

# Using Architecture to Promote Physical Activity

Designing activity space to encourage Sweden's most sedentary,  
with a special focus on high school girls



Regina Carlén | Chalmers School of Architecture | Matter Space Structure

Examiner: Daniel Norell | Supervisor: Jonas Carlson



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2021

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Architecture and Urban Design, Msc Progr



**CHALMERS**  
UNIVERSITY OF TECHNOLOGY

**”Only 14% of girls in upper secondary school reach the recommended level of 60 minutes of physical activity per day...”  
(Generation Pep, 2020)**

## Abstract

**To overcome obstacles is tough but wonderfully satisfying.**

In modern society we have, through technology and the built environment, removed almost all daily habits of being physical active. Sweden's population is far from being active enough and the same issue can be seen in many other countries. It is as if we have forgotten that activity is a crucial part of life, it is in the nature of our bodies.

Why the average teenage girl is especially low-active has several reasons. The girls tend to drop out of organized sport before entering high school, and it has been shown that existing places for self-organized activity are mainly used among young boys. In addition, many of Sweden's existing activity spaces are out-dated. Architecture cannot be the solution itself, rather it can create a framework that supports everyday life situations. Hence, the purpose of this master's thesis is to explore how architecture can support and inspire physical activity.

Emphasis will be on how to invite or re-invite a low-active person to be more active, in the best case, being active together. To work with the high school girls, is a strategic starting point to lowering the threshold for other sedentary groups.

In order to attract young girls to be active, a well-designed and welcoming facility is essential. It is beneficial if the setting supports an open and social culture around the activity, where one can meet friends and have fun together. Additionally, a close relationship with nature tends to be perceived as less competitive and therefore attractive to a wider range of age groups and users.

The ambition is to define design strategies for sport and recreation areas, focusing on transformation and extension of outdoor spaces in Sweden. Furthermore, to summarize current research, to analyse innovative reference projects, to explore methods for realization and to exemplify potential solutions via speculative design. Can we solve this issue through the transformation of existing sites?

### **Keywords**

Physical activity, activity space, sport & recreation, health promotion, user perspective, safety, transprogram, transformation

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# Personal Background

## Regina Carlén

**When I was seven years** old my parents wanted me to join a sport. First out was a ballet class, where we were told to dance solo crossing over the floor in the dance hall. This task was too challenging for the young Regina, and off we went home. Second try were the football training. This time we turned over on the doorstep to the hall and went home again. A glance at all noisy girls running after the ball made me afraid. I was lucky to have wise parents that did not give up that easily. They knew I was very shy and had to do things in my own speed. Fortunately, after entering the third football session I was hooked, and 12-years later I played in the A-team for Lerums IS.

In my family regular activity has allways been something we do for pleasure, recovery and having fun. Playing table tennis, the whole Christmas Eve, running on trails in the forest, playing ice-hockey on the lake, fighting to protect the football goal as the last defender, challenging the 2 m tall guys at the physical education sessions, always wanting to do our best. Involved in the Swedish sport movement, we have been athletes playing football e.g. or coaching younger kids. With inspiration from my

younger sister, doing heptathlon, I joined the track and field quite late during high school. This gave me new perspectives. I found a new interest at an age when most of the other girls quit all sports. I was hooked by the thrilling feeling of learning new things, to improve. To not speak about the social aspects of knowing that you will meet your friends at a pre-decided time every day, it brings peacefulness, not having to fight for being cool enough to have friends. We support each other in ups and downs. And not to mention the role models you can find within the sport; those are crucial.

On the other hand, it is shown that a positive experience from organized sports is not a thing everyone recognize. What kind of physical activity can be appealing to the one that do not see themselves as a sport person? What makes the shy little girl dare to join in? In my thesis I combine my personal interest in sport and the aim to promote healthy livfestyles through architecture. How can architecture promote activity and support a healthy living environment for everyone?

## Master

Architecture and Urban Design | CTH, Gothenburg

## Bachelor

CTH, Gothenburg

## Internships & Summer Jobs

White Arkitekter  
Framtiden Byggutveckling, Tidiga skeden  
Hjo kommun  
Sveriges Arkitekter  
Lerum Friidrott  
Lerums IS





# 01. Introduction

**Public health** is a key issue that needs to be improved, together with many others of course, in order to reach a situation where everyone can live healthy in our future cities. It is a part of the Agenda 2030 with the ambition to reach a sustainable situation for our planet. The connection to architecture and public planning is fascinating because it creates the physical framework that we live in every day.

Interestingly, there were shown to be quite difficult to find research from Sweden about what specific architectural qualities that do support and promote a healthy living environment when it comes to promoting physical activity that is not connected to mobility or commute. Maybe it does exist, but is very difficult to find. Hence, this thesis took its starting point in the seeking for more knowledge.

Many sports have their own recommendations for how their facilities should be designed, often focusing on the areas where the competition takes place. But what about the spaces around the competition area? Then one might think of all the new spontaneous sport facilities that have been built at different urban places as a great alternative to the competitive areas. But research is showing the opposite, that there are only a few types of user groups that these places are used by.

Left images: Showing the possibilities. Rebuilding of existing unused areas that makes nature accessible within a dense city. Brooklyn Bridge Park's, a revitalization by 1.3 miles of Brooklyn's piers and post-industrial waterfront. Now 7 000 people live within a 10-minute walk to a park. From City Parks Alliance (2020-12-07) Source: <https://city-parksalliance.org/resource/brooklyn-bridge-park/>. Picture above: From Brooklyn Bridge Park, by Alexa Hoyer (2020-12-07). Source: <https://www.brooklynbridgepark.org>

At the same time the growing trend of entering private gyms or paddle board centres is obvious when walking or driving through any city today - trend that also is wide spread among high school girls, even though there sometimes are quite expensive activities. Maybe because they hold these less competitive sport focus, provide sessions just for fun, to be done in smaller groups and a flexibility where you do not have to sign up for a specific time every day. The demands from school or work can be an obstacle for youth that wants to be active in a club at a pre-settled time every day. And the norms that social media sends out do not make the relationship to physical activity, body shape norms and expectations on performance easier. It easy to forget that it is okay to only compare yourself with yourself. A thing that might be easier in the nature, where every wall is not covered by mirrors.

By seeking good reference example in the Nordic countries and explore what a public version of an activity space could be, this thesis endeavours to fill a gap between overall strategies and the actual design of the physical space. **To search for solutions in all scales with the aim to define what a public version of an activity space is, with well-designed recreation that invites young females.**

# Physical Activity

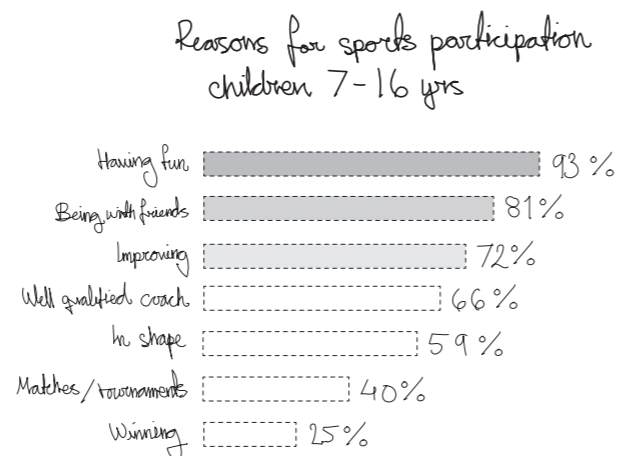
## The situation in Sweden today

**The cost to society of unhealthy lifestyles amount to many billions each year**, but of course the largest cost is for the individual where unhealthy lifestyles increase the risk of a range of diseases such as cardiovascular disease, cancer, type 2 diabetes and depression. "Many of today's major public health problems are related to our lifestyle. The World Health Organization (WHO) estimates that 70 percent of all disease in the world by 2020 will be caused by factors related to lifestyle. We also know that increased physical activity in adults would have a major positive effect on the health of the population." (Riksidrottsförbundet, R&D report 2017: 1) Not to mention the fact that the body feels good from physical activity. This appears as a clear indication that it is time to start valuing the health promotive functions of physical activity and plan for improved and more inviting activity spaces.

**The recommendations today** from The Swedish Research Council for Sport Science makes it clear that to reach the positive health effects from being physical active, young people should spend at least 60 minutes a day of physical activity of moderate to high intensity. This includes activities such as cycling to school, playing on breaks or entering organized sport during free-time. In addition, to be more strenuous active 3 times per week. (Centrum för idrottsforskning 2016)

**Looking in to physical activity and youth in more details**, we see today that boys in grade 5 (13 years of age) achieved the highest levels of physical activity, while girls in second year of high school (grade 11, 17-18 years of age) are the least active, where only 14 percent are sufficiently physically active. Furthermore, both boys and girls in second year of high school spent nearly 80 percent of their waking time in sedentary activities. (Centrum för idrottsforskning 2016)

**Through interviews it has been revealed that there are many obstacles** that stop youth, especially teenage girls, from being enough physical active. This includes pressure to study and succeed in school, a sedentary leisure time in front of screens and social media and dropping out of organized sports even before starting high school. The reason for dropping of sports can be because of things like high costs, difficulties to reach the activity easily without a car or that the focus where too much on competitive sport with too few social qualities. Existing norms and culture among the people in the closest surrounding also contributes. The peak in number of members in organized sports are today when children are 11 years old, after that the decline is distinct. (Riksidrottsförbundet, Idrottsrorelsen i siffror 2018)



LOA-fonden highlights the reasons for having a not only performance focus, but rather focus on social values to attract young or new user groups. Interpretation of statistics from: Framtidens idrottshall, by LOA-fonden (2020-09-02)

# Usage of Activity Spaces

## The situation in Sweden today

**The Swedish Sports Confederation highlights current situation** concerning usage of activity spaces in their Research & Development Report from 2017. "It is also obvious that the variety of sports facilities in Sweden is better adapted for men than for females. Leisure surveys and user surveys show that women prefer swimming and indoor activities such as aerobics, yoga, dance and strength training. These activities are often organized by private actors, who often also own / operate the facility where the activity takes place." Correspondingly, the author argues that a future challenge is to plan and design new facilities for spontaneous activity that attract both girls and boys. In addition, to investigate which initiatives can increase equality at existing spontaneous sports facilities. (Riksidrottsförbundet, Fo U-rapport 2017:1)

**Investigations from Stockholm City shows that girls in high school age** think that the city should primarily invest in gyms and to a large extent also at adventure pools and swimming pools, exercise tracks / ski tracks, outdoor gym and beach bath. Boys of the same age prefer football pitches in the first place but agrees with the girls on their wishes as well. (Åkesson, Blomdahl, Elofsson, Vilka idrotts-, motions- och rekreativsanläggningar vill Stockholms stads invånare att staden ska satsa på?) Even in the strategically report about outdoor recreation it is shown that exercise tracks come high on the list of wanted facilities among young people of upper secondary school age and among adults in Stockholm. To be able to offer safe exercise tracks of a high standard is therefore urgent. (Stockholms stads strategi för det rörliga friluftslivet, 2018-2022) Another suggestion could be to prioritize the facilities that currently are used equally between boys and girls.

**Today there is a huge difference in the usage of public space.** In the age 8 - 18, 80% boys make use of the public and only 20% girls. Today, it is mainly young boys who use public spaces for spontaneous sports. (Riksidrottsförbundet, Fo U-rapport 2017:1) So, what is lacking in order to welcome girls in to our public space? White Architects did a research called "Places for girls", which showed that girls asks for the following qualities: Space to make impact, an intimate scale, to see without being seen, to create shelter, adding more character and hang out opportunities. The design and content of these places do not meet the girls' needs today. (White Arkitekter 2016) With this in mind it seems like just updating existing places for spontaneous sport might not be the solution to get more youth girls and others physical active. There are other solutions required as well.



By focusing on how to attract new user groups, the sport facilities should provide good social spaces and therefore it's also a better place for the regular user. Interpretation of statistics from: Framtidens idrottshall, by LOA - fonden (2020-09-02)

# Recreation Facilities

## Understanding the situation in Sweden today

**Today there is a shortage in Sweden of sport facilities**, places for sport, recreation, physical activities and everyday activities. The Swedish Sports Confederation emphasises several reasons, for example that urban regions have had a strong population growth for a long time, where the densification of buildings and a change in land use has led to previous areas for recreation is being exploited and converted to housing, places for work or retail space. At the same time, existing stock of sport facilities are today obsolete, outdated and many areas are worn-out. There is also a lack of infrastructure such as communications and parking spaces next to the facilities. Uncertain economic conditions, tight municipal budgets and rising maintenance costs limit the possibility of new and reinvestments. Changed habits with more desire to move more and a raised popularity for new sports among the population also contributes to the shortage. (Riksidrottsförbundet, R&D report 2017: 1)

**Lack of resources and knowledge** is today dominant among central actors. In Sweden, it is traditionally the municipalities that have been responsible for the majority of the facility expansion. The state previously invested large resources in the sports movement, but nowadays only certain point initiatives are made, above all added operational support to the sports movement. Here, Sweden differs from the rest of Scandinavia, where both the resources and the knowledge at national and regional level are large and absolutely crucial to support the expansion process. As an example of a consequence, many municipalities have chosen to invest in new attractive, large and expensive so-called multi-facilities with many sports areas with PR and event capacity, instead of renovating existing facilities. This has contributed to the number of diverse sports facilities have decreased in number. (Riksidrottsförbundet, R&D

report 2017: 1) "Several researchers have also shown how the public expansion of sports facilities in the 2000s has been significantly affected by powerful special interests (political, membership-oriented, commercial) through networks and partnerships, which have indirectly controlled which sports facilities were built and what design they have taken." (Riksidrottsförbundet, R&D report 2017: 1)

**The major growth in number of sports facilities** in Sweden took place during the so-called "Folkhems" period, 1930–1985, with the purpose to provide a user-oriented policy and expansive development of public sports facilities. The national political ambition was to get more citizens physically active by increasing through spreading of the supply of sports facilities and through stimulating club sports. Today we can see that many of our existing football pitches, tennis courts, electric light tracks, ice hockey rinks, swimming pools and gymnastic halls were added during this period. (Riksidrottsförbundet, R&D report 2017: 1)

**To conclude, the existing stock of facilities is in need for renovation** to meet new demands. There is also a great potential Sweden have in the existing stock of facilities, but also a shortage in the understanding of their value. Facilities connected to sport associations is extra interesting because of the rarely seen widely spread network of organisations and sport clubs grounded in mainly voluntary commitments, that are not connected to any business or school which is more likely to be seen in other countries. Finally, there seems to be a great potential to use city planning as a tool to deal with this issue.

# Discourse

## Background to thesis questions, finding the connections and exemplified situations

**On the way to attract young girls to be active**, a welcoming place and facility is essential, preferably with a great warm-up and test area and with a couple of different activities placed together. It's shown that a place where a mixed age group can enjoy to be active lowers the threshold for a low-active person and also for the high school girls in general to use for physical activity or recreation. It's beneficial if the setting supports an open and social culture around the activity where you can meet friends and have fun together. Additionally, to have a well-designed and scenic place with a close relationship with nature tends to attract a wider range of user. (Pigers Idrettsvanor, LOA-fonden 2017)

**To be physical active through life** is highly expected for the ones already set the habit in a youth age, therefore actions to improve the amount of physical activity among youth is well spent resources. Public sites for sport, recreation and everyday activities are used by private persons as well as the organized sport community. At the same time, not everyone is attracted by sports, which complicates the discussion about how to support the low-active persons to be more physical active?

**Other things highlighted in research to support teenage girls** to be more active are: Supporting social structures and meetings in connection with activity. To make nature areas accessible and place activities in well-designed and safe environments. To lower the threshold for the new user. To reduce competition focus. Building for mixed ages. To offer more activities that today are already appreciated by girls. To offer a wide range of activities near schools or where

the girls live. By letting architecture support the non-physical structures linked to activity. Such as supporting a well-functioning organization, ensuring that there are role models and inspirers, placing the activity accessible and visible but at the same time not exposed is also important. (LOA-fonden 2020)

**The exploration is also about what happens if you decide to listen first!** How could interviews with potential users and experts in the field contribute to the process and influence the final result. It's shown that there is often a lack of participation from both users and potential users regarding how the sports facilities should be designed. This is shown to be an issue, even despite the fact that the municipalities often "speak" in terms of broad democratic support and public responsibility, and that many sports associations today run facilities or parts of facilities for the municipality, or even have represents in the facility councils along with the municipality's facility managers. (Riksidrottsförbundet, Fo U-rapport 2017:1)

**By lowering the threshold for girls to become more active**, one could speculate whether our environment would also become more pleasant, adapted and attractive to other groups in society. Inspiration from the Gates Foundation: "At the core of every problem we're trying to solve, from poverty to disease, are the undervalued but powerful lives of women and girls. We can't achieve progress if half the world's population continues to be left behind, and their potential and talent continues to go untapped." (Bill & Melinda Gates Foundation 2020)

# Purpose & Exploration

**Intended effects and experiential qualities:** A physical framework that allows the high school girls and other low-active groups to be more active than today. In best cases together with others.

**This thesis endeavours to explore activity space** from different perspectives through an open conversation and by exploring the qualities of transformed sport facilities through architectural design. Hopefully existing sport facilities can be valued for its potential to contribute to everyday life situations.

**The ambitions are to provide an overall insight** in the field of architecture for recreation, sport and everyday activity. A summary of available research, transformed in to guiding questions

and illustrated interpretations can potentially contribute to the further development of knowledge and the understanding of a global issue that can be dealt with on a local level. The design part of the project provides insight into the user journey and perception of space. By doing so, Swedish municipalities, developers, property owners, associations, architects, engineers and visitors can directly link existing research in to something concretized and visualized, making the potential solutions more tangible.

# Reading Instructions

## Main content

- Background / Central issues / Opportunities
- Strategies / Guiding questions / References
- Speculative design concept / A designed example / Site visits
- Design process / Research work

# Thesis Questions

The thesis takes its startingpoint in these questions

- **How can architectural strategies and guidelines be formulated, with the aim to promote physical activity and lower the threshold for low-active groups, like the high school girls?**
- **How can this be exemplified through transformation and extension of an existing outdoor activity space?**

# Delimitations

It is not possible to cover everything in a Master Thesis

## Focus areas:

- The usage of identified guidelines/strategies
- User perspective, focusing on high school girls
- Transformation and extension of outdoor or semi-outdoor activity spaces
- A Swedish context and everyday life situations
- To invite new users to be more physical active

## Not main focus areas:

- Competitive sports
- Detail drawings
- Accessibility for people with disabilities
- Question of gender or gender affiliation
- Activity through mobility (ex cycling) in cities
- Large scale cities / very urban situations
- Pandemic situation / Covid -19

## Glossary of Terms

### Activity space

*In this thesis the phrase is used to describe a physical place where people can do recreational, sport or other activities that involves physical movement and exercise.*

### Autobelays

*Automatic self-locking system for climbing without a second person taking care of the safety. Placed at the top of the route and attached to the climber.*

### Everyday activity

*Physical activities that you can do every day as recreation, but also activities connected to taking care of a home, mobility, commuting or working.*

### Extension

*To reach, stretch, or continue something. To add to something in order to make it bigger or longer.*

### High school girl

*In this Thesis it refers to the Swedish word "Gymnasietjej" which means a girl in year 10-13 in the Swedish school system. The majority of these students are between 16 and 19 years old.*

### Low-active groups

*A group that is less active than the recommended levels of physical activity per week.*

### Multi-arena

*A large sport facility that holds multifunction's – a large number of areas for different sports. Often including space for a larger audience, restaurants and shops.*

### New users

*In this thesis it refers to a user that have not done the specific activity. The user might be used to other sports or activities, but is new to this one.*

### Over-programmed

*Fully and pre-decided what a person should do at a site, space or with an object. Very precise rules about what you should do at a place. Design that only are designed for one type of usage.*

### Physical activity

*The definition by World Health Organization (2021) are "... any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate- and vigorous-intensity physical activity improve health." Source: <https://www.who.int/news-room/fact-sheets/detail/physical-activity>*

### Recreation

*Recovery of physical or mental strength by staying in a relaxing environment or through the performance of activities that gives you recovery or pleasure.*

### Sedentary

*A lifestyle which mainly consist of very little exercise or physical activity. The act of sitting down the majority of the day and that do not ever or often move from one position or place.*

### Spontaneous sport

*To play a sport or participate in some form of physical activity at any times of the day. Located at a place that you are free to use at all times of the day. It can for example be an outdoor basketball court.*

### Sport facility

*A designated area for some form of competitive sports, spontaneous sports or exercise, regardless of ownership. It can anything from a designed facility to a nature area in the forest, as long it is used for activity and exercise.*

### Trail Centre

*In this thesis it is a translation of the Swedish word "motionscentral", every so often including a "eljusspår" which is a track with electric lights, often located in nature areas such as a forest. The place has some kind of entrance with information, sometimes a cabin and an outdoor gym. Activities that today often are done at these places are running, walking, biking, skiing cross-country, orienteering, etc. Many sports also use them for base training.*

### Transprogram

*Combining two programs, regardless of their inculpabilities. This is made with their respective spatial configuration.*

### Transformation

*The process of changing the character or appearance of something to improve it.*

### User journey

*A series of steps which represent a scenario in which a user might interact with the things in a design.*

### Well-designed recreation

*An activity space where the physical environment is beautiful and well-taken care of. / The art of making a drawing showing how a building, space or product is to be made and how it will work and look - in a good and satisfying way for the people that is going to use this building, space or product for recreation.*

# Theory

## Bibliography: Human scale, transprogramming, pattern thinking and access to nature

### Gehl, Jan, **Life Between Buildings : Using Public Space, 17 Jan 2011**

A book about how to design public space for humans, with a scale that suits humans. Highlights the importance of having high qualitative and beautiful physical environments in cities to enhance social activities and optional activities, such as sport and recreation. Technology have removed many of the previously necessary activities that made people present in public space. It is now even more important to have well-designed public places for people to use. The thesis project put special emphasis on the space between the building volumes. Work done by Gehl (the architects) are very inspiring, see the webpage. <https://gehlpeople.com/story-article/life-between-buildings/>

### Jormakka, Kari, Schürer, Oliver, Kuhlmann, Dörte. **Basics Design Methods, Chapter: Rationalist approaches, Design research, Patterns, page 48 and 49. Birkhäuser Basel 2014**

The interpretation of this method is to divide the project in to isolated situations, so called patterns, that can be defined. The ambition is to use this method when looking in to the components in the user journey and the defined chapters with design focus. The challenge is to add them in to a coherent holistic configuration. "The design process... begins with a consideration of the basic functional pattern as well as the qualities of the site. In Linz, he realized that the café should be oriented towards the afternoon sun and the river, and be high enough to afford views of the river landscape... As the example of the Linz Café demonstrates, the pattern language leaves many options open, and Alexander himself emphasizes emotional and atmospheric qualities as the ultimate reasons for his decisions....

A particular challenge is the task of combining the solutions to partial problems so as to make a harmonious whole."

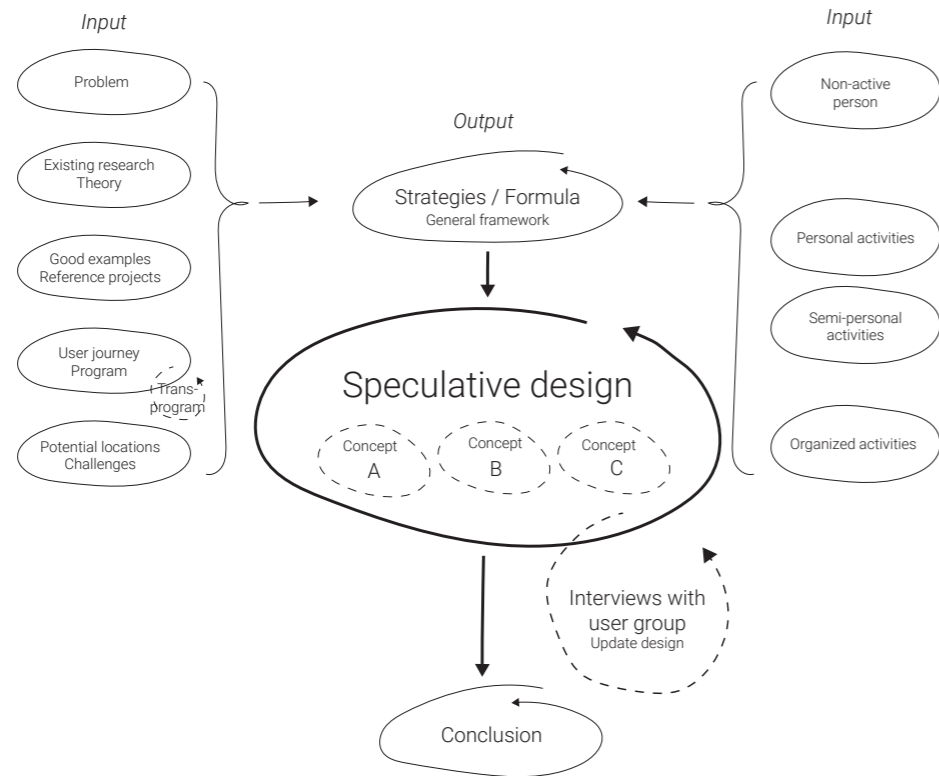
### Tschumi, Bernard. **Architecture and Disjunction. Chapter: Abstract Mediation and Strategy, Crossprogramming, transporgramming and disprogramming, page 205, MIT Press 1996**

Methods that can be used to challenge existing norms program concepts. It can give new beneficial mixes of functions that will lead to innovative ways of collaborating or use a facility. "Crossprogramming: Using a given spatial configuration for a program not intended for it, that is, using a church building for bowling... Transprogramming: Combining two programs, regardless of their inculpabilities, together with their respective spatial configuration."

### Urban green spaces and health. Copenhagen: WHO Regional Office for Europe, 2016.

It's shown that easy access to nature provides better conditions for physical activities. In the review of evidence about urban green spaces and health it's shown that there is "... a positive association between high quality green spaces in the neighbourhood and higher levels of physical activity, as well as improved self-assessed health..." furthermore it highlights a "...study of the Scottish population showed an association between physical activity in natural environments and reduced risk of poor mental health, while activity in other types of environment was not linked to the same health benefit."

### Iterative process diagram



### Project plan & time schedule | Gantt chart

Title	Activity	v3	v4	v5	v6	v7	v8	v9	v10	v11	v12	v13	v14	v15	v16	v17	v18	v19	v20	v21	v22	h	
Course	Seminars						16				24			8									48
Course	Pre info	2						2							2								6
Course	Hand in booklet + abstract									8									16				24
Course	Final seminar days																		24				24
Course	Web / Exhibition set-up																			8			8
Course	Open seminar																					32	32
Course	Hand in printed booklet																					8	8
To do	Design exploration										28			24									52
To do	How to print booklet										4												4
To do	Findings summary										8												8
To do	Interviews / user group													8									8
To do	Final design proposal														38	40							78
To do	Booklet layout / text									8	8								28				44
To do	Abstract										4								4				8
To do	Reflections											8							8				16
To do	Oral + Digital pres									8									24	8	8		48
To do	Website / Exhibition prep									12										8	24		44
To do	Dummy / Goals	20																					20
To do	Problems / obstacles	16					8																24
To do	Knowledge from research		8			24		8															40
To do	Reference studies		16	16		8		8															48
To do	The user journey		8	8		2																	18
To do	Interviews			8	16	4				8													36
To do	Transprogram									8													8
To do	Site visit				8																		8
To do	Site study				8		8	8															24
To do	Project identity							6															6
To do	Speculative design	4	8	8	8	2	8	8	16		8												70
		42	40	40	40	40	40	40	40	40	40	40	0	40	40	40	40	40	40	40	40	40	762

# Process & Methods

## To listen first

The project journey has worked iteratively in loops and can be described through a simple diagram (see left diagram).

Initially a lot of work were done to understand the current situation in Sweden, to listen to different relevant actors, interviews with user groups and read upon the latest research in the field. Iteratively, starting with design exercises early in the process which now can be found in the design process chapter.

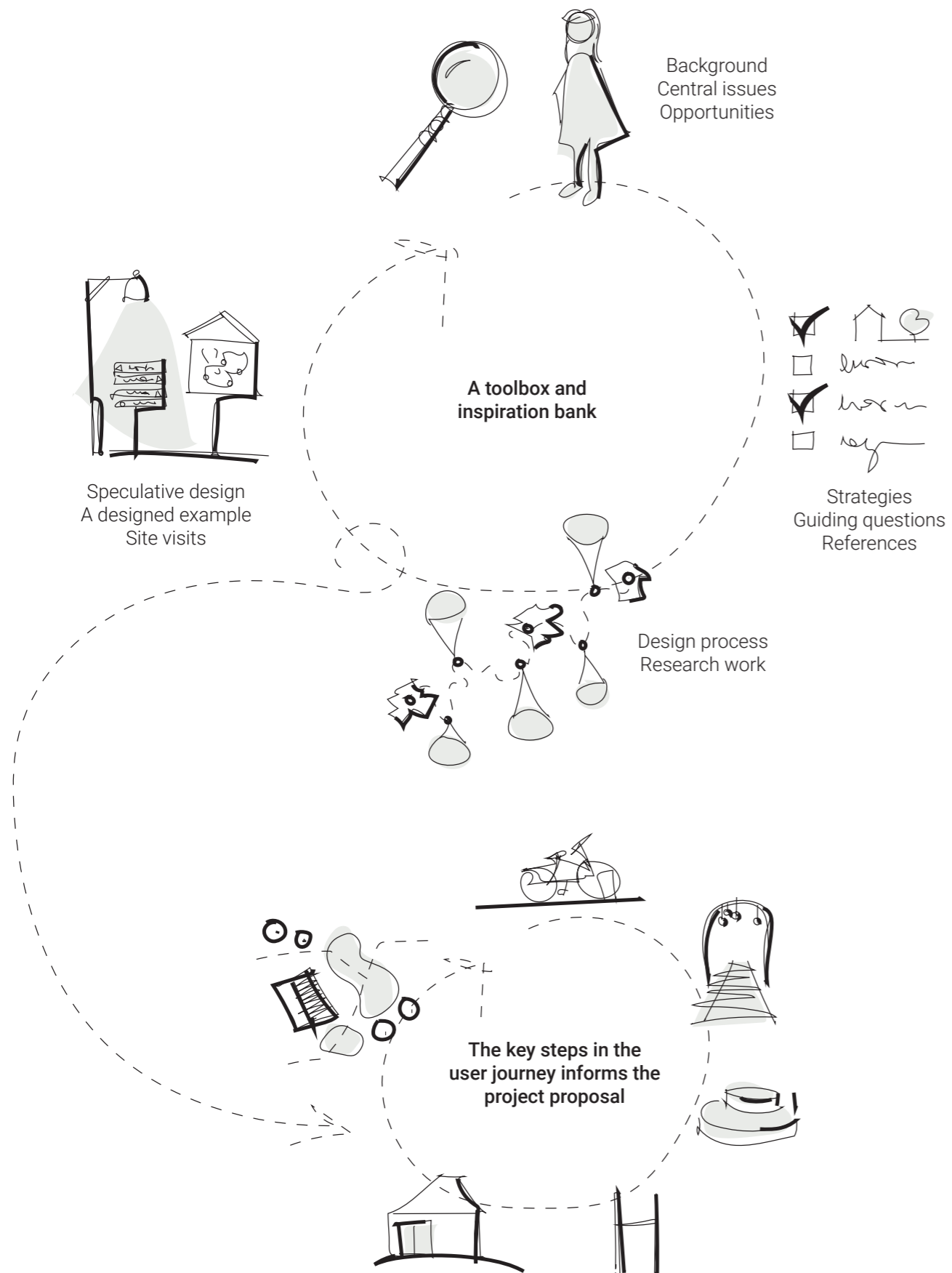
On the next pages you find an overview of how the work has been laid out and how it can work like a toolbox and inspiration bank to for example municipalities. More information about the work with the interviews, for example discussion materials, can be found in the appendix.

## Planned and accomplished interviews:

- High school girls from Lerums Gymnasium, six girls with various backgrounds and from varoius classes.
- Development consultant, Lokale og Anlægsfonden
- Landscape architects, Link Architects
- Projects coordinator for "Plats för idrott", Riksidrottsförbundet
- Criminologist, Stiftelsen Tryggare Sverige
- City architect, Härryda kommun
- Public heath planner, Härryda kommun

## Spontaneous interviews:

- A climber and elite orienteerer
- Several athletes from Lerum Friidrott
- A youth and experience dancer
- A hobby runner
- A previous active football coach for youth
- A city planner
- A lady pensioner
- A chairman of a sportsclub



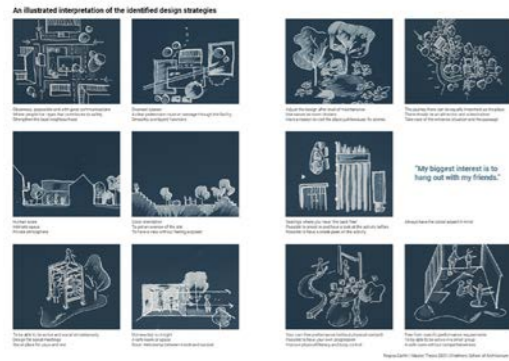
## 02. Findings

### Strategies, guides, tools and references

The findings have been interpreted through **diagram sketches** and divided into four different themes. The idea is that they can be used as it best suits a project, and work as inspiration and method for how to approach a design with other user groups in mind.

**A.**

**Design Strategies**



- 60 found design strategies

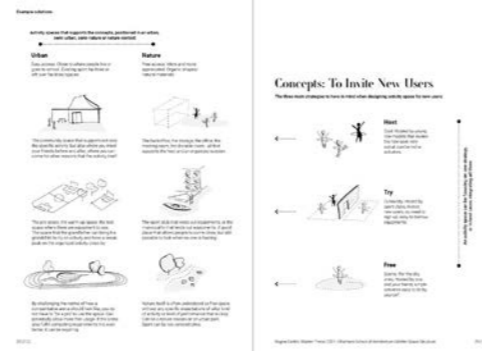
Examples:  
Organic shapes  
Activities in smaller groups.

Input:

- Articles by Steinarsdottir Rishaug, Vigdis. (2015) and Aspelund, Synnøve. (2015)
- Equal outdoor environment at Torslandaskolan F-9 by LINK Arkitektur, Erle Stenberg, Ulrika Larsson
- LOA-fonden, Anna Rex Witting, Viktige kvaliteter når vi taler piger og idraetsfaciliteter
- Göteborg Stad, Park och natur. Parker och naturområden - riktlinjer för jämställdhetsarbete, 2014-12-04
- Interviews with two landscape architects at LINK Arkitektur, specialized in outdoor environments for girls and activity

**B.**

**Concepts: To Invite New Users**



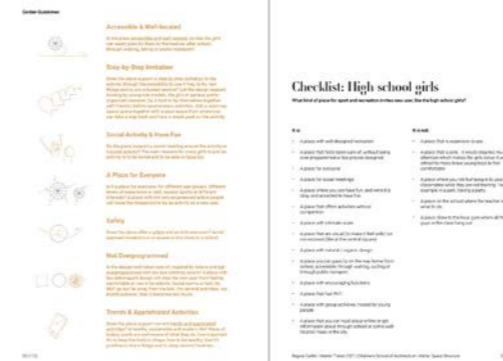
- Host
- Try
- Free

Input:

- Case Studie: GAME - Street Mekka
- Interviews with a project development supervisor at LOA-fonden
- Interviews with Project developer at Riksidrottsförbundet

**C.**

**Checklist: High School Girls**



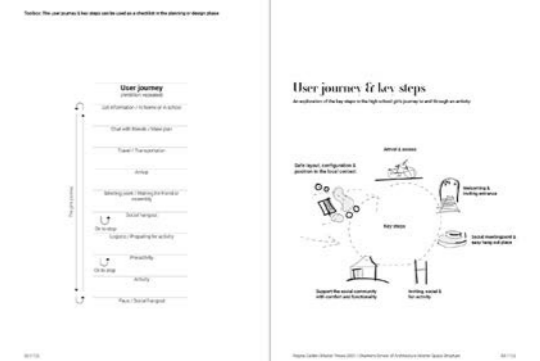
- Accessible and well-located
- Step-by-step invitation
- Social activity & have fun
- A place for everyone
- Safety
- Not overprogrammed
- Trends and appreciated activities

Input:

- Interviews with high school girls from Lerums Gymnasium
- LOA-fonden, Anna Rex Witting, Viktige kvaliteter når vi taler piger og idraetsfaciliteter
- Case Studie: GAME - Street Mekka
- Interviews with Project developer at Riksidrottsförbundet
- My own interpretation on findings
- Interviews with two landscape architects at LINK Arkitektur, specialized in outdoor environments for girls and activity

**D.**

**User Journey & Key Steps**



- Arrival & access
- Welcoming & inviting entrance
- Social meetingpoint & easy hang out place
- Inviting, social & fun activity
- Support the social community with comfort and functionality
- Safe layout, configuration & position in the local context

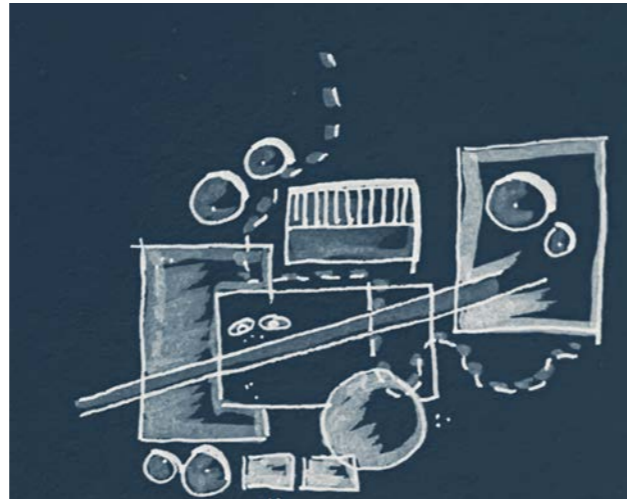
Input:

- My own interpretations based on findings
- Patterns Theory, described on the Theory page
- All interviews together

An illustrated interpretation of the identified design strategies



Closeness, accessible and with good communications  
Where people live - eyes that contributes to safety  
Strengthen the local neighbourhood



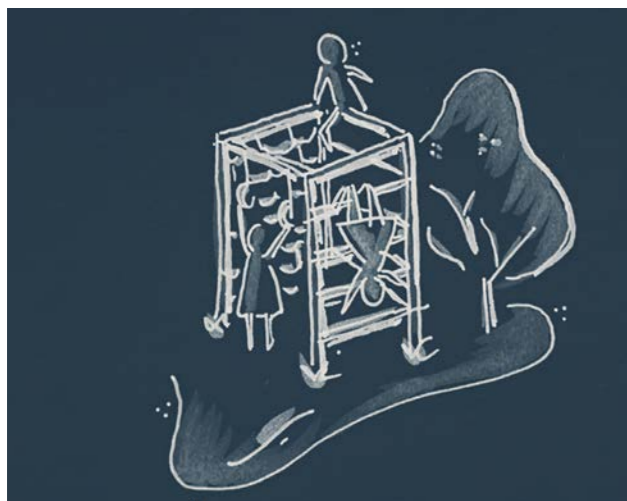
Diversed spaces, interesting spaces and not repetitive  
A clear pedestrian route or passage through the facility  
Smoothly overlaid functions



Human scale  
Intimate space  
Private atmosphere



Good orientation  
To get an overview of the site  
To have a view without feeling exposed



To be able to be active and social simultaneously  
Design for social meetings  
Social place for pause and rest



Outlook but no insight  
A safe room or space  
Good relationship between inside and outside

# Design Strategies

To give a wide overall summary of the identified strategies - strategies with a more general approach



Holistic approach to the site thinking of social qualities  
Design diversified spaces but be consistent in the concept  
Add three types of spaces: On stage (the field), off stage (the audience) and back stage (the separate warm-up area).

**Remember the quote from a young girl:**

**"My biggest interest is to hang out with my friends."**



Your own free performance (without physical contact)  
Possible to have your own progression  
Improve physical literacy and body control

An illustrated interpretation of the identified design strategies



A good microclimate  
Local adaptations  
A place that works in all weather conditions / seasons



Kind shapes  
Organic shapes  
Rounded shapes



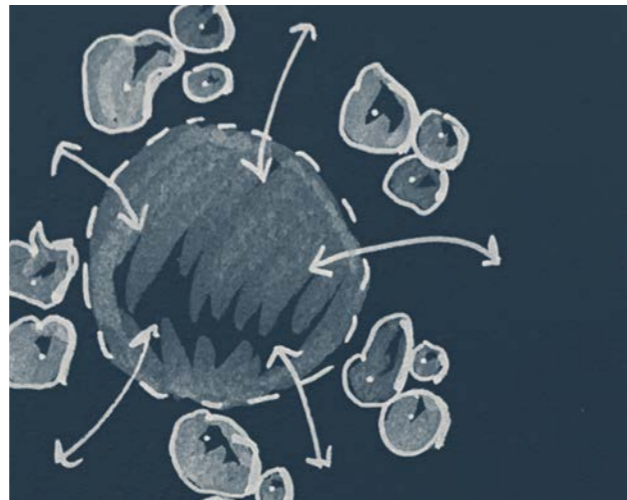
Gender neutral design without stereotypes  
Open to interpretations and abstract forms  
Use nature as inspiration



We are all different  
Don't use separatism, but sometimes it can be needed  
A place for all ages lowers the threshold for new users



Prioritize the activities that today are popular among girls  
Provide diversity, prioritize several activities before multi  
Local adaptations



Natural escape routes  
No dead ends  
Free route choice



Adjust the design after level of maintenance  
Use nature as room dividers  
Have a reason to visit the place just because it's scenic



The journey there can be equally important as the place  
There should be an attraction and a destination  
Take care of the entrance situation and the passage



Carefully placed lightning, not too much light  
Not dazzling, use light close to the ground  
Set light on objects



Prioritize to add a social meeting point to the facility  
Support the local organisation / organisations  
Build for several activities, organized and spontaneous



Seating where you have "the back free"  
Possible to sneak in and have a look at the activity before  
Possible to have a sneak peek on the activity



Free from specific performance requirements  
To be able to be active in a small group  
A safe room without competitiveness

Example solutions

Activity spaces that supports the concepts, positioned in an urban, semi-urban, semi-nature or nature context

**Urban**

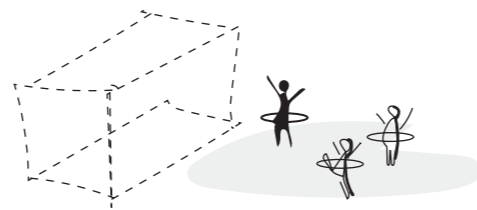
Easy access. Close to where people live or goes to school. Existing sport facilities or left-over facilities/spaces.



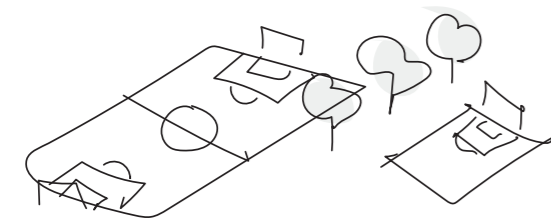
The community space that supports not only the specific activity, but also where you meet your friends before and after, where you can come for other reasons than the activity itself.

**Nature**

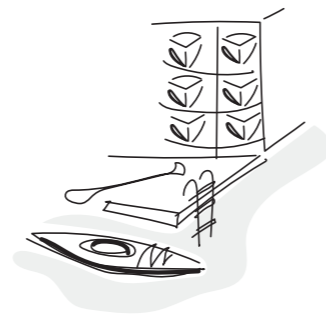
Free access. More and more appreciated. Organic shapes/natural materials/placed in wild nature or in a park



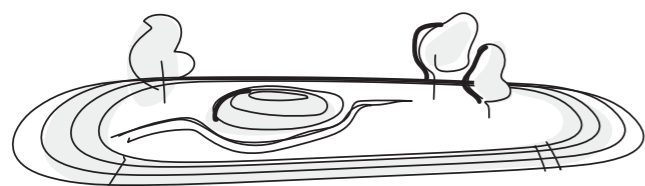
The backoffice, the storage, the office, the meeting room, the divisible room - all that supports the host and an organized session.



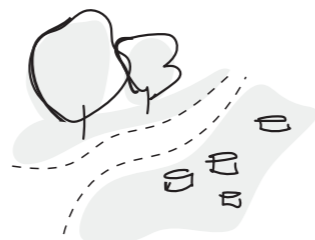
The pre-space, the warm-up space, the test space where there is equipment to use. The space that the grandfather can bring his grandchild to try an activity and have a sneak peek on the organized activity close by.



The sport club that lends out equipment, or the municipality that lends out equipment. A good place that allows people to come close, but still possible to lock when no-one is hosting.



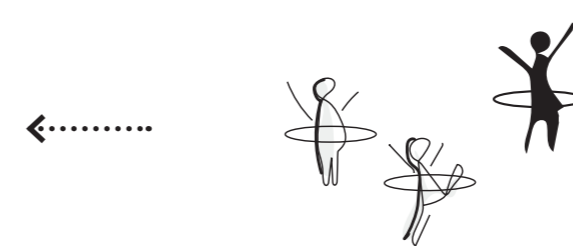
By challenging the norms of how a competitive arena should look like, you do not have to "be a pro" to use the space. Can potentially allow more free usage. If the arena also fulfil competing requirements it is even better, it can be inspiring. Here a track with a hill.



Nature itself is often understood as free space, without any specific expectations of what kind of activity or level of performance that is okay. Can be a nature reserve or an urban park. Less perceived as competitive than a over programmed sport facility.

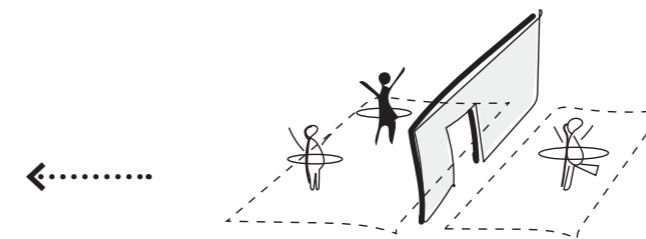
# Concepts: To Invite New Users

The three main strategies to have in mind when designing activity space for new users



**Host**

Cool. Hosted by young role models that invites the new user, very social, can be niche activities.



**Try**

Curiosity. Hosted by sport clubs, invites new users, no need to sign up, easy to borrow equipment.

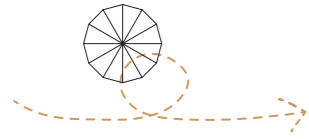


**Free**

Scenic. For the shy ones, Hosted by you and your friend, simple activities easy to do by yourself.

An activity space can be focusing on one strategy, or in best cases integrating all three

## Accessible & Well-located



Is the place accessible and well-located, so that the girls can easily pass by there by themselves after school, through walking, biking or public transport?

## Step-by-Step Invitation



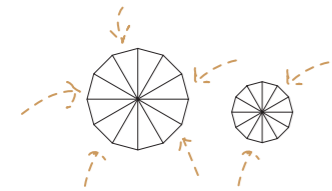
Does the place support a step-by-step invitation to the activity, through the possibility to use it free, to try new things and to join a hosted session? Let the design support hosting by young role models, the girls in general prefer organized sessions (by a host or by themselves together with friends) before spontaneous activities. Add a warm-up space space together with a paus space from where you can take a step back and have a sneak peak on the activity.

## Social Activity & Have Fun



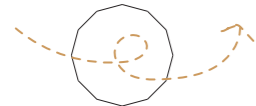
Do the place support a social meeting around the activity or a social activity? The main reasons for many girls to join an activity is to be social and to be able to have fun.

## A Place for Everyone



Is it a place for everyone, for different age groups, different levels of experience or skill, several sports or different interests? A place with not only experienced active people will lower the threshold to try an activity as a new user.

## Safety



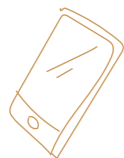
Does the place offer a safety and an intimate room? Avoid exposed situations on a square or too close to a school.

## Not Overprogrammed



Is the design well-taken care of, inspired by nature and not overprogrammed with too eye-catching colour? A place with too extravagant design will stop the new user from feeling comfortable to use it for activity. Social norms are fact. Do NOT go too far away from the box. Choose several activities, not multifunctional, then it becomes too much.

## Trends & Appreciated Activities



Does the place support current trends and appreciated activities? A healthy, sustainable and modern life? Many of today's youth are well-aware of what they do, how important it is to keep the body in shape, how to be healthy, that it's positive to share things and to shop second hand etc.

# Checklist: High School Girls

What kind of place for sport and recreation invites new user, like the high school girls?

### It is:

- A place with well-designed recreation
- A place that feels taken care of, without being over programmed or too precise designed
- A place for everyone
- A place for social meetings
- A place where you can have fun, and were it is okay and accepted to have fun
- A place that offers activities without competition
- A place with intimate scale
- A place that are visual (to make it feel safe) but not exposed (like at the central square)
- A place with natural / organic design
- A place you can pass by on the way home from school, accessbile through walking, cycling or through public transport
- A place with encouraging functions
- A place that has Wi-fi
- A place with group activities, hosted by young people
- A place that you can read about online or get information about through school or some well-located maps in the city

### It is not:

- A place that is expensive to use.
- A place that is pink - it would drag too much attention which makes the girls believe it would attract to many brave young boys to feel comfortable
- A place where you risk bumping in to your classmates while they are not training. For example in a park, having a party.
- A place on the school where the teacher tell you what to do.
- A place close to the local gym where all the guys in the class hang out.

Toolbox: The user journey & key steps can be used as a checklist in the planning or design phase.

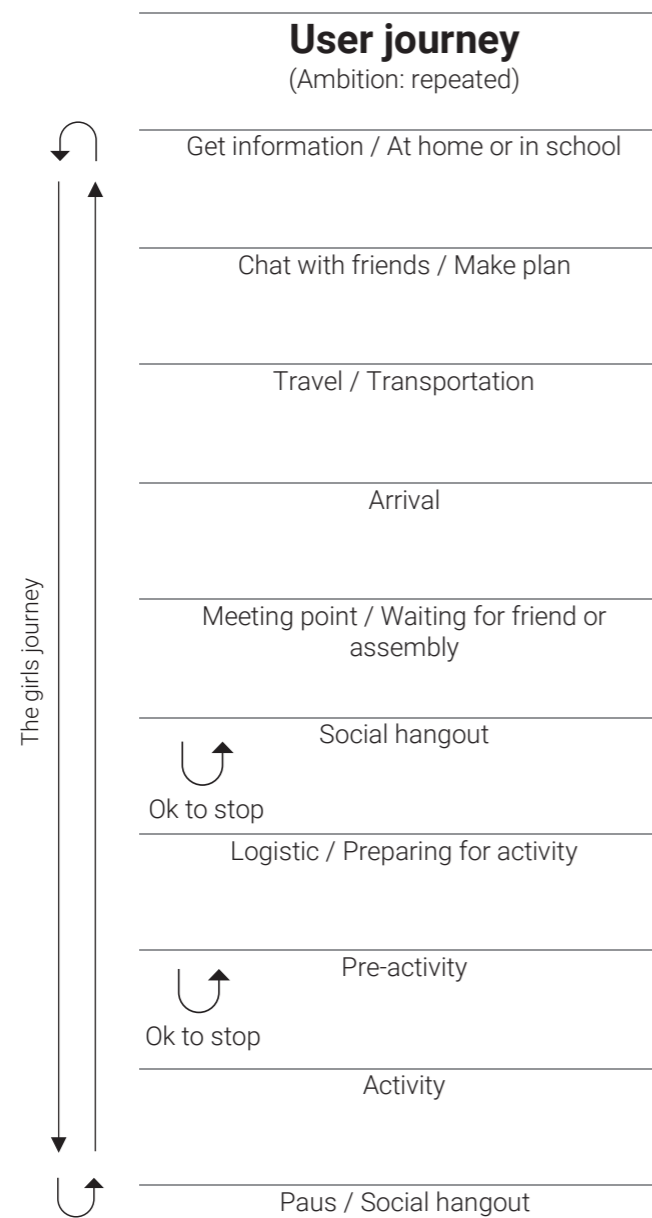


Diagram: Notice that the step-by-step invitation is developed further and located to the social space before or within the activity space. This is the reason for taking extra care of the social spaces around the activity, so that the more shy or doubtful user can take a step back and watch the activity from a position where the ones performing the activity not see them a a threat or feels too exposed.

# User Journey & Key Steps

An exploration of the key steps in the high school girls journey to and through an activity

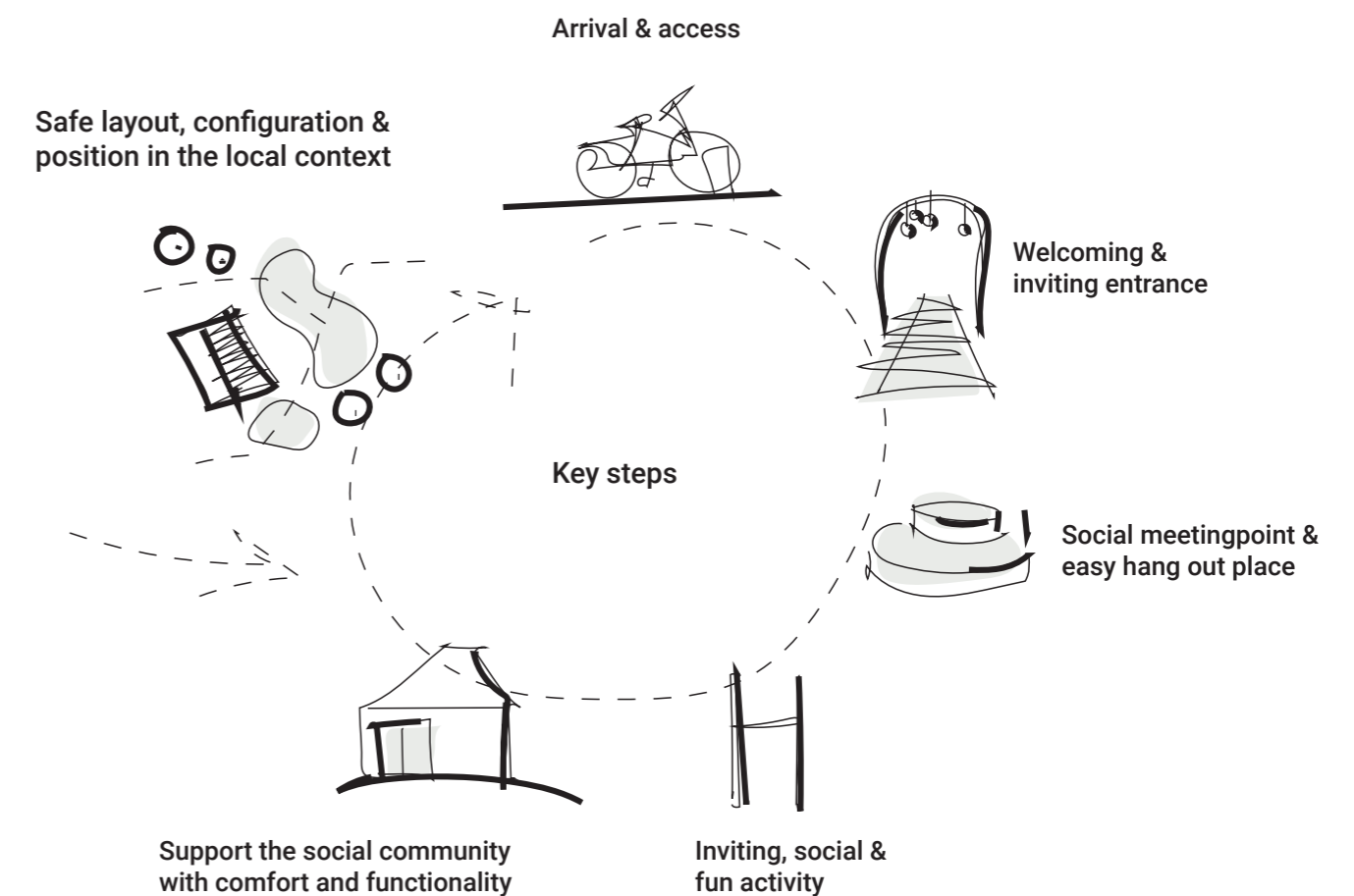
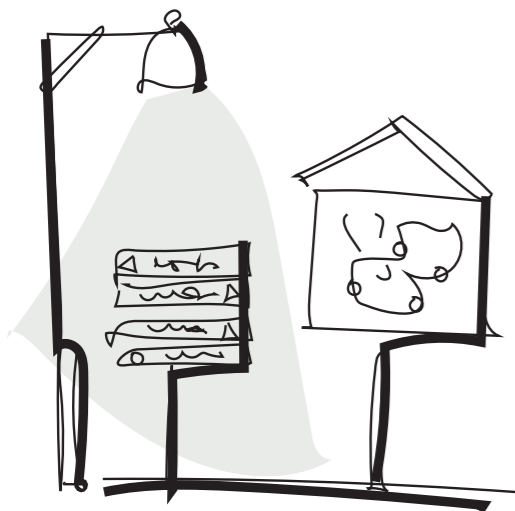


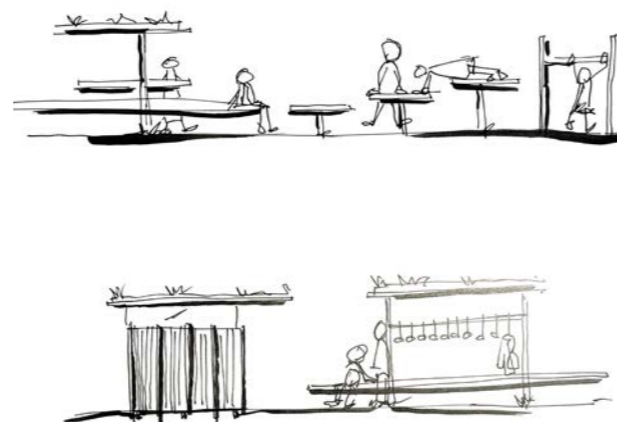
Diagram: By looking at a place with the theory of Patterns Thinking in mind, these steps can be identified as the ones most important to design for in a project.

# Transform a Trail Centre?

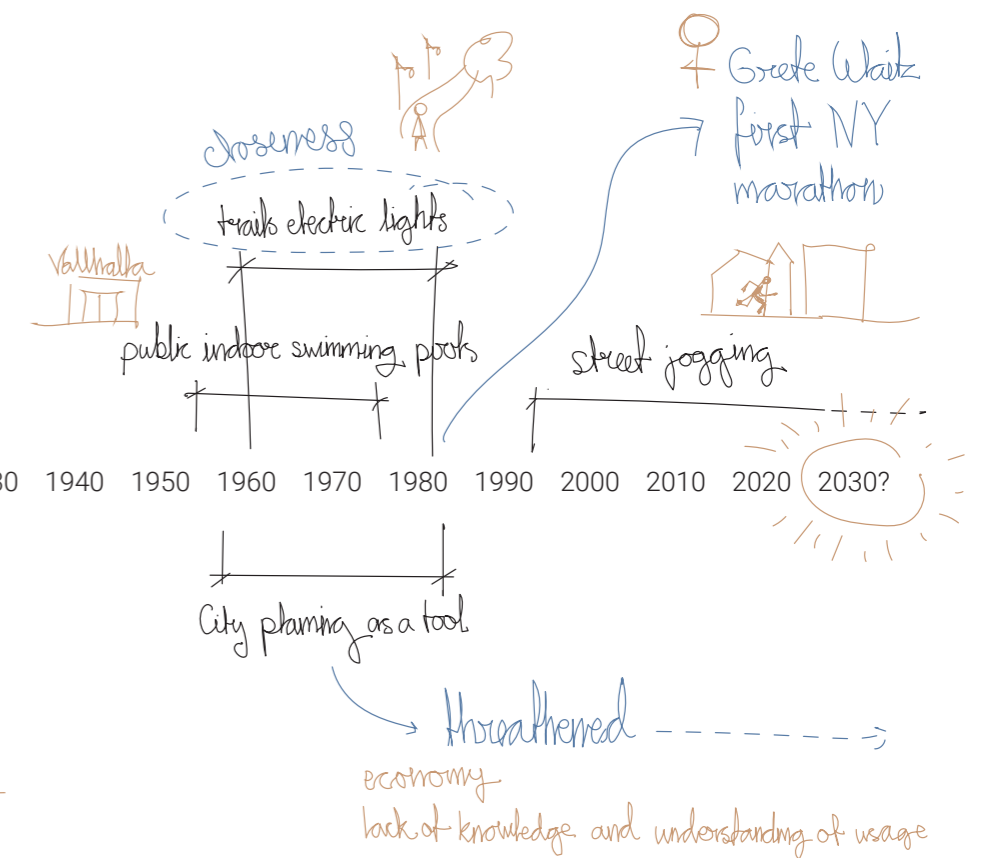
Identified potential solution: A potential resource in Swedens existing stock of activity spaces



Today the trail centers mainly consists of a map showing the nature area, a sign showing the length of the paths and electric lights along a gravel track / cross-country trail. Sometimes an outdoor gym is added on the site.

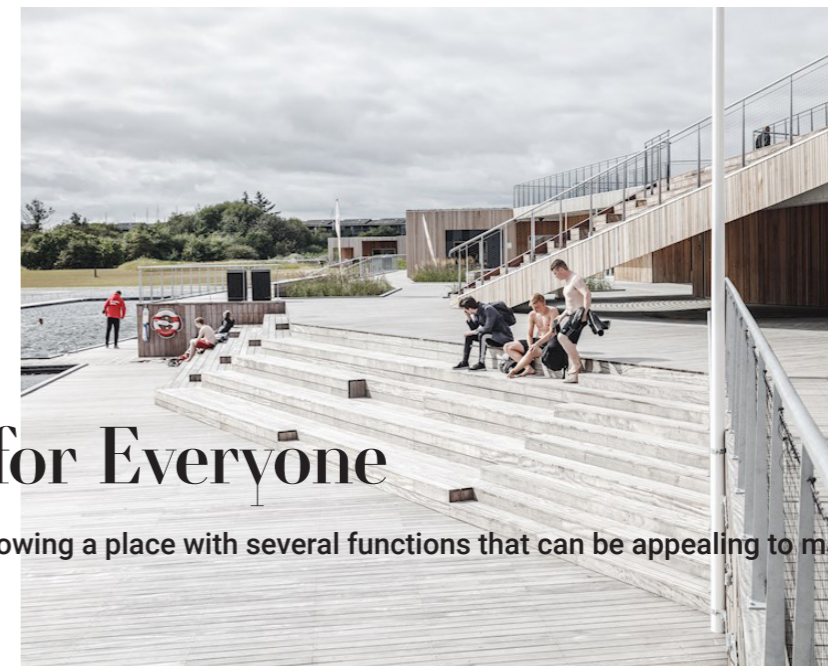


Many of these places are today out-dated with the consequence of not feeling taken care of. A feeling of entering a place that have been forgotten might occur during a visit. By adding more comfort these nature areas could be improved. The feeling of safety could increase through turning them in to well- designed recreation areas, and the solutions do not have to be complicated



Looking in to the history of recreation and physical activities in Sweden in relation to urban planning and architecture, we see that urban planning that provides good spaces for sport and recreation were used as a tool for creating healthy living areas in the middle of the century. Almost 2 000 trails with electric lights were built close to where people lived and almost all municipalities built their own 50 metres long swimming pool to increase the common swimming skills. First they were mainly "Sågspånsslingor", free translated "Sawdust trails", that later were covered in gravel.

This way of using urban planning as a tool was smart. However, many of these fantastic places are today threatened by a lack of economic resources and a lack of knowledge and understanding of their importance for public health. What can be done to update these places to become even more taken care of in order to attract young users? They have the quality of being close to where people live, and can be used by many different sport associations as well as individual users.



# A Place for Everyone

Reference project showing a place with several functions that can be appealing to many age groups

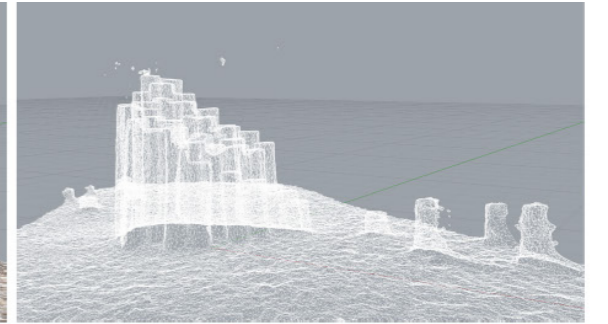
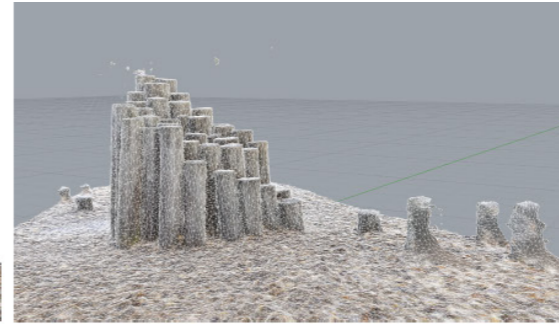


## Vestre Fjordpark i Aalborg

Architects: LIW Planning och Force4 Architects (visionkonkurrens) ADEPT, GHB Landscape Architects och Orbicon (team)  
Completed: 2017

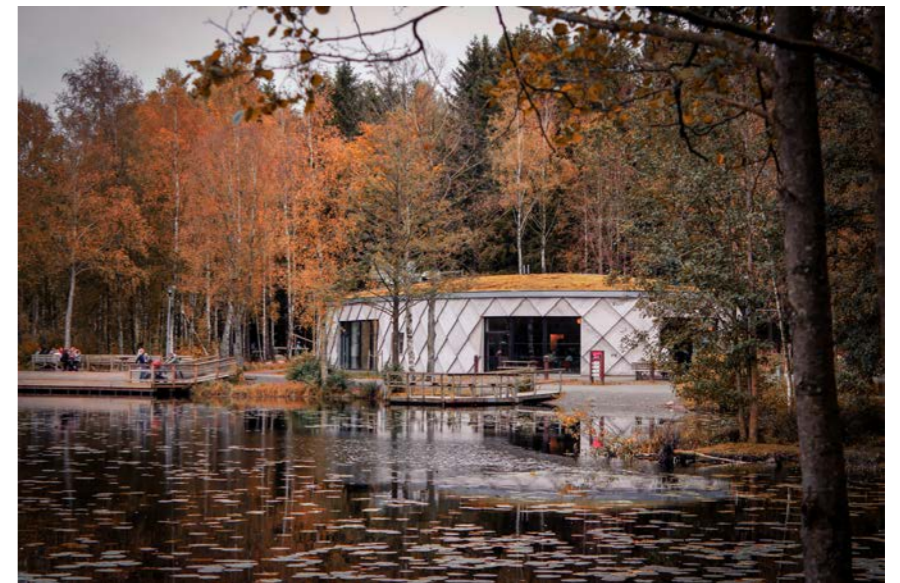
A place where organised sports meet spontaneous activities and creates a welcoming atmosphere for all ages and all skill levels. The facility supports recreation close to nature. It holds a complex program with a simple design that blends in well. Practical functions are interwoven with creative and inspiring spaces that trigger the visitor to be active.

Images by Rasmus Hjortshøj, from "Vestre Fjord Park / ADEPT" 24 Oct 2020. ArchDaily. Accessed 7 May 2021. (<https://www.archdaily.com/881095/vestre-fjord-park-adept>) ISSN 0719-8884



# A Place for Everyone

Reference project showing a place with several functions that can be appealing to many age groups



## Kotten Trail Centre, Kungälv

Architects: Tengbom  
Completed: 2015

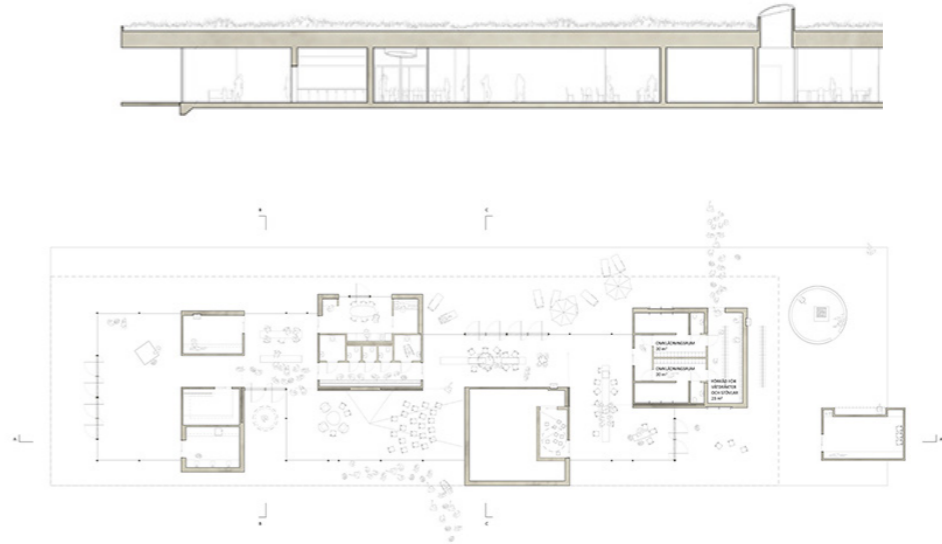
One of the most well-designed trail centres in Sweden today. A place for organized activities as well as spontaneous. Supported by changing rooms and a café.

Images from Tengbom (2018-11-20) (<https://tengbom.se/tag/fontins-naturreservat/>)

**“Where an outdoor gym is located together with a café, playground or similar is good. Then people will feel welcome, no matter how untrained you are.”**

References for the project identity: Safe, nature, warmth.

Images from Petra Gipp Arkitektur AB (2020-05-07) (<http://www.gipparkitektur.se/projects/>)



- **Dancer Friend**  
Curious friend to Saga
- **Enthusiastic Role Model**  
A 25-year-old climber that loves to teach anyone climbing and do not have any clubhouse nor beginners climbing set-up today
- **Kind Mum**  
Always taking care of younger kids or working, no time for sports, but loves long walks talking to friends
- **Classmate Pro-Orienteer & Biker**  
The cool classmate that never dropped out of sports
- **Classmate Gym Guys**  
The classmates that gives Saga the feeling of always beeing judged
- **Shy Young Brother**  
Sagas younger brother that always is shy and do not like to move, at all
- **Retired Ladies**  
That likes to meet up for longer walks at scenic places and do fika
- **Local School**  
The School close by that wants to have outdoor lectures and field days
- **Scouts**  
The Scouts that have their club house at the existing trail center
- **Ball Teams**  
That in pandemic times are not allowed to train indoor, and therefore uses the forest for activities instead
- **Athletics**  
The youth that every week do running and strength training at the existing trail center

## 03. Project Proposal

**A story about Saga and how she become introduced to activities through the transformation and extension of a Trail Centre in Lerum**

### A Speculative Situation & Narrative

This is a story about how to make the high school girl Saga more physical active, together with others. The identified users of this site and project are based upon personal knowledge and experiences of living in the city Lerum, together with the research made and what have come forward during interviews. It is one example of many other possible situations and solutions. Notice that there must be some kind of internal driving force from the person, like Saga, to become more active. It does not have to be much, and there is a lot in the context and closest surrounding that can support the person to become more active. There are also factors that stop the person and makes it more difficult, like injuries, social norms, habits, family, economic situation, etc.

### Ambition

To encourage Saga to become physical active regularly every week through the project.

### Main Design Strategies

- To make usage of the identified strategies and for example include the three concepts: Host, Try and Free
- Well-designed recreation for all ages
- To build on the boarder to the forest where you can feel save & have overview without beeing seen
- To build intimate and social spaces for several activities that the girls already today appreciate
- Simple robust structures with an inviting touch

### Saga The High School Girl

Saga represents a typical high school girl, around 17 years old, studying at Lerums Gymnasium. Two years ago, she dropped out of her team that she used to play floorball every second day together with. She felt it became too much focus on winning the games and less time for having fun with her friends. At the same time, the workload in school increased, and she knows she want to continue study at the university which make her ambitious in school. Now she spends almost 11 hours per day in front of the screen, either studying or on social medias. She loves to be social and go to parties during the late nights in the weekends. Though the pandemic has not made social life easier.

Two years after dropping out of her sport, she starts to feel a bit weak. As soon as she walks in stairs, she becomes wheezy, grasping for air. She knows it would be good for her to do some kind of activity, but she has trouble to find the motivation. The local gym is crowded by classmates looking at her, and the floor at home with yoga in front of YouTube is not so fun. To go out for evening jogs is sometimes relaxing, but not so fun in the dark on her own. It feels challenging to join a new sport because she would not be good enough. She wants to do something together with her friends that is less competitive, not expensive and good for her body, mind and health.



**Saga The High School Girl**  
Wanting to become more physical active

The girls can easily pass by the sites after finishing school



Focus will be on the site located most north: Norra Hallsås

## Site & Context

To find a place beneficial as an example project

To answer the research question a well-located exiting site for sport and recreation were to be found, that also has the potential to be extended.

To work with a local site placed in the local area, where study visits can be done easily in Covid-19 situation is a good solution. Lerum is therefore used as an example setup for the project - a city as well as rural area with various nature located around. The city and municipality have everything a person need to live a healthy life. Thinking of youth, several schools and the only high school, with around 1 300 students, within the closest surrounding are placed here.

The municipality holds a rich variation of active sport associations that provides recreational activities for everyone. A major centre for sport activities is decentralized and situated in an area called Stenkullen. In addition, many sport facilities are placed spread out over Lerum city, with nodes of activity space and sport halls often placed close to the schools. In the city centre there are several gyms and also a swimming hall with adventure pools.

The municipality hold several traditional trail centres which almost all could benefit from a smaller transformation to meet new needs and demands. The one located closest to the city centre and the high school is called Riddarsten. This is the chosen site to transform and extend.

Close to the chosen site, a new F-9 school for around 800-1000 students is going to be built. It is positioned 1,5 k from the city centre. Along with the school, a sport hall is planned that has the potential to support sport associations as well as becoming a new meeting place in the area.

This seems like a potential development of an area that, if the school is being built as planned, also could benefit the people living close by. Adding well-designed recreation that could form a new entrance to the existing trail center and today very appreciated nature area would give many people an easily accessible everyday life activity space.

### A collaboration between different actors

Potential actors that could take part in this project is some of the local sport clubs, not only the ones needing a club house but rather the ones wanting to share a facility that they want to use some days per week for training and social activities. The clubs could ask for money to the project from for example The Swedish Sport Federation and Swedish Inheritance Fund (Swedish: Allmänna arvsfonden) Furthermore, the schools that can use it for outdoor lectures, the municipality that can contribute with some of the financial parts because they see it at a great contribution to the public health and promoting of activity.

### Golden Guidelines

Is the place **accessible and well-located**, so that the girls can easily pass by there by themselves after school, through walking, biking or public transport?

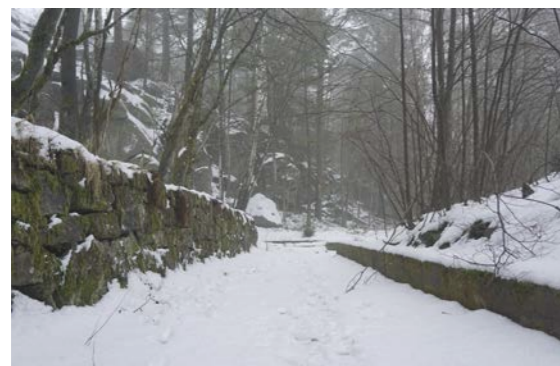
Does the place offer a **safety** and an intimate room? Avoid exposed situations on a square or too close to a school.



Sitevisits: Photographs from the sites and their surroundings



**Nature has inspired the architecture** in Norra Hallsås where the building volumes are placed to blend in well in the natural terrain, following the existing topography. Facades have nature colours or raw materials. The same approach can be used in the new project proposal.





The existing entrance to the trail centre.



Trail description sign



Entrance to outdoor gym & electric lights path

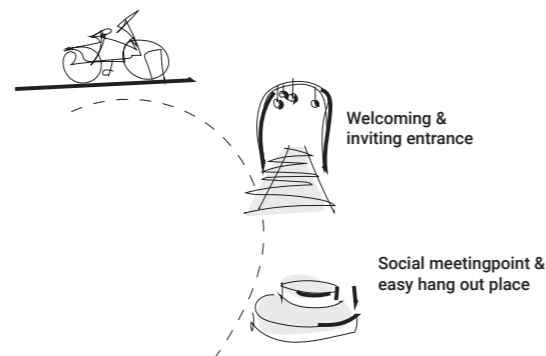


Scouts House

**Transformation**

The key steps in the user journey are used as guides. Today the activities already exist, such as mountain biking trails, running trails and a building for scouts, and there is no perfect place to add a larger building volume, hence there are rather comfort and well-designed social space that could enhance and increase the feeling of taken care of at the site. The close by situated preschool brings many eyes, movement and safety to the site. During evening time, it is often well used by the local clubs, hobby runners, dog walkers or exercisers.

Arrival & access



Existing outdoor gym, in the background there is a Preschool adding a feeling safety to the area.



The suggested components in the collection on left page could be added at this existing outdoor gym that today works as the main entrance to the trail centre area.

The Extension site with its connection to the existing entrance and to the electric light trail |  
The sites can hold well-designed recreation close to where people live.

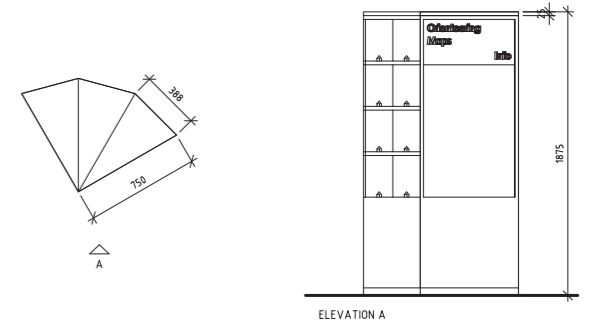


Phase 1  
Arrival  
Entrance

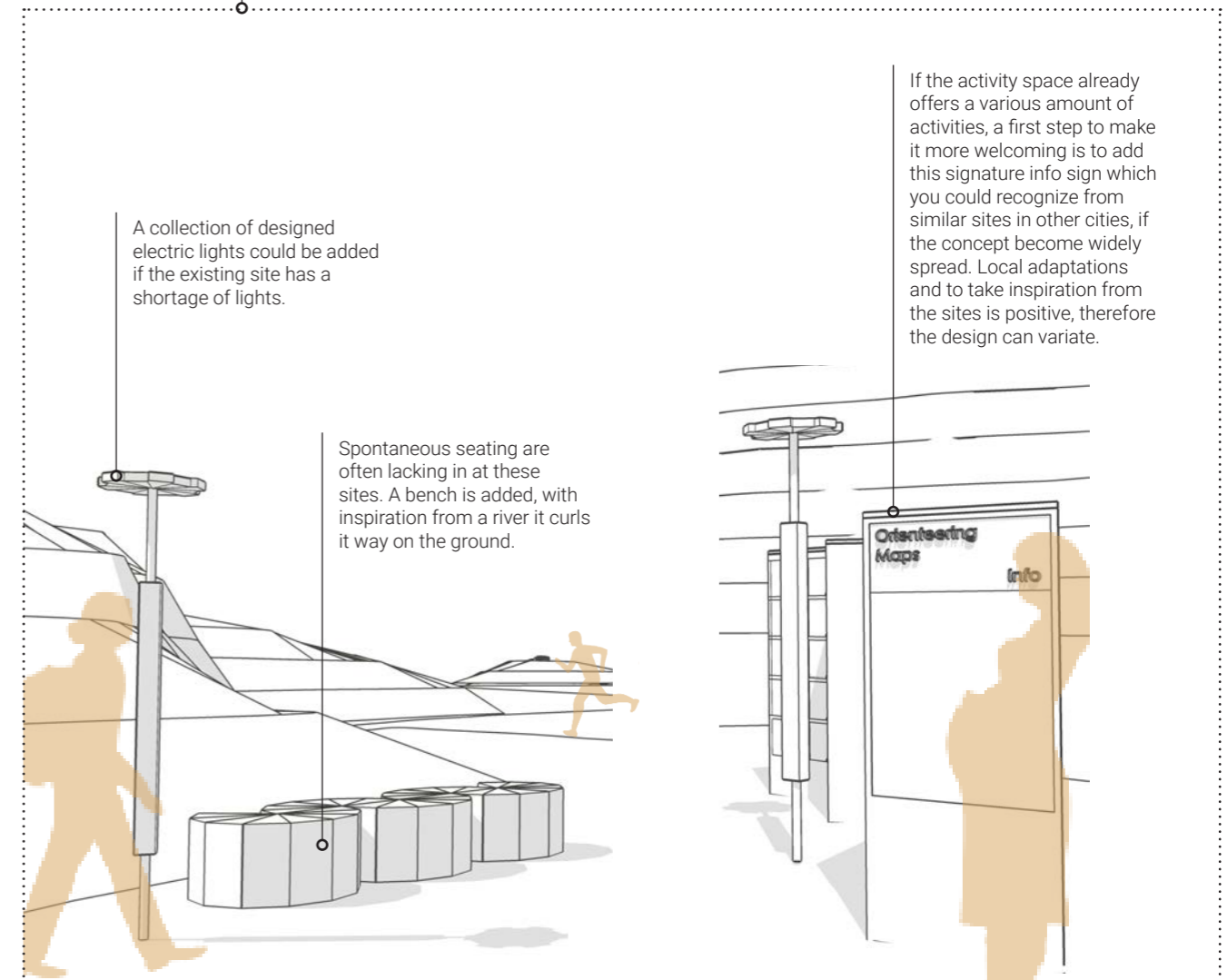
### The Extension

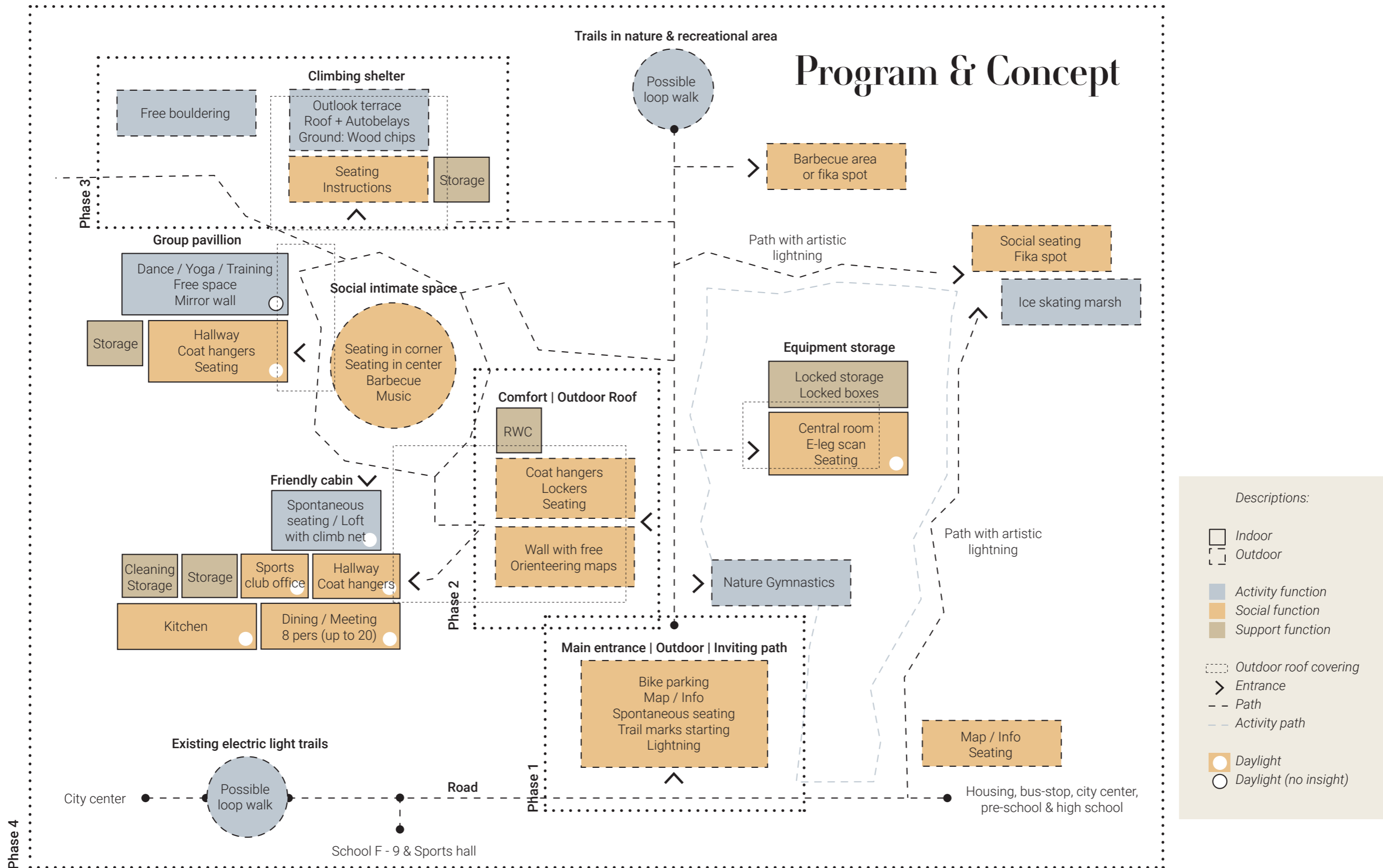
The extension proposal is the one most developed and will be presented as 4 different phases. A path with new electric lights takes the user from the existing entrance and up to this extended entrance. Already today the trail paths pass by this extended site.

The proposal is developed to suite the specific local context and the site, but it could also become the start of a transformation and extension concept for other trail centres in Sweden.



Elevation & plan 1:50 (A4)  
The first part of the collection of wooden objects added to the site is this info sign with an overview map and free orienteering maps, built in spruce.



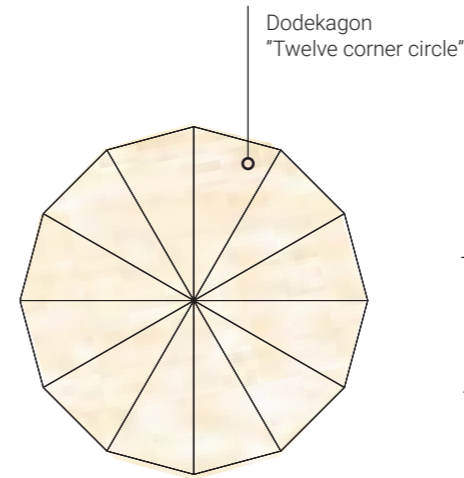


The Concept: To build on the boarder between the safety, where people will pass by on the road, and the nature area that can be seen as dark during the long winter period and the nature.

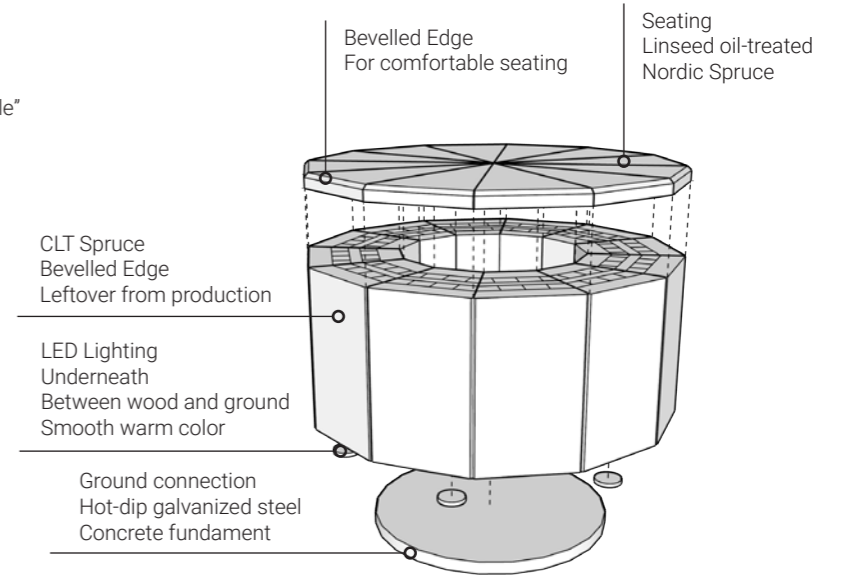


The final proposal where the volumes are placed along the hillside, following the natural terrain.

The Concept: To add a collection of wooden objects that improves safety, social qualities and add activities.



Main form concept - A form that is close to an organic shape, but are easier to build and works in all scales, from seating to building.



Main structure concept for the collection of wooden objects - here showing the seating furniture.



An early concept sketch showing the relationship to the new school planned by the municipality. To lower the amount of traffic passing by the trail centre, the parking can be relocated from the proposed one to this where it is placed along the side of the road closer to the bus stop. No scale.



Axonometric overview with the proposed collections of wooden objects and cabins. The hillside holds a broad variation of levels of difficulties for climbing, from free bouldering to organized climbing shelters. It is possible to build the full project proposal in 4 phases, to suite the economic situation in the municipality.



**Kind Mum**

Saga's mum is the first one to suggest a visit to the new site. She have heard it is a scenic place for a walk. Saga decides to join her.



**Dancer Friend**

Sagas curious friend have heard that you can book a dance pavilion for free, and she wants Saga to join her for a fun hour dancing together.



**Enthusiastic Role Model**

A month later, Saga see through social media that there will be an open climbing sessions for girls next weekend. There she meets the Role Model that encourage her to join even a second time. The host uses the Friendly cabin for meetings with her club planning the weekend training at the advanced route, before hosting the session for beginners. After the session they all go inside and cook a simple and cosy dinner together.



**Classmate Pro-Orienteer & Biker**

Saga's classmate is the one taking care of the free orienteering maps that Saga and her dancer friend finds at the info sign during an evening walk together.



**Classmate Gym Guys**

Luckly, the barbeque grill is placed out of sight from the activity space, so when the Gym Guys organizes an outdoor party, they do not directly bump in to Saga. During the visit, the Guys finds out that it would be fun to do a mountain bike session at the site, so they come back the day after to borrow a mountain bike from the free equipment storage.



**Shy Young Brother**

Sagas shy brother likes to hang out and climb in the rib chairs while waiting for Saga to finish her dancing. It is a safe place, and soon enough he might also join a dance class.



**Retired Ladies**

Use to meet up at the main entrance every day at 10 p.m. They take their daily walk around the ice-skating march where they enjoy to see youth doing ice skating around the trees when the temperature drops. The old ruin is a perfect place for a fika stop.



**Local School**

Some teachers from the local school likes to have some of their lessons outdoor. If it is summer, they use the outdoor pavilion for classes and if it is cold, they use the group pavilion. Some of the equipment's in the storage space are taken care of by the school. Some of the youth get introduced for the first time to activities in the forests, which they had not been otherwise because their families do not use to visit the forest.



**Scouts**

The Scouts use the Friendly cabin for social events as well as for meetings.



**Ball Teams**

Ball teams uses the Trail Centre for alternative training and base training such as running, biking and strength at the nature gymnastic area. When the cabins are added to the site, the possibility to try other forms of training together that can enhance the social quality of being in a team. A possibility to build a good team spirit and feeling.



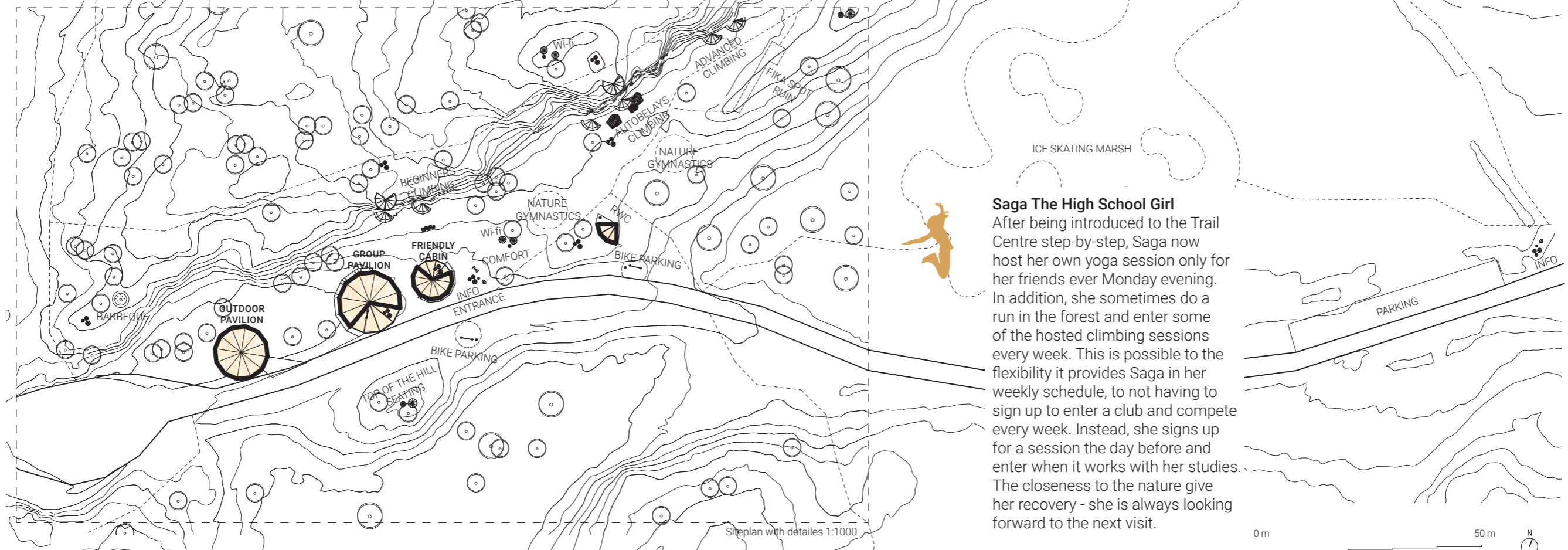
**Athletics**

Every Friday the Track and Field club have their strength training at the outdoor gym (at the transformations site). Now when more comfort is added to the sites, more people tend to show up on the trainings. If it is raining they can even use the space under the roof at the outdoor pavilion and store some yoga mats in the storage. The closeness to the other clubs has made them start up a collaboration which has been successful in order to keep more high school girls in the clubs.



**Saga The High School Girl**

After being introduced to the Trail Centre step-by-step, Saga now host her own yoga session only for her friends ever Monday evening. In addition, she sometimes do a run in the forest and enter some of the hosted climbing sessions every week. This is possible to the flexibility it provides Saga in her weekly schedule, to not having to sign up to enter a club and compete every week. Instead, she signs up for a session the day before and enter when it works with her studies. The closeness to the nature give her recovery - she is always looking forward to the next visit.

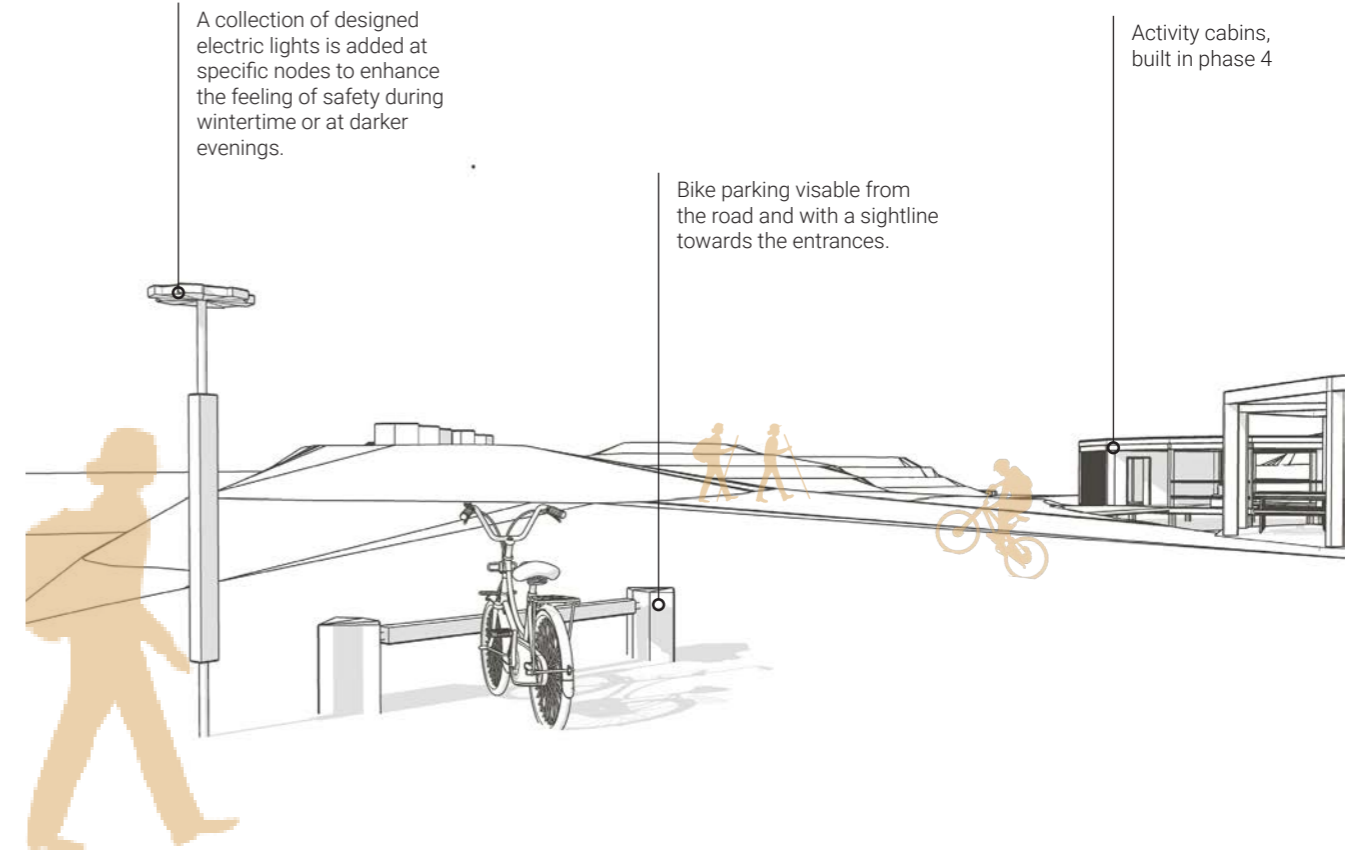
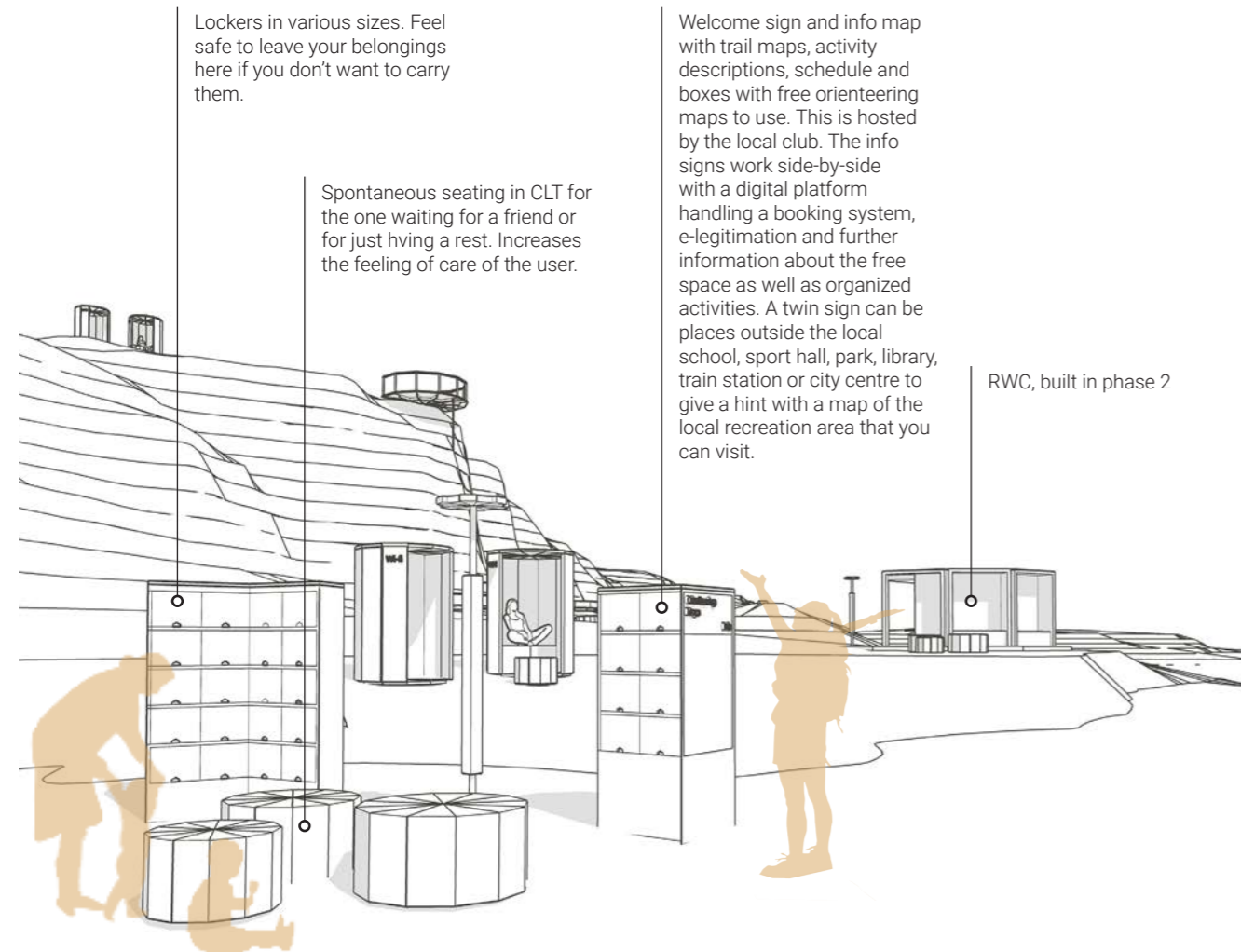


Siteplan with details 1:1000

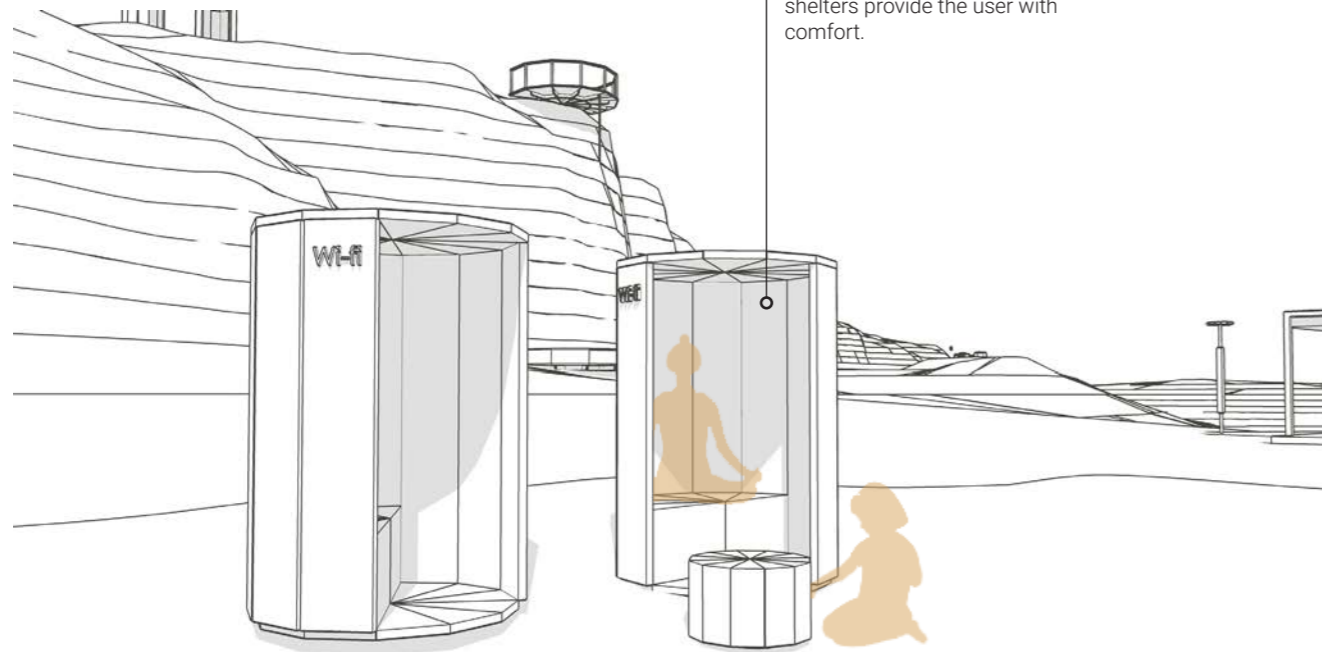
0 m 50 m N

Design proposal for the extension site | To enter the Trail Center

Phase 1  
Arrival  
Entrance

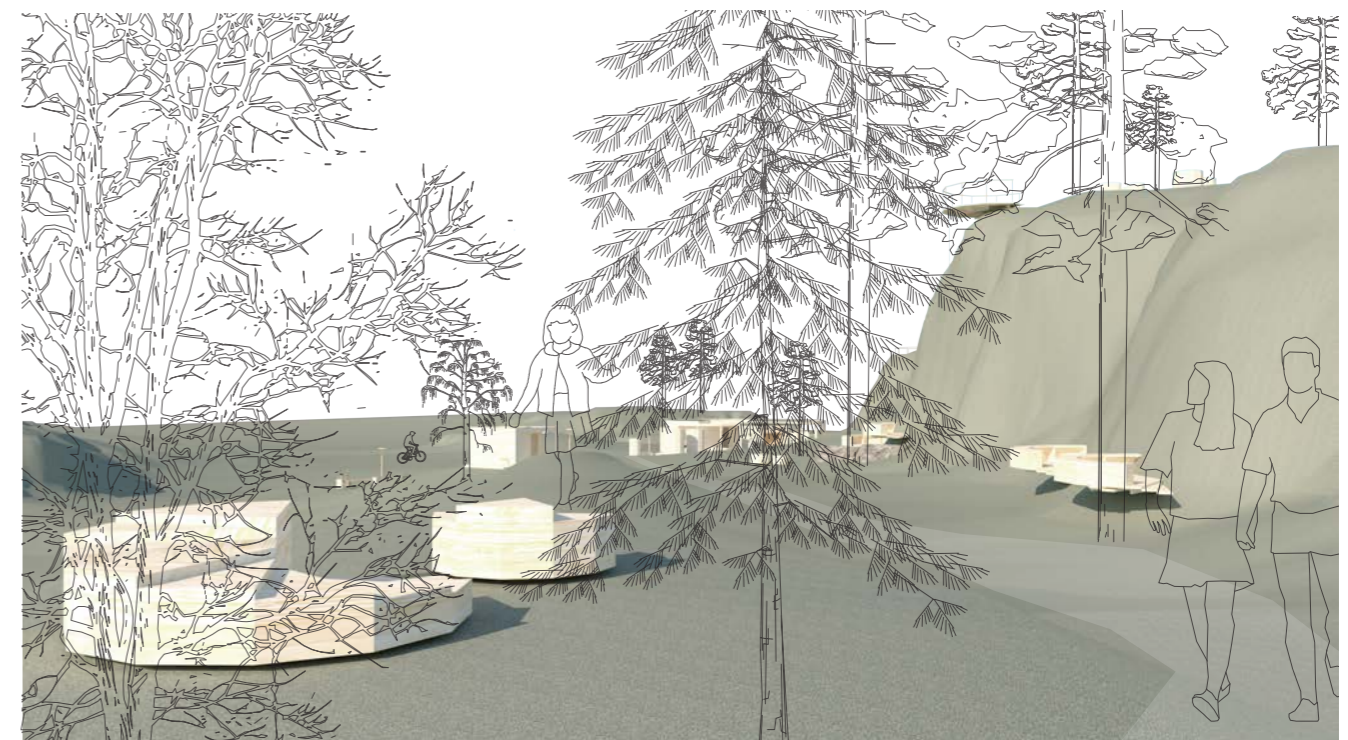
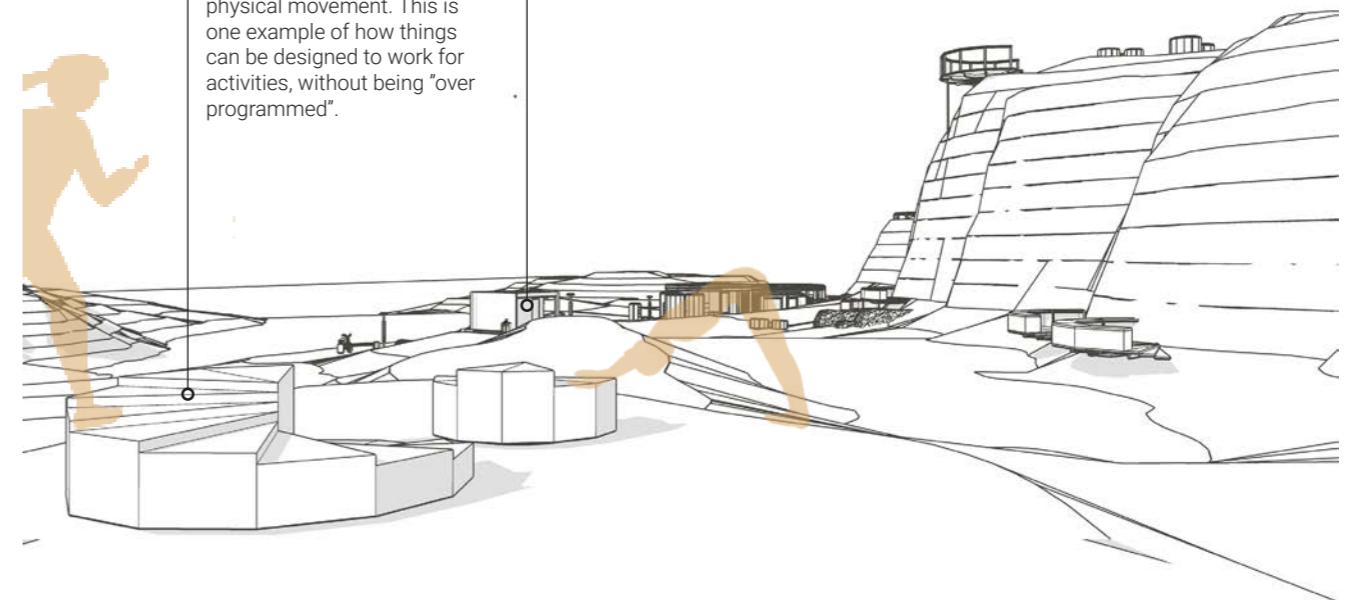



Wind, weather and rain protection in combination with free Wi-fi. On the boarder between the city structure and nature areas the connection to internet can sometimes be less good, therefore these shelters provide the user with comfort.



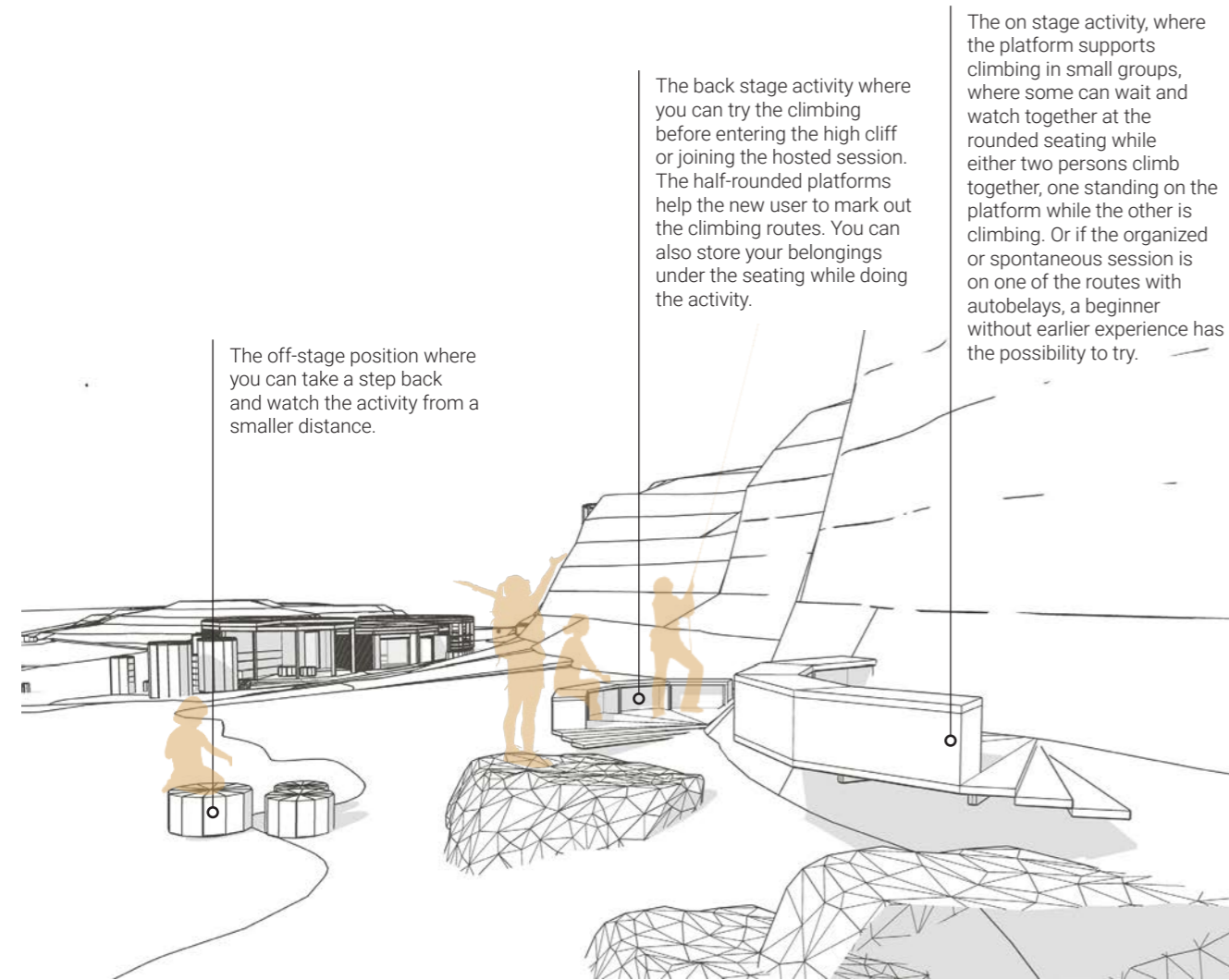
Spontaneous seating that also can be used for training: Jumping up on the steps, stretching your legs or running in the stairs. It is not obvious how to use them, the user must use their imagination and creativity to be active, which is shown to be positive for youth. At the same time, the form reminds of a spiral staircase, which is associating to physical movement. This is one example of how things can be designed to work for activities, without being "over programmed".

The RWC that can be used by anyone visiting the site. Outside, on the facade, it is possible to get fresh water from a tap.



Design proposal for the extension site | To add social activities that is not over-programmed

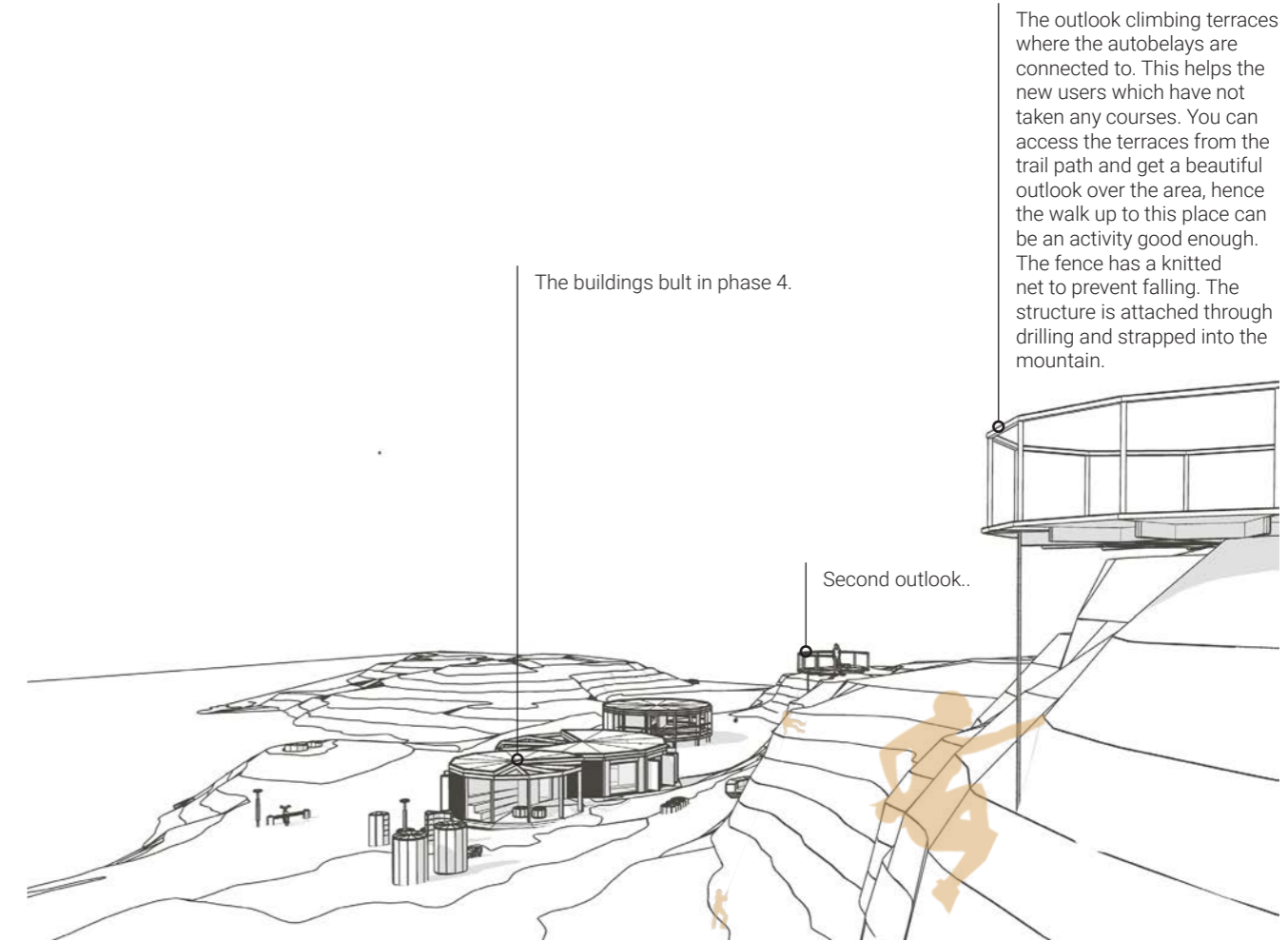
Phase 3  
 Activities - Various degrees of difficulties  
 Social seatings



The off-stage position where you can take a step back and watch the activity from a smaller distance.

The back stage activity where you can try the climbing before entering the high cliff or joining the hosted session. The half-rounded platforms help the new user to mark out the climbing routes. You can also store your belongings under the seating while doing the activity.

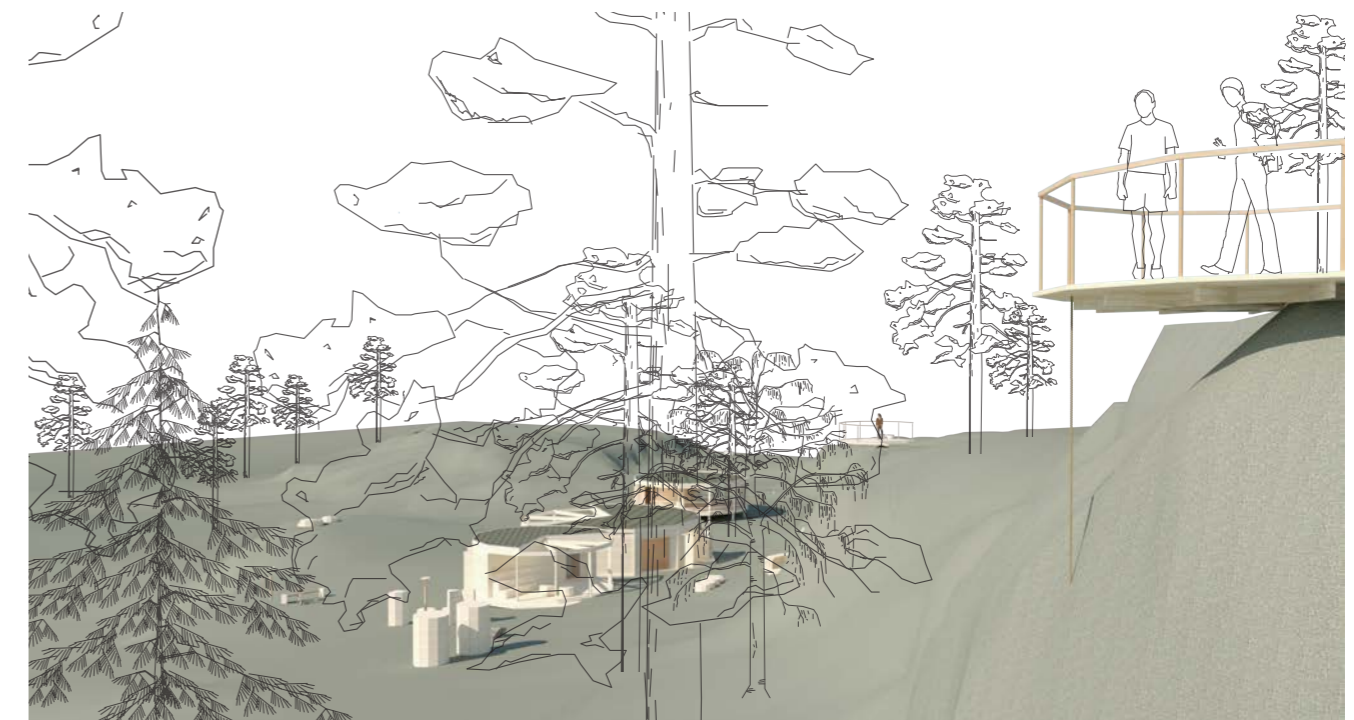
The on stage activity, where the platform supports climbing in small groups, where some can wait and watch together at the rounded seating while either two persons climb together, one standing on the platform while the other is climbing. Or if the organized or spontaneous session is on one of the routes with autobelays, a beginner without earlier experience has the possibility to try.



The buildings built in phase 4.

Second outlook..

The outlook climbing terraces where the autobelays are connected to. This helps the new users which have not taken any courses. You can access the terraces from the trail path and get a beautiful outlook over the area, hence the walk up to this place can be an activity good enough. The fence has a knitted net to prevent falling. The structure is attached through drilling and strapped into the mountain.

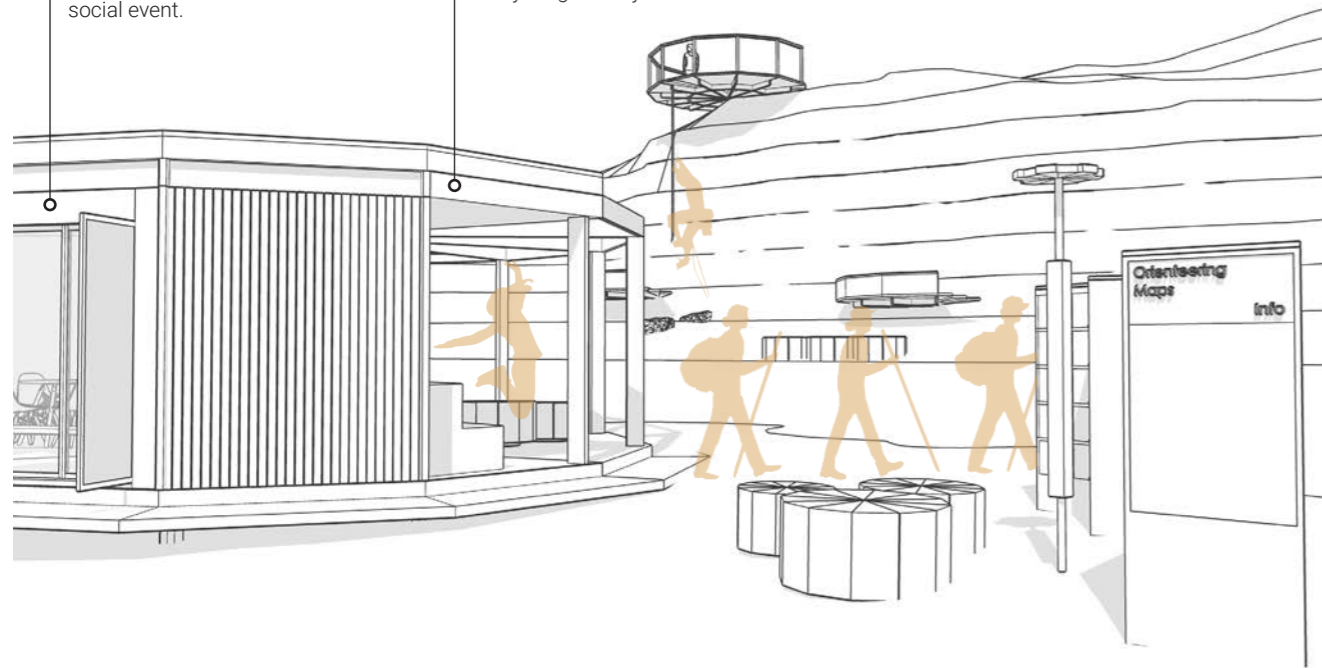


Design proposal for the extension site | To add add buildings that support the users and the activities.

Phase 4  
 Pavillions for social activities  
 Active community

The friendly cabin is located closest to the entrance to the trails. Here the sport clubs can meet up, have meetings or cook dinner after a session. During daytime and weekends it can be open for public as a picnic room for bad weathering, or for social activities. It can also be booked by anyone interested in organizing an activity or social event.

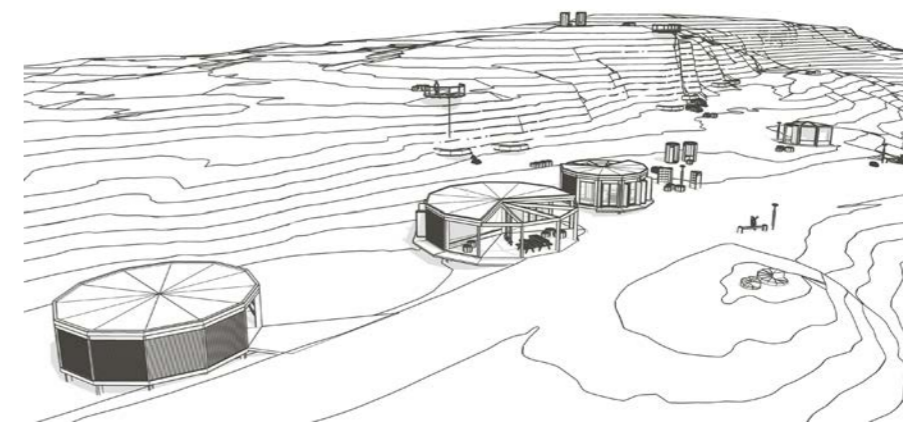
At the entrance to the building there is an integrated terrace with morning and evening sun. This social area is facing the climbing activity and forms a safe an social zone between the hillside and the buildings, well-protected from the road. From the info sign you can have a sneak peak in the social meetings or activities, without seeing everything directly.



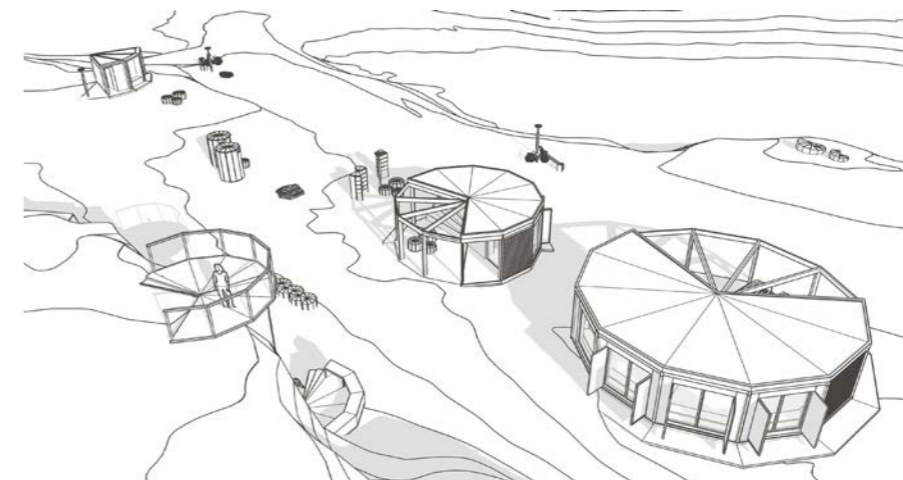
To enter the site from the bus-stop or the closest area with dwellings - a glimpse of the cabins



To enter the site from the city centre or the existing trail centre.

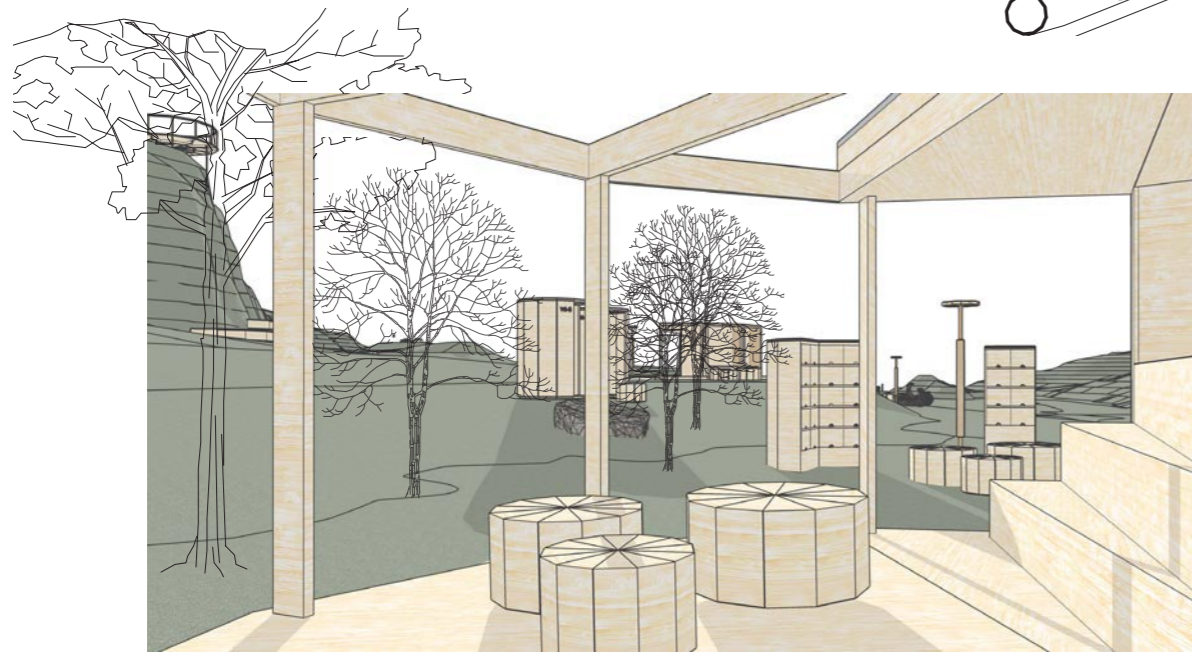


An overview of the three cabins along placed the hillside.



The building's location creates a safe and social outdoor room protected from the road

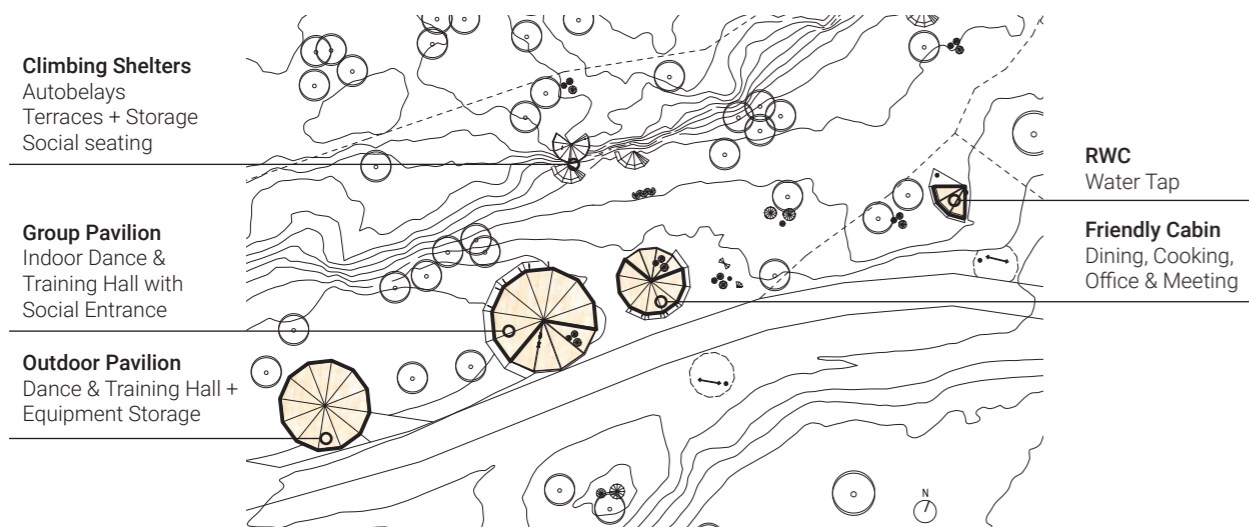
Design proposal for the extension site



The social hangout space at the entrance to the Friendly cabin.

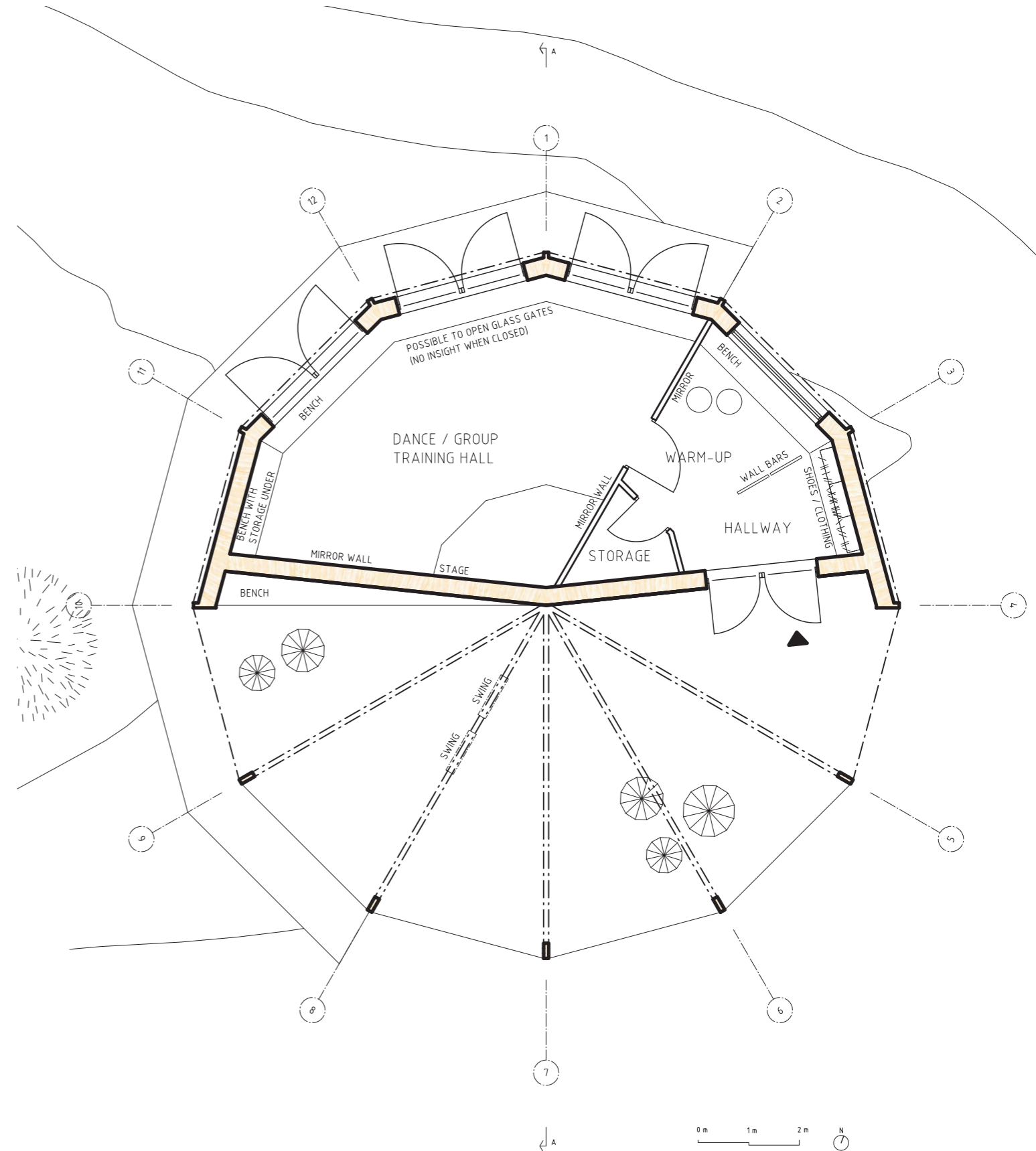


A half-protected entrance situation, still visible and not enclosed to feel unsafe.



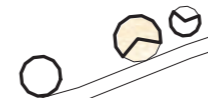
Siteplan 1:1000 (A4), description of building program

Phase 4  
Pavilions for social activities  
Active community

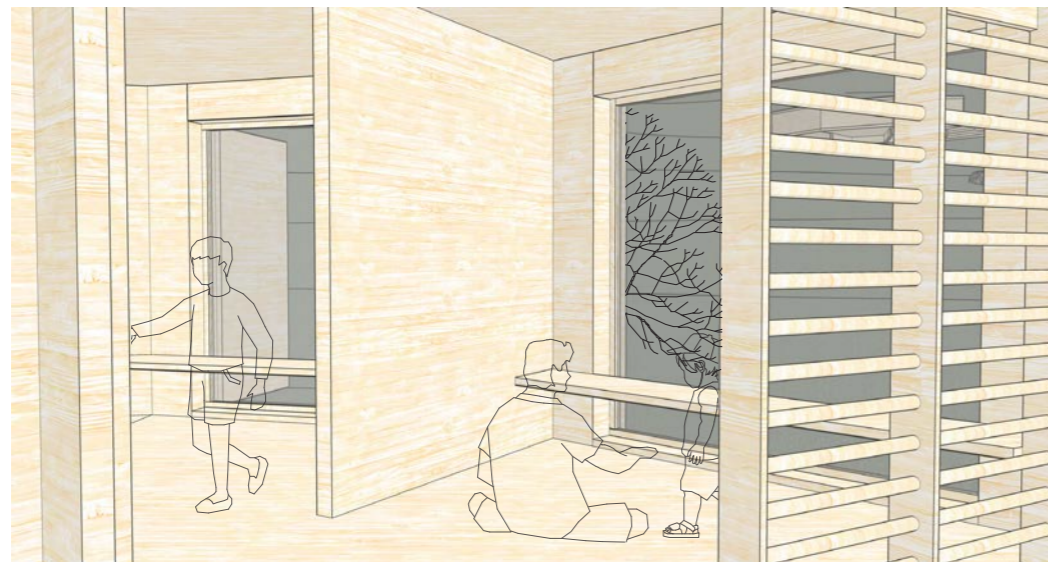
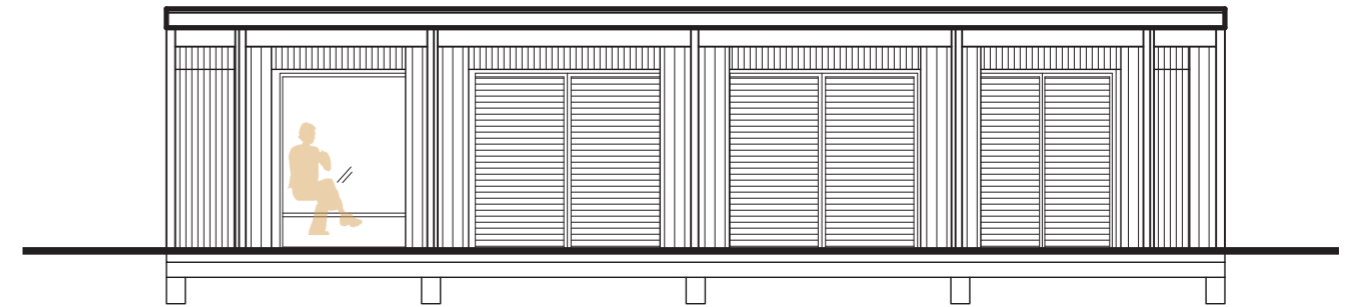
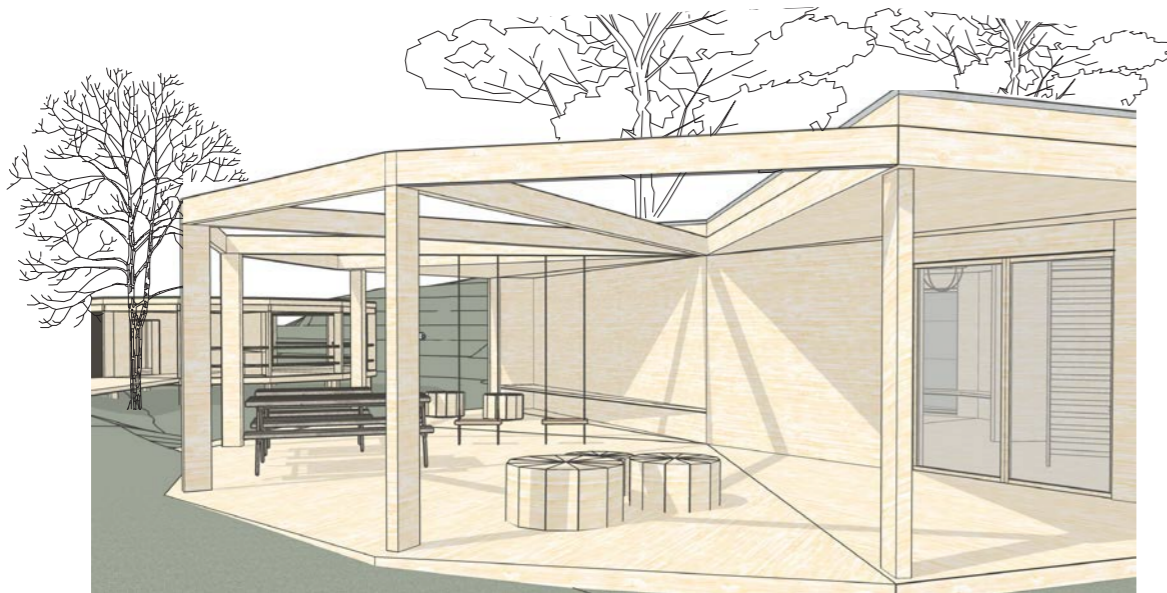


Plan 1:100 (A4), The Group Pavilion with a dance and training hall in the same twelve-corner circle shaped plan.

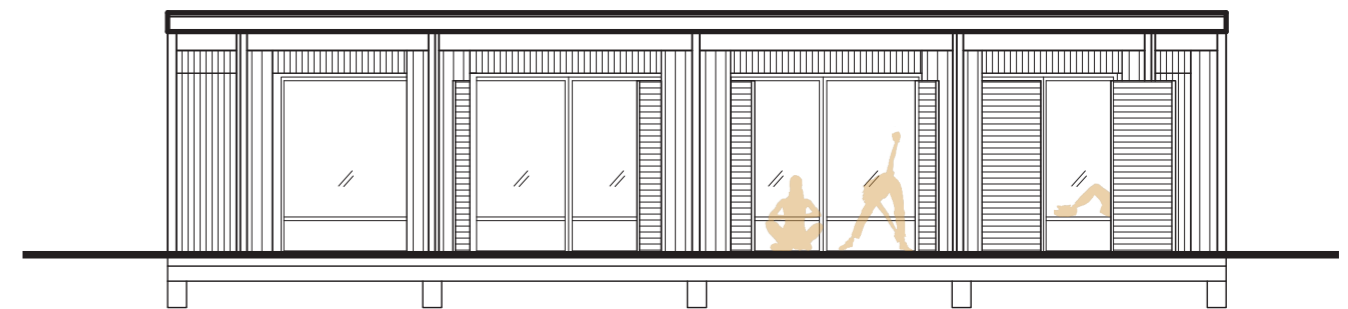
Design proposal for the extension site | To add add buildings that support the users and the activities.



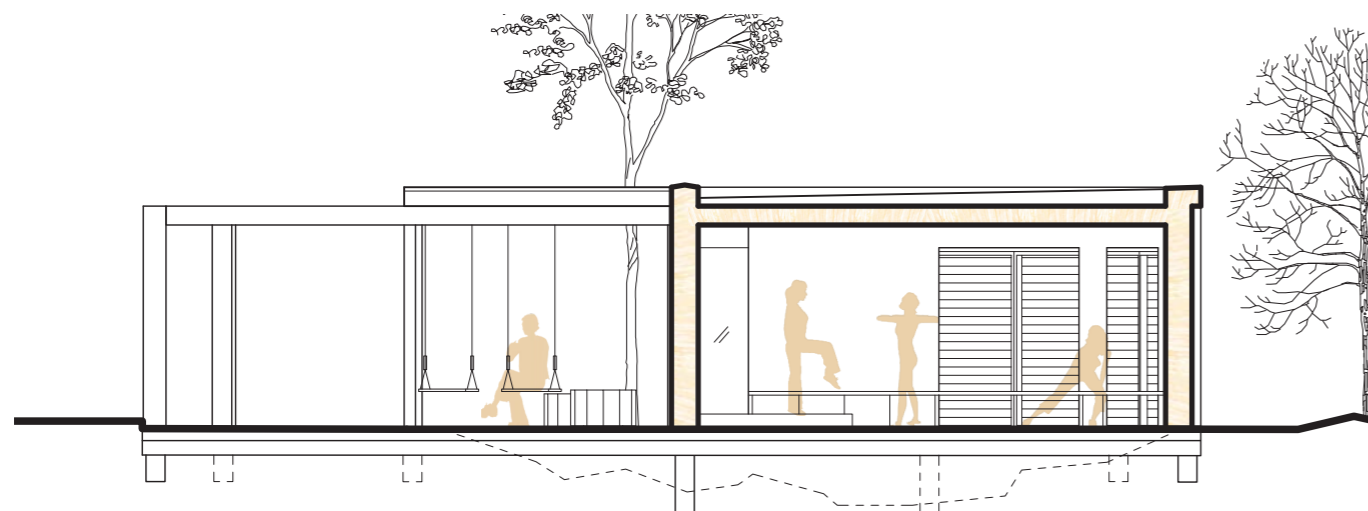
Phase 4  
Pavilions for social activities  
Active community



The outdoor and indoor entrance situation, the dance and training hall



North west facade 1:100 (A4), with open or enclosed gates to the dance and training hall



SECTION A-A 0m 1m 2m

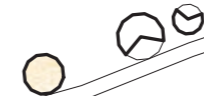
Section 1:100 (A4), the dance and training hall



Facade perspective, dance and training hall

**Design proposal for the extension site | The Outdoor Pavillion, a sheltered outdoor dance and training room**

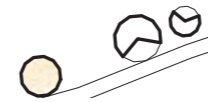
To do outdoor activities in a Swedish climate can sometimes be harsh. This cabin provides comfort with fresh air, an outlook into the forest, the climbing and the indoor dance and training hall. It can be used as a warm-up space or test space, privately or for a hosted session. The closeness to the equipment storage makes it easy to borrow free training equipment and host your own session.



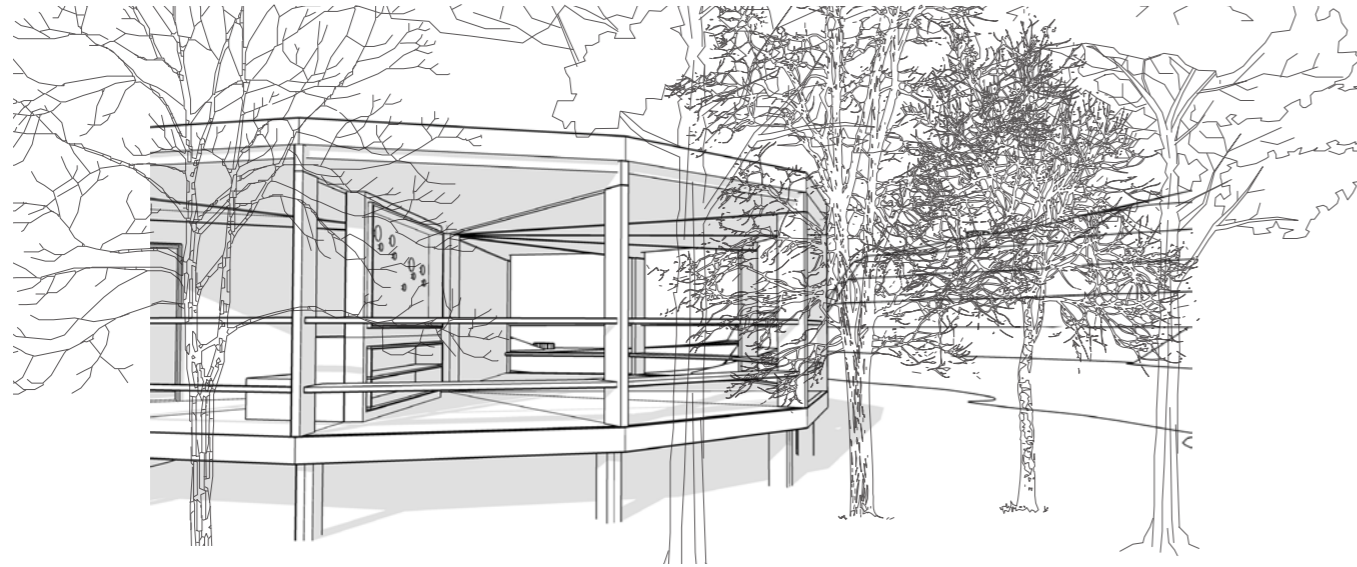
Phase 4  
Pavillions for social activities  
Active community



Design proposal for the extension site | The Outdoor Pavillion, overview section and main structure



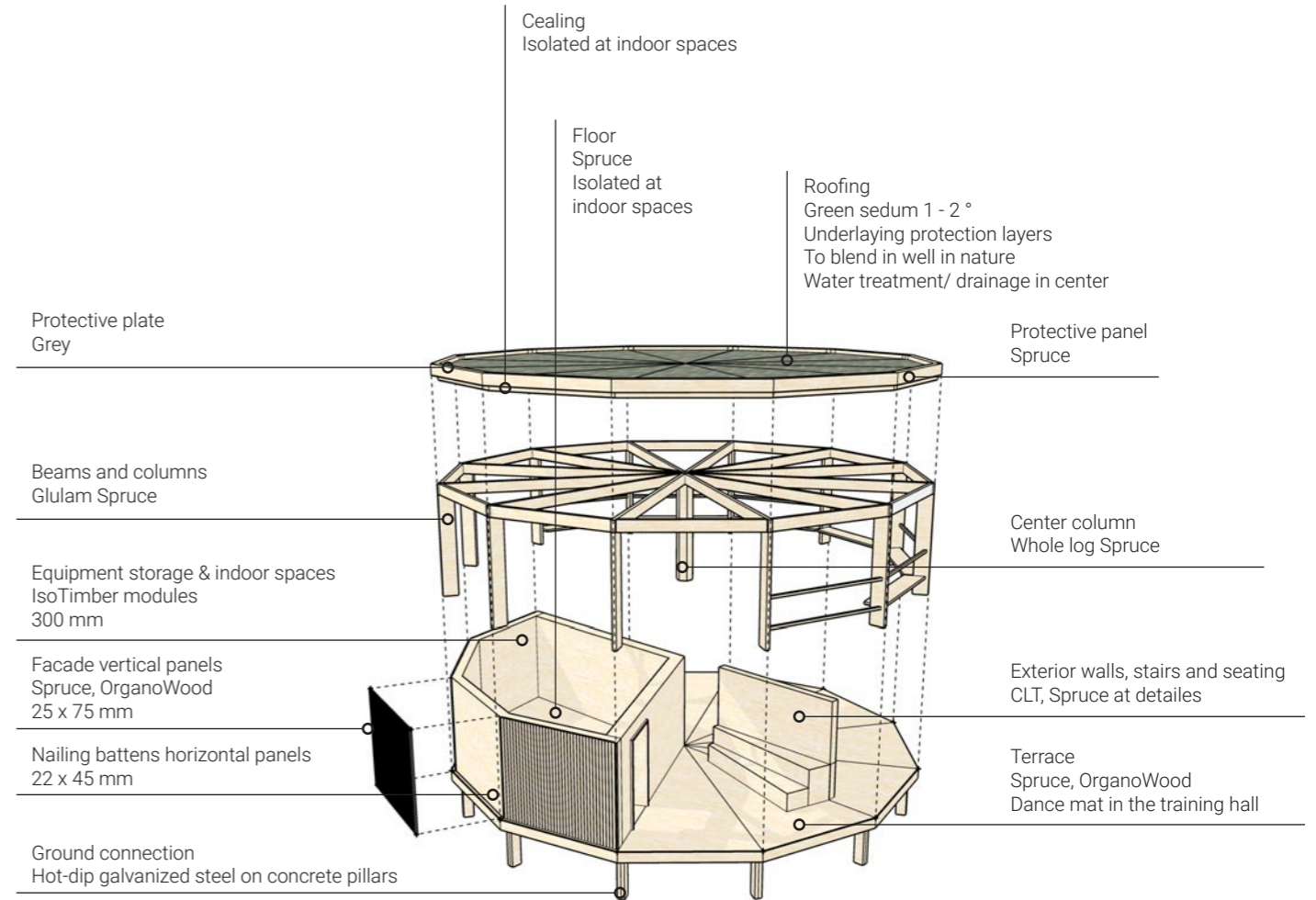
Phase 4  
 Pavillions for social activities  
 Active community



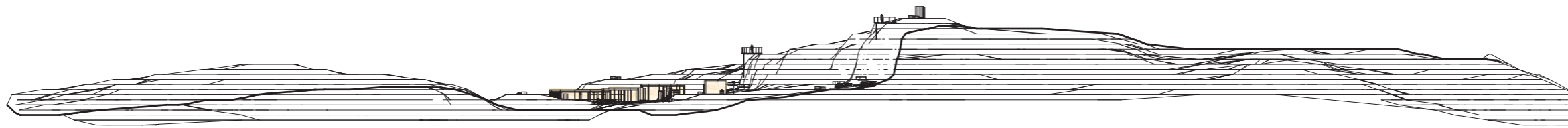
The cabins are placed on plinths in the forest to do as little harm as possible to the nature. During a session you can store your clothing and bags at the storage wall in the centre.



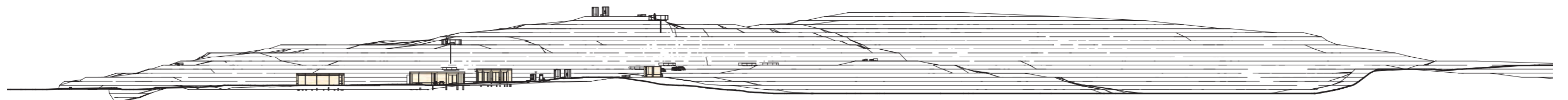
The entrance to the equipment storage and the group pavilion for outdoor dance and training with a large seating stair under roof, which also can be used for training. Here you can scan your E-legitimation and borrow equipment freely from the local clubs. Even the school can store some equipment here.



Main structure concept - here showing the equipment storage and the group pavilion for outdoor dance and training.

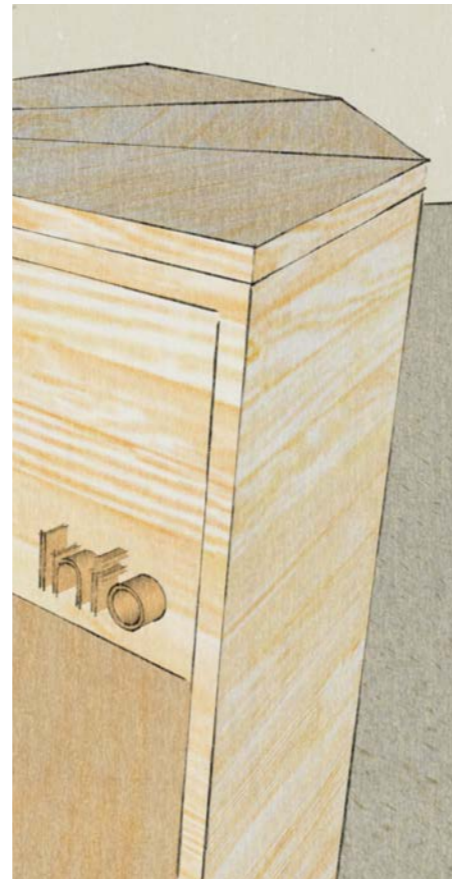
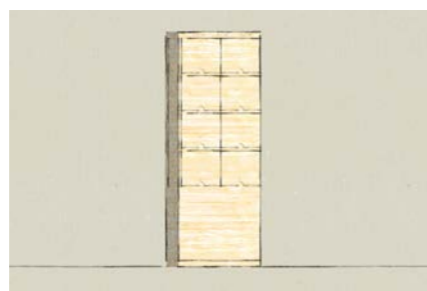
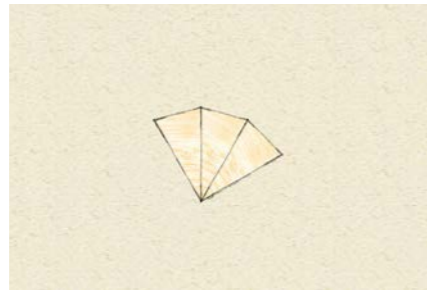
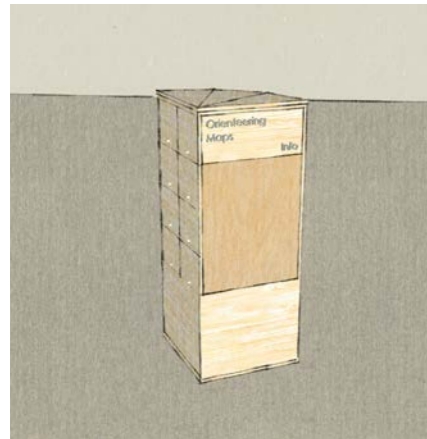


Section 1:1000 (A4), south-north



Section 1:1000 (A4), west-east

Development of the wooden collection in combination of the spatial solutions, here with the example showing the dance hall, the info sign with free orienteering maps and the climbing shelter where the user can test themselves with the autobelays or enter a hosted climbing session in a small group.



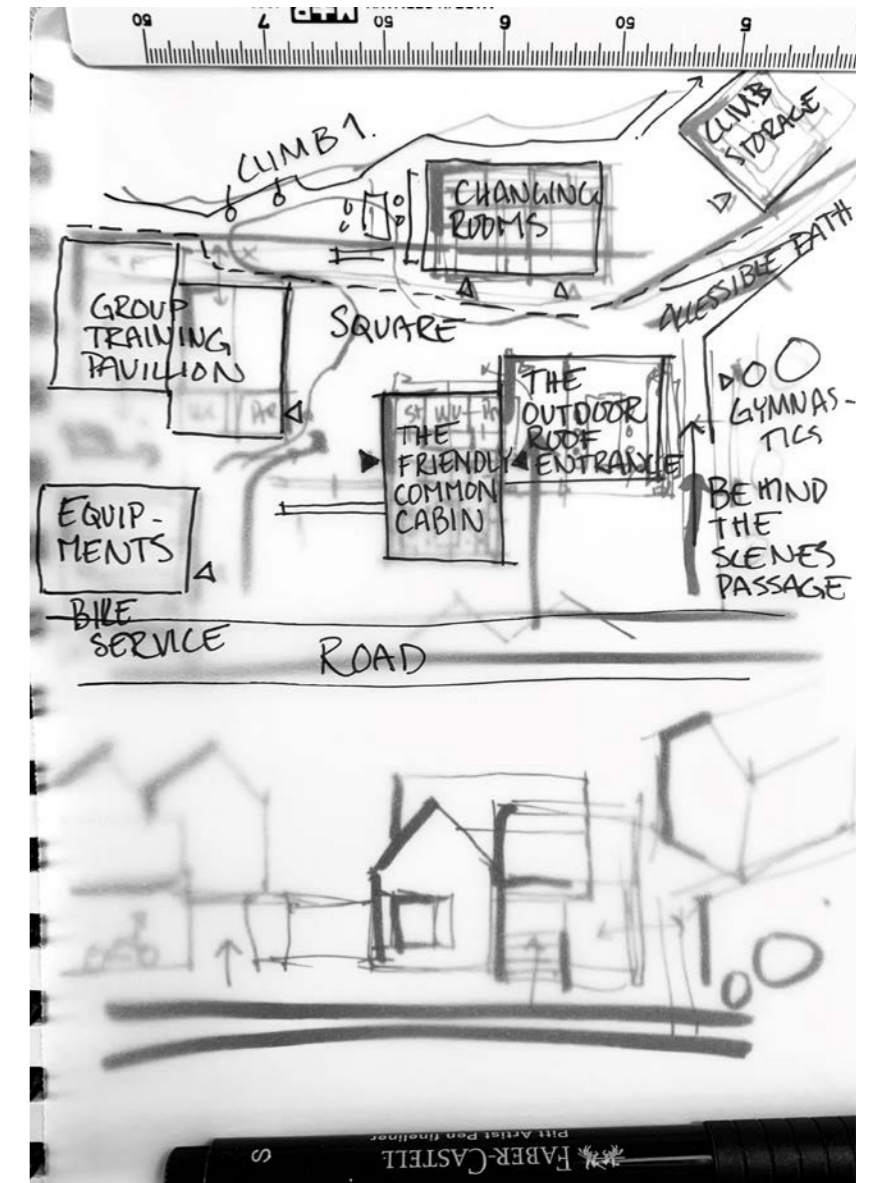
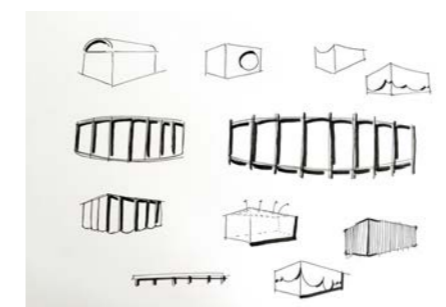
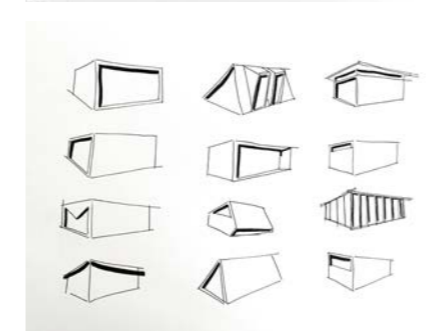
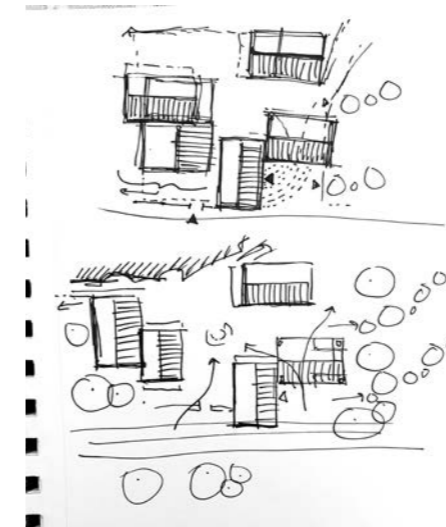
OrganoWood  
Sustainable long lasting treatment  
Image from: Forskaren Förskola, 2018  
(Source: <https://organowood.com/>)

Reused CLT  
Inspiration and image from Woup, 2020  
(Source: <https://www.woup.se/>)

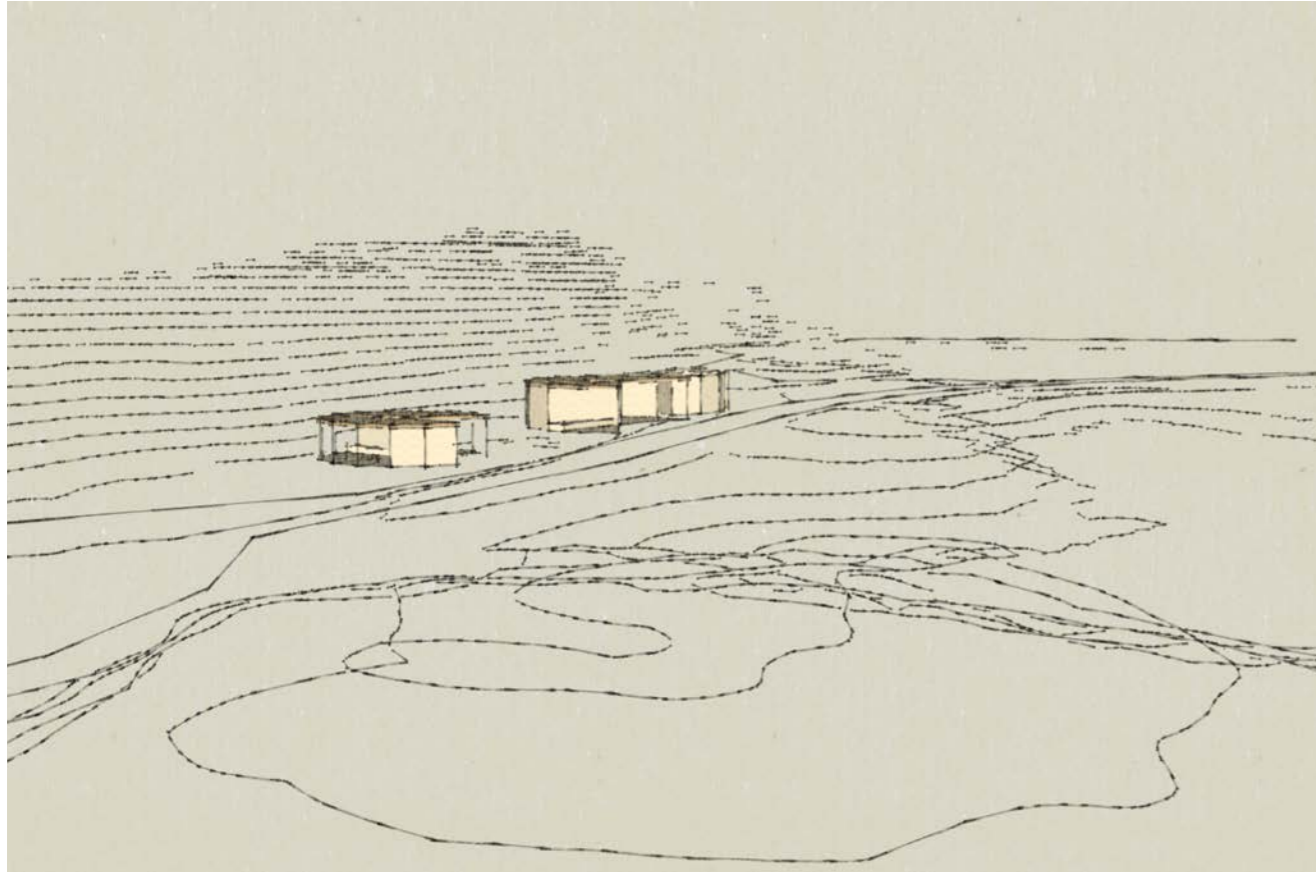
Swedish fir wood  
Oil treated  
(Source: <https://www.bauhaus.se/>)

First sketches with the inspiration from a village with fishing huts and iterating the site approach with ideas for the activity pavilion.

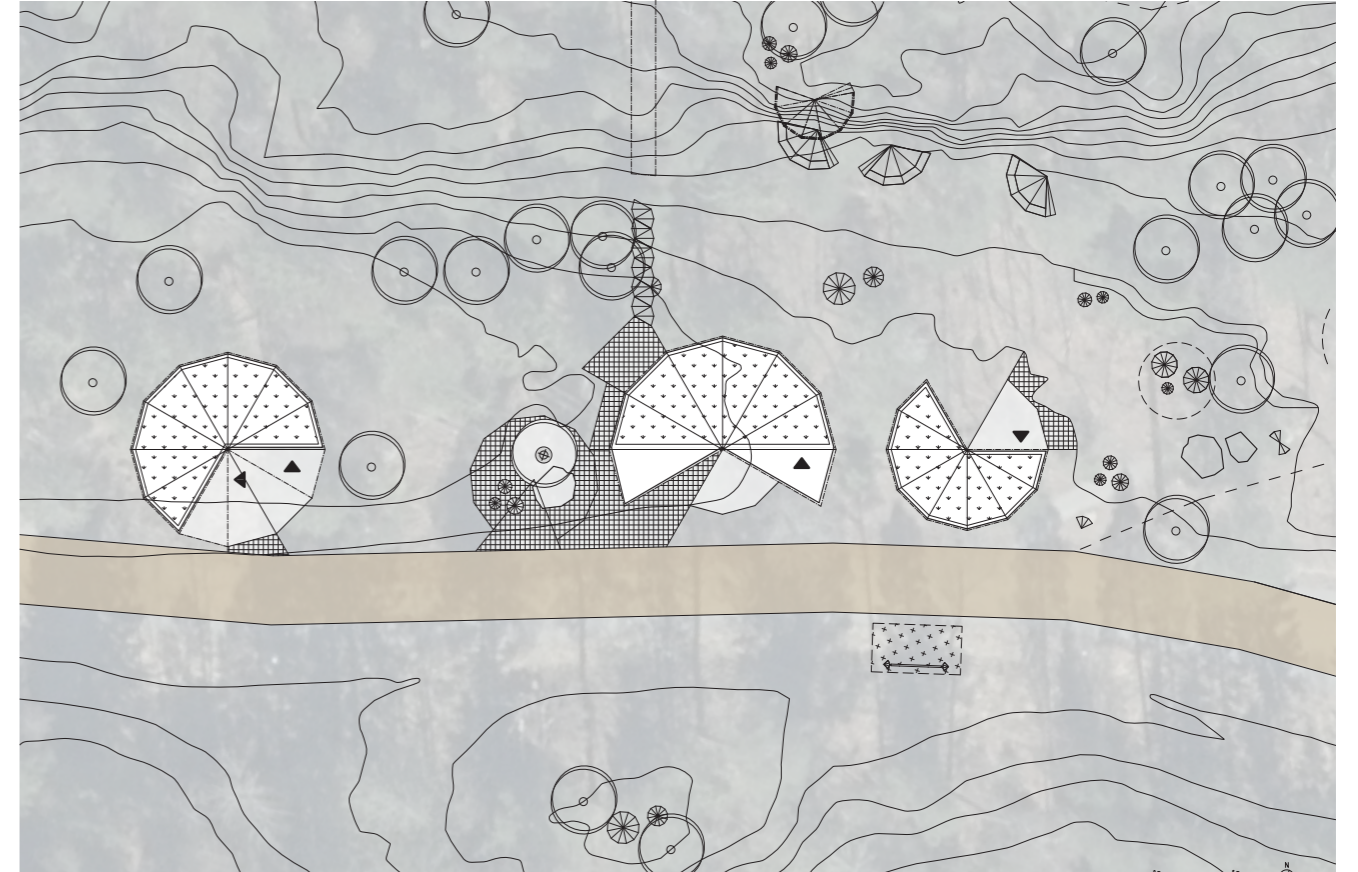
## 04. Design Exploration



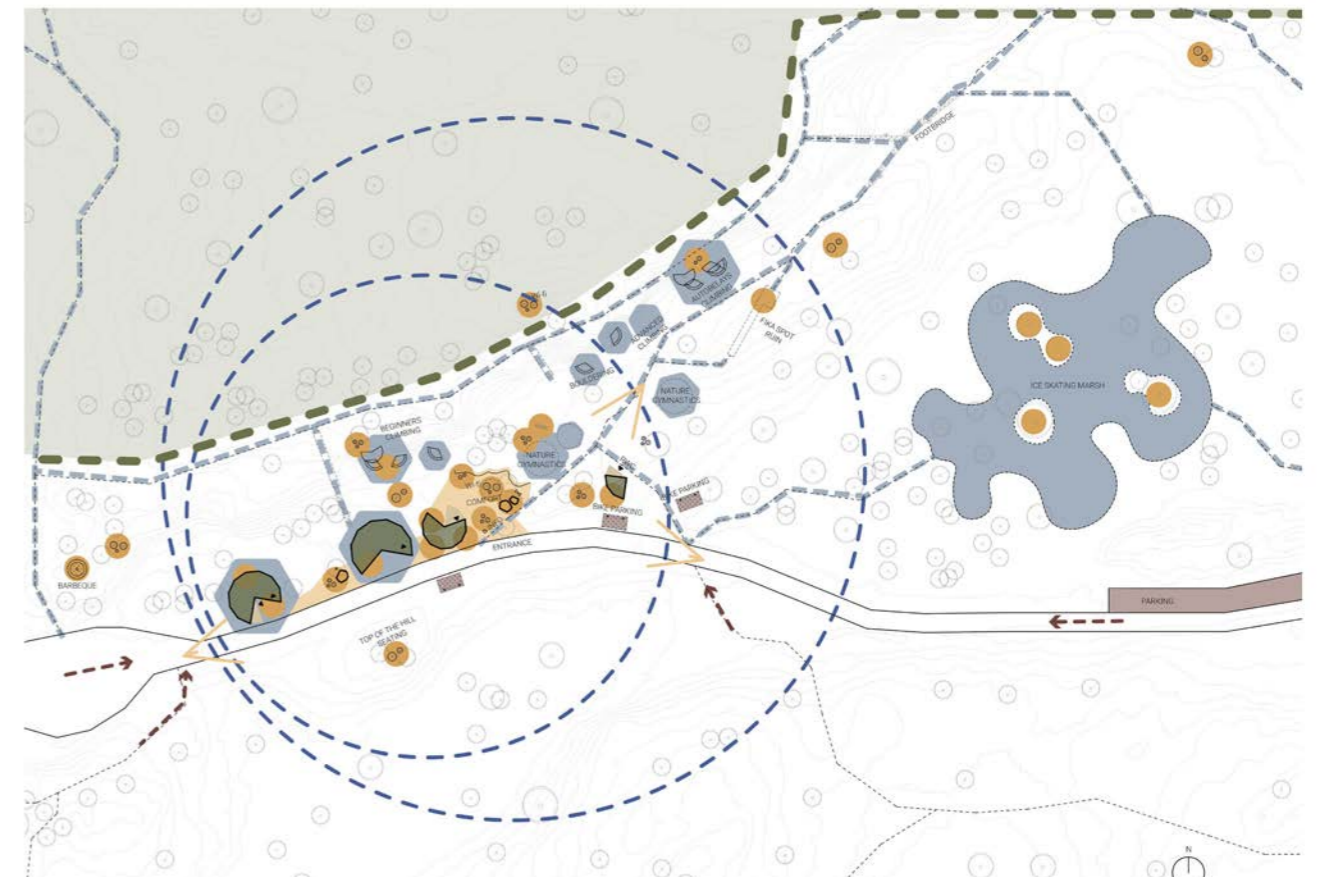
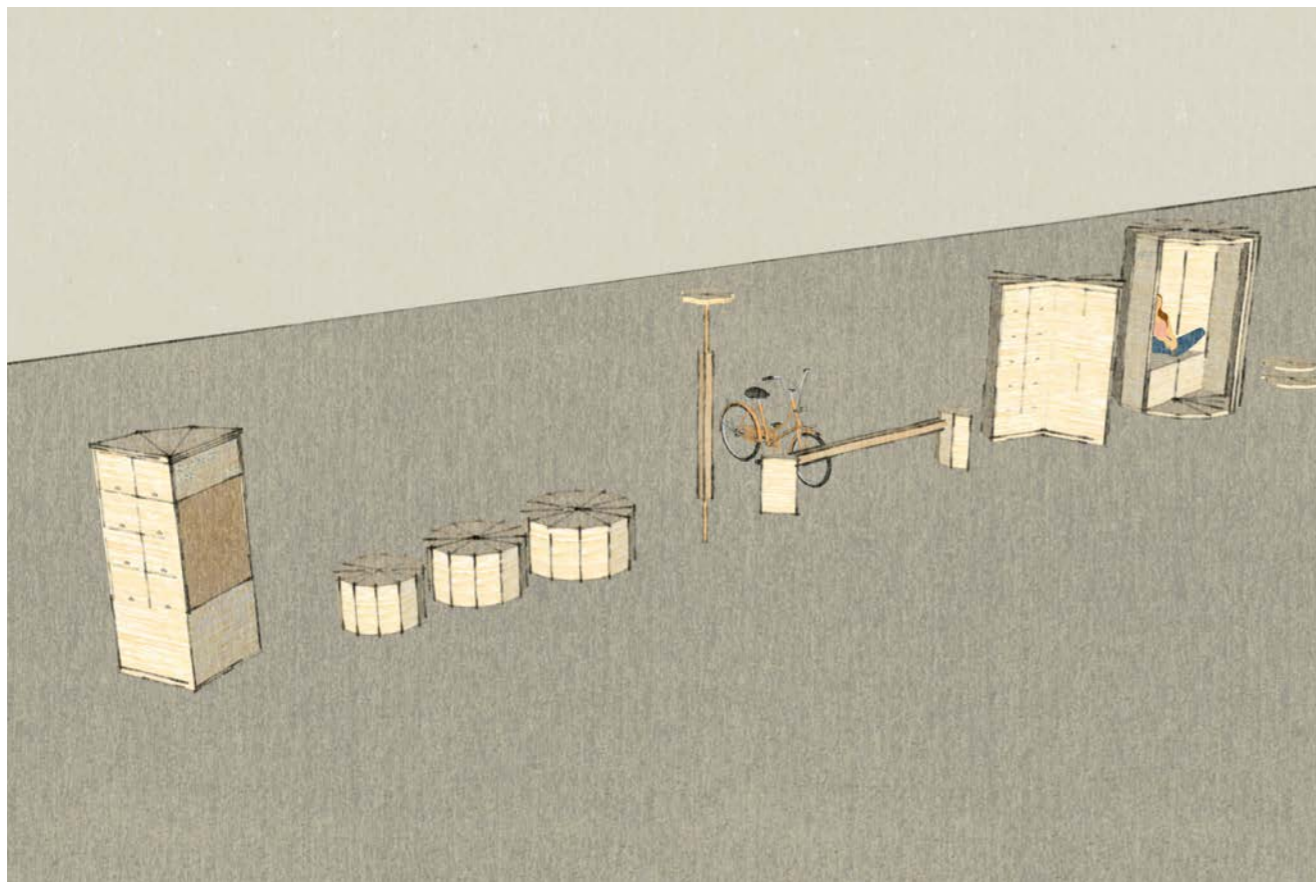
Studies of how to blend in well in the landscape and the development of a collection of wooden objects



Development of the location of volumes on the site, together with a site analysis where the program is tested



No scale

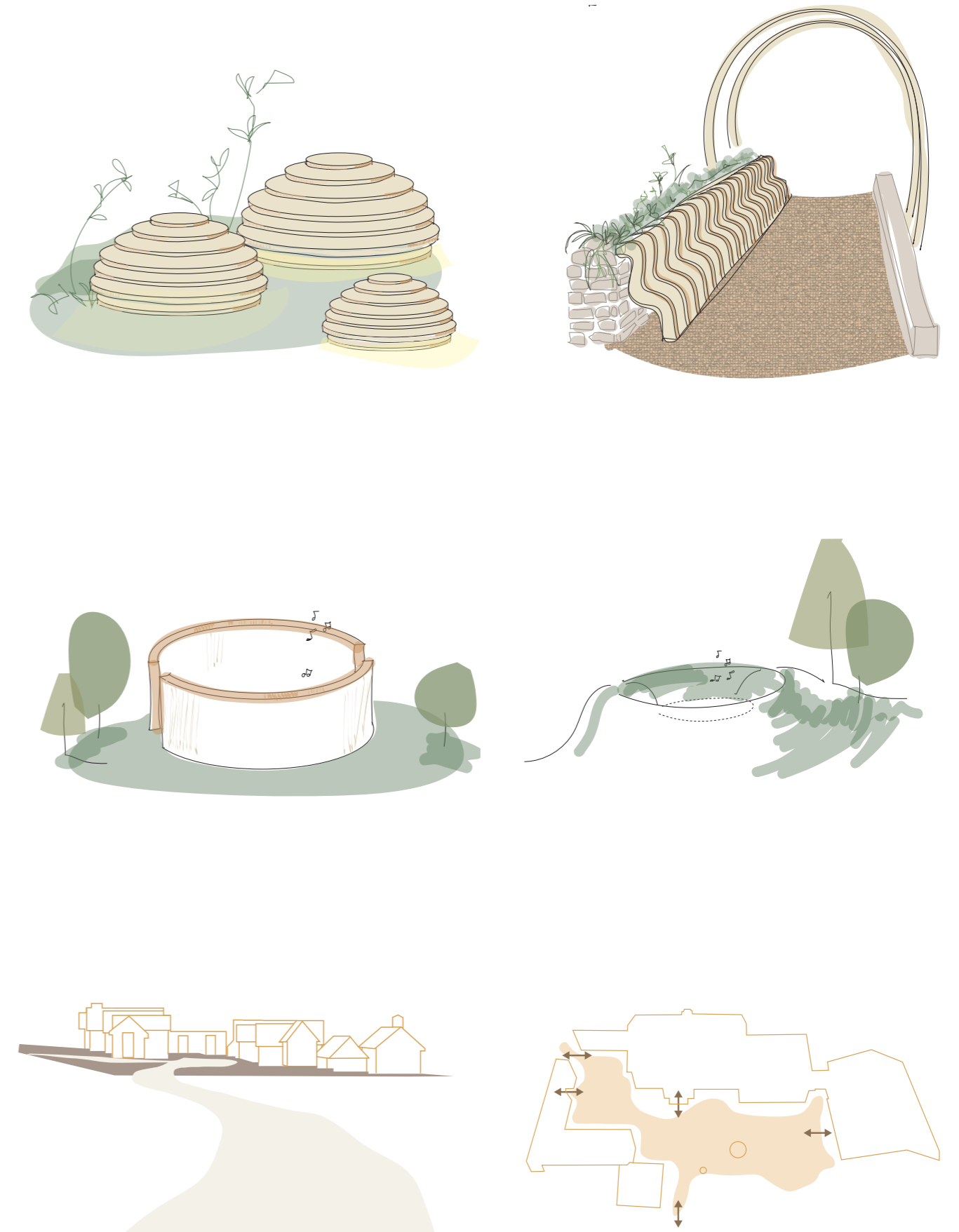


No scale

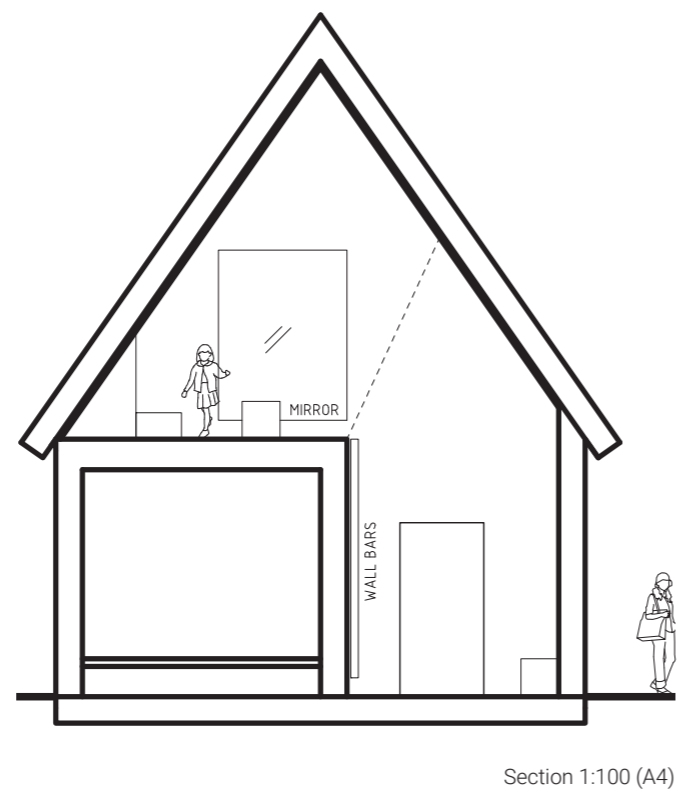
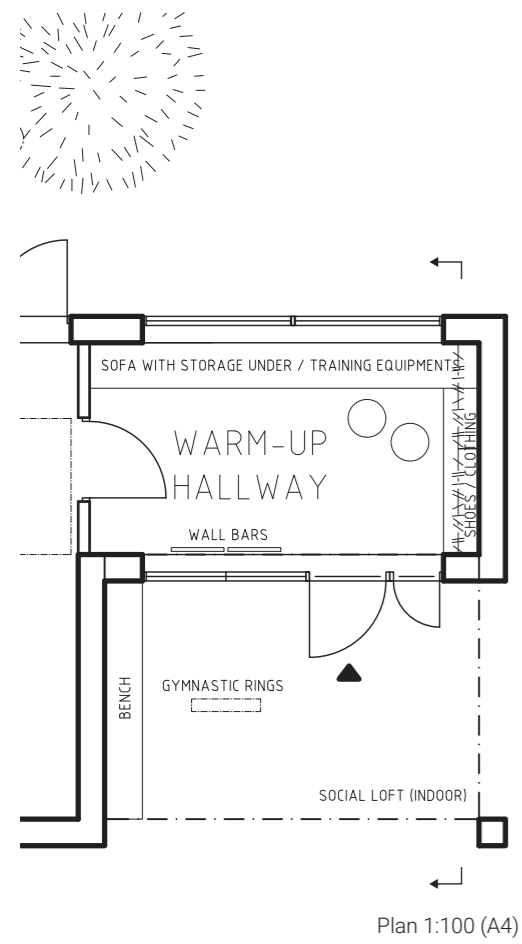
**Formfinding:** To find a design pattern/language that works in all scales, that can support the program and preferably have a touch of organic shapes to be understood as more kind and welcoming by the users.



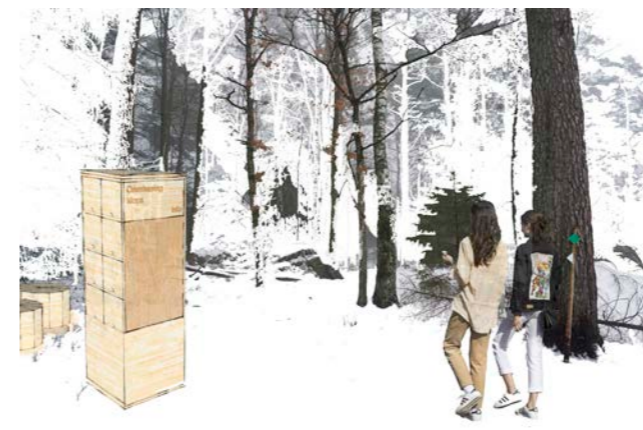
**Design ideas to the key steps in the user journey**



Sketches | Studies of the entrance situation and how to combine activity, a warm up and safe test space before entering the dance hall and how to provide a sheltered situation, but not too enclosed to have visibility. A fun hang-out space on the loft. The proposal is later considered to have a too high roof and the volume is seen as too large at the site.



Sketches | To enter a trail centre in daytime vs during a dark evening and how to bring safety in to the dark forest in wintertime?



# 05. Conclusion

A reflection upon the results of the thesis and the knowledge/process that supports the result

The work with this thesis has been deeply engaging, instructive and evolving. It has given me an overall insight in a topic that I am willing to continue to work with, somehow, in the future. As a result, me as well as the reader of the thesis have the possibility to use it as an inspiration with example solutions and as a toolbox - to bring into the daily architectural practise. Hence, I would say that the thesis has succeeded to answer the thesis questions:

- **How can architectural strategies and guidelines be formulated, with the aim to promote physical activity and lower the threshold for low-active groups, like the high school girls?**
- **How can this be exemplified through the transformation and extension of an existing outdoor activity space?**

The key aspects that this thesis have added to the discussion about the relation between physical space, physical activity, architecture, the usage of activity space is about how to lower the threshold for low-active groups, like the high school girls. Additionally, it gives an overall understanding of the situation in Sweden today, a summarized guide and summary of currently existing research in the field within the Nordic countries, not only with architectural strategies, but also their relation to the user perspective. The exemplified project also illustrates how the knowledge can be implemented and directly used in an architectural project, which have been difficult to find examples of in Sweden.

Furthermore, the project design highlights the potential of transformation of existing sites. Though one could question if these would have been even more interesting to use an urban site, but on the other had there are great examples of solutions in urban locations in our Nordic neighbour countries e.g., Denmark. Therefore, it has been a conscious choice to work with a nature and recreational area, like the trail centres that are a bit unique for Sweden, often positioned close to where people live. A local resource that has been showed to be even more appreciated in people's everyday life now during the times of a pandemic, Covid -19. When it is less easy to travel far it seems like there has been an increased usage of our local spaces for recreation. It is one way to support a sustainable lifestyle with focus on what resources, social, ecological and economical, that are available on a local level.

The design and the ambition to find a simple but organic shaped construction resulted in the twelve-corner circle, the dodecagon, form concept. It was shown to work well in different scales and if there was a way to continue the development of the design proposal - it would have been very interesting to develop a more detailed version of the design concept and to develop the details explaining the building design for example. Likewise to study the aging of the wooden material. A delimitation has been to not focus too much on the exact construction of the collection - which were needed to have more time to design the strategies and to work with the implementations of them.

Reflecting upon the knowledge and process behind the thesis work, it is a large and wide topic to deal with in a thesis with a limited amount of time and

resources. There are many potential solutions and architecture cannot be the solution itself, nevertheless it can support and create a great framework for the users. By starting the process by listening to the users and to experts has made it possible to mediate the input iteratively into the design and develop the thesis based upon the input from the actual users. I see this as a successful method, also because of today's shortage of dialogue between the planners and the actual users.

Furthermore, I initially did not plan to design a project proposal, rather focusing on designing architectural strategies. Throughout the process I got a lot of questions about the one and only solution, which I could not answer because there is none. The questions made me realized that a project could communication the research in a better way, so I decided to also develop a project. Hence, not to forget the project is just one example of a solution and there are many other ways to handle this question. The project is in an early phase the ambition has not been to design everything in details. If more time was given, I believe a diagram showing architectural strategies focusing on spatiality would be a good way to make the step from the more general strategies defined to the final design proposal maybe more understandable.

Finally, the thesis has added a third point of view perspective through its defined strategies and project proposal, working less influenced by political or economic or sport club's special interests as "real projects" often depend on. As a result, the project can exemplify how a collaboration between different actors can result in a new kind of program for an activity space that invites new users in a larger

extent. By stepping away from the requirements on spaces for competitive sport, focus has successfully been on creating an inviting, social and safe framework that supports the person that will perform the activities, rather than the activity itself.

To conclude, the thesis strengthens the architectural toolbox and acts as an inspiration of how a comprehensive pre-study can lead to good architectural solutions for a larger group of users with various interests and understanding of spaces. It is a continuation of the discussion what well-designed recreation is and provides questions and methods to the planning of a healthy living environments with accessible, inviting, social, intriguing, appealing and safe activity spaces.

Regina

## 06. List of References

### Reports

Centrum för idrottsforskning. (2016). *Statens stöd till idrotten, UPPFÖLJNING 2016*. Norberg, Johan R. <https://centrumforidrottsforskning.se/wp-content/uploads/2017/06/Statens-stod-till-idrotten-uppfoljning-2016.pdf>

Generation Pep. (2020). *Pep-rapporten 2020*. J-son Höök, Malin. [https://generationpep.se/media/2395/2002\\_genpep\\_rapporten\\_digital.pdf](https://generationpep.se/media/2395/2002_genpep_rapporten_digital.pdf)

Göteborg Stad. (2014). *Parker och naturområden - riktlinjer för jämställdhetsarbete, 2014-12-04*. [https://goteborg.se/wps/wcm/connect/7857827d-cb5c-4a37-a598-461e8fc9db6c/Parker+och+naturomr%C3%A5den\\_Riktlinjer+f%C3%B6r+j%C3%A4mst%C3%A4lldhetsarbete.pdf?MOD=AJPERES](https://goteborg.se/wps/wcm/connect/7857827d-cb5c-4a37-a598-461e8fc9db6c/Parker+och+naturomr%C3%A5den_Riktlinjer+f%C3%B6r+j%C3%A4mst%C3%A4lldhetsarbete.pdf?MOD=AJPERES)

Larsson, Ulrika, Stenberg, Erle. (2020, 19/2). *Jämställd utemiljö vid Torslandaskolan F-6*. LINK Arkitektur, Landskap.

LOA-fonden. (2020). *Viktige kvaliteter når vi taler piger og idraetsfaciliteter*. Rex Witting, Anna. <https://www.loa-fonden.dk/media/8866/vigtige-kvaliteter-naar-vi-taler-piger-og-idraetsfaciliteter.pdf>

Lokale og Anlægsfonden and GAME. (2020). *VIDENS- & INSPIRATIONSKATALOG ATTRAKTIVE IDRÆTSFACILITETER FOR PIGER, 2020*. Bendix Pedersen, Laura. <https://game.ngo/wp-content/uploads/2020/12/videns-og-inspirationskatalog.pdf>

Regeringsbeslut. (2020, 14/10). *Uppdrag till Boverket att ta fram förslag om hur kunskap om anläggningar och utemiljöer för idrott och fritid kan utvecklas, samlas och förmedlas*. Kulturdepartementet. <https://www.regeringen.se/4aa5e8/contentassets/5d8e00cedd8f45328abd4ddb8efac2be/uppdrag-till-boverket-att-ta-fram-forslag-om-hur-kunskap-om-anlaggningar-och-utemiljoer-for-idrott-och-fritid-kan-utvecklas-samlas-och-formedlas.pdf>

Riksidrottsförbundet. (2017). *Idrottens samhällsnytta En vetenskaplig översikt av idrottsrörelsens mervärden för individ och samhälle, FoU-rapport 2017:1*. Faskunger, Johan, Sjöblom, Paul (red). [https://www.rf.se/globalassets/riksidrottsforbundet/nya-dokument/forskning-fou/idrottens-samhallsnytta/fou2017-1-idrottens-samhallsnytta\\_tavlingsidrott-och-folkhalsa\\_en-anomali-eller-en-naturlig-kombination.pdf?w=900&h=900](https://www.rf.se/globalassets/riksidrottsforbundet/nya-dokument/forskning-fou/idrottens-samhallsnytta/fou2017-1-idrottens-samhallsnytta_tavlingsidrott-och-folkhalsa_en-anomali-eller-en-naturlig-kombination.pdf?w=900&h=900)

Riksidrottsförbundet. (2018). *Idrottsrörelsen i siffror 2018*. <https://www.rf.se/globalassets/riksidrottsforbundet/nya-dokument/nya-dokumentbanken/idrottsrorelsen-i-siffror/2018-idrotten-i-siffror---rf.pdf?w=900&h=900>

Riksidrottsförbundet. (2015). *Anläggnings- och idrottmiljöpolitiskt program för Svensk idrott Anläggningar och idrottmiljöer för Svensk Idrott – världens bästa*. Gäller för perioden 2015-2025. <https://www.rf.se/contentassets/bcefc0082ff948fba765e55138af7c61/anlaggnings-och-idrottmiljopolitiskt-program-for.pdf>

White Arkitekter. (2016) *Flickrum i det Offentliga / Places for girls*. <https://whitearkitekter.com/se/wp-content/uploads/sites/3/2018/08/Slutrapport-Flickrum-.pdf>

Åkesson, Blomdahl, Elofsson. (2019). *Vilka idrotts-, motions- och rekreationsanläggningar vill Stockholms stads invånare att staden ska satsa på?* <https://insynsverige.se/documentHandler.ashx?did=1821496>

### Video

White Arkitekter and LOA-fonden. (2020, 1 sep) *Framtidens idrottshall. Webinarium 1/9-2020*. [Video]. YouTube. [https://www.youtube.com/watch?v=vbCu\\_0f740A&t=5569s](https://www.youtube.com/watch?v=vbCu_0f740A&t=5569s)

LOA-fonden. (2017, 7 sep) *Interview 1: Pigers idrætsvaner 2017* [Video]. YouTube. <https://www.youtube.com/watch?v=uKoc8kIWRAW>

LOA-fonden. (2017, 7 sep) *Interview 2: Pigers idrætsvaner 2017* [Video]. YouTube. <https://www.youtube.com/watch?v=reNLMXR6pcl>

LOA-fonden. (2017, 7 sep) *Interview 3: Pigers idrætsvaner 2017* [Video]. YouTube. <https://www.youtube.com/watch?v=1r66psSjrOY>

### Web

Bill & Melinda Gates Foundation. (2020). *Investing in the women changing the world*. <https://www.gatesfoundation.org/goalkeepers/accelerators/investing-women/>

Chalmers School of Architecture. (2020). *New Public Landscape/Matter Space Structure, fall 2020*. Carlén, Regina. <https://projects.arch.chalmers.se/regina-carlen/>

LOA-fonden. (2020). *About LOA-fonden*. <https://www.loa-fonden.dk/om-fonden/>

WHO Regional Office for Europe. (2016). *Urban green spaces and health - a review of evidence*. <https://www.euro.who.int/en/health-topics/environment-and-health/urban-health/publications/2016/urban-green-spaces-and-health-a-review-of-evidence-2016>

### Articles

Aspelund, Synnøve. (2015). *Få jentene på banen!* ARKITEKTUR N NR. 3 2015. <https://arkitektur-n.no/artikler/fa-jentene-pa-banen>

Steinarsdottir Rishaug, Vigdis. (2015). *Et aktivt utemiljø for unge jenter*. ARKITEKTUR N NR. 3 2015. <https://arkitektur-n.no/artikler/utemiljo-for-unge-jenter>

### Books

Gehl, Jan. (2011, 17/1). *Life Between Buildings : Using Public Space*. Island Press.

Jormakka, Kari, Schürer, Oliver, Kuhlmann, Dörte. (2014). *Rationalist approaches, Design research, Patterns. Basics Design Methods*. (pp 48-49). Birkhäuser Basel.

Tschumi, Bernard. (1996). *Abstract Mediation and Strategy, Crossprogramming, transporgramming and disprogramming. Architecture and Disjunction*. (pp. 205). MIT Press.

# Thanks

for contributing to this Master Thesis

The high school girls and teachers from  
Lerums Gymnasium

Elvira Carlén  
Gisela Carlén och Björn Carlén Bengtsson  
Joshua Dudley  
Lisa Carlén  
Sofia Carlén  
Inger Carlén  
Amilia Björklund  
Beata Lindqvist

Jonas Carlson  
Daniel Norell  
Naima Callenberg

Udviklingskonsulent, Lokale og Anlægsfonden  
Landscape architects, Link Architects  
Plats för idrott, Riksidrottsförbundet  
AIK Ishockey  
Kriminolog, Stiftelsen Tryggare Sverige  
Stadsarkitekt, Härryda kommun  
Folkhälsoplanerare, Härryda kommun

# 07. Appendix I



## Reflections from the girls - input to the checklist

"Spontaneous sports, what is it? Well, no we would never use such a place. You do not want to be the one that everyone talks about at school. For boys, it may be okay to be ashamed, to be a clown, but it's not okay for girls."

"My biggest interest is to hang out with my friends."

"Although I move a lot more than my little brother and my boy classmates, they only play gaming games all the time. But on the other hand, they may still be in their sport."

"Girl gym, is there one? Yes, but it would have been great! Although it would never work to have a place outdoors that only girls are allowed to use. The guys would come anyway and it would feel silly."

"If a place is completely pink or is only for girls outdoors, then the boys will definitely take over that place. It's just that. It becomes very exposed and exposed to the girl."

"I train mostly with my team, but sometimes we use the outdoor gym or run a round around the lake or on the tracks."

"The best thing about being part of a team is the social, that we invent things after training."

"Of course if you are good at something then it is cool, if you already know a sport very well. Being half good is not cool."

"I like to train right after school, if you bring training clothes with you, you feel that you should do it. Then it's easy to just walk by on the way home. But it should not be at school, it is too close. You want to get a little break, a break before you go to study at home."

"If you want to move, you want to do it because it's fun, not compete. You want to meet friends, although we do not have to talk all the time, but we should be able to laugh together and talk sometimes."

"We usually see each other at home, sometimes at a café in town if you can afford it or outside the second-hand shop. Maybe by the water and the rocks in the summer."

"If there had been a place at the school where you can train for a long break, I think it would have been appreciated. A room that is only open, with things you can borrow. It would not have worked if the school had tried to arrange extra sports, not even if it is without grades, because it would feel forced anyway. Better with freedom of choice"

"But when you're at school you do not want to get sweaty, it's just hard. Think a ping pong table would have been more appreciated, or things you can do together without getting sweaty."

"No I do not go out, there are always better things to do."

"Inspiration? Yes, models that you see on social media, that look good."

"Skateboarding and basketball and things like that usually exist as spontaneous places are not so popular among my friends."

"A test at an event that is free might have worked, but is not sure. It also feels silly if it's a pink dance night just for girls."

"Party on Friday, sleep on Saturday, study on Sunday, or meet friends. Sleep after school, chill in front of youtube or social media until 19, cook supper and then study as long as needed."

"I feel much more comfortable training where you should train, in a gym or on a sports field. If you are in a park, on a street or at a beach, you can come across classmates who hang out or party. That's not fun."

"Where an outdoor gym is located together with a café, playground or similar is good. Then people will feel welcome, no matter how untrained you are."

"The activity or place should not be in the center, but not too far away either. In the middle is best."

"I stopped my activities before high school because they were too far away and because there was too much competition focus."

"I mostly go out into nature if I want to be myself, get a break. Then I take one of my favorite rounds, preferably near water."

"My friend first stopped because it was too unpretentious with her sport, she did not get better. But then she changed teams and now she likes it."

"I run outside when it is dark on the electric track, or train in front of youtube at home on the floor, even though it is difficult without tools"

"I quit football because I was not that good, but I still appreciated the team spirit. Actually, I was better at other sports when I was little, but they did not have as good cohesion so I continued with football anyway. To meet friends."

"I do not think that high school students are so eager to try new sports, either you have a sport you already like, or you are not interested in sports. If you still know that it's good to be active, maybe you go to a group session, to the gym or start jogging a bit yourself."

"I do not even think that a test at an event would have helped many people, or maybe if many friends test together, you can feel like a beginner together instead of yourself."

"All the boys in high school hang out in gyms so you can't go there, especially not when they make a comment at school that they look at the girls' asses and such."

"You want to look good, that's why most people are active or exercise."

"It's hard to do something if it's not close"

"You do not want to be looked at"

"I have done a lot of horse riding, and danced. It was almost only girls there."

"Of course if you are good at something then it is cool, if you already know a sport very well. Being half good is not cool."

"I think that if you are not doing any sports, it certainly feels better to train or be active in a place that is not just made for teenagers. If it is mixed ages, you feel more comfortable not to be so good."

"An extra barbecue area and bathing area would have been nice. These are our most popular meeting places, but now they are almost always busy in the summer."

"If we are meet-up outdoor we use to pic the large playground. It is located along the lake and quite central, but it also has a slope behind it so it does not feel so exposed."

# In The Mind of The Girls

## Interviews with a group of high school girls

The method used for the interviews with the girls: The interview was made through digital video with a couple of high school girls from a school just outside Gothenburg. The girls were interviewed two and two friends together. This to support a discussion and to be able to generate ideas together. The interviews were divided in to two phases, see below:

- The first part where a more open discussion lead by some key words (see left). The aim here was to hear the girls themselves describe their thoughts about the issue and to discuss what could be done to make them or their friends more physical active. But also, just discussion a teenager's life in today's society and to hear what's challenging and what's the main driving forces.
- The second part of the focused on three example projects that all have potentials to attract high school girls in some way. Either the projects group have stated that their target group are girls or either it's a project that based on previous research seems to attract girls.
- All girls where in their last year of high school and 50 % of them describes themselves as very physical active and 50 % describes themselves as not so physical active. 25 % of the girls are today still active in organized sport. Almost all of the girls had been active in some organized sport before starting high school.
- The girls were asked to look upon the questions from a third point of view in order to discuss what a less or low-active person would need in order to be more active.

## Spontaneous Places...

...that actually works for the girls today. This is one of the favourite public social and outdoor meeting places in a city located just outside Gothenburg. What inspiration can we get from this?



Tool: To work with (trans) program, to think outside the box to find non-competitive activities, and to combine them in to a functional program on the site

- Music Cabin
- Hang blobs
- Climbing shelter
- Free Map Wall
- Greenroom
- Half-way Picnic Café
- Bouldering Crystals
- Obstacle Path
- Stroll Path
- Nature Swim
- Playing Library
- Don't touch the ground forest
- Nature Gymnastics
- Ice Lake
- Bike stop
- Cosy Lights
- Bridge
- Landscape Gym
- School Route
- Wintergarden
- Nature Jumps
- Yoga Terrace
- Community pavillion

# The New (Trans) Program

What could this new activity space hold?

## Friendly cabin

- Lockers / Storage for clothing and equipments
- Kitchen
- Eating / Meeting
- Toilet
- Changing rooms (x2)
- Storage for sportclubs
- Office for sportsclubs: Orientering, Climbing and access for all other municipality clubs

## Safe lightning

- Smooth lights to create safe connections the eclectic trails with the nature trails

## Fun steep hill transportation

- Stairs up, with slide down

## Nature gymnastics

- Trampolines in a row
- Swing function

## Outdoor barbecue area

- Seating around the fire
- Fire place
- Kitchen prep-area

## Dancestop room

- Outdoor room with two entrances
- Motion detector with music and playlist
- Music speakers

## Calm fika spot

- Sneak peak on activities
- Seating

## Entrance to trail center

- Weather protection
- Storage clothing
- Waiting space / Social seating
- Stretching space
- Wifi-spot
- Information spot

## Satellite information

- Website
- Map at the schools
- Host inviting

## Bridge

- Easy and fun part

## Equipment cabin

- E - legitimation scan
- Storage for sports equipments
- Reparation possibilities
- Bike support

## Group pavillion

- Free space
- Mirrors
- Storage space
- Toilet?

## Climbing shelter

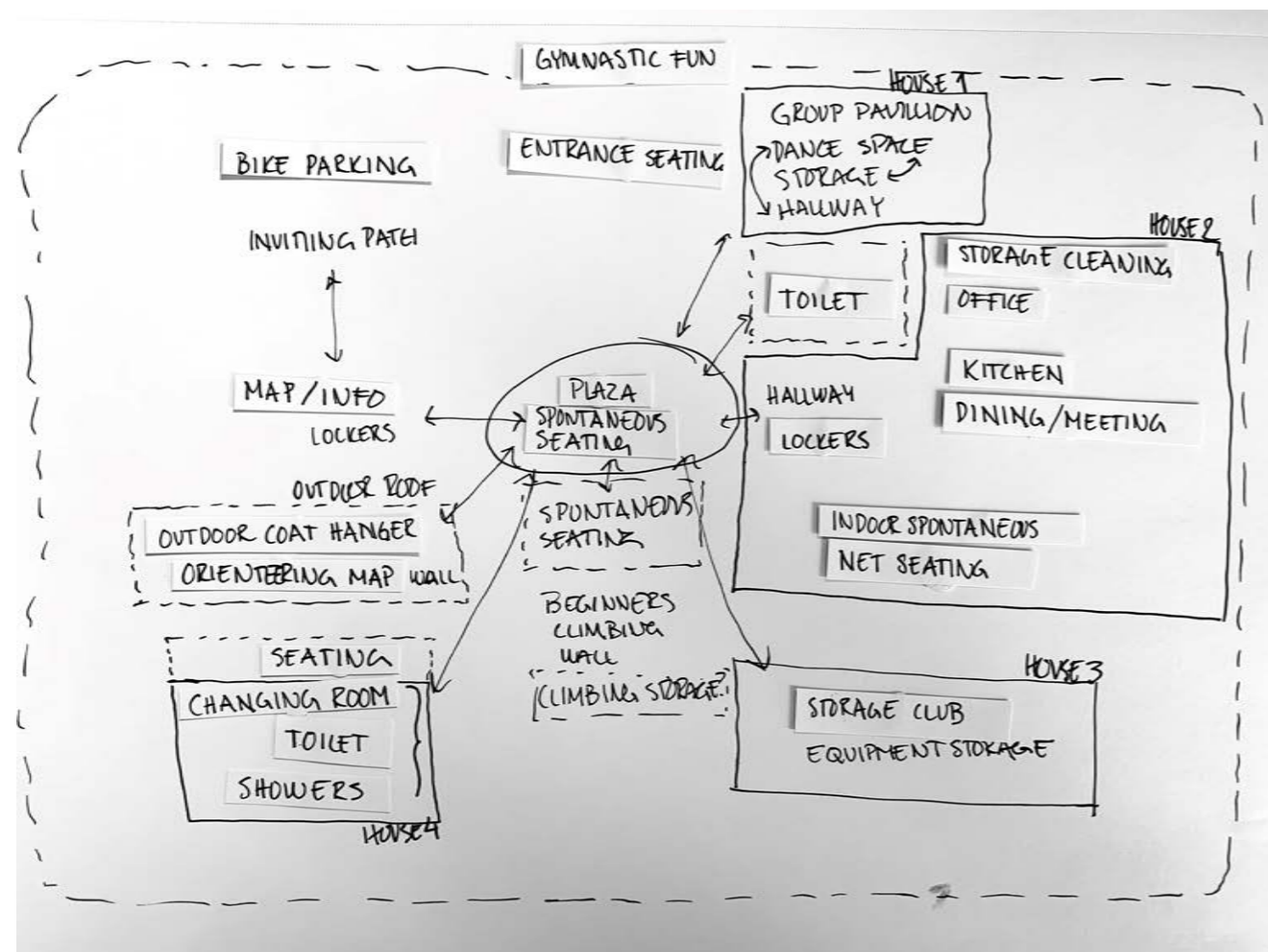
- Roof terrace and outlook
- Autobelays
- Terrace / Safe falldown space with wood chips
- Seating
- Storage outdoor

## Ice march

- Imitating an ice lake for figure skating
- Access from path
- Seating
- In summertime it can be used by the school for outdoor classes

## Inviting path

- Around the march - accessible
- Integrates seating
- Spots for outlook or fika



**Reference:**

Previous work and pre-studies done by me in the Matter Space Structure 1 course during the autumn 2020. Analysis of the GAME Streetmekkas concept and architectural solutions in Viborg, Denmark by EFFEKT 2018. The project has the ambition to invite new users to activities and sport, and has been analysed by LOA-fonden with girls in mind. (Chalmers School of Architecture 2020)



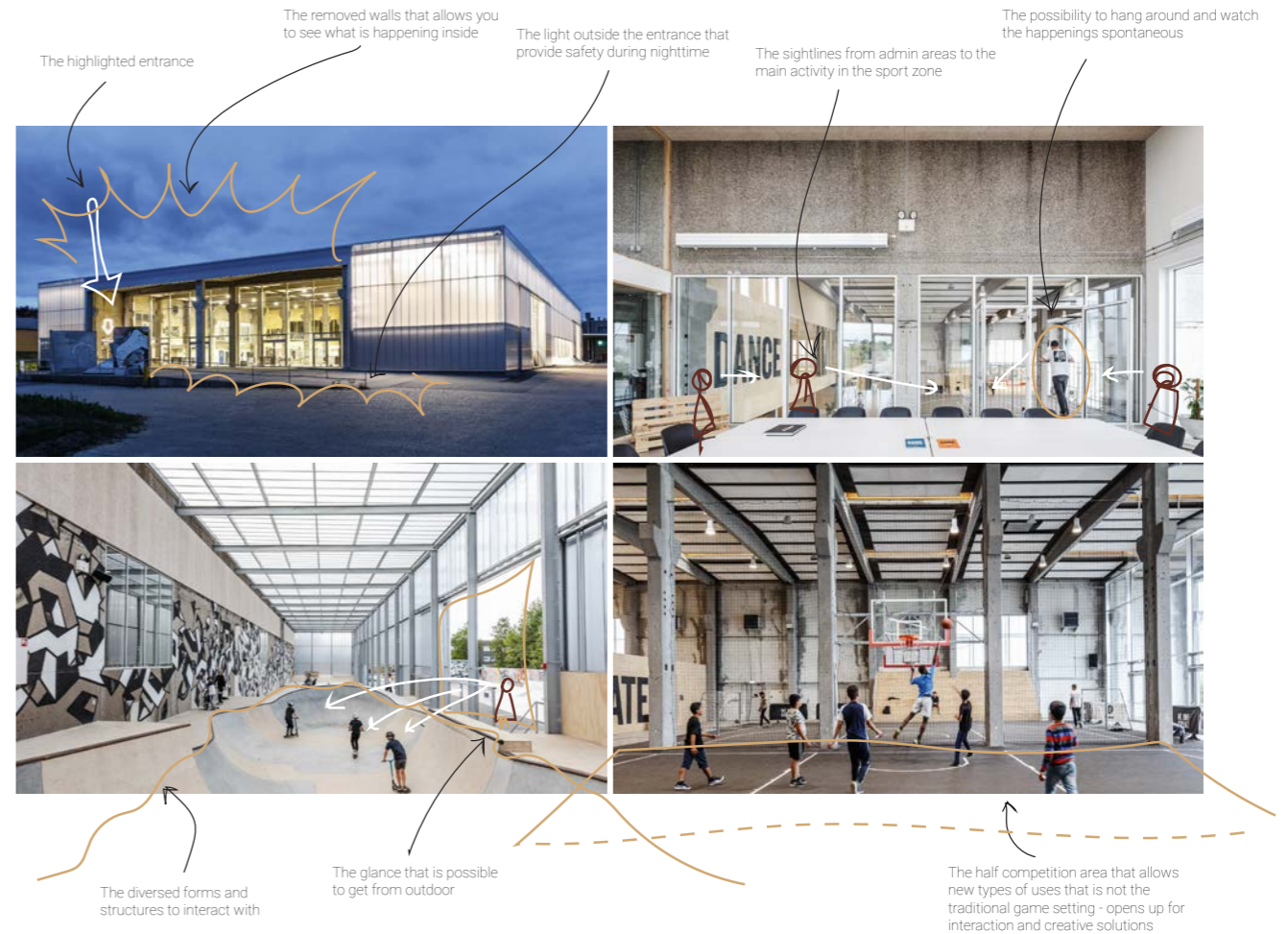
Colorful activity equipments shows that they are made for usage

**Reflection**  
The concept includes young role models working as playmakers to invite the user to the sport. The combination of activities attracts a mix of users. The question is though if this really is a place for everyone? Probably not for the one seeking intimate spaces and less exposed situations. If you think of the key qualities that you group are asking for this might not attract this usergroup as much as it attracts young boys. On the other hand, it is not possible to attract everyone with all sport facilities.

- Inviting**
- Smart space for social meetings
  - Light, transparent and interactive
  - Not conventional functions for activity
  - Cross-program with sport and culture
  - Robust space open for creativity

- Barriers**
- Mainly used by sport enthusiasts
  - Member fee is mandatory (even if it is not expensive)
  - Lack of smaller intimate space close to the activity
  - Will probably not attract all ages or equally to boys/girls

The question is whether the social surfaces really welcome everyone? They are very free, non-specific and lack smaller intimate rooms for conversation, which can make the less brave person feel a bit uncomfortable...



**Social space**  
Social space and designated hangout zones are interweaved with the new added functional program  
Closeness to activity can lower the threshold for participation a lot!



**Warm and human**  
New interior additions is done in wood which creates a warm and welcoming environment for the "side activities".

**Interaction between levels**  
The feeling of safety is enhanced by visibility, transparency and the possibility for human interactions between different levels in the building. It is also possible to be an audience on a safe distance from the activity as a first introduction to the happenings in the building.

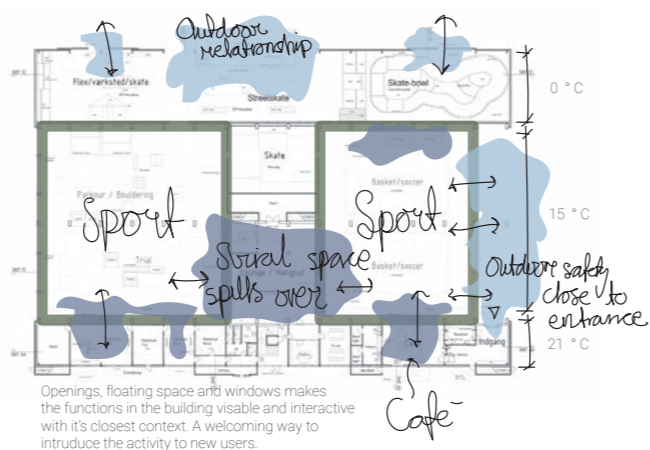
Having fun?  
Meeting friends?  
Develop skills?

The safety net that allows you to be close by without the fear of getting hit by a ball

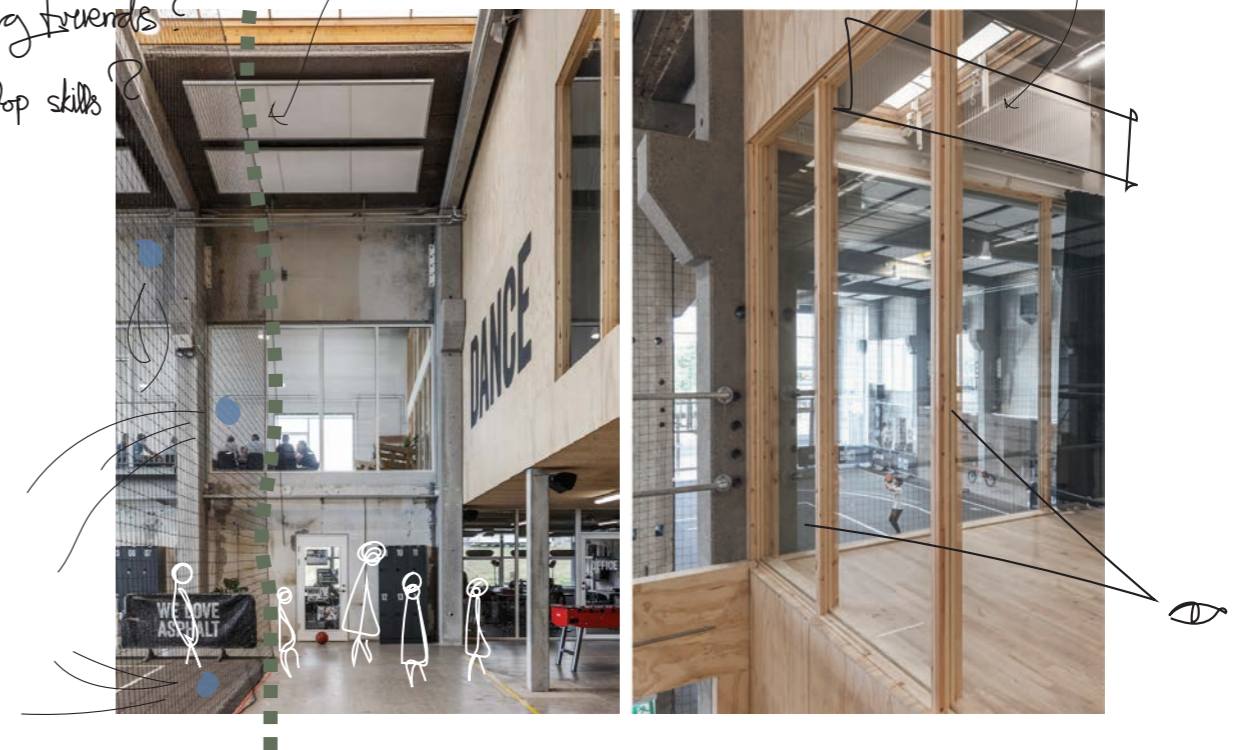
The not most efficient position of the radiator allows you to have a free view between the rooms for different activities. If one activity does not suite you, you might want to try the next one...



Social space that also can be used for other functions.

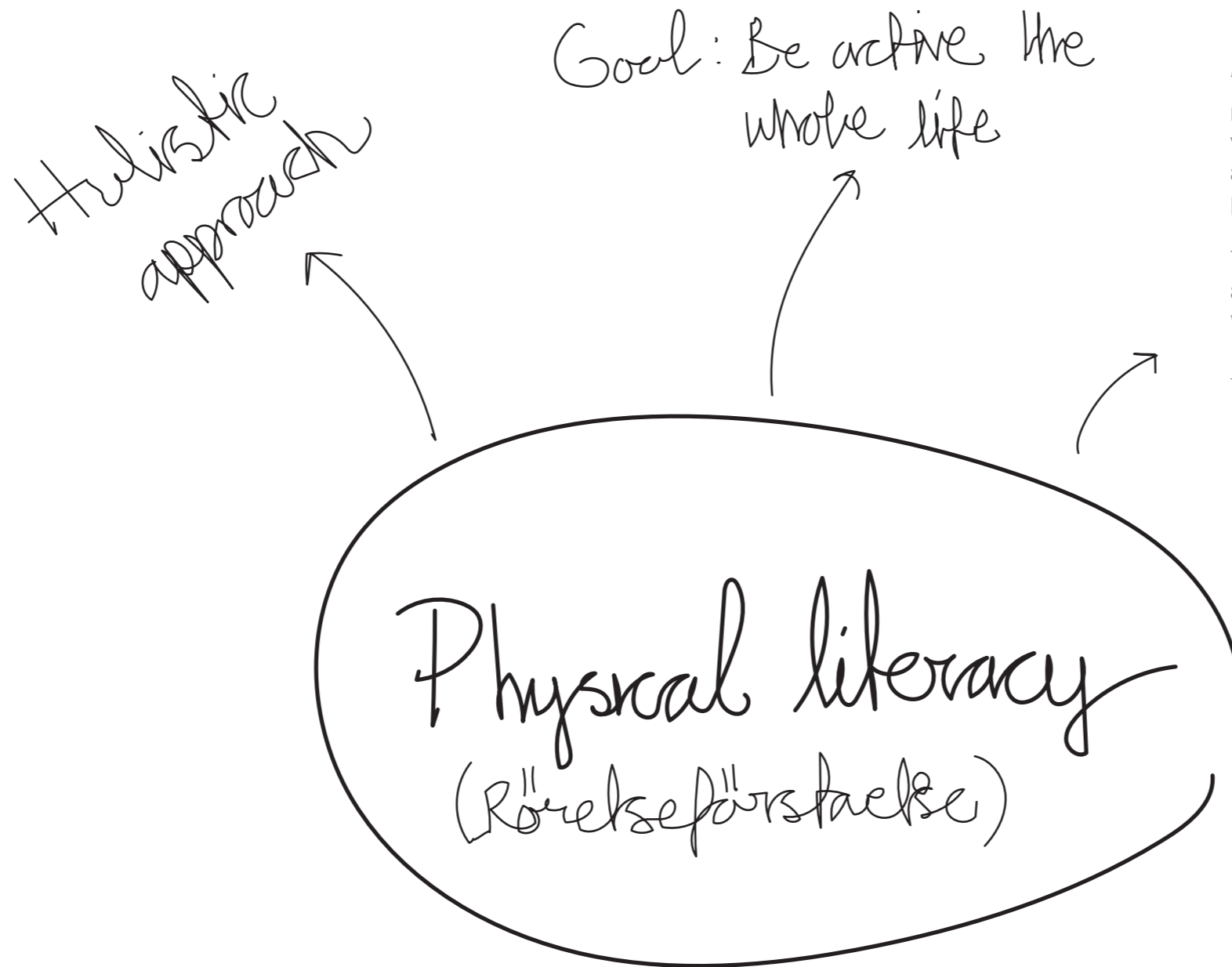


Openings, floating space and windows makes the functions in the building visible and interactive with it's closest context. A welcoming way to introduce the activity to new users.



**Reference:**

Previous work and pre-studies done by me in the Matter Space Structure 1 course during the autumn 2020. Today The Swedish National Sports Association has holistic view on physical literacy and the positive outcomes from physical activity. (Chalmers School of Architecture 2020)



"Movement understanding is thus more than being able to perform one variety of movements. It is about developing all individuals so they dare and can be physically active throughout life.

Therefore, movement understanding as important as reading and writing comprehension!"

- RF

## Physical abilities

are speed, strength, coordination, endurance and mobility. The basis is basic motor movements like throwing, running, climbing, jumping and balance. With a wide physical basis, more people can gain self-confidence, feel that they can and be motivated to continue playing sports all his life.

## Social skills

are among other things about cooperation and leadership, to be able to read and understand others. By developing social skills we become better to lift each other up and take responsibility. To learning new things in a permissive environment leads to increased self-confidence and more joy - the strongest of driving forces

## Mental abilities

include both thinking and feelings. For example learning and problem solving, that be able to feel and learn to handle emotions. This also includes motivation which plays a major role in movement comprehension. Inner drive, and the feeling of participation in its own development, increases the desire to train.

## Athletic abilities

may have clearest connection to club sports. It is in the club, the team, the training group that we learn to master things such as technology, tactics, game systems and rules for the sport or sports we exercising. We also learn the culture and the language of the various sports.

Concept elevation: To build a activity community between the north hillside and the road in south

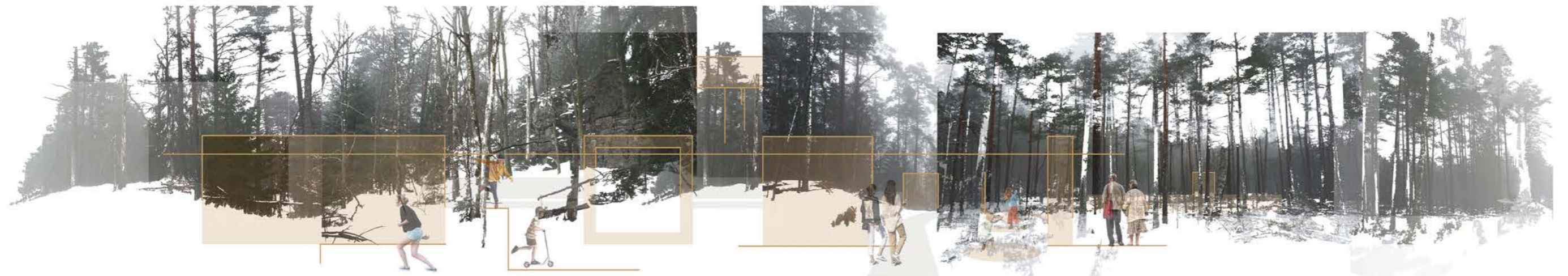
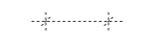
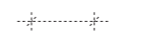


Climbing outlook

Climbing shelter

Gymnastics

Never stop dancing room



Group pavillion

Hang out space

Friendly cabin

Equipment cabin

Inviting path

Info

Ice skating marsh

Walking along the road



## Fact

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**The National Board of Housing, Building and Planning have the task from the Swedish Government to present the following at latest the 1 March 2021 (Regeringsbeslut 2020-10-14):**

"Develop a basis on how knowledge about facilities and outdoor environments for sports and leisure can be developed, gathered and communicated which, from a public health perspective and an innovative approach, can reach both broad and new groups of sports, exercise and outdoor life practitioners."

Investigate what should be covered in the form of aspects such as needs inventory, community planning, coordination, financing issues, design,\* construction, operation and maintenance.

Investigate the possibilities for creating synergies\* between existing public support for facilities and outdoor environments."

\*Parts that this Master Thesis is exploring

## Speculation

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**What if the result could be a Swedish equivalent to The Danish Foundation for Culture and Sports Facilities (LOA-fonden)? With the mission to:**

"Popularly speaking, we are set in the world to create the meeting places of the future that are accessible, make sense and leave traces. We do this as a self-governing institution, knowledge communicator and development fund under the auspices of the Ministry of Culture.

Specifically, we develop and advise on construction projects and physical facilities within leisure life. That is, within sports, outdoor and cultural life.

In addition to creating the meeting places of the future, we distribute approx. 80-90 million DKK annually for projects we work on. The funds come from the so-called distribution funds under Danske Spil (Tip funds).

It is the aim to contribute to the innovation of the physical framework. The task is to move the focus away from the conventional approach based on standardised facilities towards an approach which to a much greater extent is based on the actual development in people's physical and cultural

activities as well as on architectural and aesthetic parameters.

Innovation in relation to the design and planning of culture and sports facilities is rooted in changes and new patterns in everyday life, and the challenge is to combine the best of tradition with the new trends of cultural and social habits.

Especially the world of sport and physical culture is changing concerning the pattern of participation and activities. Over the last forty years there has been a radical change in the proportion of the population who are actively engaged in sports, the total number has almost quadrupled. Women are now just as active as men, and people continue to be active even in old age. While sport was previously mainly for children and young people, adults now constitute an age group very actively engaged in sports. A lot of new types of activities have entered the scene and play a dominant role."

- About LOA-fonden  
(<https://en.loa-fonden.dk/about/>)

## Epilogue

**The State takes action to change current trends in Sweden?  
Topic: Physical activity, the built environment and public health.**

Every year Generation Pep publish a comprehensive review of children and young people's health in Sweden. The last report from 2020 declares that only 14 percent of the children and adolescents included in the study are physical active to the extent they need to, nor eat enough healthy, to feel well in their bodies. Obesity and sedentary lifestyles are growing problems among adults as-well as youth. Alarming is also the fact that nearly one in four teenagers indicates that they sit still in front of a screen for five hours or more per day. Teenage girls are the group where the lowest percentage reaches the recommendation of physical activity. (Pep-rapporten 2020)

As an action to deal with this growing issue, The Swedish Parliament approved in 2018 the Government's proposal: "The national goal of public health policy is to create societal conditions for a good and equal health in the entire population and to close the impressionable health gaps within a generation. (God och jämlik hälsa. En utvecklad folkhälsopolitik. Prop. 2017/18: 249)

The Government also assesses that there is a national need for more appropriate facilities and outdoor environments for various forms of health-promoting physical activity. A conclusion made is that there is a need for development and to gather a collective knowledge of key factors for these facilities and outdoor environments. Therefore, the National Board of Housing, Building and Planning is given the task from the Government to deliver a proposal at latest on the 1 of March 2021 on how knowledge about facilities and outdoor environments for sports and leisure can be developed, gathered and communicated. (Regeringsbeslut, Ku2020/02179, 2020-10-14)

The need for such a compilation has The Swedish Sports Confederation (RF) and Sweden's Municipalities and Regions (SKR) also identified. They believe that the state can develop its role in supporting the development of facilities through construction knowledge and financial support in accordance with the needs of those who own and operate the facilities and users. The municipalities have to a large extent-built facility for organized sports. Thus, there has been a tendency to let the sports movement define the facility needs. This lack of a combined competence and knowledge development can contribute to an inefficiency in the creation of new facilities. The assigned title on what's RF and SKR have defined as needed on a national level makes speaks for itself: National Innovation and Development Function for Sports and Leisure Facilities (SKR 18/02991, RS 2018-10-03-04 Utl 4e)

There is also an exciting sub-goal from the Government, "Outdoor life for good public health", which aims is to create good conditions for people to be regularly physically active in a natural and cultural landscape (Mål för friluftslivspolitik, skr. 2012/13:51). Furthermore, the state's sports policy is based on a clear effort to encourage and provide opportunities for children, young people and adults' exercise and sports in community planning, school work and in other contexts in order to promote good public health. A holistic approach to planning together with smart solutions contributes to cities where people can live climate-smart, healthy and safe. (Regeringsbeslut, Ku2020/02179, 2020-10-14)

