

**NATURALLY!**

*Trails for knowledge in  
Skara municipality*



# SUMMARY

## WHAT IS THE PROJECT ABOUT?

This project focuses on hiking trails that together with key projects works as a driving force in making people stay out in nature more. The cause is to increase the knowledge about our nature and the environment. Fewer and fewer people are staying outdoors, which decreases the knowledge, therefore the ambition is to increase the value of the nature through an outspread “naturum”. The projects improves the tourism in the surrounding area, the connection between urban and rural, and the public health for Skara residents.

The project argue for better connection between tourism destinations in the municipality, both by foot and by bike. The areas north and south of Skara are focus for the project, since important connections are missing in these places, and the areas feel to some extent forgotten. An important focus is to simplify the contact between the town and the countryside and nature. Therefore it's important that there are activities that are both closely and that feels easy to reach.

The key projects that are suggested along the hiking trails are smaller built projects that aim to increase knowledge about nature and to experience nature with several senses to get a closer relation to it. They can be specific destinations that makes people want to hike a certain route or a positive element for already experienced walkers.

The key projects are with its focus on the senses a way of interact with nature in an active way.

In today's society, with the climate changes and threats we stand upon, it feels important to spread the knowledge about the nature we've got and how important it is for the human being. By strengthen the nature and the cultural landscape of Skara it becomes something to feel pride about and creates a strong identity for the municipality.



# VISION 2030



## ORIENTEER, 75 YEARS OLD

*"I've been active in the Orienteering association for 47 years. Something I've really missed after a run in the woods is a dip in the river and a hot sauna. A couple of years ago we decided to build a sauna and we've never looked back. Is there anything more peaceful than to sit in the sauna and watch Flån flow by outside?"*



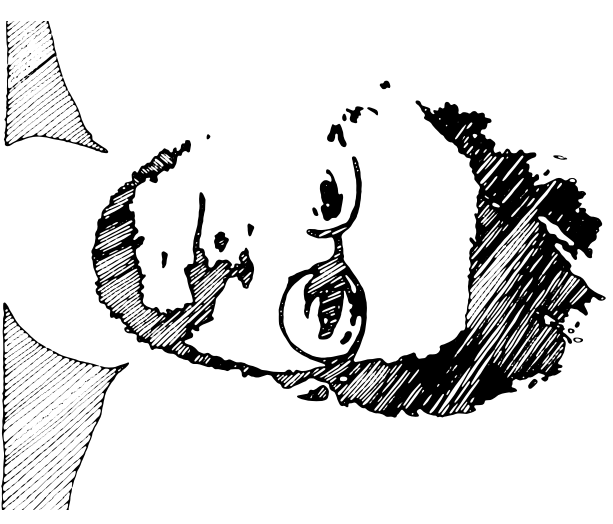
## FAMILY WITH YOUNG CHILDREN

*"Finally there is something to do when the rain is pouring down! Taking the train to Tvetå station, and giving the kids a deeper understanding for farming feels important for us. Last year we joined in growing carrots and during the fall we attended the harvest party. The kids were so proud being able to eat something they actually grew themselves."*



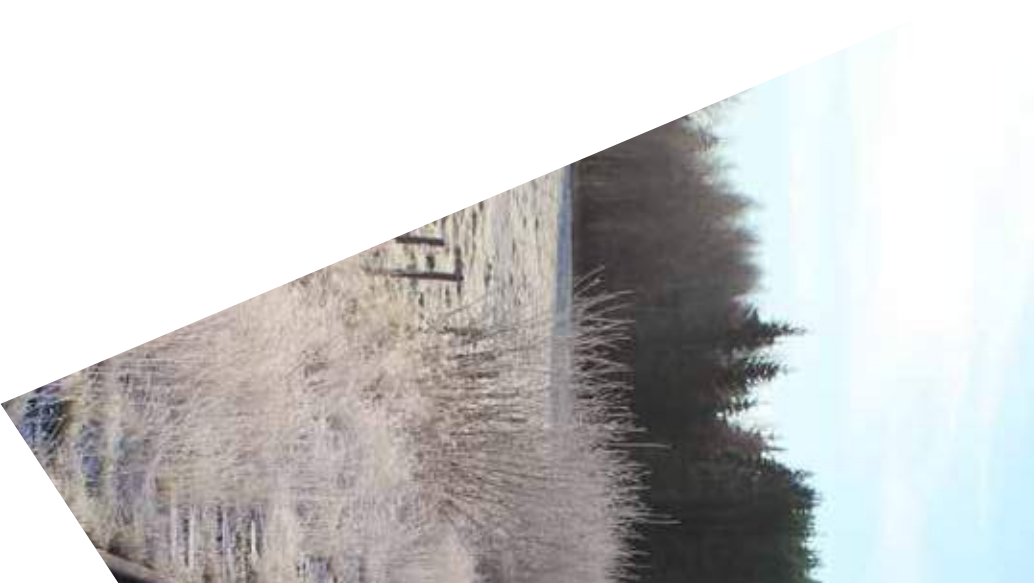
## CHILD, 5 YEARS OLD

*"The world of knowledge is so much fun! I tried sitting in the big funnels and listened to the nature. Climbing was fun too! Last spring we got to fill the info-box with things we found in the forest. I learned that a tree could be very old. More than one hundred years old!"*



## ARTIST, 32 YEARS OLD

*"We've got a lot of talented artist in our municipality and we've got wonderful nature areas. To find a platform for us artists has been important and to combine creative creation with nature is very exciting. I hope this project can strengthen the individual connection with nature and make people realize what amazing creation it really is."*



Master's Programme Design for Sustainable Development 2015/2016  
Chalmers School of Architecture, Chalmers University of Technology  
Design Studio Planning and Design for Sustainable Development in a Local Context  
Skara - Urban-Rural Connections and Co-Creation  
*Naturlygtois! - naturupplevelser för kunskap i Skara kommun*  
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# 1

## INTRODUCTION

- *course information*
- *SWOT, development goals & strategies*
- *human & nature*



# COURSE INFORMATION

*the assignment and the project group*

## SUSTAINABLE DEVELOPMENT IN A LOCAL CONTEXT

The course “Planning and design for sustainable development in a local context” is held at the master’s program at the institution of Architecture at Chalmers University of Technology. Each year the students work with a smaller municipality in the Västtra Götaland region, this year it’s located in Skara municipality.

The theme for this year’s course is the connection between urban and rural. During the course, which runs from September to January, we’ve had close contact with different actors in Skara, mainly the planning office. Interviews and site analysis has been important points of departure in the design of our project.

## THE PROJECT GROUP

The group that has been working together has different academic backgrounds. Emma, Alice and Matilda has their bachelor degree in architecture from Chalmers University of Technology while Fredrika has a bachelor degree in spatial planning from Blekinge University of Technology.

We think that our different backgrounds give the project another dimension as we’ve alternated between different scales in our discussions and sketches throughout the project.





# SWOT, DEVELOPMENT GOALS & STRATEGIES

*previous analysis from the course*

## STRENGTHS

*to build upon*

- A recognized cultural heritage and history, a unique landscape
- Small scale a cozy city that is walkable and bikeable
- Closeness between urban and rural areas
- Green and blue spaces in and around the town of Skara
- Many tourist attractions
- Agricultural research and knowledge

## WEAKNESSES

*to improve*

- Weak mental and physical connection between urban and rural areas
- Low interest in/support for local produce
- Physical and social segregation
- Contradictive identity

## OPPORTUNITIES

*to use*

- Increased experience based tourism
- New green wave
- New technologies and digitalization could connect urban and rural

## THREATS

*to overcome*

- The urban norm
- Food security uncertainty
- Capitalism Unstable global economy

## POINT OF DEPARTURE

Before we started working with the in-depth project about hiking trails we've had six weeks of analysis within the design studio. We looked at the local situation in Skara municipality together with trends and challenges for the development of Skara. The analysis was concluded

in a common SWOT (Strengths, Weaknesses, Opportunities, Threats), eleven development goals and strategies to reach the goals. Here the material that are relevant for our project are presented and they work as point of departure for our project.

## LOCAL DEVELOPMENT GOALS

1. Skara has a strong tourism industry built upon culture, food and nature experiences

5. Skara is walkable and bicycle friendly with good public transport and less car dependency

7. In Skara we support our local farmers and have a good urban-rural connectivity

8. Skara is an attractive place to live in with a strong sense of community where people of all ages and backgrounds are welcome

## STRATEGIES

- Strengthen Skara's identity as a rural-urban municipality

- Enhance urban/rural connectivity both visually, physically and mentally

- Gather people and support cultural activities on the countryside

- Develop tourism

- Increase knowledge in agriculture

- Create a more bikeable and walkable municipality

# HUMAN & NATURE

*the human need of nature*

## THE RIGHT OF PUBLIC ACCESS

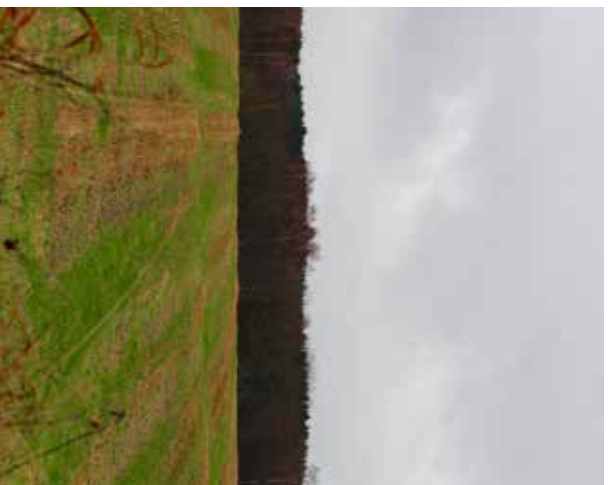
“You’re using the right of public access “Allemansrätten” when you are walking, kayaking or sitting on a stone and thinking. Allemansrätten is a unique opportunity to move freely in nature. But we also have to take responsibility for nature and animal life and show respect towards landowners and other visitors. By other means, not disturb - not destroy” (Naturvårdsverket, 2015a).



## LESS PEOPLE STAY OUTDOORS

According to research from SLU (Swedish University of Agricultural Sciences) the interest about nature has decreased with ten percent the last 30 years. We pick less mushrooms and berries and fewer Swedes take longer walks with overnight stays in a cabin or tent.

One of the reasons could be that many Swedes are more than three generations away from the connection with the countryside (Ericsson, Dahl & Sandström, 2009).



## DECREASING KNOWLEDGE

During summer 2014 Kolmården’s zoo together with Novus did a survey about people’s knowledge about animals and nature. It was clear that both knowledge and interest about animals and nature is higher among the higher ages in comparison with the young. The survey also shows that the younger generation spend less time in nature in comparison with the older. If the knowledge about the nature we all descend from decreases there’s a risk we loose important knowledge (Kolmården, 2014).



## EXPERIENCEBASED KNOWLEDGE

The knowledge should begin in the concrete. That could be reached by increasing familiarity with the changing seasons, processes and phenomena in the urban landscape, woodland, farmland and water scenery. By mixing education with entertainment in an experience based learning the relation becomes more profound. The experience is better the more personal it is. Yesterday's everyday life in the free becomes the future's place to explore (Szczeplanski, 2011).



## TOURISM IN THE SURROUNDINGS

Today's tourism is not sustainable. With increasing long travels by airplane we increase the carbon dioxide spill a lot. For example a flight to Thailand contributes with almost 200 times as much as taking the train within Stockholm (KTH, 2014).

By instead explore nearby cities and municipalities and nature we could decrease our ecological footprint and do the planet we live on a favor:



## URBAN-RURAL CONNECTION

Tourism in the surrounding areas supports both the town and the countryside. When more people visit the countryside there is a better basis for local initiatives and new labour possibilities such as farm shops and lodging. Since everybody that lives in the city doesn't have nature in their neighborhood, the links between these are important, especially how these connections are designed and how easy they are to use (Zettersten, 2007).



## NATURE & HEALTH

The costs for stress related diseases increase in Sweden. According to many research reports the health is improved and our stress levels drop by staying outdoors in nature.

After only five minutes in the nature lowers our pulse and blood pressure and the amount of stress hormones in the blood decreases. This is because the psychological distance to demands and routines in the everyday life and that nature catches out interest. The brain reacts positively towards the input that nature experiences bring - colors, smells and sounds (Zettersten, 2007).

Impressions from nature creates feelings of sympathy, comfort, the wish to collaborate, it improves our short-term memory and increases our concentration. According to Grahn & Skårback (2015) there are eight different character of

experience that are desirable for natural areas that meet our general needs. Out of these character “peacefulness”, “wildness” and “pleasance” are de-stressing and therefore important ingredients in the design of natural areas.

The same magazine found that if one has a low acreage green environment with high acreage further than 1 kilometer of their home the risk of dying before retirement age increases.

Furthermore it's shown that the areas in cities where the “peacefulness factor” is high, the household income is high, why it's even more important that there are high quality nature spaces close to home, regardless of area of residence. The nature is for free and for everyone.





## GOALS FOR OUTDOOR LIFE POLICIES

In December 2012 the government in Sweden decided upon ten goals for the outdoor life policy. The goals support the outdoor life actors and the point of departure is a rich access to nature, the individual's interest and the engagement from non-profit organizations' commitment to the opportunity for outdoor activities (Naturvårdsverket, 2012e).

Our project aims towards the same goals, since we consider it important for Skara municipality as well. In addition to these objectives, it feels important to strengthen the local nature and cultural landscape, in terms of agriculture and farming.

The goals are as follows:

1. Accessible nature for everybody
2. Strong commitment and collaboration
3. The right of public access
4. Access to the countryside for outdoor activities
5. Attractive nature close to urban areas
6. Sustainable regional growth and rural development
7. Protected areas as resource for outdoor recreation
8. A rich outdoor life at school
9. Outdoor activities for good health
10. Good knowledge of outdoor life



# 2.

## ANALYSIS

- *method*
- *the tourism of Skara today & in the future*
- *tourist destinations in Skara municipality*
- *seasons*
- *connections & protected areas*
- *character of the landscape*
- *existing walking trails*



# METHOD

*the working process*



## INVENTORIES

To get a better local knowledge we found it important to visit Skara a several times and we have travelled around in the municipality by different means of transportation, from bus to bike, to understand the accessibility.

During our visits we have experienced nature, talked to the local citizens and interviewed people of importance for our project to try to grasp the local context.



## INTERVIEWS

To get a better knowledge about the mentality about tourism, nature and trekking it we have interviewed different actors from the municipality and Västra Götaland.

We have talked to people on the streets, the tourist information, the owner of Herrtorp mill, Ulf Lindén from Skara municipality who was in charge of the project “Skara i matlandet Sverige” and the architect Per Naden who works with tourism in smaller municipalities.



## MATERIAL & MAPS

We have studied a large amount of maps regarding hiking trails, both from the municipality of Skara but also maps from other parts of the world.

Moreover we have read articles and reports about trails to get a better understanding of different types of trails and how nature experiences influence people's everyday life.



# THE TOURISM IN SKARA & THE FUTURE

*municipal, regional and national plans for the future*

## TOURISM STRATEGY

Skara Municipality has everything from fields and a unique kame landscape to plateau mountains and dense forest. Moreover there are areas with the densest amount of ancient remains in the Nordic countries and is often called the cradle of Sweden.

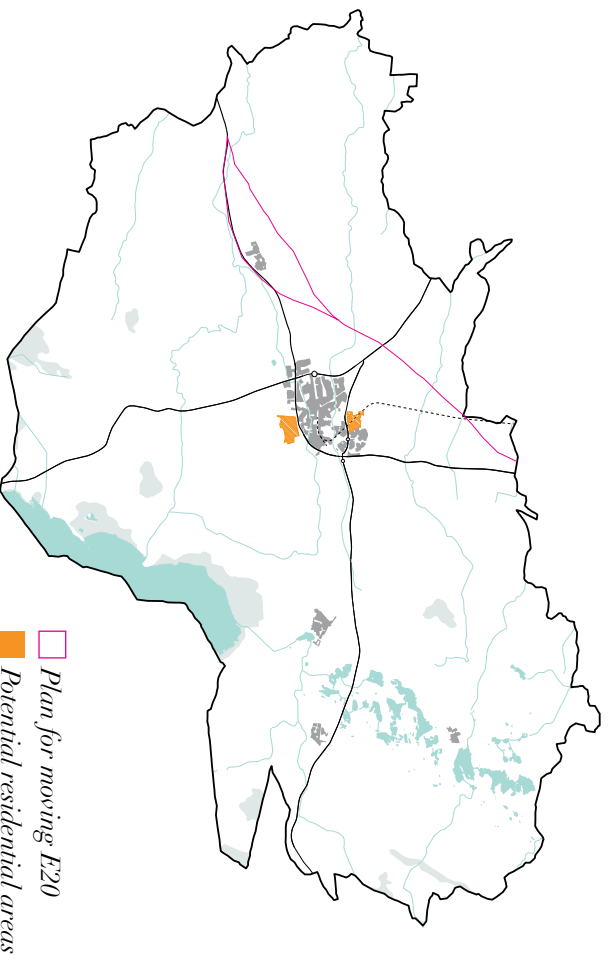
Even though the municipality has a lot to offer most people associate Skara with Skara Sommarland. Due to this fact Västsvenska Turistrådet (2010) have written Skaraborgsvisionen, a document

about the development of the tourist industry in Skaraborg.

The keywords for the development is small scale, close to nature, commitment, inartificial and native. The document stress that the connections between the destinations are just as important as the destinations themselves. By encouraging the beauty of nature, the field, the forests and lakes we believe that Skara could have a more obvious place on the map. Moreover nature experiences are for free and accessible for everyone.



Figure 1



□ Plan for moving E20  
■ Potential residential areas

## MOVING E20 & NEW RESIDENTIAL AREAS

One of the most important projects for the future of Skara is the plan for moving E20. There is a national plan for improving the road and in Skara the investigation will start year 2021. Today there is a proposal of moving the road to the northwestern corner of the municipality (marked in pink).

In the future the old E20, today passing by in the southern part of the City of Skara, will most likely be left the way it is since it is considered to be of great importance (Trafikverket, 2012).

New residential areas (marked in orange) are mainly planned in the edges of the City of Skara, close to the big roads. We believe that the expansion of Skara requires ways of overbridging the barriers that E20, Brogårdsvägen and Road 184 are today (Skara kommun, 2005).

# TOURIST DESTINATIONS IN SKARA

*a variety of tourist destinations but bad connections between them*

## LAKE HORNBORGA & SKARA SOMMARLAND

The main tourist destinations in Skara today are Skara Sommarland, Lake Hornborga, tourism in the footsteps of the medieval Knight Templar Arn and Varnhem. Around the municipality there are a lot of hostels, bed and breakfasts, hotels and camping sites.

During the summer months the old railway is in use with and old steam train that travels between Skara and Lundsbrunn. It is an activity that mainly attracts families with kids.

## EXISTING TOURIST DESTINATIONS

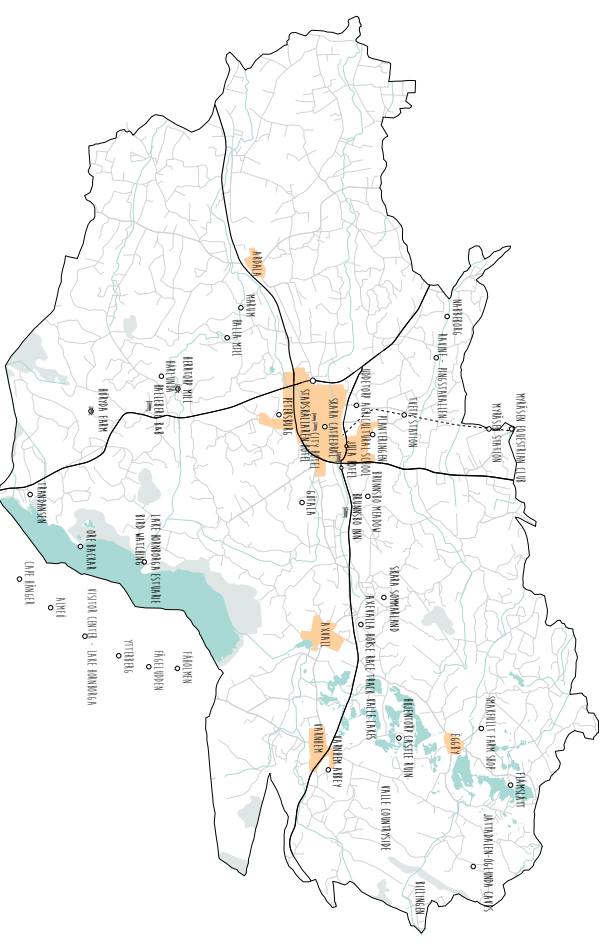
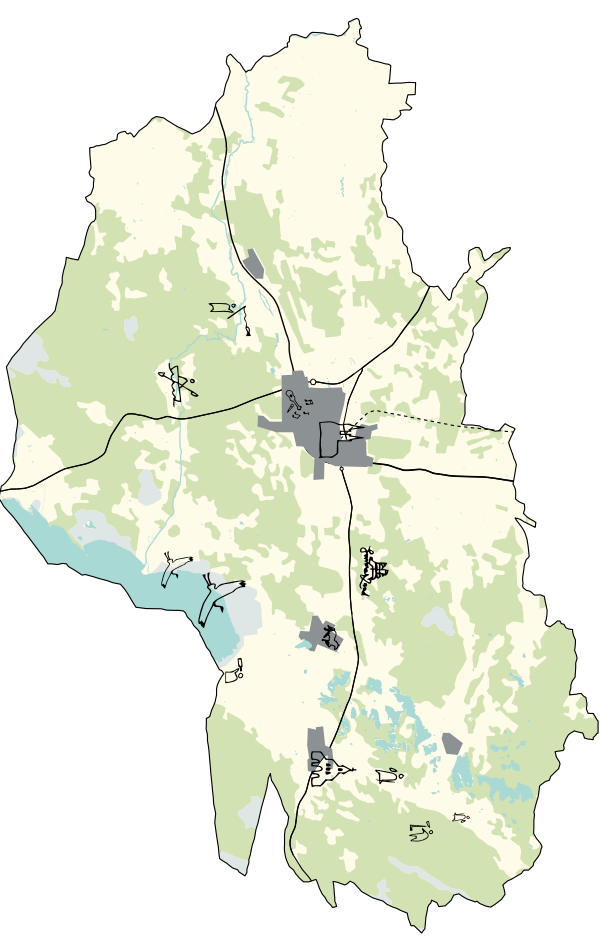
As mentioned earlier there are a lot of different tourist attractions in Skara municipality. To get a better overview we mapped out the existing destinations together with accommodation. Many of them are close to each other in clusters outside Skara town with fairly bad connection between them, both physically and mentally.

The tourist information rarely informs about the extraordinary nature around the ravine in the northern part of the municipality

After speaking with the staff at the tourist information we understood that there is a lack of indoor activities for families in the municipality. When the weather is bad during summer and tourists that visit Skara Sommarland ask for activities the staff mainly send them to the adventure bath in Skövde municipality (personal communication at Skara Tourist office).

(Uddetorp nature trail) of Fianleden in the south, an area that is protected by Natura 2000 (personal communication at Skara Tourist office).

According to the owner of Herrtorp mill, many of his customers are generally interested in nature. When they ask for places to hike he refers them to Valle since the network for hiking in the southern parts is badly developed even though the nature is interesting.



## OTHER DESTINATIONS

In the shade of the larger tourist destinations there are a lot of smaller, more hidden places worth to pay a visit.



Herrtorp mill (2015) is an old mill by Flian that offers food, accommodation and activities such as beaver safari and canoeing from March until September.



Halleberg Bed & Breakfast (2015) offers charming accommodation south of Flian.



Petersburg is the starting point of three workout paths. On the site there is a building that offers locker rooms, shower and sauna (Skara kommun, 2015).



By the outfall of Lake Hornborga, along the existing trails there is a bird watching tower from where you can see the cranes (Skara Turistbyrå, 2013b).



Planteringen is run by Skara mission covenant church (2015) and have a café during summer with activities such as mini golf.



The boarding school Uddetorp offers two agricultural program and has a farm as a part of the education (Västra Götalandsregionen, 2015).



Halla mill is a beautiful old water mill with a weir worth visiting (Qvarn Marum, 2015).



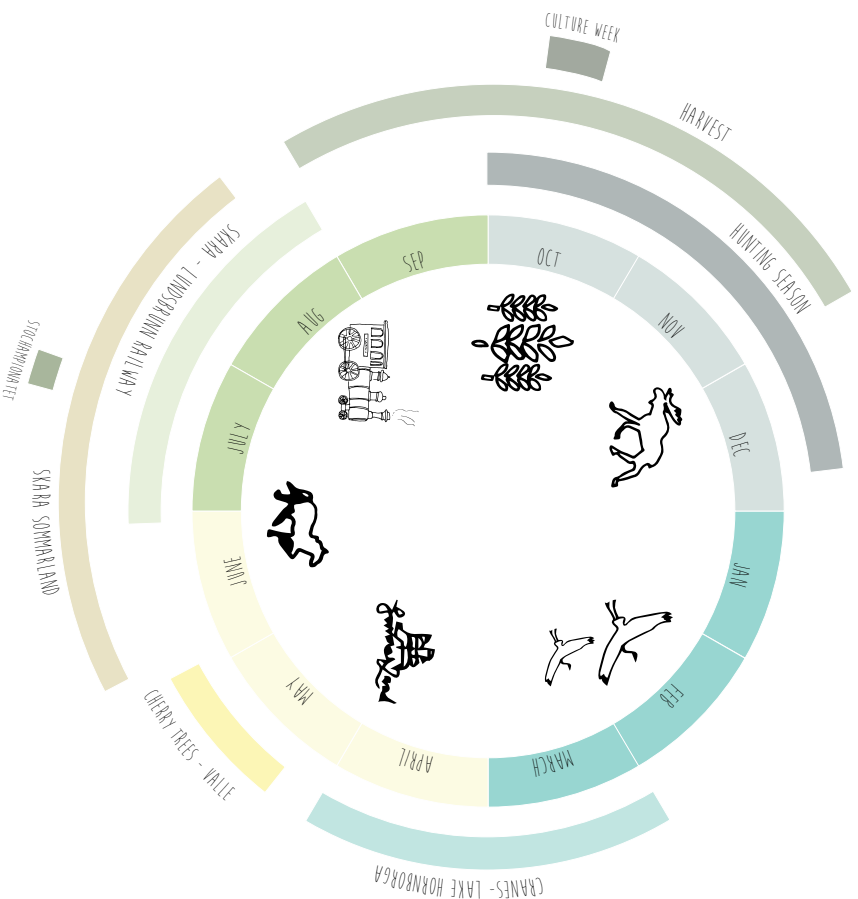
Myråsen is one of the stops along the old railway. It consists of a small society with an equestrian club (Skara-Lundsbruuns Järnvägar, 2015).



Nabboborg is a plateau surrounded of ravines on three sides with remnants of old graves and a castle (Skara Turistbyrå, 2013a).

# SEASONS

events throughout the year in Skara Municipality



## ACTIVITIES ALL YEAR ROUND

Like most parts of Sweden the amount of tourists are peaking during the summer months in Skara municipality. However Skara attracts a lot of tourists during springtime as well when the cranes return and dance by Lake Hornborga.

After the crane dance the cherry trees blossom in Valle making the nature reserves particularly beautiful.

The harvest time is of great importance as well because of the large amount of farms in the municipality. At this time a year there is a farmers market in Skara town with locally produced food.

During fall there is a culture week in Skara with exhibitions, concerts, a ghost tour and plays, to give a few examples (personal communication at Skara Tourist office).



# CONNECTIONS & PROTECTED AREAS

*bike paths, public transport and protected nature*

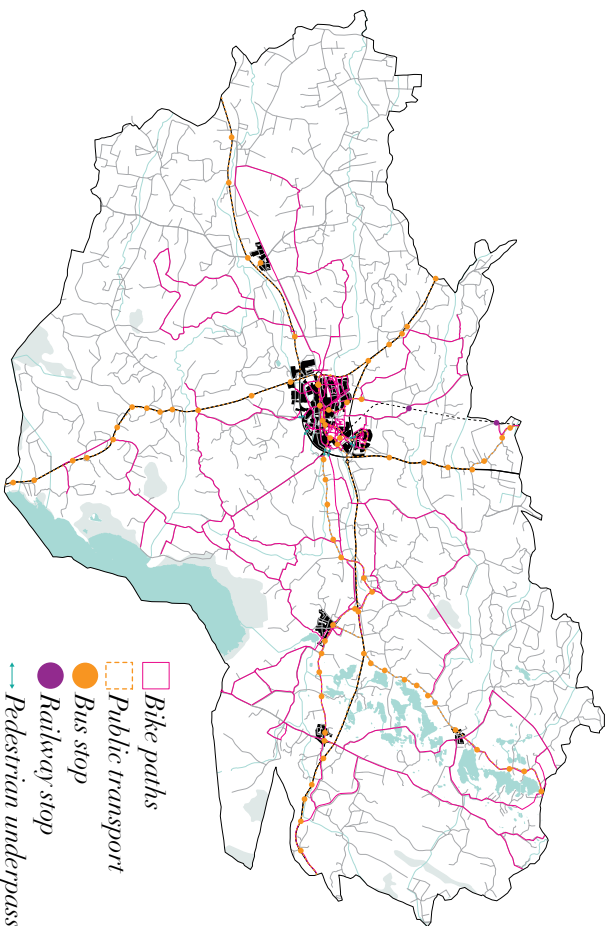
## BICYCLE & PUBLIC TRANSPORTATION

The bike paths in the municipality are often along country roads and poorly connected to each other or different destinations. Though there is an ongoing project to improve the bicycle network in the municipality (Västrafråk, 2015).

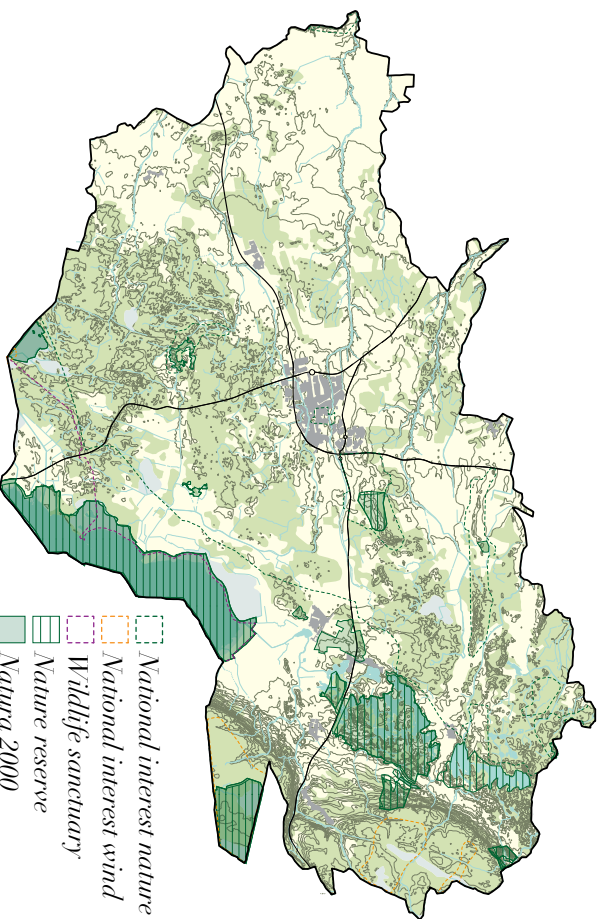
The public transport system is relatively well developed. It is easy to commute to and from work in Skara town and the buses leave for the larger cities in the surrounding

municipalities every 30 minutes

during the weekdays (Västrafråk, 2015). However the commuting is different during weekends and at summertime, when most tourists are visiting, with fewer departures. As an example the bus to Falköping, that passes by Herrtorp mill, only leaves four times a day during the summer months with the result of the inhabitants of Skara to choose the car (Västrafråk, 2015).



□ Bike paths  
▨ Public transport  
● Bus stop  
● Railway stop  
→ Pedestrian underpass



□ National interest nature  
▨ National interest wind  
▨ Wildlife sanctuary  
▨ Nature reserve  
▨ Natura 2000

## NATURE RESERVES & NATURA 2000

The last 50 years we have ruined nature in a faster pace than ever before. Nature reserves have an important role in protecting valuable nature and today most of the protected nature areas in Sweden are classified as nature reserves. The purpose for Natura 2000 is to stop the extinction of species and

their habitat. It covers valuable nature areas with species that need special protection from an European perspective (Naturvårdsverket, 2015b & 2015c).

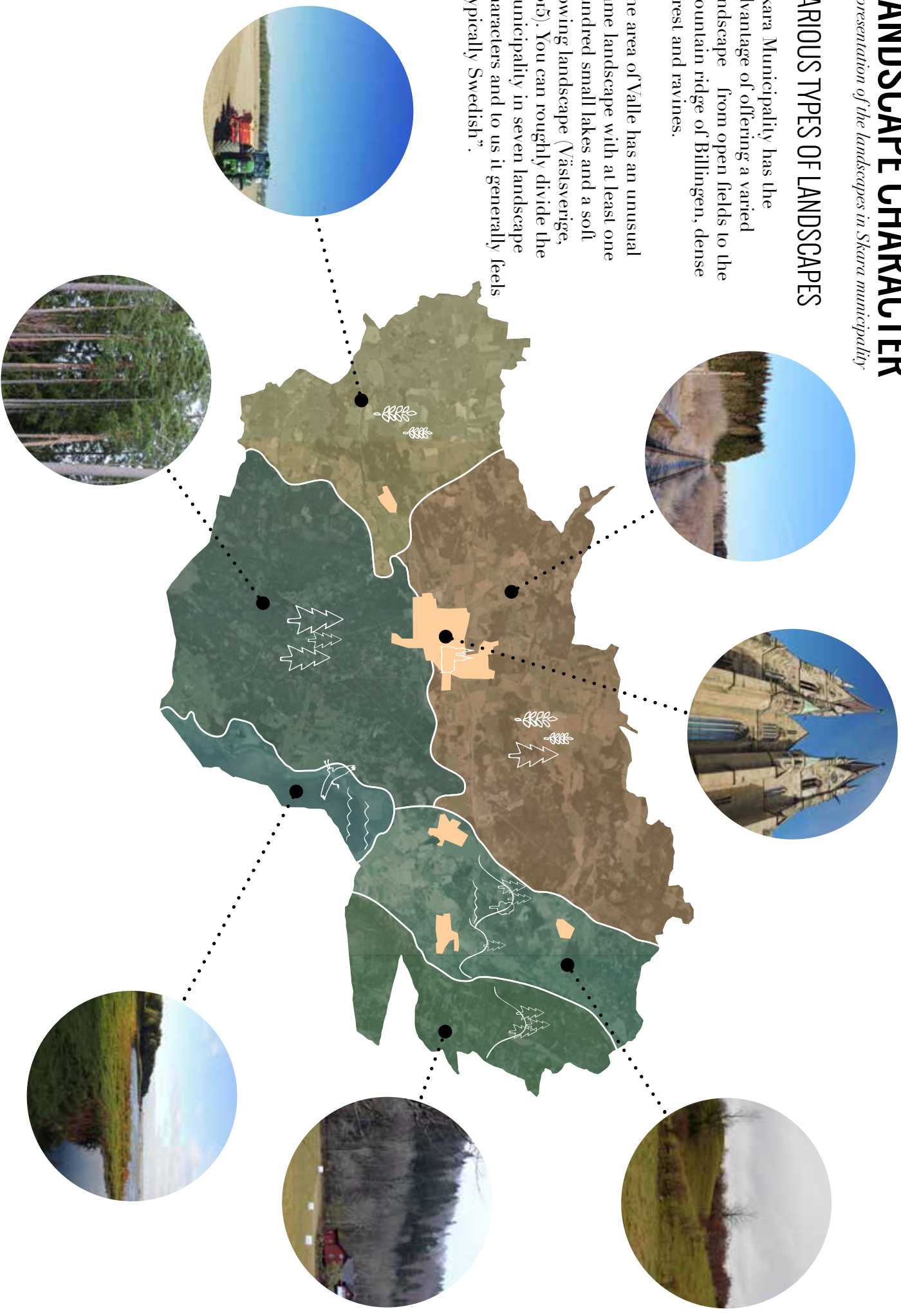
# LANDSCAPE CHARACTER

*representation of the landscapes in Skara municipality*

## VARIOUS TYPES OF LANDSCAPES

Skara Municipality has the advantage of offering a varied landscape from open fields to the mountain ridge of Billingen, dense forest and ravines.

The area of Valle has an unusual kame landscape with at least one hundred small lakes and a soft flowing landscape (Västsverige, 2015). You can roughly divide the municipality in seven landscape characters and to us it generally feels “typically Swedish”.



## EXISTING TRAILS

*many walking trails in Valle but forgotten landscapes in other areas*

### TRAILS OF DIFFERENT CHARACTER

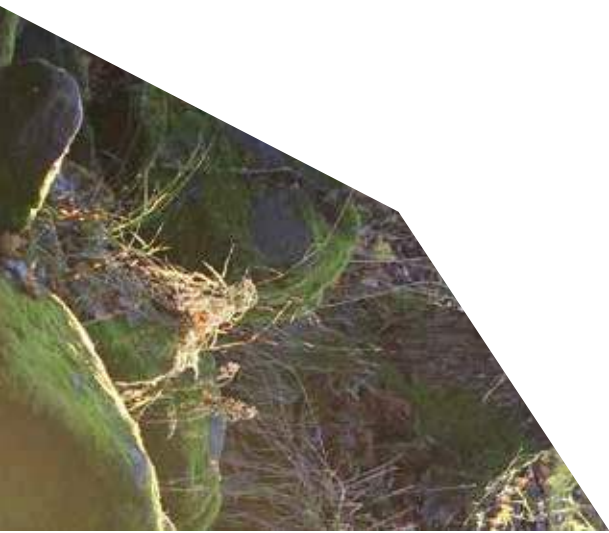
There are a couple of walking trails in the municipality today. The more traditional, illuminated ones for workout are connected to Skara town Petersburg (2,5-6,5 km), Tempelbacka (1,8 km) and Planteringen. The “path of health” exists in most of the communities in the municipality.

“Hike in Valle” is the great pride of the municipality when it comes to trekking. In the area you move between six different nature reserves and a changing landscape. In Vallebygden there are a variety of business thanks to the investment that was made in the area (Skara Turistbyrå, 2015).

For the people who want to follow the path of the Pilgrimage a part of the track passes by Varnhem, Axvall and Skara.

By lake Hornborga there are two trails, Utloppsleden and Orebacksleden. Uddetorp nature trail (6 km) north of the city of Skara and Fianleden (15 km), south of the city, are two trails that seem to be forgotten with unclear signage. Moreover there is no map over Fianleden.



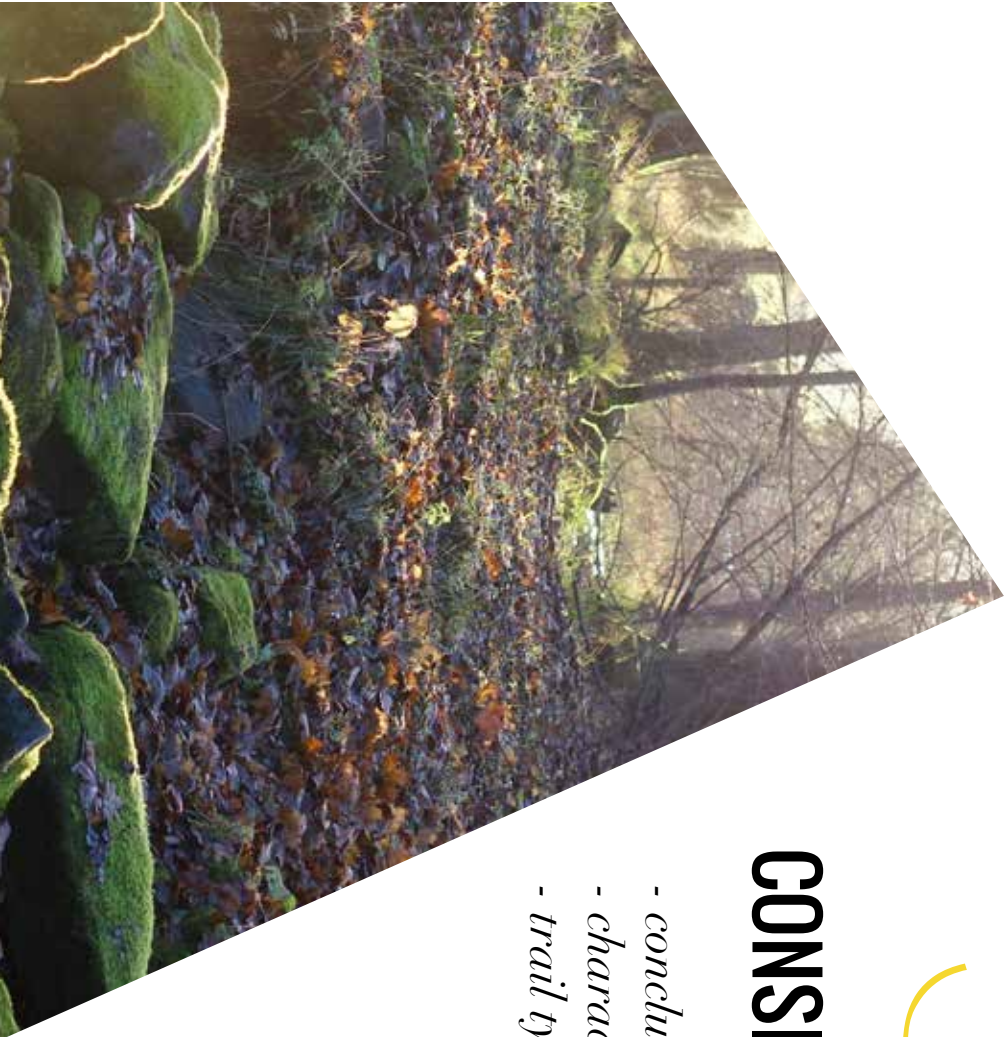




# 3.

## CONSIDERATIONS

- *conclusion of the analysis*
- *character of the chosen areas*
- *trail typologies*



# CONCLUSION OF THE ANALYSIS

*increasing knowledge about nature*

## OUR PROJECT

Considering the analysis our project will cover hiking trails in combination with key projects, smaller structures. Together, these create a driving force that could make people spend more time in nature.

It's important and relevant from many aspects. For example it goes well together with Skaraborg's tourism strategy. Skara is also surrounded by large roads that create barriers for people when it comes to moving from the city to the countryside and nature by foot or bike. It then becomes an important focus to enhance the connection and movability over the barriers.

In Skara there are a lot of tourism destinations but today they are not well connected.

From the analysis it becomes important to focus on the connections between Skara and the countryside, with special focus on the areas south and north of Skara town.

These have a weak connection to the town and although the nature is typical Swedish with forest and farmland they feel a bit forgotten. There are many hiking trails in the municipality, especially in Valle, but they need better connections, both to each other and to the other communities. The bike paths also have great potential to be developed in the future.



# CHARACTER

*landscapes & destinations north & south of Skara town*

## NORTH OF SKARA - RAVINE, RAILWAY & FARMLAND

The landscape north of Skara town varies a lot from farmland and forest with a ravine that goes from East to West with a stream in the valley. An old railway cuts through the open fields and the forest which also contributes to the character of the area.

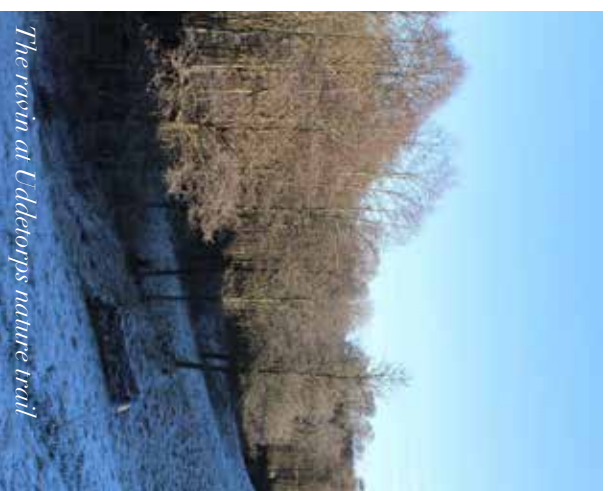
A long the railway there are two stops within the municipality - Tyvela station and Myråsen station. Small structures for shelter marks the stations.

Nearby Myråsen an old arts and crafts shop is located. Starting at Tyvela station, Uddetorp nature trail runs long side the ravine in the dramatic landscape. The trail is a bit neglected and not accessible everywhere.

This area of Skara municipality we feel is a bit forgotten and deserves more attention and care. The railway could also be used in another sense to give people a reason to get off at the stations.



*The railway from Skara to Långbrunn*



*The ravine at Uddetorps nature trail*



*Flian*



*Storåskogen*

## SOUTH OF SKARA - RIVER, FOREST & SMALL-SCALE FARMING

The river Flian runs through the south of Skara municipality. Close to Lake Hornborga the river has been straightened out but further west it's kept natural with marshy meadows and streams. There is a lot of deep forest in the area with points of smaller farmlands.

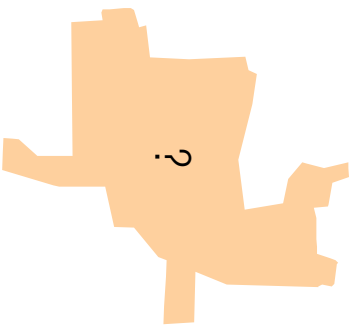
The trail Flianleden goes through the area but unlike the name it only connects to Flian at one point and the turns back in to the forest. There is no way to move a long side Flian except for the adventuresome

with solid shoes. To go canoeing is a better option at the moment, with the possibility to stop at certain points to camp.

We feel that Flian is not a prioritized area for the municipality despite the rich flora and fauna. Together the deep forest and the small-scale farmland create a beautiful landscape to move around in.

# TRAIL TYPOLOGIES

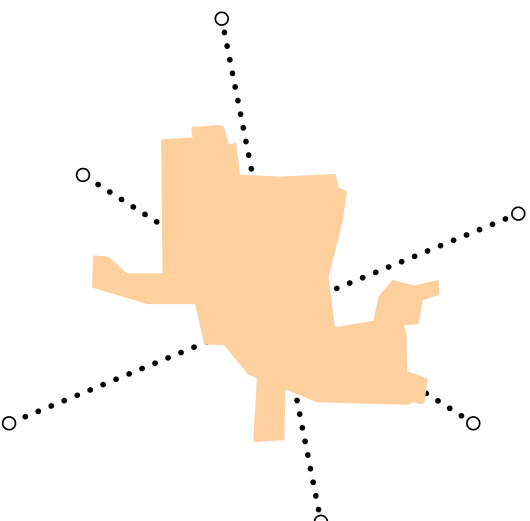
*structures for hiking trails*



## WHICH STRUCTURE?

To create a future vision for hiking trails in Skara municipality we have studied different structures of trails. There are three different principles in Skara alone. These are also the most common in general in Sweden.

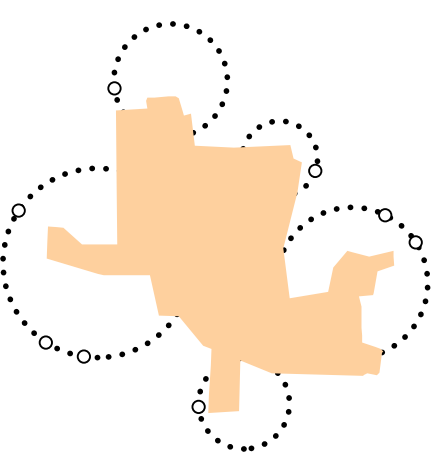
Based on this mapping it was possible to evaluate and consider pros and cons for the principles in order to create a new structure that will be the base for the project.



## A TO B - PILGRIM'S PATH

The Pilgrim's path that goes past Skara is based on a walk from one point to another. With this principle there is no natural way back to the starting point without walking back the same way.

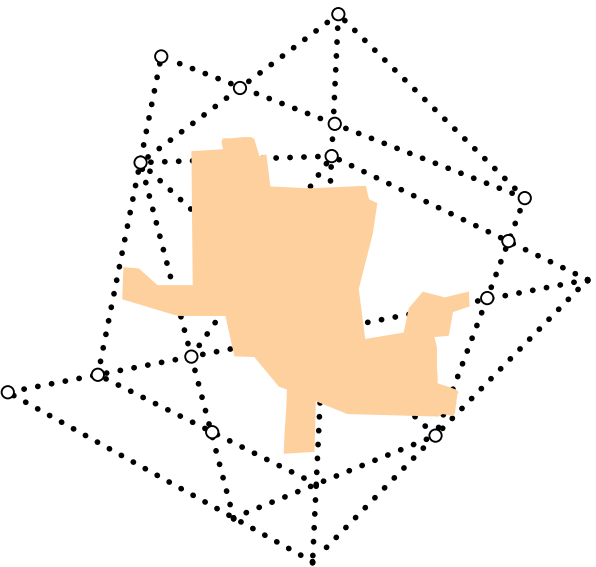
If you want to go back to the starting point this is a problem and not very likely due to the fact that it's not a new experience to walk the same path again.



## LOOP - PETERSBURG

Many recreational and running trails in Sweden have the same starting and ending point, as a loop. The trail is sometimes extended with the same principle, like in Petersburg, or with different trails with different lengths.

A loop is practical if you get there by car or bike since it returns to the starting point. Although they tend to be a bit boring with always going the same loop and like "A to B" no new sights or experiences.



## NETWORK - "HIKE IN VALLE"

For the hiking trails in "Hike in Valle" another structure is applied. Here, the trails cross each other at certain points and it's possible to walk only a small part of the trail or to return to the starting point earlier than planned.

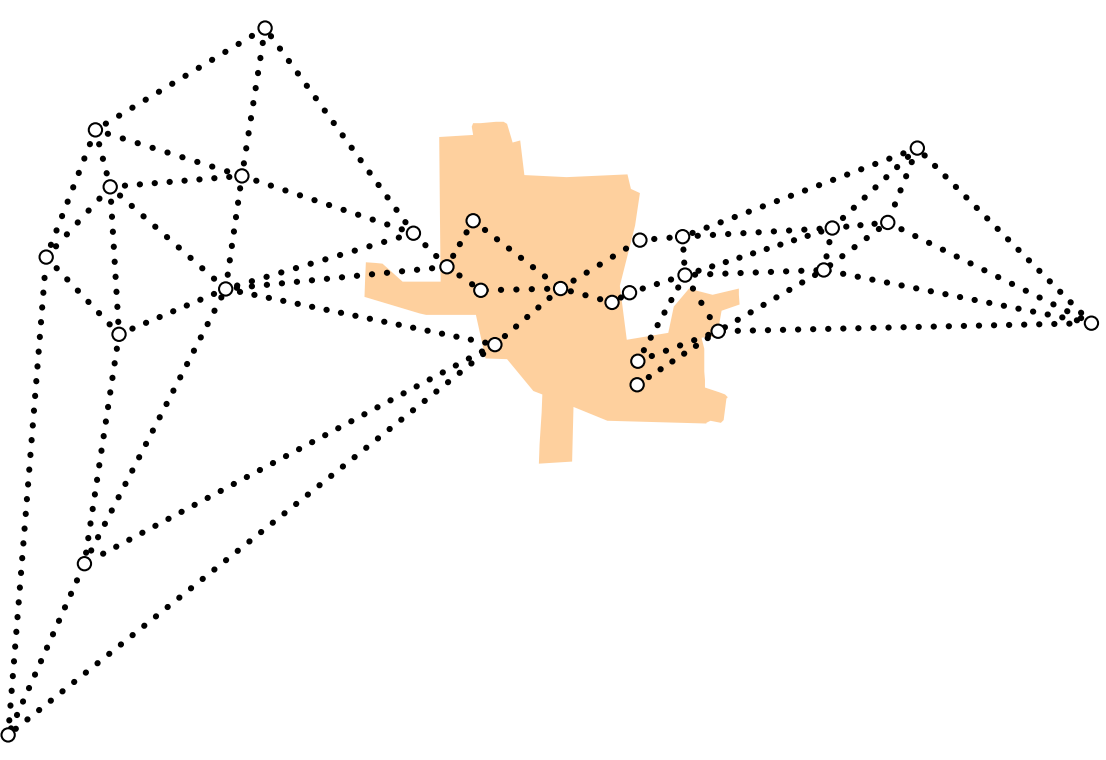
It's a type of network that makes the hike easy to adapt for many different target groups and over the year.

## OUR CONCLUSION

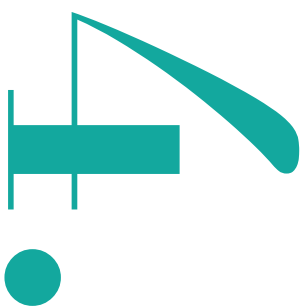
In our project we decided to work and developed the network structure. This, in order to attract many different target group and to make it easy way to walk in nature due to the fact that the trails are ajustable in length.

At the crossing points, the nodes created by the network become important. At the different locations smaller structures such as a sauna, a nature lab for kids or art installations in nature enhances the character of the landscape.

When these principles are added together a hiking trail is created which can be walked many times and not become boring. It enables for excursion, experiencing the local nature and hopefully a will to discover new trails. This structure could be applied to Skara municipality in order to connect the different trails and existing destinations.







# PROJECT

- *introduction*
- *goal & concept*
- *inspiration “Naturum”*
- *strategies*
- *design principles*
- *the large network*
- *the small network*
- *key projects*
- *seasons*
- *the project's phases*

# INTRODUCTION

*four levels of structure*

## STRUCTURE OF THE PROJECT

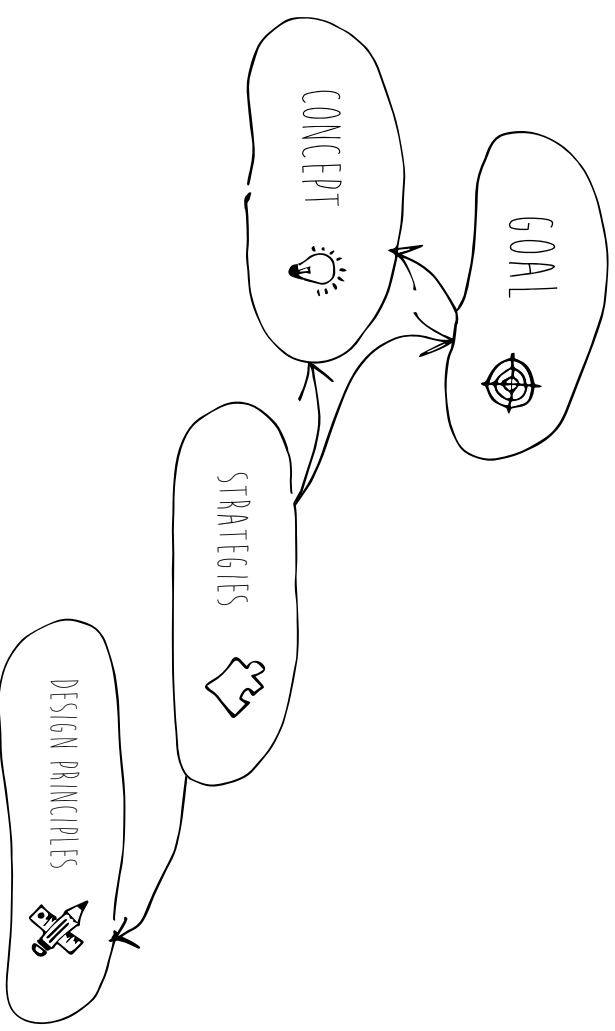
In our proposal we have been working with a system of four levels: goals, a concept, strategies and design principles. The comprehensive goals is about reaching out to people and spreading knowledge about nature in order to connect people and the towns with the local nature.

To create a picture of what this could be as well as our view on how the proposal could work, we developed a concept based on the goals. It describes the content of the project on a conceptual way where we took inspiration from a *Naturum*, like the one by Lake Hornborga.

But instead of placing it on a specific place in the municipality we decided to spread it out over a larger area.

The strategies, which are based on the concept and reaching towards the goals, are a way to describe the project in different scales. They are three scales where the first looks at the whole municipality and the connections between different areas.

The second level zooms in on the areas just south and north of Skara town and the last level describes the key projects and their locations, either in places with special nature that are a bit forgotten or in the nodes created by the network with the existing destinations. To go with the strategies there are four design principles that sets the criteria's for the project.





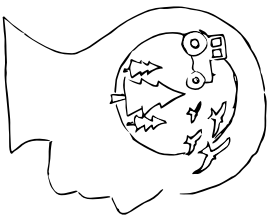
# GOALS & CONCEPT

*a cohesive concept for three goals*

## GOALS

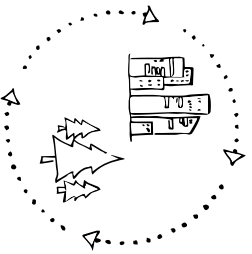
### KNOWLEDGE - INCREASED VALUE OF NATURE

With an increased knowledge about nature, the environmental awareness improves, and the value of nature rises. This could be done by spreading information and enhancing the senses through experiences in nature.



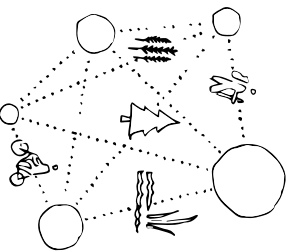
### CONNECTING URBAN & RURAL - STRONGER IDENTITY

With a improved value of nature, the mental connection between rural and urban areas is stronger, which enhances Skara's identity as a municipality with qualities in both city and the surrounding landscape.

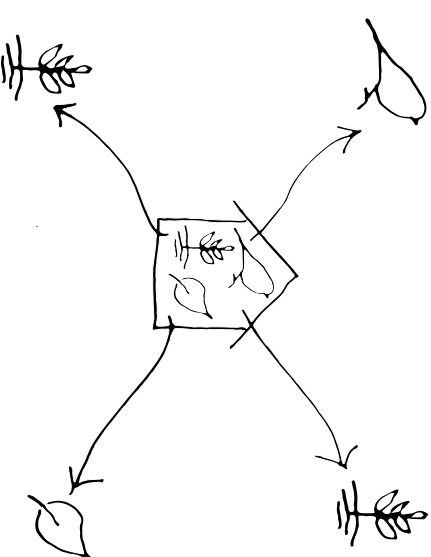


### HUMAN & NATURE - IMPROVED MENTAL & PHYSICAL HEALTH

With stronger physical connections between urban and rural, the accessibility to nature increases which makes it easier for people to get out in nature. Through visits to nature, the mental and physical health could be improved.



## CONCEPT - A SPREAD OUT NATURUM



### WHAT? THE GATE TO NATURE

“A *Naturum* is a visitor center for an area. The purpose is to create a gate to nature in general and to a specific area in particular. The visitor can, in an exiting way, be able to learn about the local nature and also get inspired to go out in nature.” Here, the visitor gets knowledge about the local animals, plants, geographic and culture history of the landscape in which the *Naturum* is located. (Naturvårdsverket, 2015d).

### WHY SPREAD OUT? - MORE ACCESSIBLE

By spreading the knowledge across a larger area rather than a specific location, the value of different landscape characters could be improved. A *Naturum* that is outspread is more accessible when it can reach more target groups with different interests and needs.

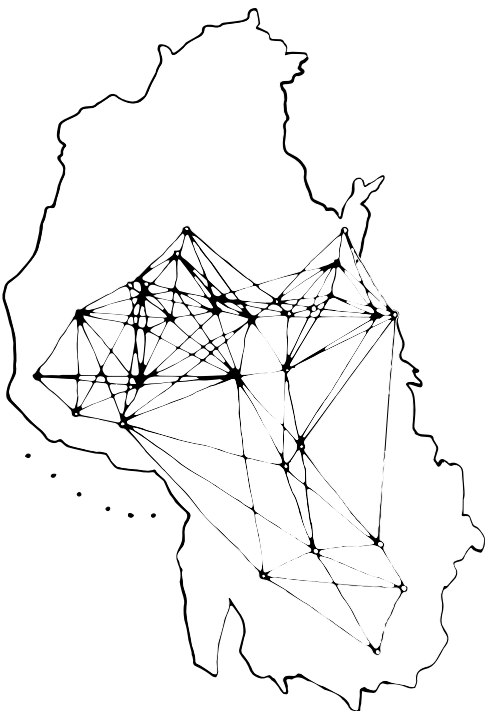
### WHY IN SKARA? - MANY DIFFERENT LANDSCAPE CHARACTERS

There are many nature areas in Skara municipality that are forgotten or neglected. The connection between these and the existing destination points should be stronger in order to enable for more people to experience the local nature.



# STRATEGIES

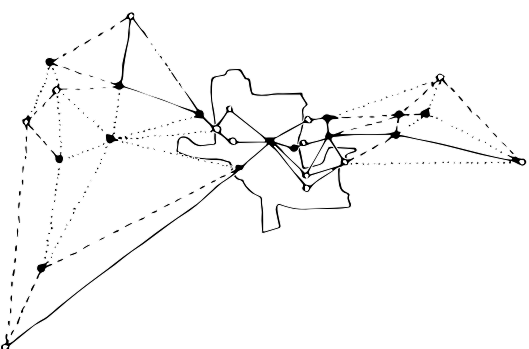
three levels of reaching the goals



## THE LARGE NETWORK

In order to reach the goals with increasing knowledge about nature, strengthen connections between rural and urban areas and improving health, it's important to look at the larger scale, the whole municipality.

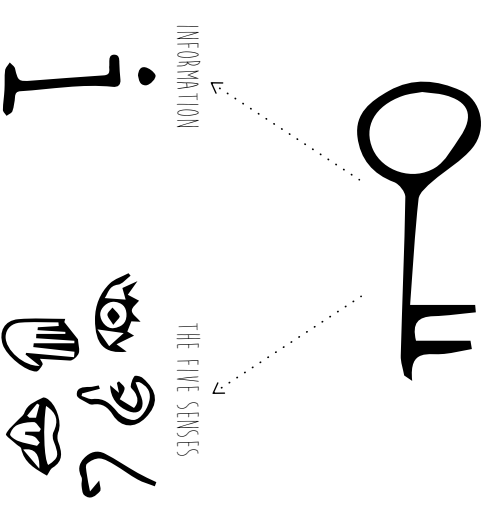
The comprehensive scale is needed in order to tie the whole municipality and the different areas together with the tourism destinations. The result is that Skara's *Naturum* is outspread but helps connect the municipality together



## THE SMALL NETWORK

The smaller scale in zoomed in on Skara town and the areas north and south of the town. The existing destination points could be connected to the new key projects and together create a network of trails.

On this scale, principles for the physical connections between the towns and the countryside and nature as well as typologies for trails in the network.



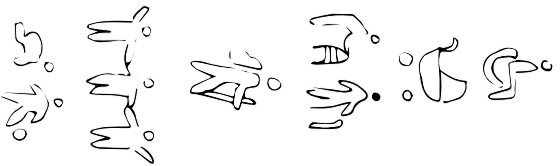
## KEY PROJECTS

The smallest scale focuses on the nodes in the network with smaller structures. Key projects with different character and size are added in order to get people to go out in nature.

They are based on two parts, the first is information in order to spread knowledge about nature and the second is focusing on enhancing the five senses. Every key project contributes to the total knowledge that the outspread *Naturum* involves.

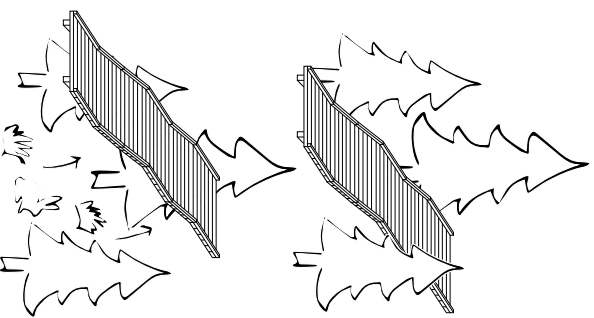
# DESIGN PRINCIPLES

*conditions for network and key projects*



## SOMETHING FOR EVERYONE

All locations can not be reached by everyone but the network should in total cover all target groups. Some trails have a smoother material while others have a more challenging character.



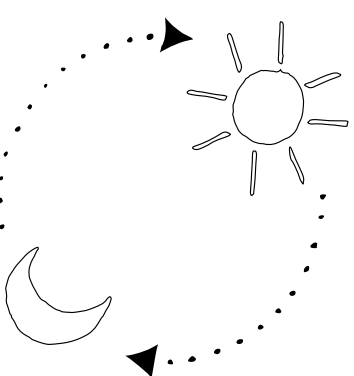
## A DELICATE APPROACH

The key projects should be designed in a way so that they can be removed without harming the nature. By not making too large impacts in the area, the natural environment is kept unspoiled and biodiversity protected.



## ALL YEAR ROUND

The network and key project should be able to use during all seasons of the year, or at least most of the key projects. The hiking trails could for example be prepared for cross-country skiing in the wintertime.



## THROUGH OUT THE DAY

Some trails in the network should be able to walk all times of the day, some with have light tracks and some lighting driven by solar cells and light up by motion sense. There needs to be separate lighting near and by the key projects for activities during evenings or during the winter months.



# THE LARGE NETWORK

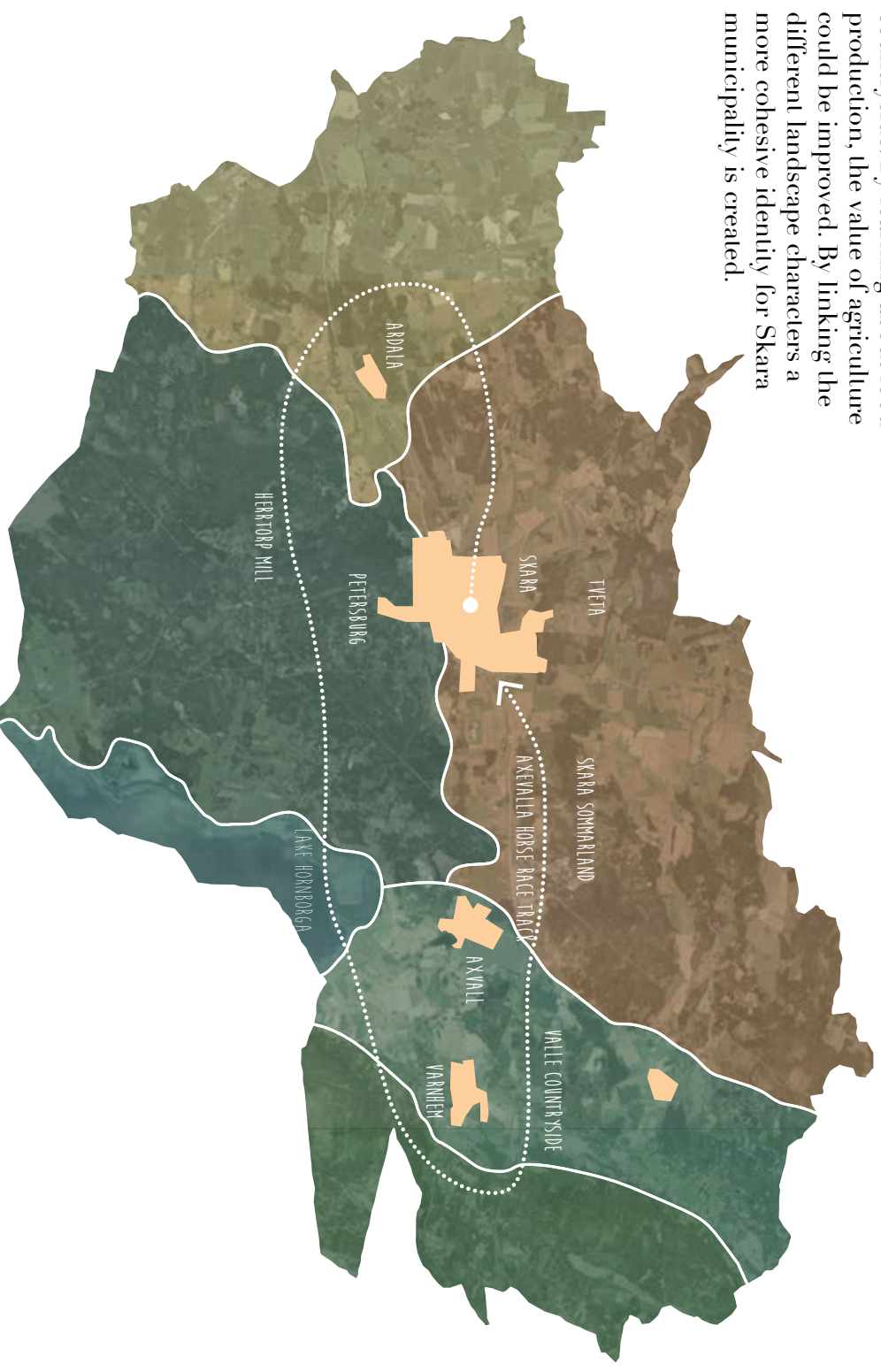
*connecting rural & urban areas with different landscape characters in the municipality*

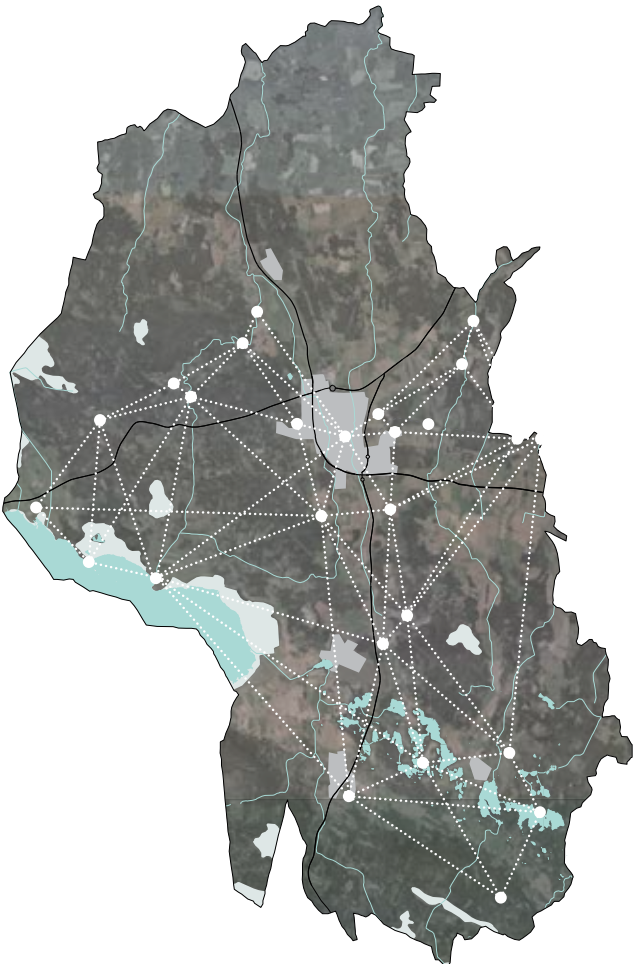
## A NETWORK THAT CONNECTS

On a comprehensive level we have been working on connecting the municipality and the different tourist destinations in a network that covers larger areas.

The network connects to existing hiking trails such as “Hike in Valle” and the Pilgrim’s path as well as less promoted destinations. We believe that this could attract

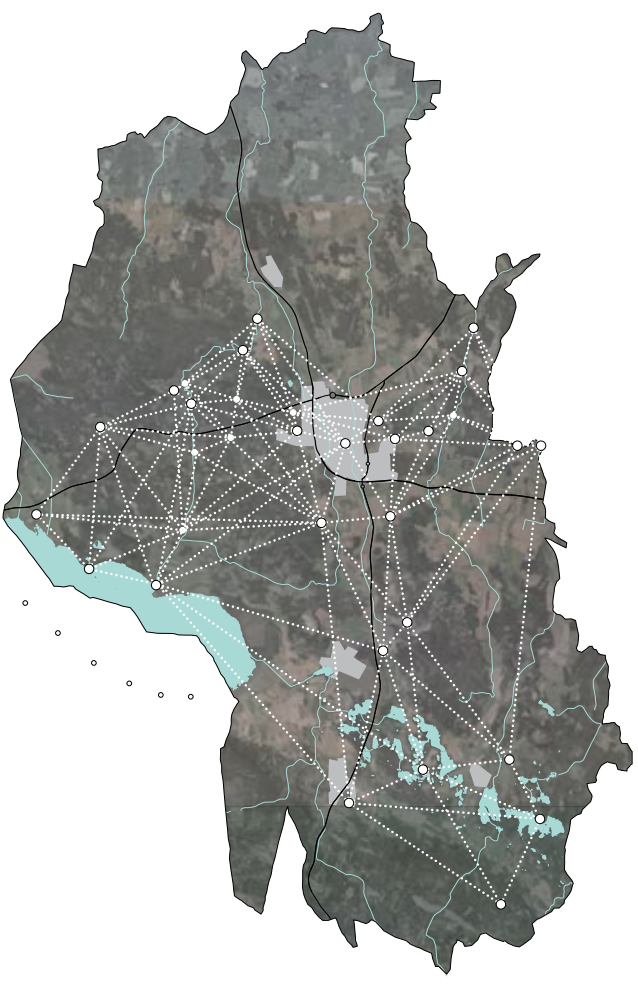
both inhabitants and tourists to go out in nature, which increases their knowledge about the local nature, food production and the countryside. By learning about food production, the value of agriculture could be improved. By linking the different landscape characters a more cohesive identity for Skara municipality is created.





## NETWORK - TODAY

Existing destinations in a network covering the whole municipality. The long distances between the points create gaps in the network and therefore it's not fine enough to make the areas seem connected.



## NETWORK - IN THE FUTURE

Existing destination points together with new key projects creates a smaller and finer network where the distances between the points become a lot shorter.

# BIKE CONNECTIONS

*no car-dependency to get around between destinations*

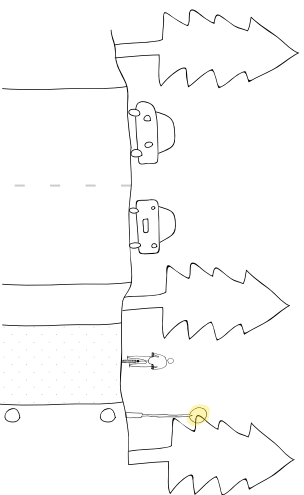
## IMPORTANT LINKS TO NORTH & SOUTH AREAS

An important part that is missing in the large network is the link between Skara town and Lake Hornborga and further to the other destinations.

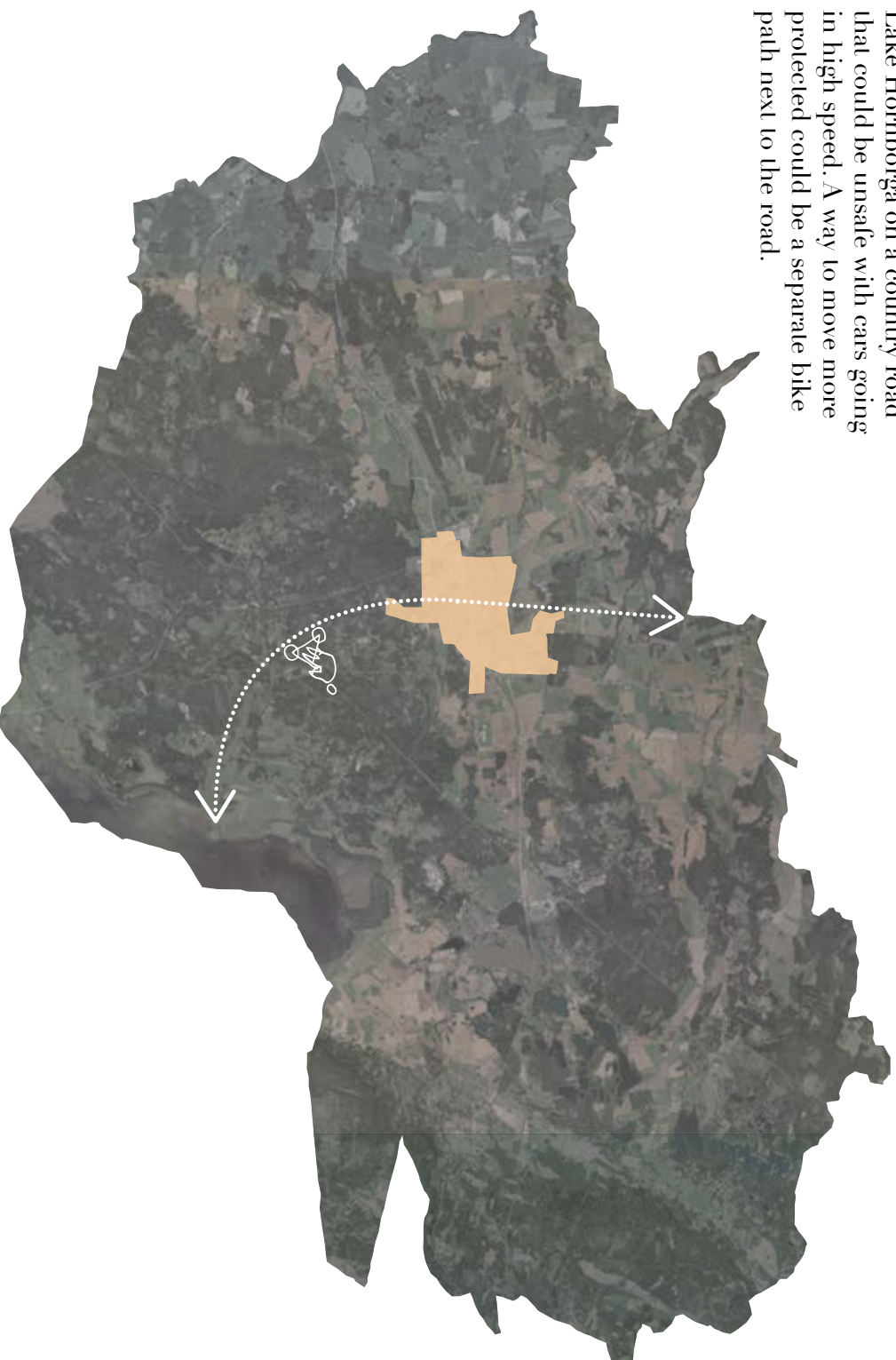
The strategy that Skara's municipality is working on for bike paths should include a way to connect the tourism attractions and

destinations in order to be able to use the bike to get between them.

Today, it's possible to ride a bike to Lake Hornborga on a country road that could be unsafe with cars going in high speed. A way to move more protected could be a separate bike path next to the road.



Section





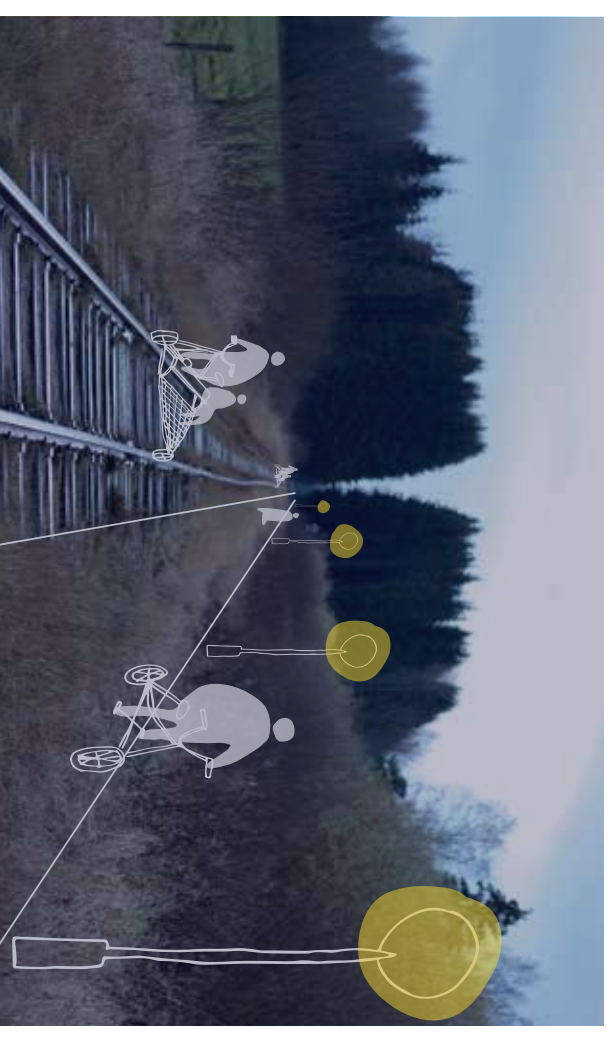
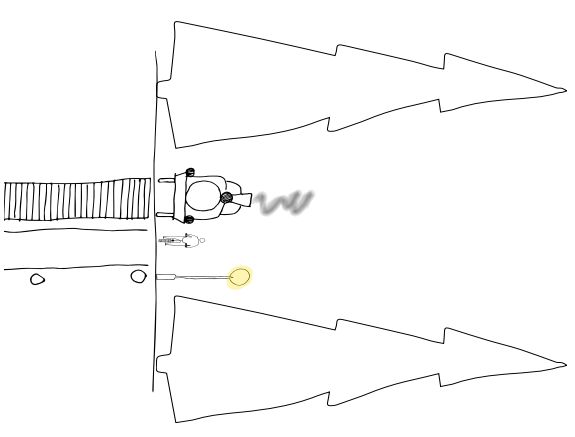
# RAILWAY TROLLEYS & BIKE PATH

*development of bike paths North of Skara town*

## ACTIVATE THE OLD RAILWAY

Today the old railway is only used a couple of times per week during July and August and at New Years Eve. To activate the railway and use the way to Lundsbrunn, we suggest rental of trolleys for the railway. This could be located close to Uddeborg school of agriculture and Skaraberg.

A path for biking and walking should be located along the railway. This could connect to the new residential area that's planned nearby and make it easier to get out in nature as well as to Lundsbrunn.



# THE SMALL NETWORK

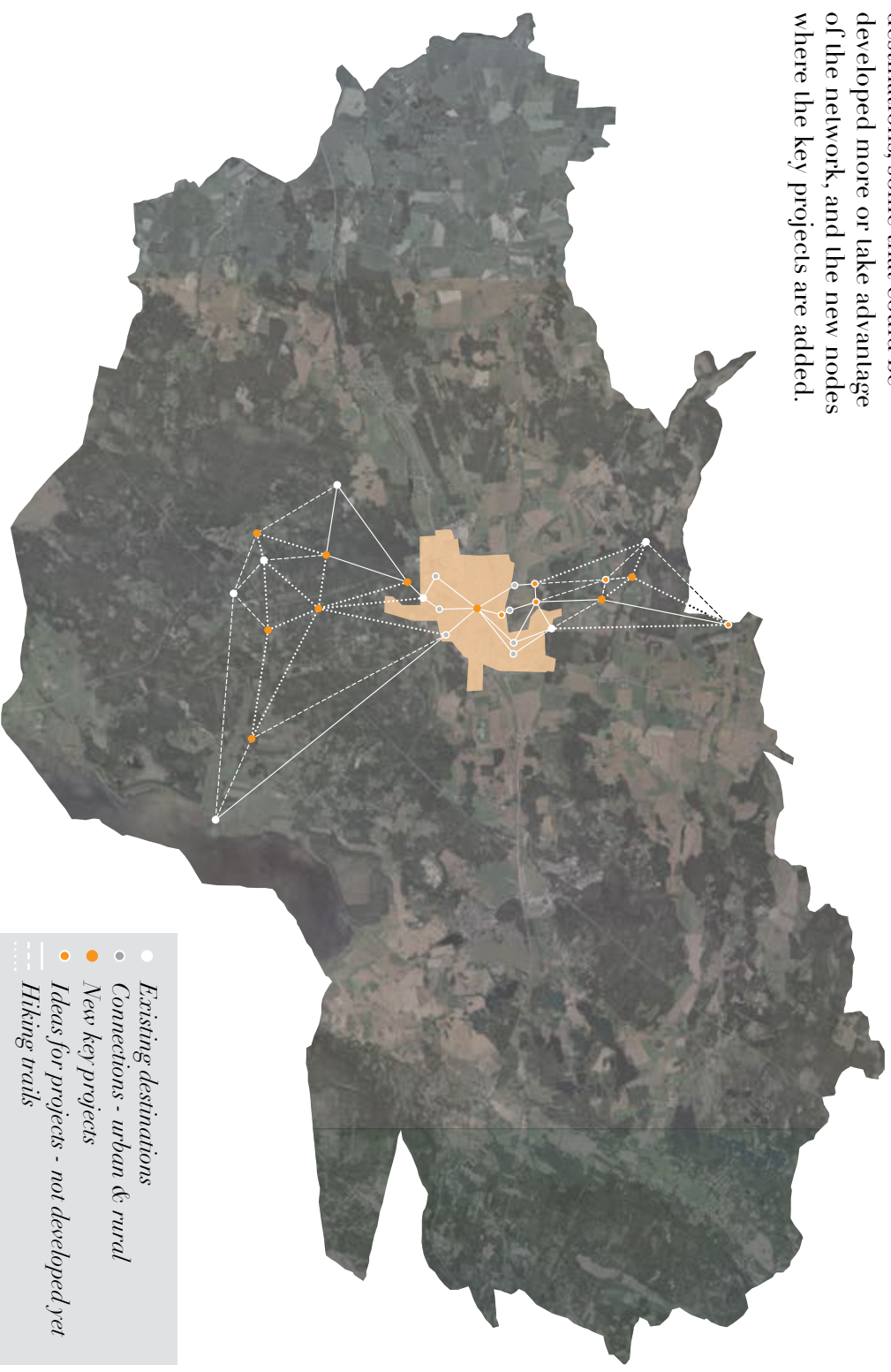
*the small network as a part of the large*

## ENHANCED CONNECTIONS TO NORTH & SOUTH

In our project we have chosen to work with networks. This, because it could attract more people and to offer a wider range of walking distances within the network. This also creates more varied paths.

The network reaches between Skara town and the areas just North and South of the town. This offers people the opportunity to move in and between the different landscapes and destinations. The link between urban and rural areas is important due to the fact that the town is surrounded by large roads that becomes barriers. They are difficult to cross on foot and by bike.

The small network is connected with the large to complement the areas that are not linked today. The network attaches to well developed destinations, some that could be developed more or take advantage of the network, and the new nodes where the key projects are added.



- Existing destinations
- Connections - urban & rural
- New key projects
- Ideas for projects - not developed yet
- Hiking trails





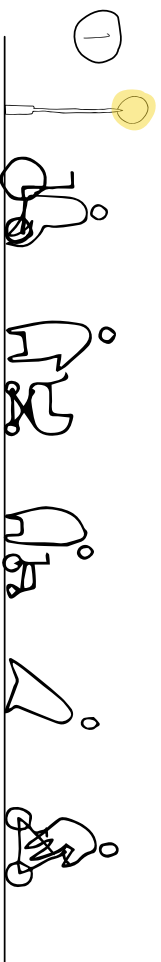
# TPOLOGY TRAILS

*three typologies that the different segments are designed according to*

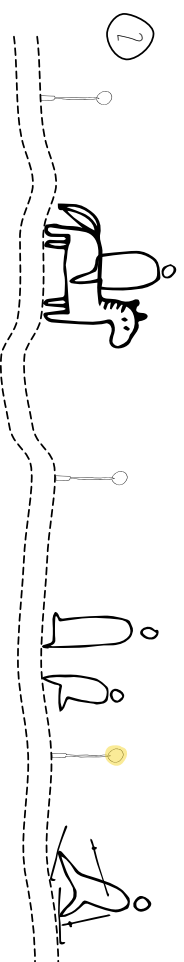
## TRAILS FOR EVERYONE

The hiking trails in the network southern and northern of Skara has varied character. Some trails are accessible for everyone, while some are more challenging. However, everybody can move around according to the “network principle”

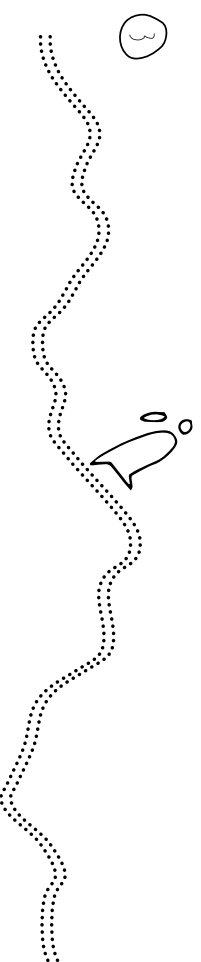
and you never meet a dead end, you can always go around without having to see the same things twice. The inner network exists of more challenging parts, while the paths are more smooth and steady further out.



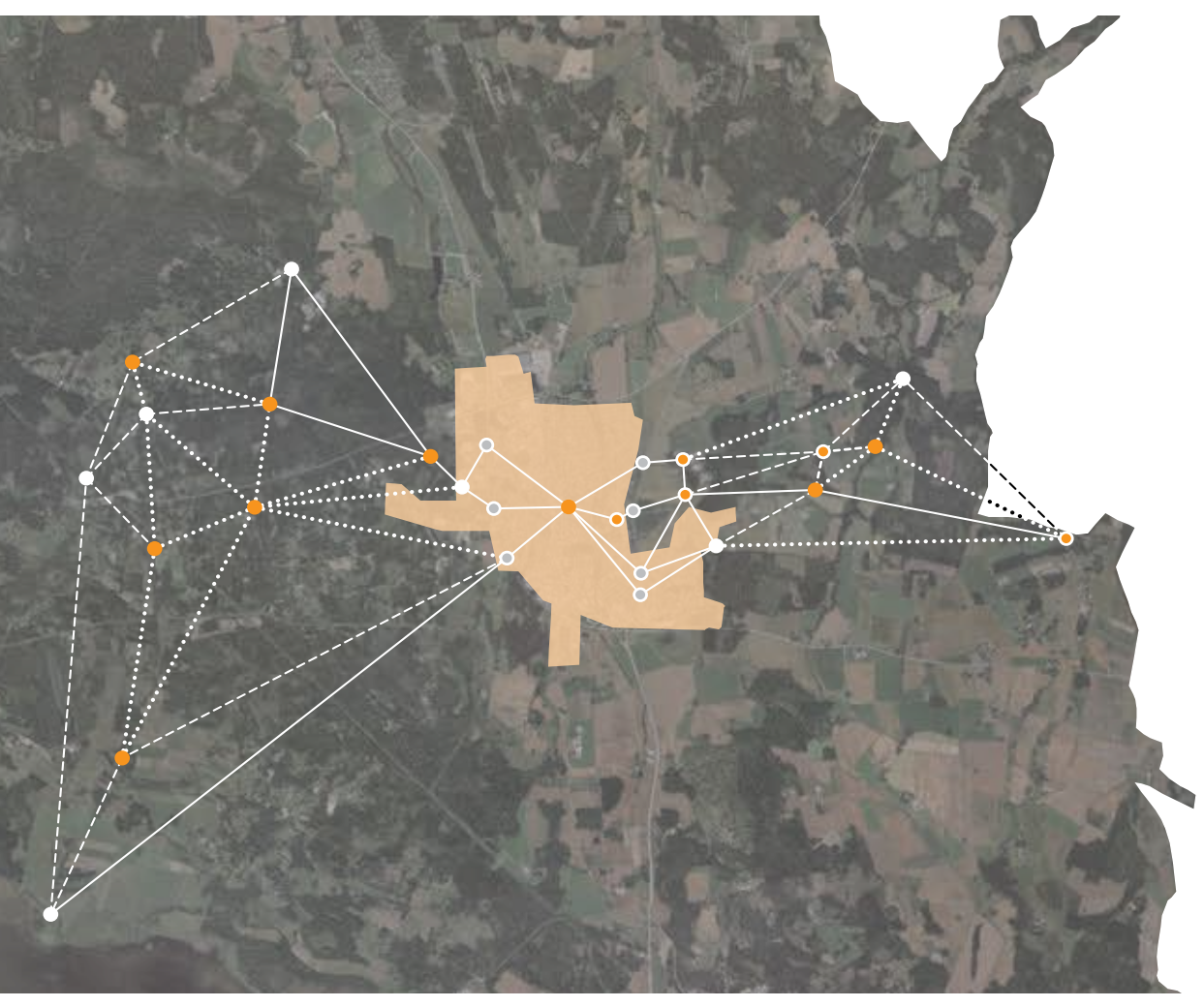
FLAT TERRAIN WITH SOLID GROUND: UNPAVED ROAD, LIGHTED TRACK



VARIED TERRAIN: COUNTRY ROAD & NATURE TRAIL, PARTS WITH MOTION CONTROLLED LIGHTING



ROUGH TERRAIN: NATURE TRAIL WITH HIGH CLIMBS



# URBAN & RURAL CONNECTIONS

*physical connections from Skara town*

## VIADUCTS & UNDERPASSES

Skara town is surrounded by important larger roads and the only way to go by bike or by walking to the areas in the edges of the town is through underpasses. These can often be thought of as unsafe due to inadequate lighting.

To create more attractive links to and from the town it's important to work with the underpasses. By improving

them they can be perceived as nice gates rather than a necessary evil to pass under the roads.

Below pictures show some of the existing underpasses, who all would need an update.



*Gång- och cykel tunnel under E20, vid industriområdet i sydväst*



*Gång- och cykel tunnel under E20, vid Petersburg (Biskops Bengtsgatan)*

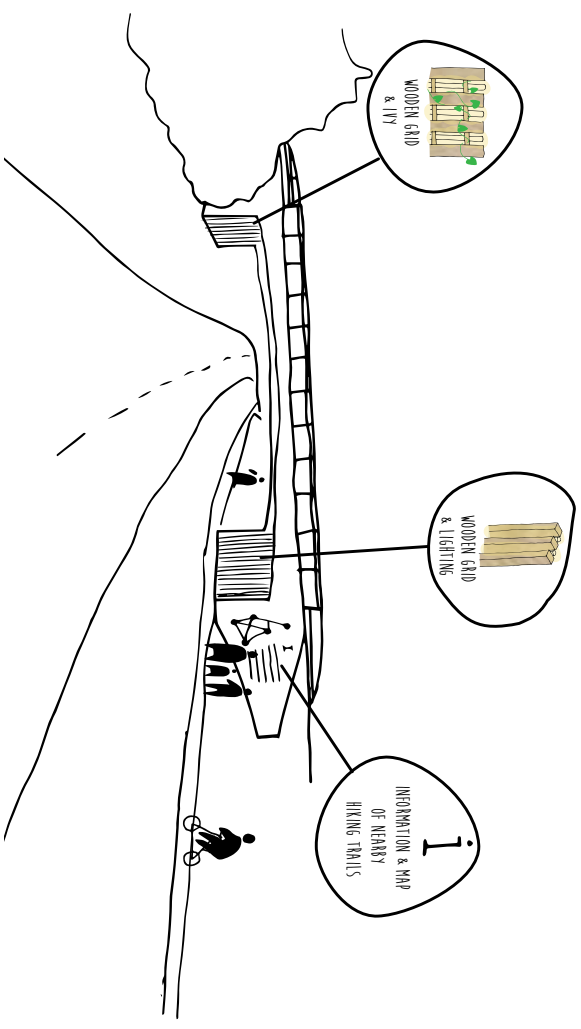


*Gång- och cykel tunnel vid bostadsområde i sydost*



## DESIGN PRINCIPLES

In the proposal below we describe a principle on how to work with the design of the underpasses. By involving a softer material such as wood as well as lighting in a creative way together with greenery the underpass feels nicer and safer. To more improve the safety around them it's important to also light up the area in closest connection. This principle could be applied on all existing underpasses.



*Principle design underpass, Biskops Bengtsgatan*

# SIGNAGE

*a coherent signage as guidance and information boards*



## DESIGN PRINCIPLE

To make the trails easy to follow and create a gathered impression a coherent signage is proposed. The materials pine and Corten steel interact well with the natural

expressions and the signs are thus subtle additions. Larger boards in the beginning of the trail let you know more about the trail - length, typology and destinations that can

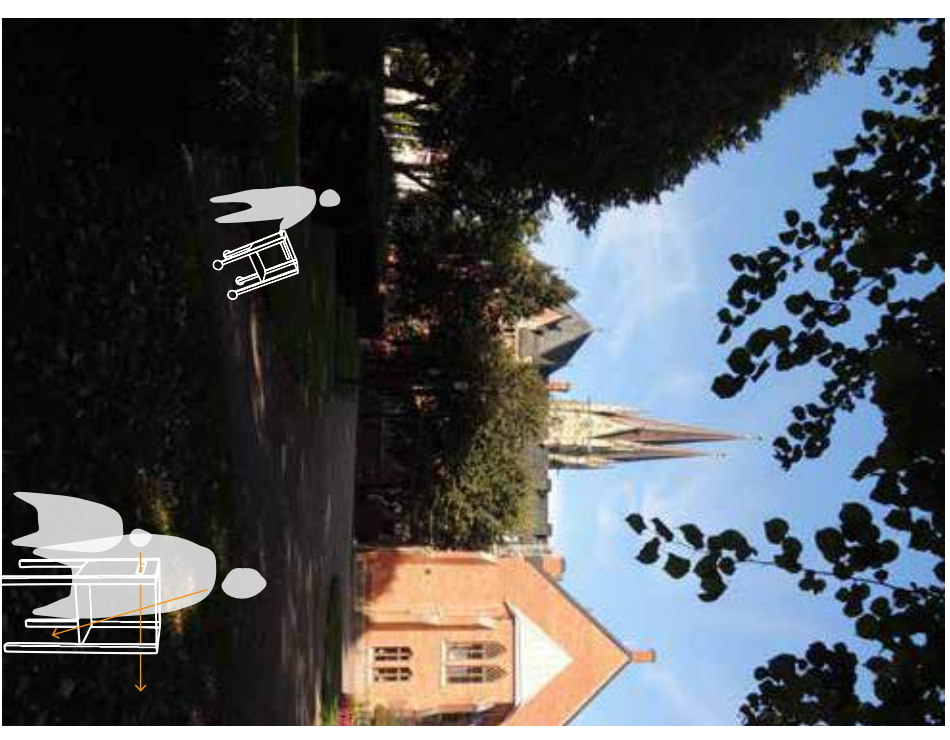
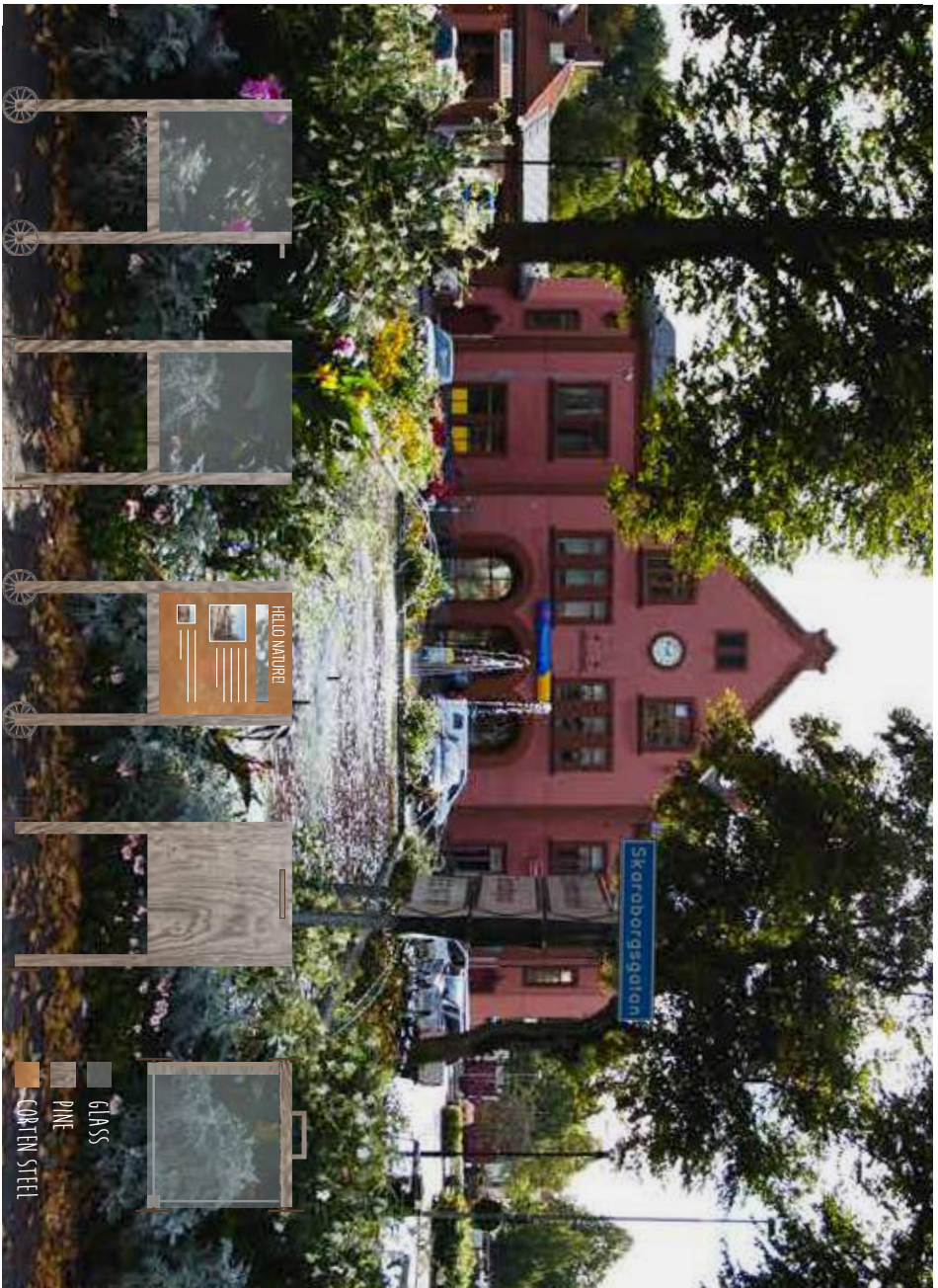
be reached along the way. The text is complemented with a colour coded map in the trail's specific colour. Along the paths there are smaller guiding signs and cubes, you could

sit on. Along the way larger and smaller information boards appear with picture and text that lets you know more about the cultural and natural landscape, flora and fauna.



# INFOBOX

*en utställningsbox för att öka medvetenheten om naturen*



## HELLO NATURE!

To increase the awareness about nature and the network that is created on the countryside, an info box that is placed in Skara town is proposed. The info box stand on

wheels and is thereby movable and could be moved around in the town, something the tourist office could be responsible for. The box could be locked with a padlock attached

to the handle to prevent unwanted movement. The info box interacts with the signage through chose of material. The top and two of the sides are in glass. School classes

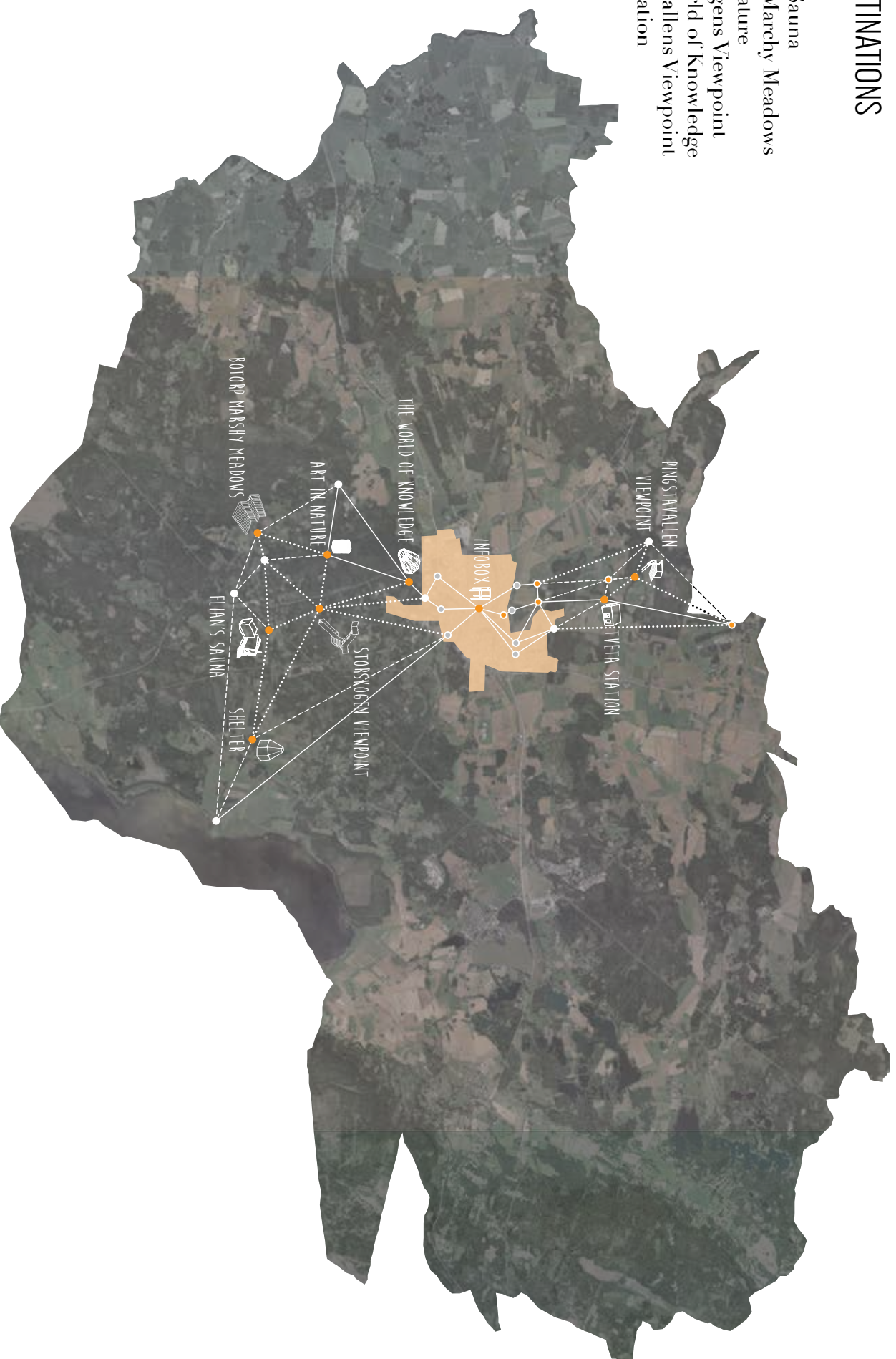
could be have exhibitions about animals, nature and food production by putting items in it. It's a flexible spreader of knowledge that helps connecting urban and rural.

# KEY PROJECTS

*new destinations in the smaller network*

## NEW DESTINATIONS

1. Shelter
2. Filian's Sauna
3. Botorp Marchy Meadows
4. Art in Nature
5. Storskogens Viewpoint
6. The World of Knowledge
7. Pingstavallens Viewpoint
8. Tveta Station

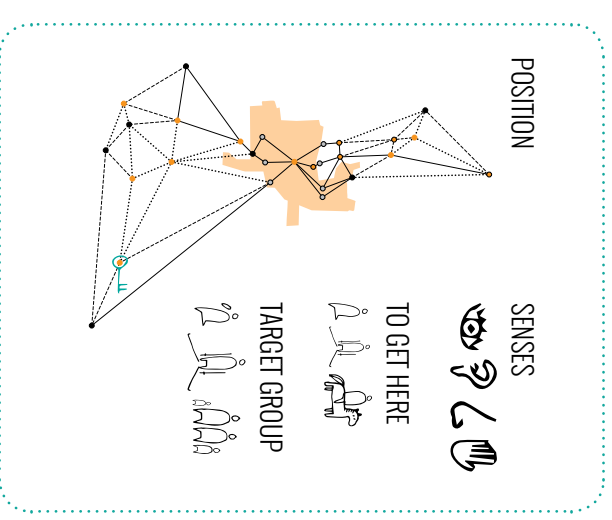


# SHELTER

## A PROTECTED BREAK

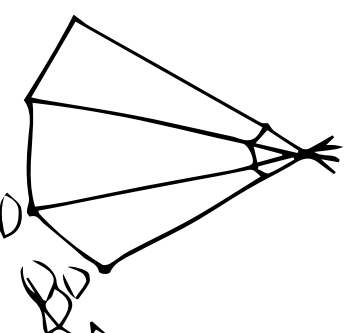
It cracks and breaks in the forest. The scent of pine needles and wet moss. The rain spat on the ceiling. A grilled hot dog over an open fire. Few things give us as good understanding of nature as a sleep overnight.

The shelter is placed close to a trail and refer to where a tent could be set up. It gives the hiker a space for a break and possible overnight stay and protects towards both weather and wind. The benches are wide enough to sleep on.



The shelter exist in two sizes and could be placed in different parts of the network.

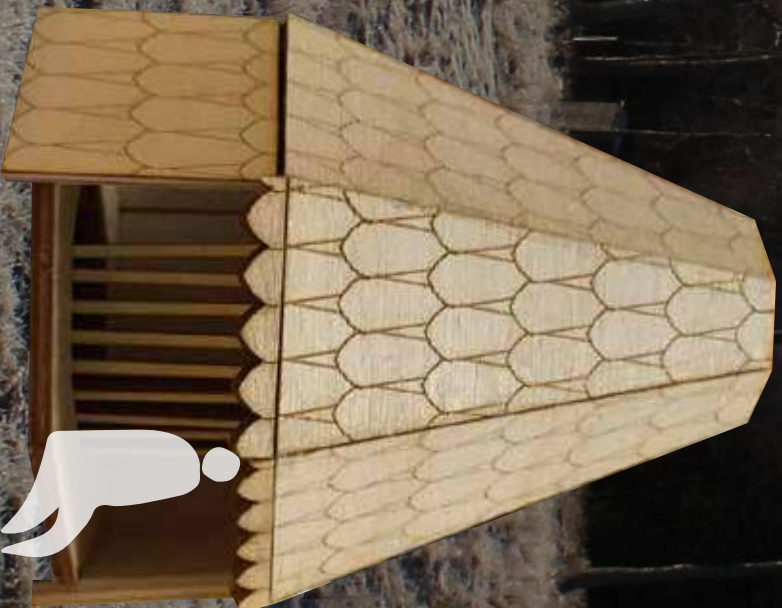
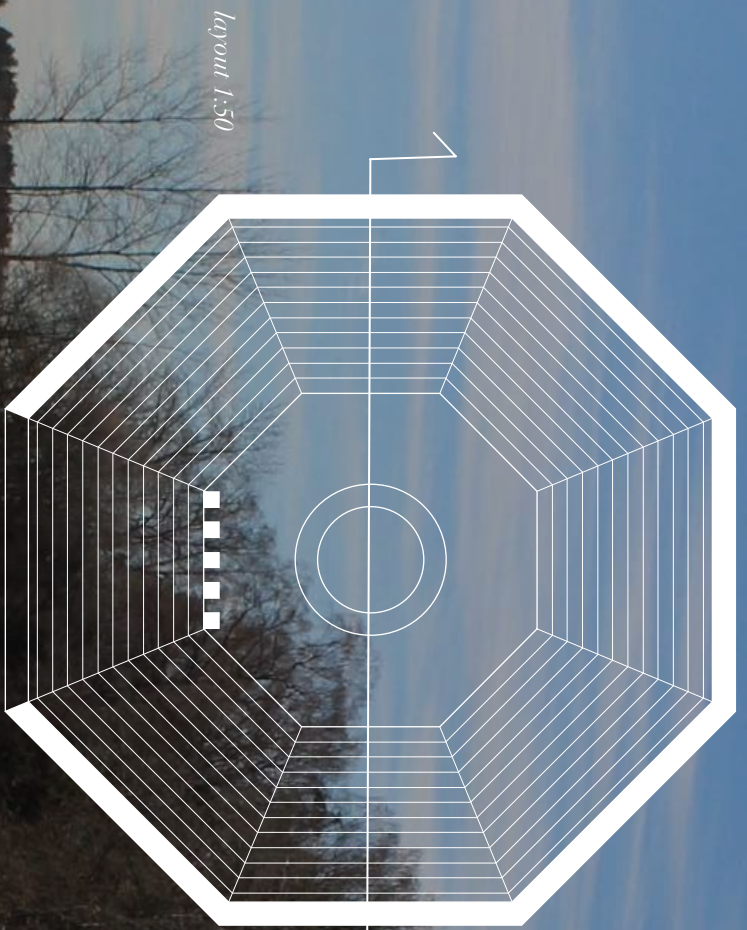
## INSPIRATION



*Cot*



*Cranes*

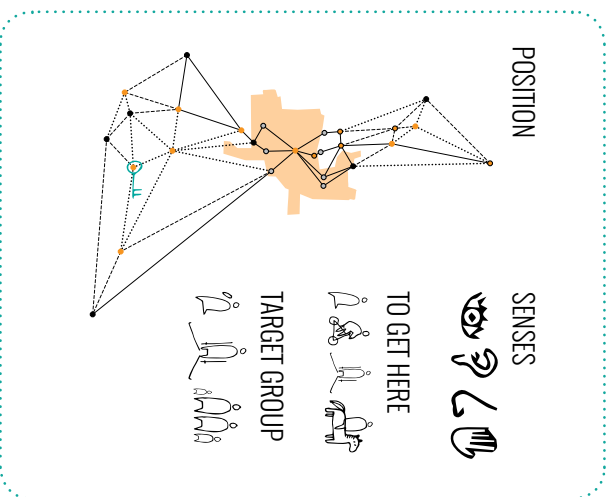




section 1:50

section 1:50

# FLIAN'S SAUNA



## BECOME ONE WITH NATURE

The walk along the Fliian swings as the river winds through the countryside. The narrow nature path goes past the fields and meadows, sometimes even through some dense forest but quickly out again.

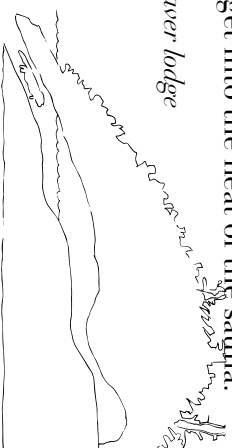
Tree branches hanging down in the water and along the walk you can see how the river flows from Hornborgsjön, sometimes rapidly. If you are lucky, you can catch sight of one of the beavers that live here.

## INSPIRATION

A lot of beavers live along the Fliian river. Their lodges exist of a eating area and sleeping space. The road to get into the heat takes place in three steps, the first out in the water, then up to the eating space to at last come to the sleeping space.

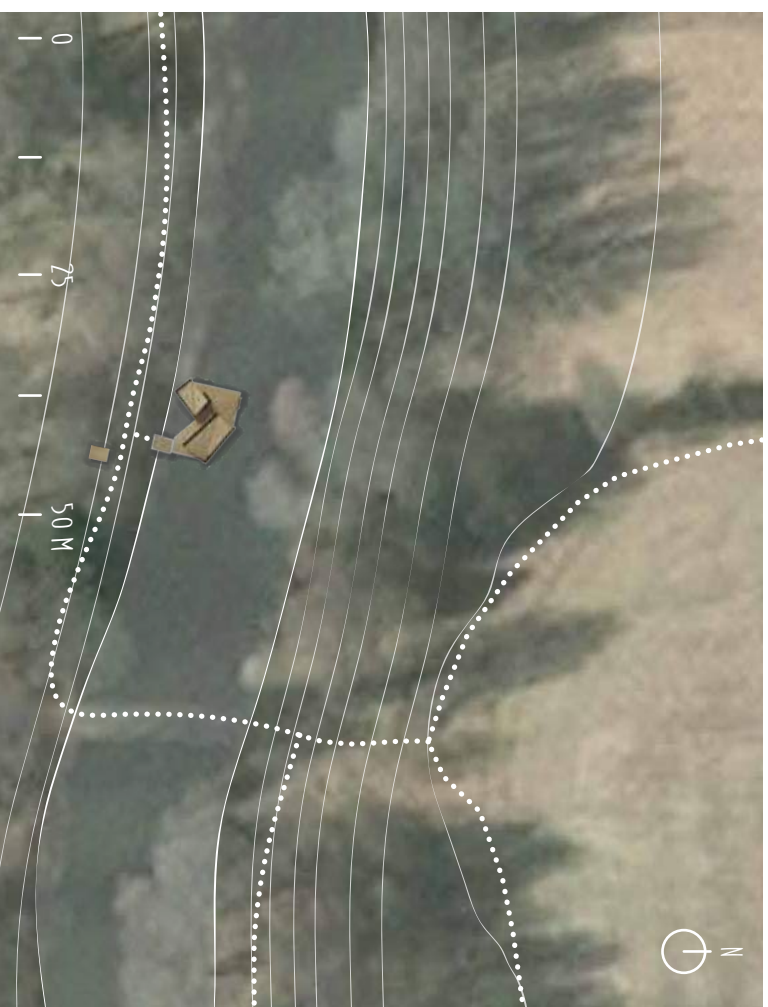
In the sauna you first have to get out to the water on the bridge, then in to the changing room to finally be able to get into the heat of the sauna.

*Beaver lodge*



At the old wooden bridge across Fliian make the trail a turn and change sides of the river. On the south side, just a few meters from the bridge, you can glimpse a sauna down by the water's edge.

Covered in greyed pine wood it blends into the landscape. After the steps down the stairs to the bridge you can see across to the field on the other side between the two buildings. To the left there's

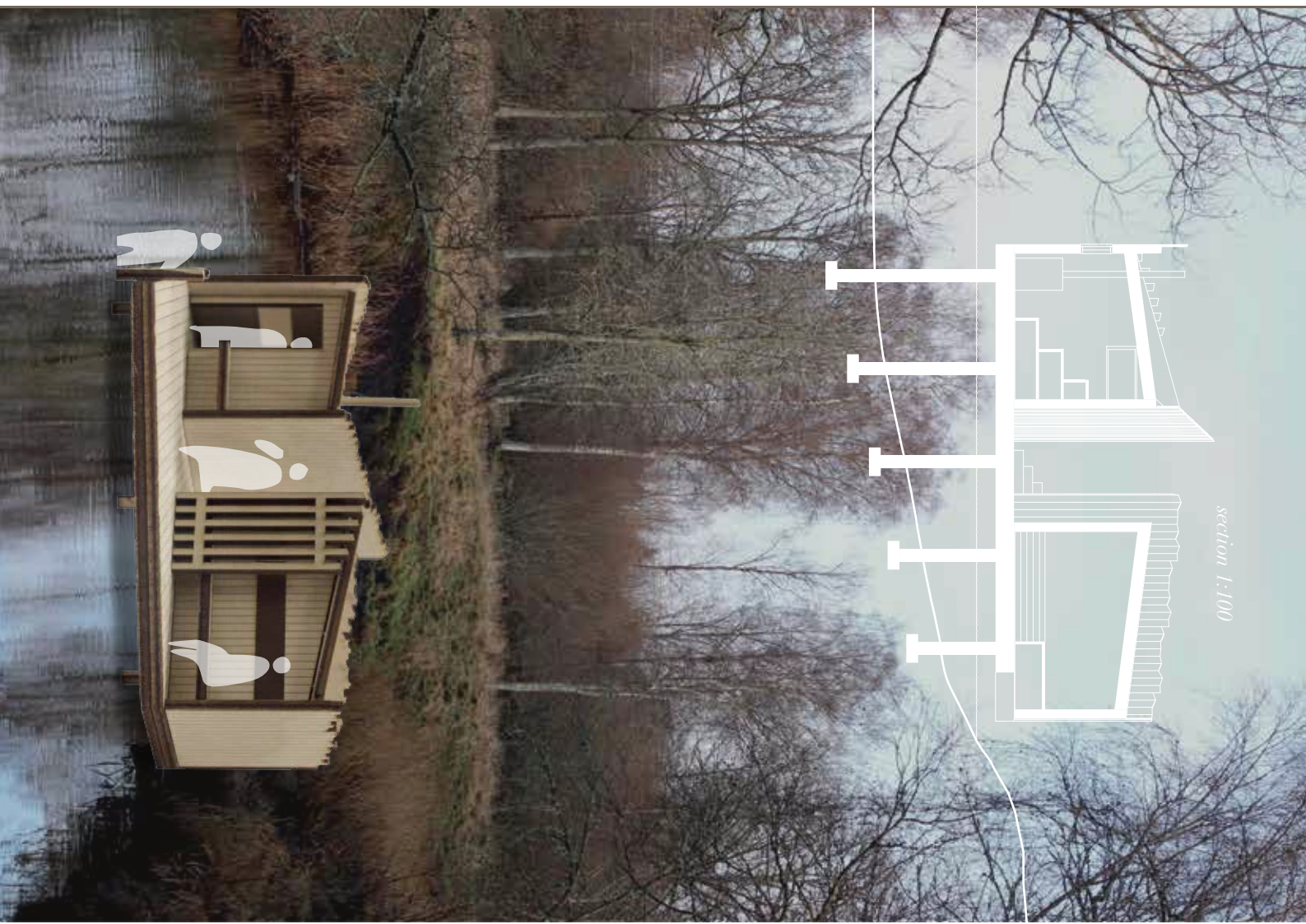


a smaller changing room. For the outdoor shower you have to pump rainwater that is collected on the containers on the roof to cool off after the sauna. At the trail back up the stairs there's a outside toilet.

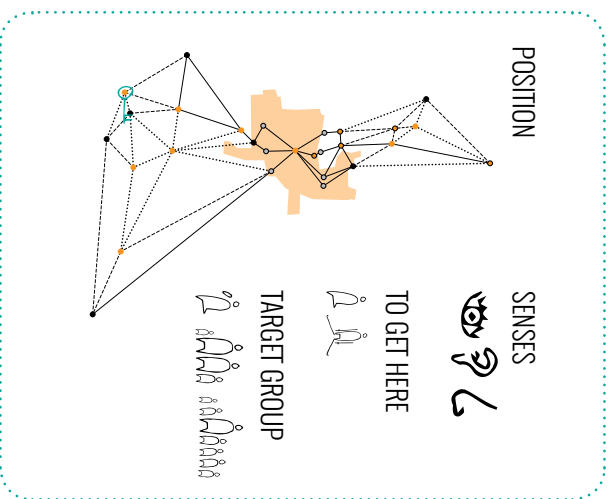
On the bridge you can sit in the niches of the building and take part of the landscape and the rapid river. At the tip of the bridge, one can feel the water or take the small ladder down to take a dip in the river.

From the chimney on the roof of the sauna you can see smoke from the wooden fire. If you get in to the sauna you're immediately struck by the heat. To sit on the wooden benches on a rainy autumn day makes everything else disappear:

Through the wooden grid in front of the window you can see how the expressions of the fields and forests change with the seasons of the year.

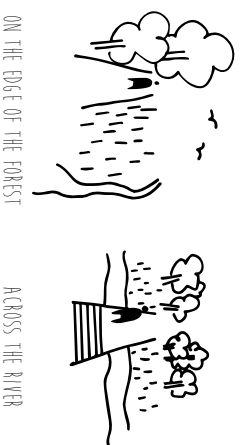
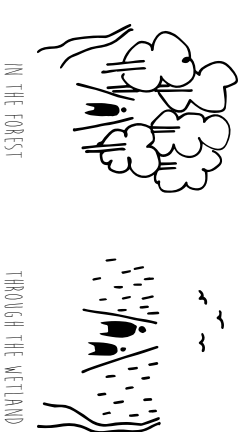


# BOTORP MARSHY MEADOWS

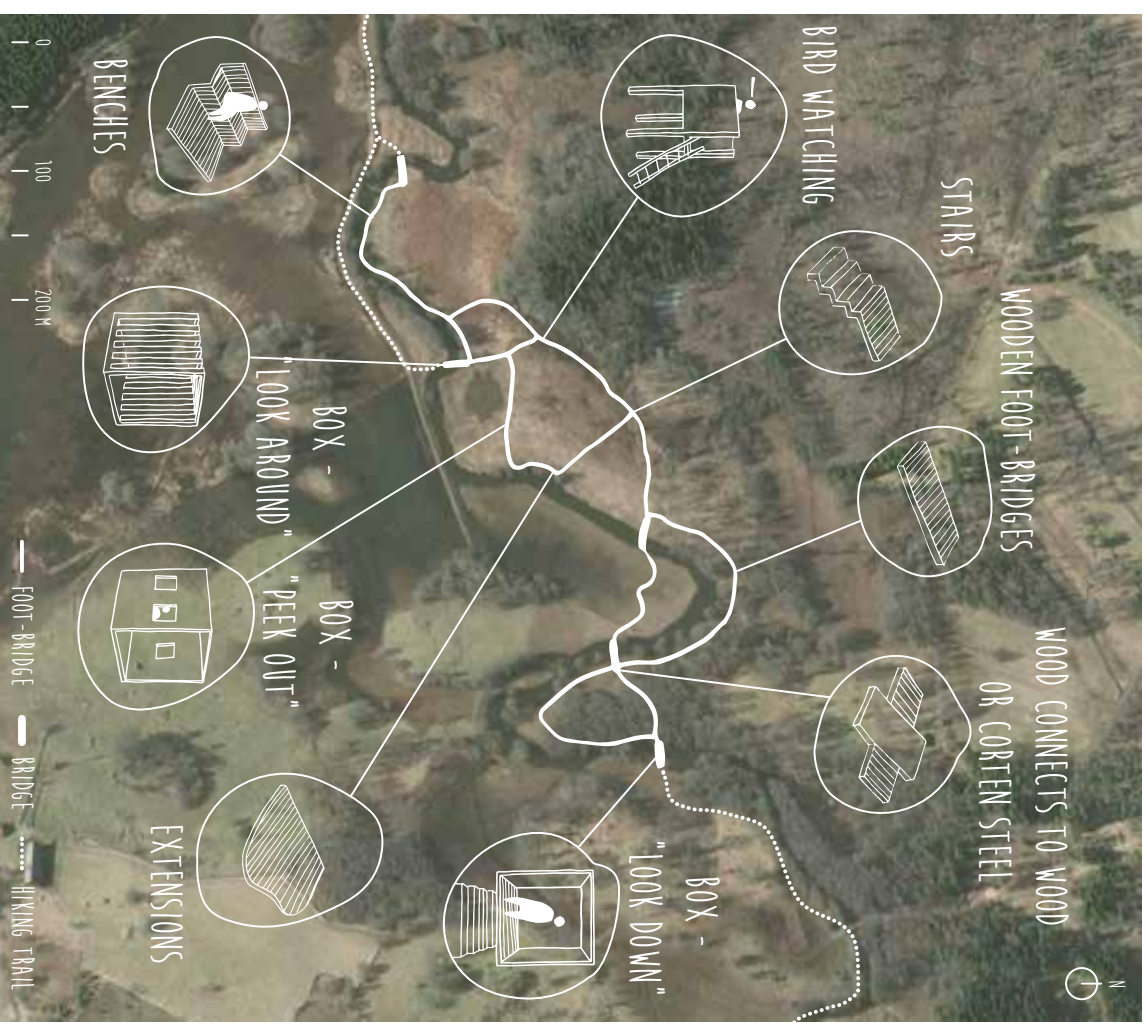


## ON WOODEN BRIDGES THROUGH THE CULTURAL LANDSCAPE

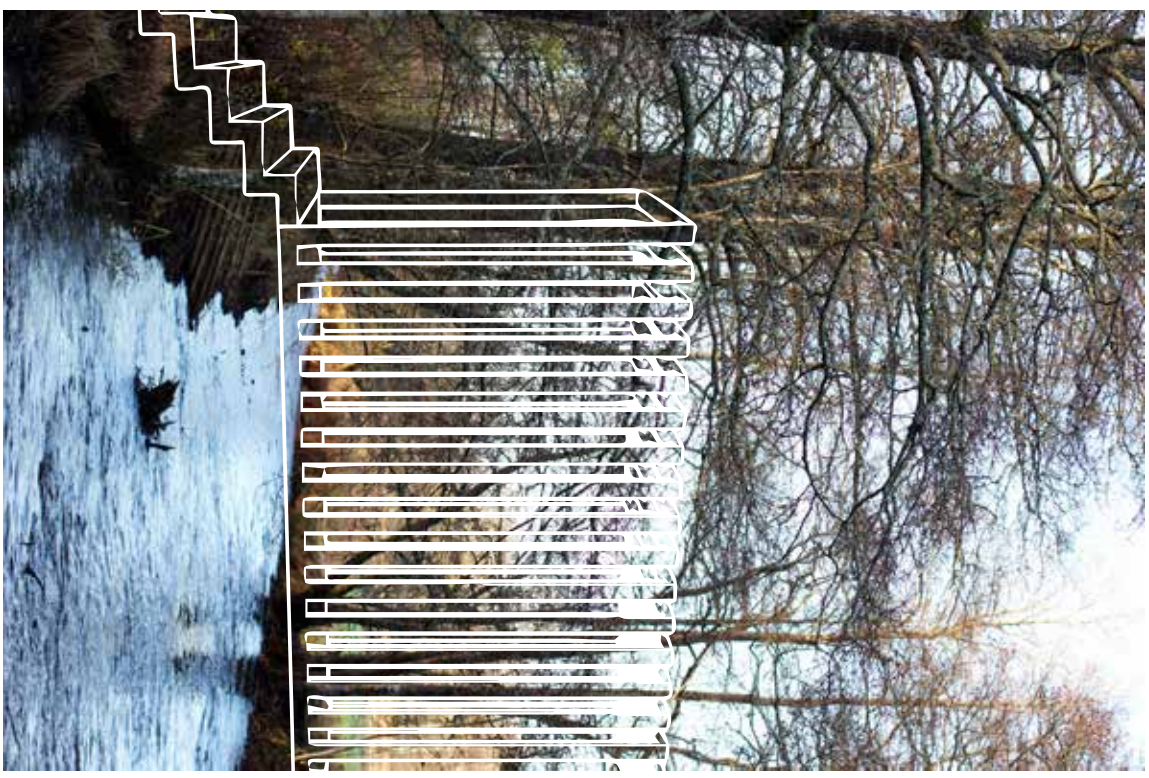
A bird is flying high up in the sky over the landscape, watching people walking in a slow pace along the river of Fläan. They are walking on wooden bridges to get closer to the wetland and the flourishing birdlife. Botorp is influenced by the cultural history and the small scale farming land with fields, stonewalls and holls. The area is protected by the European network Natura 2000 because of its marshy meadows and



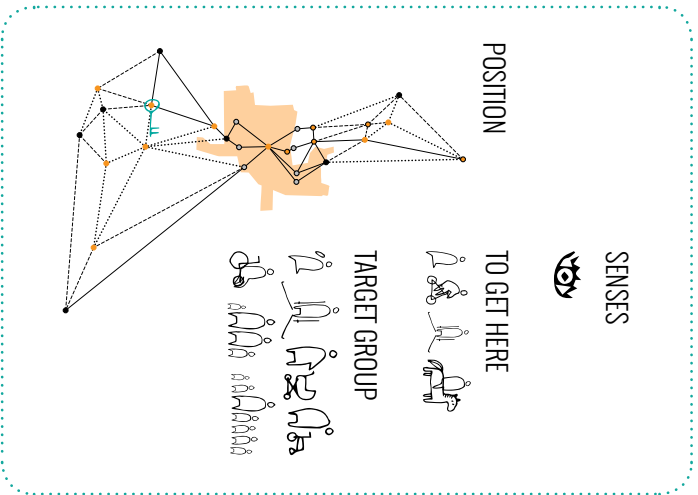
natural grazing land with a flora rich in species. Through a variety in the trails with stairs, boxes and overhanging places to rest the experience of nature is strengthened and gives the visitors the possibility to grasp the landscape. The bridges lead people through the different landscapes, forest, wetland and water:







# ART IN NATURE



## KNOWLEDGE THROUGH ART

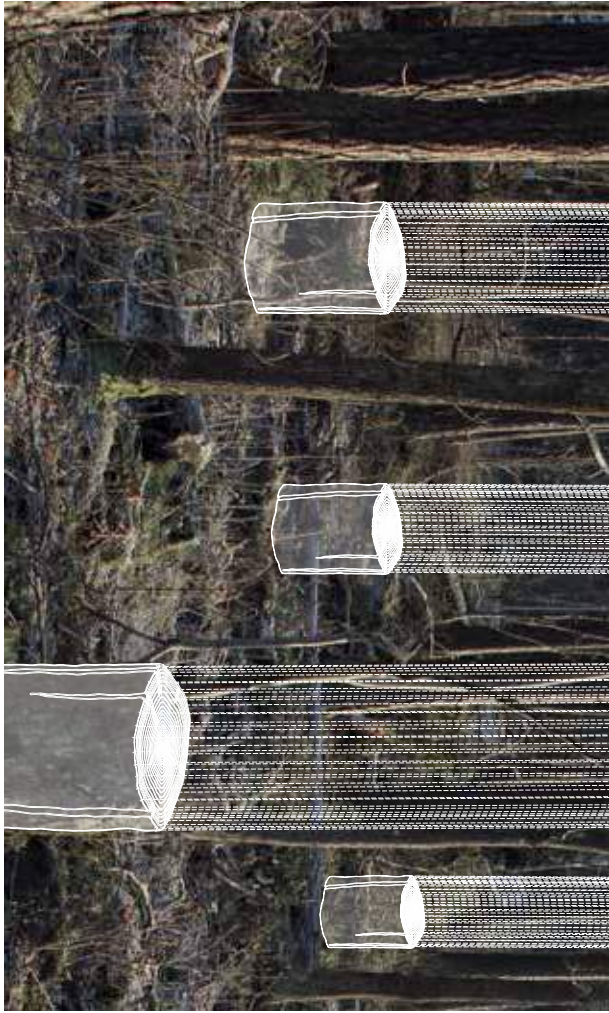
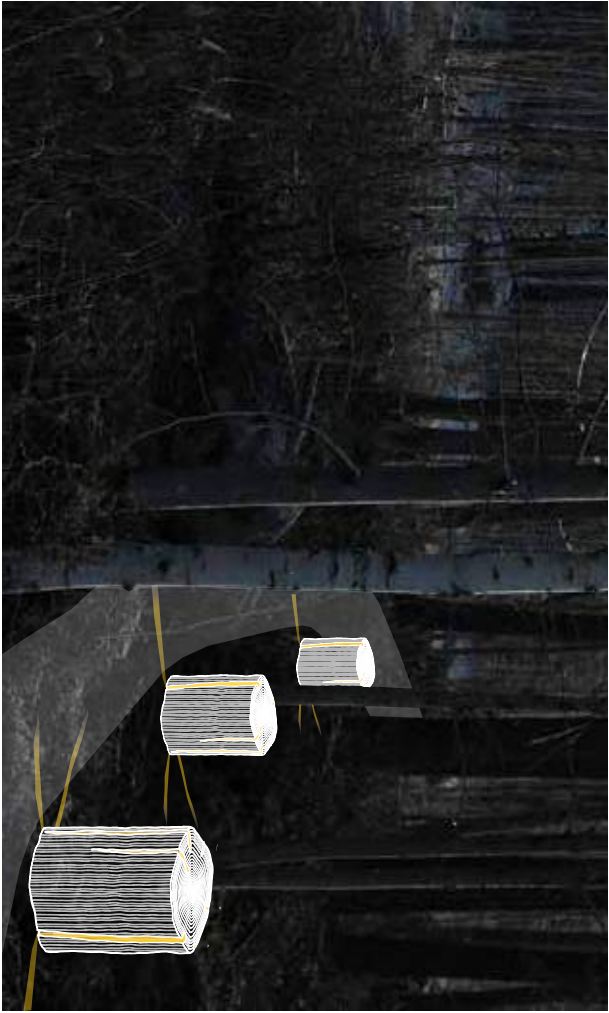
The flowers are starting to bloom and it is time for Skara Art Week. Even though the art is the nature and city all year around there is something extra tonight.

I wonder if there are any new art works this year? The idea is fun, to



Let art highlight nature. "The tree cemetery" really is an eye opener for the impact of cutovers in our landscape. Well, well time to pack the picnic and go!



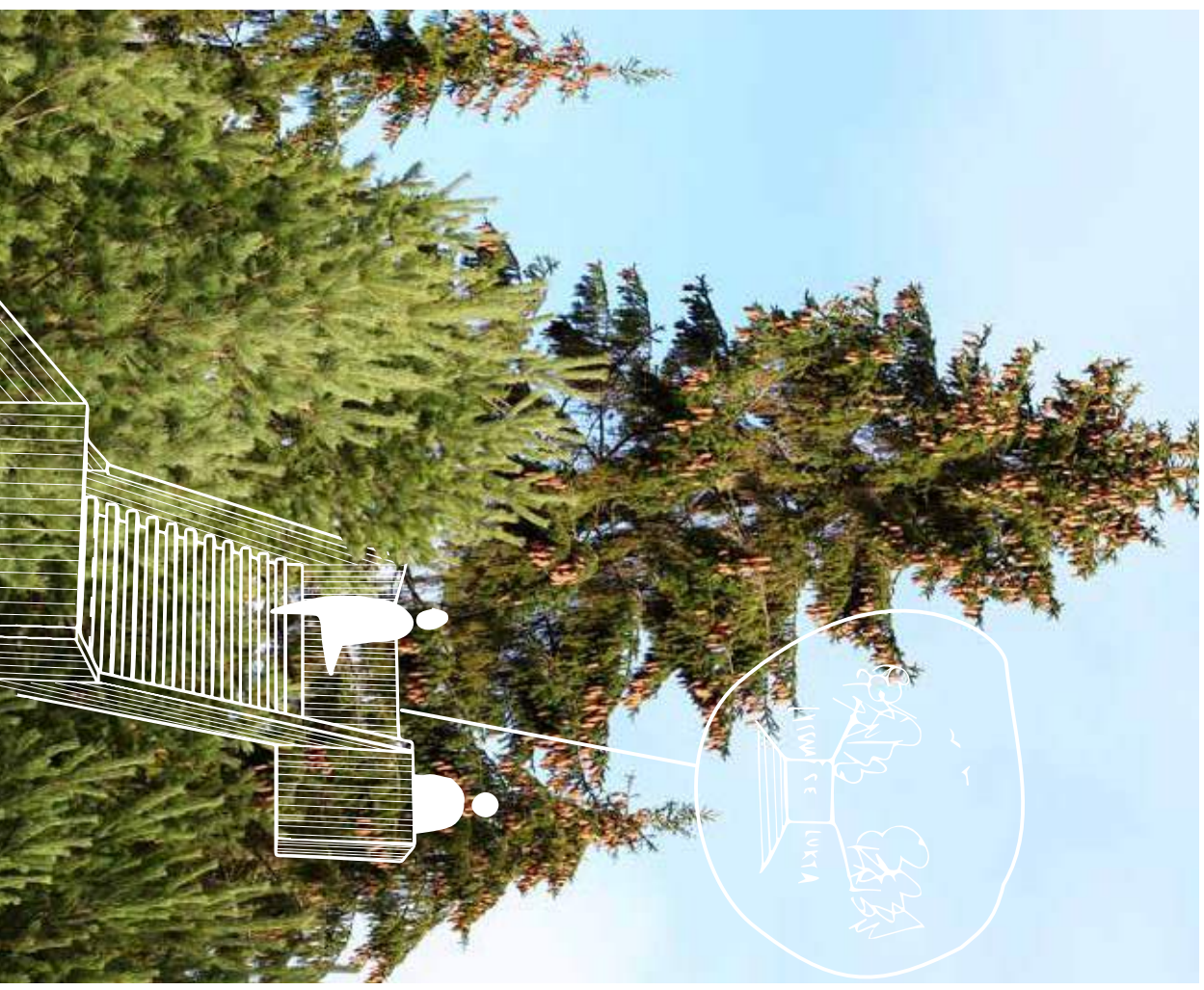
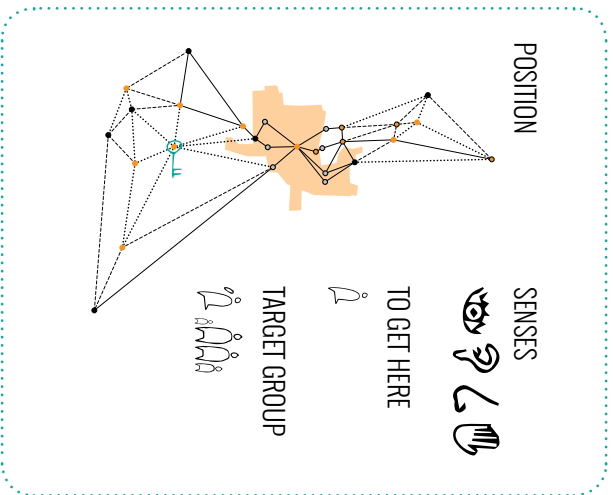


# STORSKOGEN VIEW POINT

## NEW PERSPECTIVES

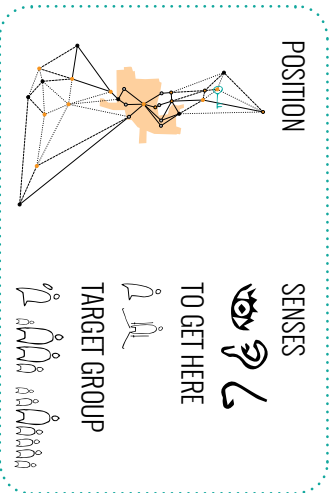
A stair is wiggling around a tree. Up through branches and needles all the way up to the treetops. What does nature look like from new perspectives?

The wooden stairs has three landings on different levels to give a variety of views.





# PINGSTAVALLEN VIEW POINT



## NEW VIEW POINTS

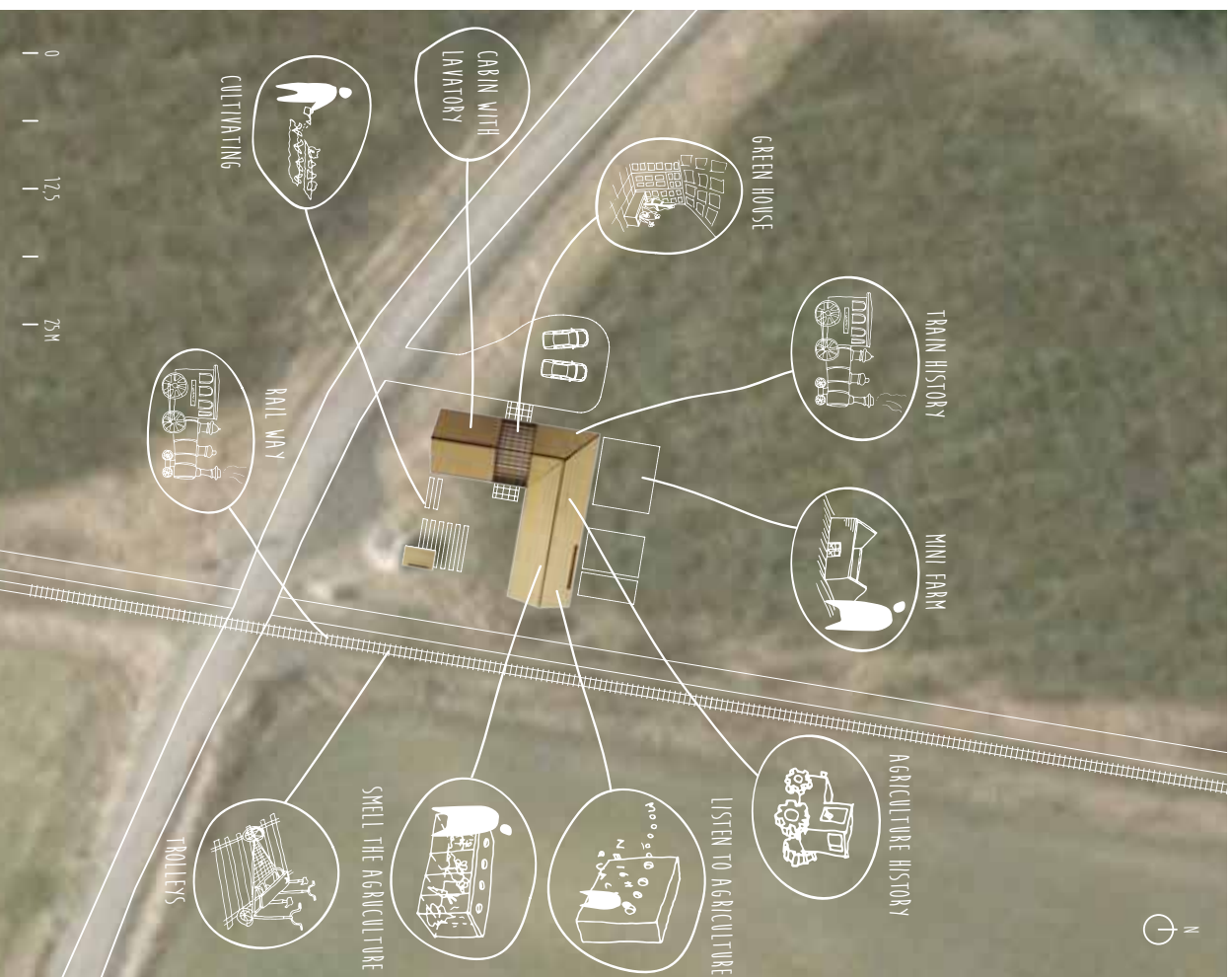
Outside the train window the landscape passes by. It is cold and crisp outside but in indoors it is warm and cozy. "Next stop Tvetå Station!"

Uddelorp nature trails starts from here along Mäskabäckens gullies to Pingstavallen and Nabboborg. It is

also possible to take more accessible rout for visitors with baby strollers. Maybe someone buys fika from the farm shop? Pingstavallen is a plateau where two gullies meet and at the edge there is a view point. Further on is the site Nabboborg, a mythical place for what is believed to be a medieval fortress.

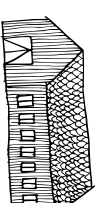


# TVETA STATION



## INSPIRATION

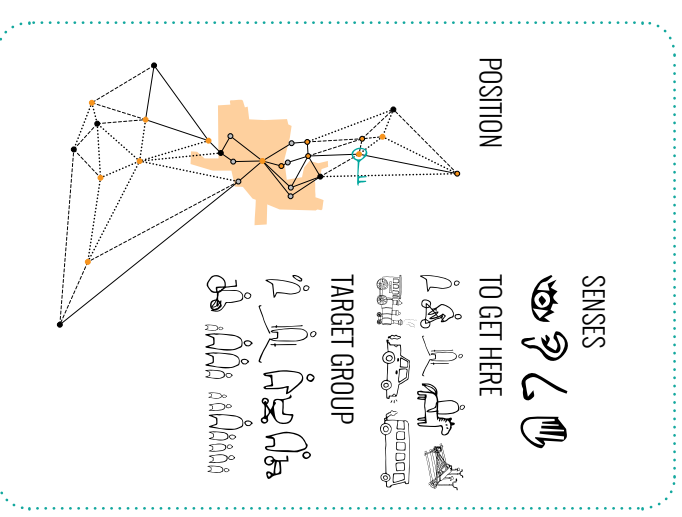
In the area around Tveta station there are a lot of farms with traditional barns. The structure of the barn was the inspiration for the new destination at Tveta to reflect the surrounding landscape and history.



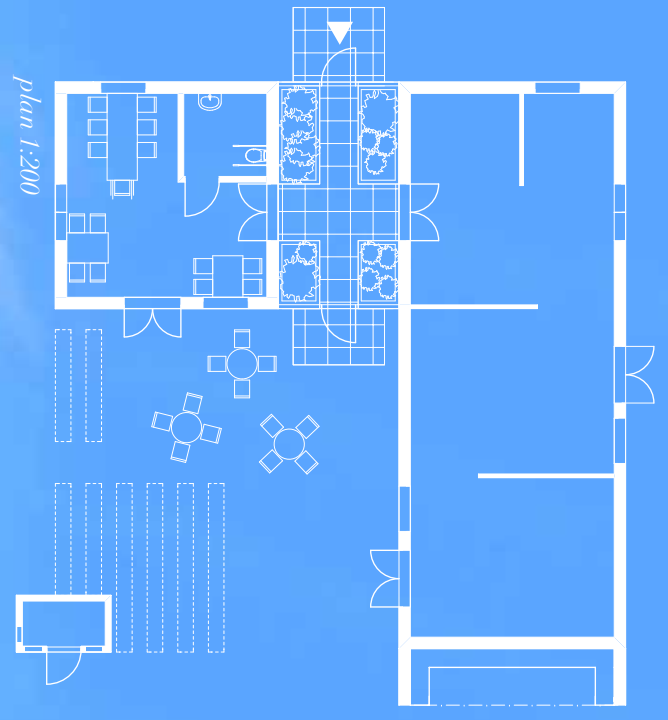
## A FUTURE KNOWLEDGE CENTRE FOR FARMING

It is raining. Our plan was to go to Skara Sommarland. What can we do instead? The woman at the tourist information looks happy and tells us to go to Tveta Station. “Unfortunately it might be hard to take the railway trolleys because of the weather. But you can take the bus or even the car to the station”.

## TVETA STATION



After she had told us about the exhibitions and that we can try ourselves we decided to go. The station is full of kids who experience how to be a farmer and they can learn how the farmers role has changed.

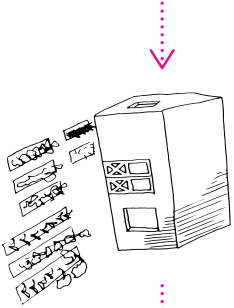






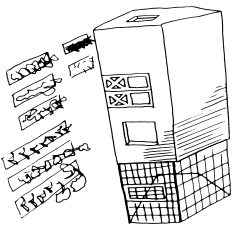
PHASE 1

When Uddetorp nature path has been developed and more used there is a need for a heated cabin. Skiing and Friluftsförbundet build a small, basic house by Tvela Station, the starting-point for the destination.



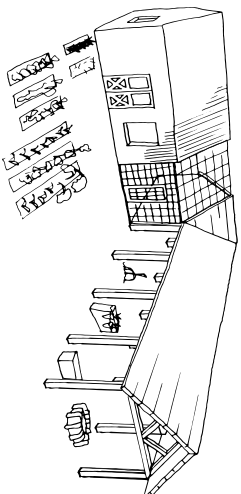
PHASE 2

Meanwhile the trails in the north are being established and draisines rented out by Draisine Association at Uddetorp School the cabin will be used more. People living in the area are engaged and people desire that more things happen on the site. "Skara is farming" starts a small scale farming. To buy seeds and plants a fee is paid to the organization.



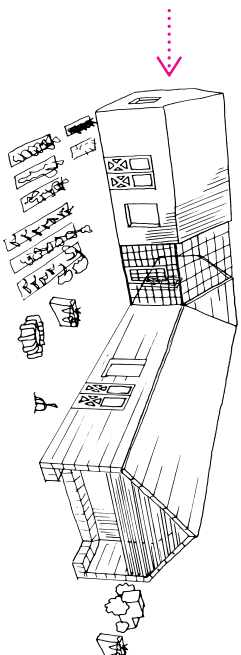
PHASE 3

The farming is popular and a green house is built by the cabin. Skiing- and Friluftsförbundet, who collaborates with "Skara is farming" find old windows and doors on a recycling station and can therefore build cheap. When the farming is growing they start up harvest markets together with local farmers.



PHASE 4

The draisine rent out is now known as a popular activity for families during the summer months. The Draisine Association has an interest in developing Tvela Station as a strong, attractive destination. At the same time more people show interest in farming. The groups meet and start up a "try out"-area where people can experience what it is like to live as a farmer, how to cultivate and how old steam trains work. Since the association is non-profit they sell flka from time to time to earn some extra money.



PHASE 5

Next phase of the project take place in year 2030. The Draisine Association, Skiing- and friluftsförbundet have collected money from the business but also donations. Finally they can build a "real" house for the "try out"-area since there is a need for indoor activities in the municipality. Together with the Railway museum they organise a historical part about the railway and farming as well as an interactive part where you can smell, feel and listen to farming to get a better understanding for the occupation.

Tvela Station has become a destination as well as a meeting point for the trekking in the northern parts of Skara. The future looks bright and new plans are starting to flourish. Maybe the café has to be bigger? Or maybe add an extra floor to the try out-area?

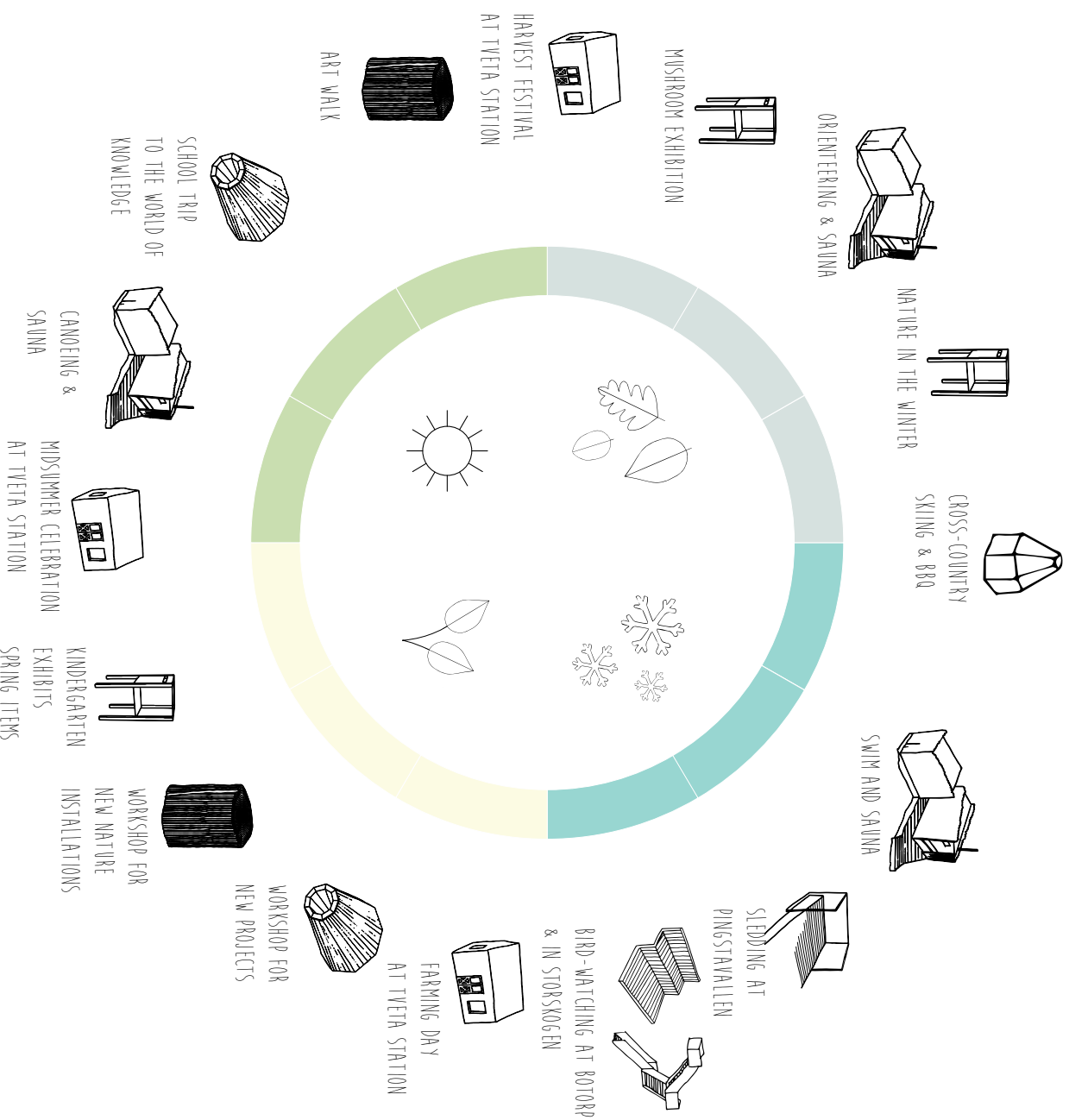
# SEASONS

*fleksibilitet hos nyckelprojekten*

## ACTIVITIES THROUGHOUT THE YEAR

Since the weather is better during the summer months that's where most of the activities are. Though we find it important to add projects that work all year round no matter what the weather is like.

Many of the key projects can work differently depending on the season. We think that by observing the different seasons and starting up events the key projects can make children understand more about nature. Schools and kindergartens can use the key projects for school trips.





# PROJECT PHASES

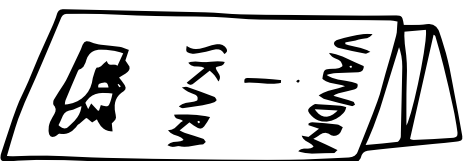
*realization of the project in seven stages, from year 2016-2030*

## PROJECT REALIZATION

The project “Naturally!” could be realized as a couple of different projects with a variety of stakeholders since it easily can be divided to smaller pieces. Some of the key projects can be developed throughout a couple years, such as Tveita Station and Botorps mader:

This project needs interested and committed people, organisations and companies. We see the non-profit sector and associations as strong groups with a lot of engagement and will.

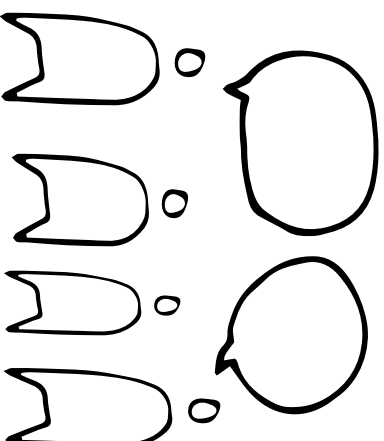
The key projects can work as meeting points and create a feeling of pride and belonging. With help from Hushållningsällskapet we believe that the trails can be realized, as a suggestion in connection to when the key projects are being built.



### 1 - HIKING MAP

The project can start today, in January 2016, when the proposal is handed over to the planning office at Skara municipality. Since we have mapped out existing trails and destinations there is now a coherent source of information, something that was missing earlier:

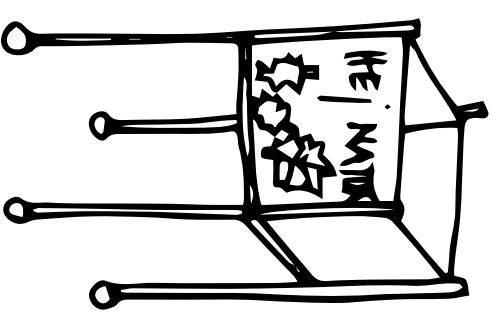
We propose that the first step is to send a map of the existing trails to the inhabitants of the municipality as a way to inspire people to go out and experience nature.



### 2 - WORKSHOP WITH ACTORS

It is important to early investigate who the stakeholders for the project are. As an example the municipality can buy a couple of draisines to start with and later on let a private entrepreneur to run the hiring.

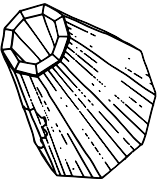
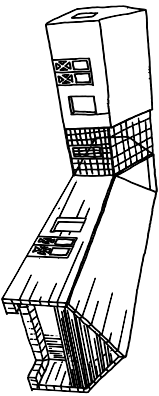
As a proposal Hushållningsällskapet and the tourist information can administrate one or several workshops to connect interested actors who can realize the project.



### 3 - INFO-BOX

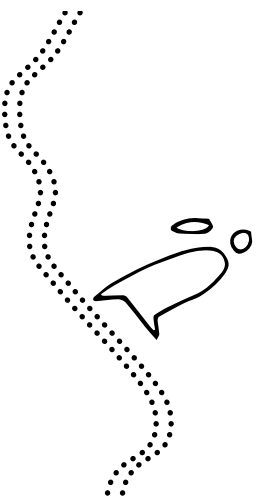
To inspire and help the inhabitants of Skara and tourists to open their eyes about the local nature it is important that there are elements in the city. As an example it could be the information box that we propose. It can easily be assembled and moved around in the city.

In the beginning it can work as a school project for children of different ages. Children are extremely creative and good at promoting school projects for friends and family.



#### 4 - KEY PROJECTS

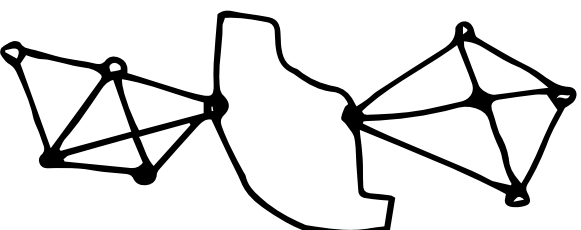
Step four covers a large part of the process and will probably take several years. Maybe “The world of Knowledge” is the first project, since it is connected to the earlier mentioned school project, probably initiated by the school or a committed group of parents that wants to develop nature experiences for their children. The world of knowledge, like Tvela Station, can begin as a smaller project and grow throughout the years.



#### 5 - HIKING TRAILS

At the same time as the key projects are developed the trails between them are built and connect the projects with existing destinations.

The trails can be developed and taken care of by the municipality. To make them as accessible as possible and at the same time be careful towards nature they have different character in terms of material, lightening and width.



#### 6 - THE SMALL NETWORK

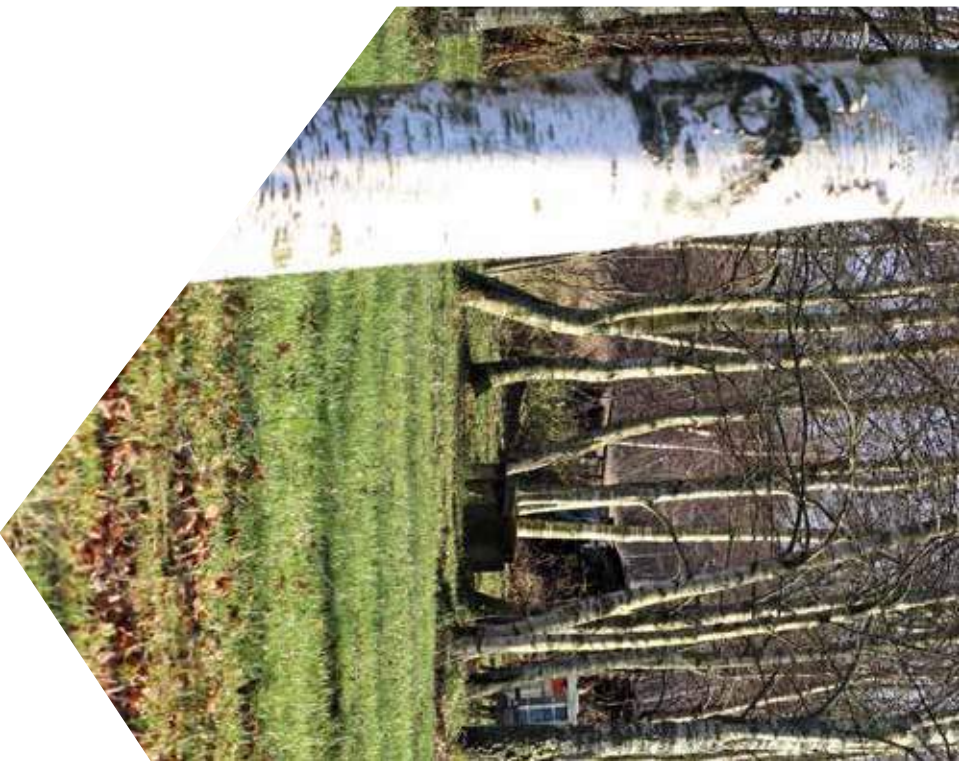
A network is created gradually, north and south of the city of Skara, with the development of the key projects and the connections. The different key projects can work as domino effect since new nodes are created and the wish for another project arises.



#### 7 - THE LARGE NETWORK

When the small network is developed it can be further advanced to connect other walking tracks and destinations within the municipality.

Year 2030 a network that connects the different tourist destinations and communities has been created. The inhabitants and tourists can easily move around in the municipality and discover the nature. The identity of Skara is strengthened as a municipality where qualities from city and countryside are well connected.

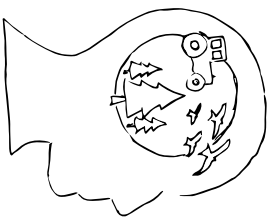




# DISCUSSION

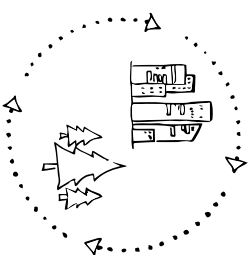


# DISKUSSION



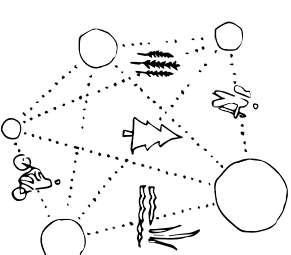
## KNOWLEDGE

increase the value of nature



## PEOPLE & NATURE

increase mental & physical health



## RURAL & URBAN CONNECTIONS

strengthen the identity of Skara

## WHY IS THE PROJECT IMPORTANT?

According to the author of the book *Urbanism in the Age of Climate Change* (Calthorpe, P, 2011) urbanization is the solution to the climate problems since dense cities does not require car dependency. Though, the risk with urbanization is that green areas disappear on behalf of residential areas and today there is a trend to compensate the lack of green space by creating parks on rooftops. It is problematic since

it makes accessibility to greenery a question of class everybody cannot afford to live in buildings that offer rooftop gardens.

Moreover the planned green in the cities lack the characters that define good green spaces according to Grahn & Skärback (2015) in the magazine *Plan; wilderness, serenity and pleasure*. Additionally city parks are often

surrounded by infrastructure and it is hard to get the quiet and tranquillity that nature offers, something we need in our stressed out societies.

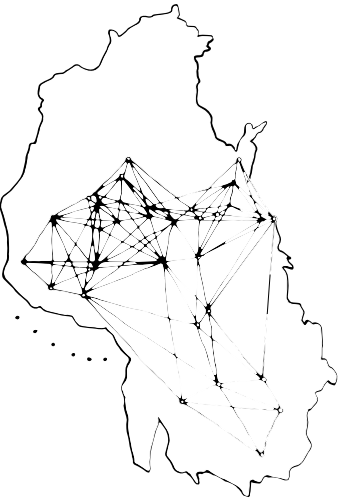
To decrease our levels of stress it is important to find a sustainable way of living and nature is important for our mental as well as physical health. Unfortunately the trend today in urban planning is to densify our

communities with the argument that it is the future of cities. It is problematic since green areas disappear and people have to be in the stressful concrete jungles that contribute to bad public health.



Our goal with the project is to join a future sustainable climate with an increased public health. Research shows that the more time people spend in nature and increase their knowledge about it the more they care and take responsibility to maintain its qualities how can we take care of the planet if we do not know it?

We think that local tourism is important for a sustainable development. Going to Thailand during Christmas and to Mallorca at the summer holidays is not environmentally sustainable. To

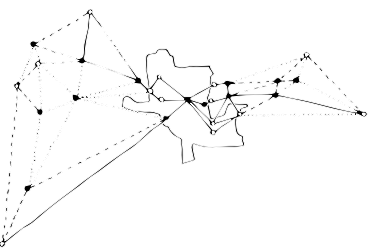


### THE LARGE NETWORK

connect the municipality

challenge these tourist destinations it is important to offer interesting places in our own country, close to where we live. Though it is obviously hard for walking trails in the municipality of Skara to challenge white beaches in Khao Lak, but we see this project as an attempt to make people open their eyes and discover their local surroundings. Local tourism is a sustainable approach to the future.

To increase the value of nature and make it easier for people to move between urban and rural areas the project works with the connections



### THE SMALL NETWORK

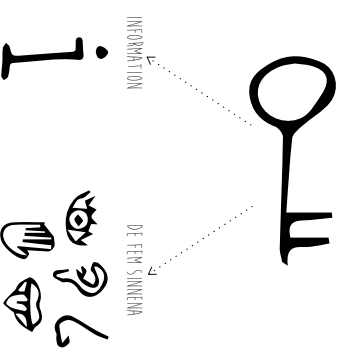
enhance connections to north & south

underneath the surrounding roads around the city of Skara. By strengthening the connections and promote the countryside we believe that the identity of Skara will be strengthened. Skara municipality can become a place on the map regarding more than only Skara Sommarland and Lake Hornborga. There are a lot of places to discover and be proud of.

The concept with a spread out Naturum made it easier to make the project more concrete to start from something that already exist, a well functioning structure to build upon.

The thought behind the concept is to not focus all knowledge on one place but rather let nature speak for itself.

The key projects are examples of activities and destinations that could be along the way and one of the most important parts of the project are the actors. It is important to find stakeholders that are interested in fulfilling the project. Also non-profit organizations have a great force if they are given space to flourish and when driving spirits have started up one project other people will find it easier to follow in their footsteps.



### KEY PROJECTS

create destinations in the nodes



6.

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## PICTURES

Figure 1. Västsvenska Turistrådet (2010). *Skaraborgsvisionen - visionsutveckling, delmångfest och kommunikationsplattform*. Göteborg: Sigtill Trampoli AB

Figure 2. Järnväg (2004). *Skara-Lundsbrunn*. Hämtad 2015-12-15, från <http://www.jarnvag.net/banguide/skara-lundsbrunn>

Figure 3. Skaraborgs Läns Tidning (2015). *Sen men stor vallskörd*. Hämtad 2015-12-15, från <http://www.skaraborgslanstidning.se/article/sen-men-stor-vallskord/>

Figure 4. Nyström, A. (2014). *Vallevägen*. Hämtad 2015-12-15, från <http://andersnystrom.se/landskap-3/page/3/>

Figure 5. Travnet (2013). *Blended Scotchs jätteskräll i Storochampionatet*. Hämtad 2015-12-15, från <http://www.travnet.se/blog/2013/07/21/blended-scotchsjatteskrall-slochampionatet/>

Figure 6. Rybäck, P. (2014). *Trandansen*. Hämtad 2015-12-15, från <http://pryback.blogspot.se/2014/04/trandansen.html>

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Figure 8. Naturrum Vätådalen (2015). *Nyfyken på naturen?* Hämtad 2015-12-15, från <http://naturrumvaladalen.se>

Figure 9. Länsstyrelsen Västernorrland (2007). *Naturrum Höga Kusten*. Hämtad 2015-12-15, från <http://naturrumhogakusten.se/svenska/naturrum/4-76geagec3nfae6a45480003000.html>

Figure 10. White (2015). *Naturrum Vattenriket, Kristianstad*. Hämtad 2015-12-15, från <http://www.white.se/press-images/page/5/>

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