It's like a bonus family."*

## GRANKULLEN

GRANKULLEN is the first housing cluster on Grönbo village street, situated close to the Backered road. It stretches from the north where the shared functions and facilities are situated beside the village street, and towards the south.



CUT-OUT  
FROM SECTION D-D

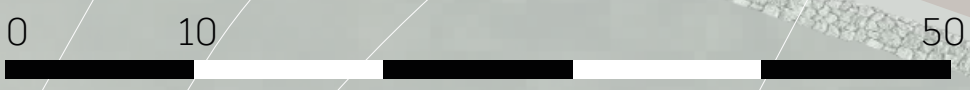




SCALE 1:400

- 4 TINY HOUSES
- 3 ROWHOUSE UNITS
- 2 SINGLE HOUSES
- 1 WORKSHOP & BIKESTORAGE
- 1 GREENHOUSE
- 1 GUESTHOUSE, LAUNDRY ROOM AND WC

AMOUNT OF SHARED SPACE  
(OUTDOOR):  
670 + 230 m<sup>2</sup>



# GRANKULLEN

## - SPECTRUM OF SPACES

Grankullen is the first housing cluster you reach from the Backered road. It has got its name from the spruce plantation that has been here for many years. A single beech tree has also been growing here. It is from the position of this tree that the courtyard has been forming. Today the beech tree gets more space to flourish, while the courtyard has got a beautiful green focal point. Grankullen has a high amount of mixed typologies. The tiny houses can be expected to come with a higher usage

of the common facilities such as the workshop, community house and outdoor spaces. In this cluster you can grow food in the greenhouse, mend things and bikes in the workshop, rent a guest apartment and do the laundry. The outdoor kitchen also invites for summernight cooking. If Grankullen would be the first step of construction, these common facilities and outdoor spaces can come at hand for storing, mending, sleepovers and cooking.



The courtyards are shared with neighbors. The section shows the layout of these spaces. A relative distance from the housing entrance to the courtyards are formed in order not to create conflicts between private and shared space. The plots are planned so that you access more private space towards the forest, and less private space towards the yard - which

is compensated by the high amount of shared space. You basically enter your house through the shared space and can walk out in the forest from your back door. The village street enables almost every house to have an undisturbed view towards the wilder nature as the road cuts through the landscape.

# ÄPPELLUNDEN

ÄPPELLUNDEN is the round courtyard and housing cluster where apple trees are grown and directs you to an alley of apple trees down to the grove where the sauna and constructed damm is situated.



CUT-OUT  
FROM SECTION D-D





B ←

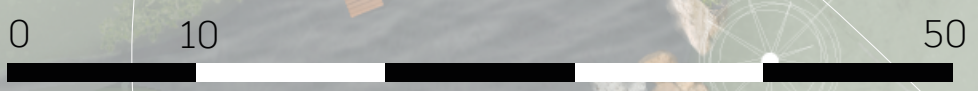
B ←

SCALE 1:400

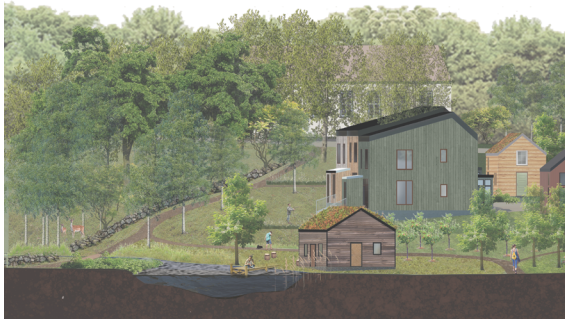
2 TINY HOUSES  
9 ROWHOUSE UNITS  
2 SINGLE HOUSES

1 SAUNA  
APPLE ALLEY

AMOUNT OF SHARED SPACE  
(OUTDOOR): 660 m<sup>2</sup>



# ÄPPELLUNDEN - DIRECTING TO THE COMMON



Nature. Cut-out from the section below.



The village street. View from Äppellunden

Walking down the hill from Grankullen you come to the cluster of Äppellunden.

From here you reach the garden of fruit trees and the sauna that is situated a little further through the apple alley. The sauna is situated by a dam that has been constructed from the stream flowing through the area but at this specific site having flooded and created an unrecognizable wetland. Letting the water meander through the area, and building small tree bridges crossing the stream have created a beautiful atmosphere around Äppellunden.

From here you reach the community house from the village street, but can also reach the farmland and other parts of the village through the smaller barch covered pathways.

From Äppellunden the different common spaces are always close - the sauna, farmland and community spaces - and can be reached from different winding pathways and directions. This is the area where the playful natural landscape take form that bridges the wilder nature with the settlement. From the section you can see how the village street cuts through the landscape, and enables almost every house to have an undisturbed view towards the wilder nature.

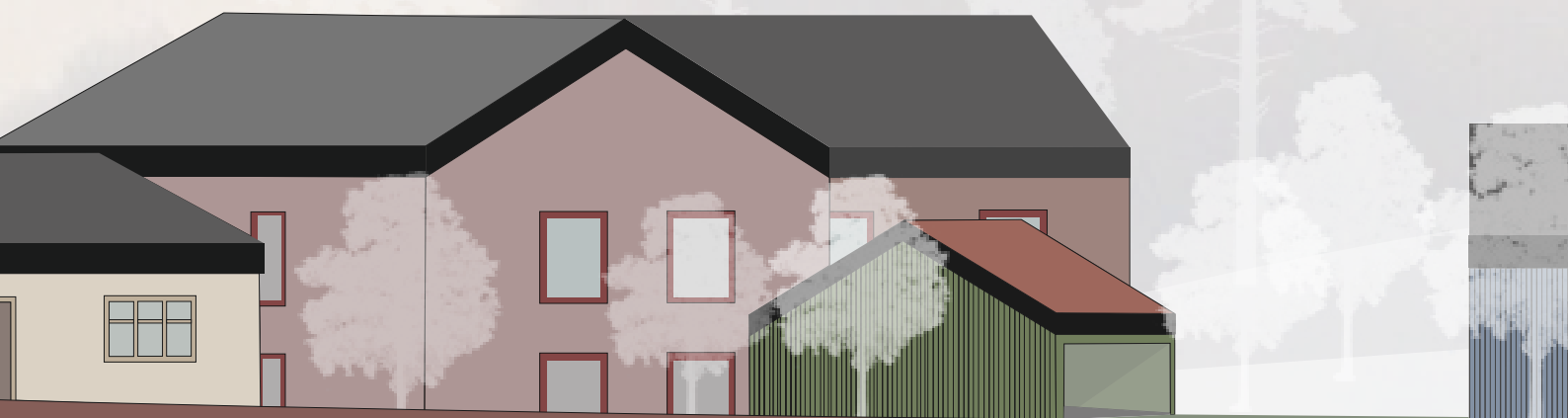
## SECTION B-B 1:400



## ÄNG-GÅRDEN

Äng-gården is the last housing cluster on the Grönbo village street, and the first housing you reach from Rödbo villa area. It also lies within the space of the community house.

To the south you view the stretched farmlands, and to the north you have the hill of pine trees, where many pathways wind through the forest.





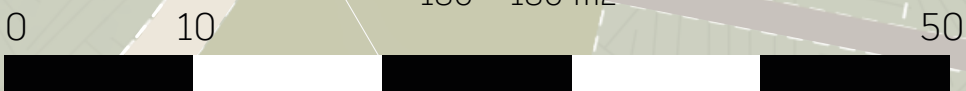


SCALE 1:400

- 3 TINY HOUSES
- 4 TWINHOUSE UNITS
- 1 COLLECTIVE HOUSE

- 1 BIKE STORAGE
- 1 PLAYGROUND
- FARMLAND

AMOUNT OF SHARED SPACE (OUTDOOR):  
180 + 180 m<sup>2</sup>



# ÄNG-GÅRDEN

## - CLOSE TO THE COMMON

Äng-gården is to much extent formed by the close relation to the community house and its infrastructure. The Sandvadet gravel road, that takes you on to Konghällavägen, and the new gravel road of Grönbo Bygata together forms a crossroad by the community house. It has created an active arena and meetingpoint, but challenged the intimacy of the spaces within Äng-gården.

The form of the collective house works as a border towards the crossroad and forms an inner shared courtyard. To the south you view and access the farmland, and the pine tree hill frames and provides the with natural outdoor spaces to the north and east.

The housing area consists of a collective house, twin houses and some tiny houses.

Äng-gården is the only cluster of the village that is situated on a field. Due to its position below the high hill of pine trees, the field below can sometimes be flooded. With the dig out of the stream and the damm, this will get a better condition. Rising the ground level, and drain the meadow might also be good. Except from this intervention in the topography, the village plan suggests no bigger operation that affects the topographical situation, like blasting, but rather to adapt to the topography.

Äng-gården provides with housing atypical for residential housing in the countryside: Collective housing with apartments and tiny houses below 30 m<sup>2</sup>. Situated close to the big community building, with its amenities and social spaces, the residents within these housing typologies are provided with additional space for introspection, social activities and just more accessible space to utilize

### SECTION C-C 1:500

#### VIEW TOWARDS THE WEST



# GEMENSAMHETSTORGET

The community house and greenhouse by the cross-road marks the centre of communication. From here you reach the farmland, the sauna and the bigger community facilities from all communicative roads in the area. All roads lead to this place.

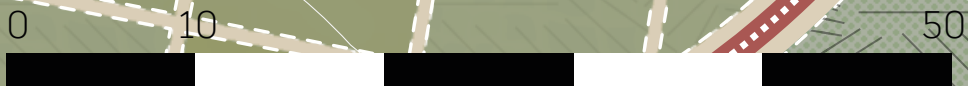






- |                   |              |
|-------------------|--------------|
| 1 GREENHOUSE      | CAR PARKING  |
| 1 RECYCLING HOUSE | BIKE STORAGE |
| 1 COMMUNITY HOUSE | FARMLAND     |

SCALE 1:400



# THE COMMUNITY HOUSE - INVITING OTHERS AND MEETING YOUR NEIGHBOR



BIKE & WALK



ACCESSIBLE BY  
CAR ON CERTAIN  
OCCATIONS



ALL TRAFFIC

The blue roads define parts where you can pass with all vehicles (cars, ambulances and fire trucks). The red ones enables access by vehicles, but are assigned to bikes and strollers. The white striped red road are only assigned for bikes and strollers.

Between the crossroad and south facing fields the community house and greenhouse is situated. Its position aims at embody the relation to the nature reserves and hiking trails, as to the infrastructure and other housing areas. It should be easy to find the way towards the community house. The prominent entrance invites both inhabitants and visitors, and the parkings makes it accessible.

An important factor for enabling people to meet across borders, is that the community house is situated at a relatively neutral place: Not too close to the private gardens, and easily ac-

cessed from the roads. The same goes for the farmland that is situated close to the community house. It should not feel intruding to rent an allotment without living within the village. In this way this point within the village has the possibility to work as a social bridge, and enables eventual rent-outs and co-managements.

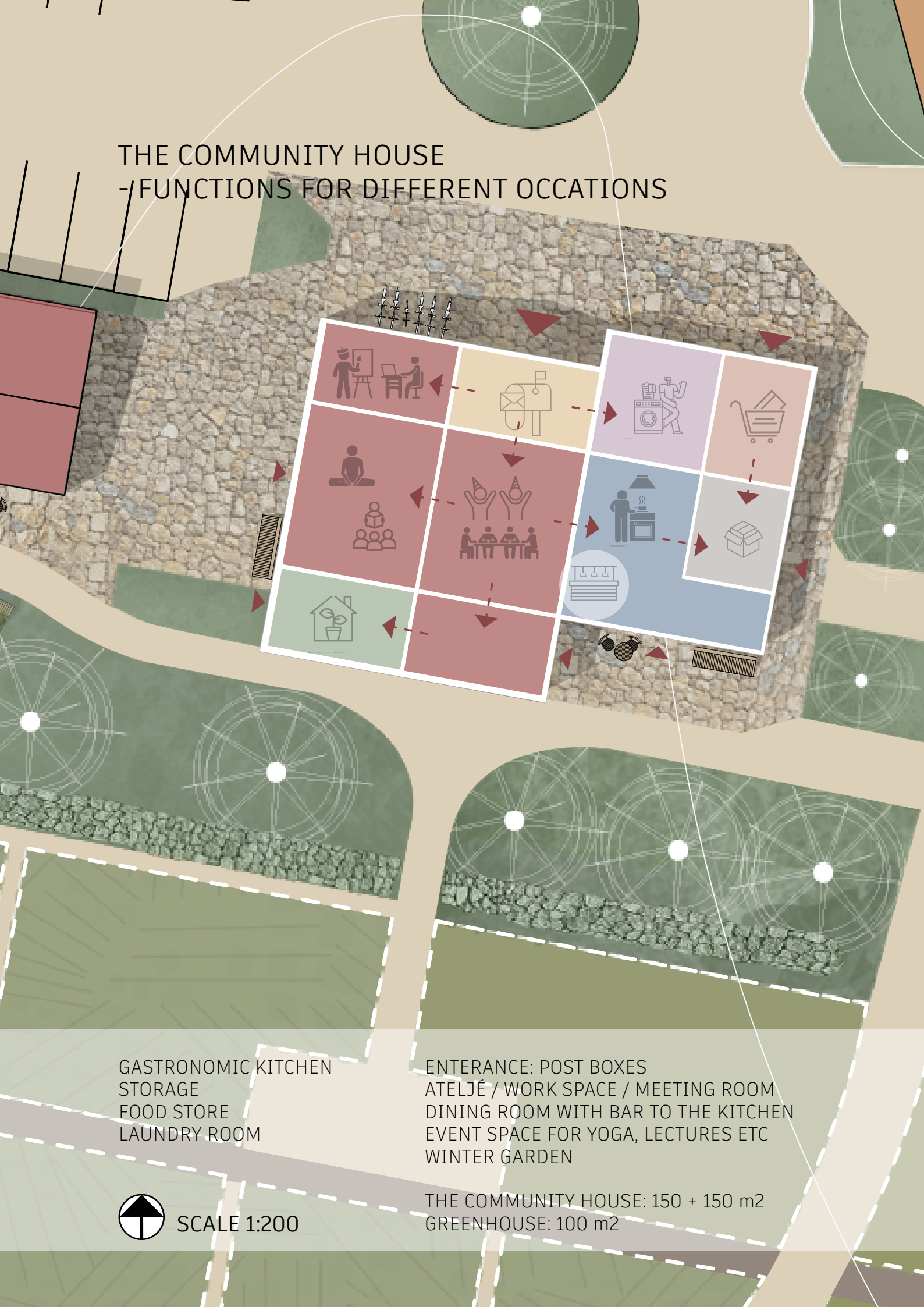
The greenhouse between the community house and the stream is constructed together with a room for recycling. The houses forms an inner yard, to where you can move a workshop outdoors or take a break beside the trees and the passing stream.

## SECTION E-E SCALE: 1:200

### GREENHOUSE & COMMUNITY BUILDING



# THE COMMUNITY HOUSE -FUNCTIONS FOR DIFFERENT OCCATIONS



GASTRONOMIC KITCHEN  
STORAGE  
FOOD STORE  
LAUNDRY ROOM

ENTRANCE: POST BOXES  
ATELJÉ / WORK SPACE / MEETING ROOM  
DINING ROOM WITH BAR TO THE KITCHEN  
EVENT SPACE FOR YOGA, LECTURES ETC  
WINTER GARDEN



SCALE 1:200

THE COMMUNITY HOUSE: 150 + 150 m<sup>2</sup>  
GREENHOUSE: 100 m<sup>2</sup>



The community house is a structure of two buildings possible to construct in different stages. The east consists of a small food store, storage, a gastronomic kitchen and a laundry room. The west part consists of event spaces and provides rooms with flexible construction and high amounts of daylight. From the entrance you reach a smaller ateljé, where you can do undisturbed computer work or have painting classes. From here you also pick up your post and reach the laundry room to the east. The bigger event space - the *living room* - is positioned in the middle and connects many of the different functions. It is open, light and invites com-

munal dinners and events. Its west part directs towards the greenhouse, and the middle part provide views towards the farmland. (See view above.) A bar is directed from the kitchen towards this room, which works well for events and rent-outs. The building connects different functions; like those we need, with functions that can be of extra value - like dinners, distance work, yoga classes and lectures. This creates a space that enables spontaneous interaction, and are inhabited during different times of the day. Creating flexible space it can be as valuable for individuals as for potential visitors and a whole community.

# GRÖNBO IN NUMBERS

## Amounts of Houses

Tiny houses:	9
Villas:	4
Rowhouse "ordinary":	9
Rowhouse "variation":	3
Twinhouse:	4
Co-housing building:	1 (4 units)

**Totally:** 29 buildings  
**Residential units:** 33

## Community facilities:

Community house:	1
Guesthouse:	1
Greenhouse:	2
Bike storage:	3
Workshop:	1
Sauna:	1

## Acres of land:

**Totally:**  
~37 800 m<sup>2</sup> (3 - 4 acres)

**Grönbo bygata:**  
Length: ~655 m  
Width: 3,5 m

## Pieces of land:

Parkings: 28

Allotments: 25

Community farm: 1

## Footprint of Houses (max m<sup>2</sup>)

**Tiny houses:**  
(30m<sup>2</sup>)

**Villas:**  
(80 m<sup>2</sup>)

**Rowhouse "ordinary":**  
82 m<sup>2</sup> x3

**Rowhouse "variation":**  
60 m<sup>2</sup> x2 + 40m<sup>2</sup>

**Twinhouses:**  
82 m<sup>2</sup> & 58 m<sup>2</sup>

**Co-housing:**  
287 m<sup>2</sup>

**Community house:**  
150 x 150 m<sup>2</sup>

## Shared outdoor space:

**Grankullen:**  
~ 670 + 230 m<sup>2</sup>

**Äppellunden:**  
~ 660 m<sup>2</sup>

**Äng-gården:**  
~ 180 + 180 m<sup>2</sup>

**Farmland:**  
~ 6300 m<sup>2</sup>

# DISCUSSION

## Introduction

The practical aim of this thesis has been to design a suggested plan for an ecovillage in the northern part of Gothenburg municipality, and elaborate on what can contribute to that the village fosters social resilience.

The first thesis question presented is comprehensive:

*"What potentials do Grönbo ecovillage have to create a socially resilient neighborhood?"* The other two;

*"What architectural aspects of the planned village have the potentials to support developments of long-term social cohesion within the village?"*, and; *"How can Grönbo ecovillage be planned, formed and situated to foster inclusion rather than isolation, both internally and externally?"*,

aim to frame what a social design could mean. The research on cohesion has mostly highlighted factors that are comprehensive and sometimes specific to the different case studies. The answers to this question are many times abstract. Social structures are dependent on both material and immaterial factors. The materiality of architecture only inhabits some pieces of answers. In the wake of the thesis; an insight has emerged: A specification of the thesis could have been done changing the question to; *"How can Grönbo ecovillage invite diversity of housing and sustain a socially cohesive neighborhood?"* This may have better highlighted the seemingly contradictory aspects that are present throughout the project: The strive towards diversity and cohesion, and the strive towards increased connectivity in a rural settlement.

## Social resilience & the site

A prominent precondition for this project to take form has been the already chosen area of Rödbo, where Gothenburg municipality today owns the land and Grönbo association leases a small property. The intention has therefore not been to challenge the choice of site, but rather see the potentials within it. The choice of site within this area has been formed according to the questions of inclusion and social cohesion. The context analysis therefore plays a crucial part in the resulting answers to what aspects that contributes so that Grönbo ecovillage becomes as socially resilient as possible.

The distance to social infrastructure such as schools and different care institutions within Gothenburg municipality challenges these aspects of social resilience. Gothenburg Social Consequence Analysis envisions that; *"facilities for culture, club activities, sports, public transport and commerce should be located in accessible areas that easily can be reached from areas of different characters, so that meetings can occur."* (Göteborgs stad. 2011. P: 20) Schools do often enhance this role. And, as Per G. Berg states (2002); a school or preschool within a village increases integrational effects and builds relations between families within the area. Yet, the size and situation of the village challenges the feasibility of such an investment within the current suggested stage of development. A further development - who's possible direction and expansion is presented within the designed plan - could enhance such a vision.

To instead enable co-management, through constructing the community house with a flexibility for different future needs and usage; can for example enable a day-care centre to establish. Additionally making it possible for it to still work as a community house would be valuable for bringing different functions, and different people, together.

Some of the aspects that Gothenburg municipality mentions can be enhanced by Grönbo community house - such as spaces for culture and club activities. Additionally, the small food store within the community building provide service that decrease the need for cars and facilitates a life in the suburb. The community house can also facilitate a platform for other local networks. This can bring, what the Social Consequence Analysis additionally point out, that a cohesive city is laying foundations for encounters through - visibility, density and diversity (2011).

The *density* of housing can play a part in creating visibility, sense of safety and bridging barriers. Taking advantage of the already existing infrastructure, if situating a new settlement within another settlement, also has its advantages regarding ecological footprints. Creating close access to social infrastructure additionally strengthens the densification argument. So, what can we argue for regarding densification of the rural suburbs of Gothenburg municipality? How can we argue for establishing a housing settlement within the wilder nature of a big city region? Would it not be better to plan the village within an already existing settlement closer to the city?

The important aspects of the site, that the thesis highlights, lies within

the individual physical health of living close to nature; and the potential of autonomy. According to the research of Keck and Sakdapolrak (2013); social resilience to much extent means and indicate a community that fosters cooperation. Their research sums up what the different stressors for these social structures, that can be; 1) Natural hazards and disasters; 2) Lack of natural resource management; 3) Economical crisis, migration, health risks, urban socio-spatial transformation etc. All of these threats can today be witnessed both locally and globally. It threatens to also challenge the social structures of societies, and thus challenges us to cooperate in new ways. Local societies with increased self sufficiency are hence of high relevance. Creating peripheral communities within the big city regions can - from a contemporary city centered perspective - be seen as destroying the natural land that we "save" in order to create denser, more effective, city centres with shortened distances. As previously stated, an increased self reliance within these regions are yet of high importance. To increasingly inhabit these areas with farming cooperatives that both brings farming knowledge, and potentially creates a more self reliant city region could be of great potential. If this ambition is reached; Grönbo ecovillage could become a hub where not only the houses are sustainably built, but also the community fosters cooperation, engagement and production of food and knowledge.

## Social cohesion & the common

Sharing common goals and interests creates foundations for deepened relations. A village based on ecological principles probably share foundations of common goals, even though these goals - as resident Lars Ohlin from Understenshöjden ecovillage showed - can change through time. A common project fosters cooperation within the association.

The resident of the co-housing community of Munksøgaard still points out the importance of arranging social practices such as eating together (SPACE 10. & Urgent Agency publication. 2018). But would you go to these dinners if you dont know who your neighbors are?; - if you don't have access to space that evokes conversations? How do you foster spontaneous interactions through the village plan? The reference projects and theory point to some aspects that at least shows how people increasingly use the common arenas. These are; close distance, high quality and mixed functions: Functions you need, those that brings extra flavour, and those that enables different actors to use the space at the same time.

The resulting design suggests a centrally placed community house, from where you easily reach by both car and foot, placed where conflicts between private and public spaces can be avoided, but bridges zones where different activities can go on. Shared outdoor arenas also bridge private with public space. Shared spaces within the village also aims at embody spectrums of interests and sensations.

## Diversity & inclusion

Coming down to the three concepts that have formed the village plan, that are: *Directing to the common, diversity of typology, and; spectrums of spaces*: The spectrums of spaces have raised the value of shared space - both co-owned and co-managed, which previously has been discussed within the paragraph of both Social cohesion and Social resilience. The shared spaces also highlights a smooth transition between private and public, to which these spaces can play a part. Additionally the shared spaces can works as a glue between people, that co-manage the space.

From the research on resilience, as to the visions from Gothenburg comprehensive plan, diversity should be presented and bridged. Meetingplaces between the areas of different characters, are of importance. Grönbo village could plan clusters of different typologies and bridge these with a common meetingplace, but instead the project suggests to weave in the different typologies within every cluster. The impact of being close neighbor to someone who's life is very different than yours can become a bridge between people. These are big words, and this is just an idea of what the small changes can have for impact to the bigger context.

A call for further work on how a similar village could plan their forms of lease could more deeply strengthen the assurance of a truly socio-economically diverse neighborhood, and how to avoid intensified gentrification that pushes many socioeconomic groups away from the area.

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*It takes a village*

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