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STADSPLANEKARTA

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This thesis concludes my studies on the master programme Design for Sustainable Development at Chalmers University of Technology. The thesis has developed from an interest in the role of the outdoor spaces in a time of renovation and re-generation of the million programme in Sweden.

A course called Outdoor Environment for Children and Youth got me interested in children's perspectives on the outdoor environments and especially the green spaces of the million programme, since these places are described as child friendly but are also in spotlight for densification.

“...children develop their identity and perception of life through independent outdoor stay.” (Cele, 2010: 83, my translation)



BACKGROUND

The large-scale housing areas built in the 1960s and 70s, the Million Program, in the outskirts of many Swedish cities, are facing challenges and inequalities. Citizens are socially excluded and suffering from the stigmatization of these neighborhoods. Unfortunately, the segregation and social exclusion are continuing to increase in Sweden (Boverket, 2015).

The residential building stock of the million program is in need of renovation to improve the energy efficiency and to raise the standard. However, this comes with a risk of exaggerated renovations that result in displacement of residents due to higher rents. The outdoor environment and public spaces have a crucial role to strengthen pride and sense of safety which could be a smaller economical burden for the individual (Möller & Widehammar, 2016; Mangold, Österbring, Wallbaum, Thuvander, & Femenias, 2016).

The city of Göteborg has stated certain development strategies for what they refer to as “mellanstaden”, which I translate to the metropolitan area. The metropolitan area is a large part of the built environment outside the city center and consist of housing areas of very different characteristics, not least several million program areas. It is stated that there is a great possibility for densification that would could connect existing housing areas and enable a more efficient land use. Furthermore, that barriers could be mitigated by better linkages and public transportation and it should be developed by defined meeting places and more mixed housing typologies (Göteborgs stad, 2016b).

However, the million programme is also a child-friendly environment, with its car-free and green surroundings. In today’s urban development, these child-friendly environments can become a scarcity. Housing shortage and the current ideal of the urban and dense city can cause great consequences. In the inner-city context of many Swedish

cities, child-friendly spaces and green areas are shrinking and being replaced by new residential buildings and commercial life (Brunge & Engström, 2015).

Spacious green areas that children can use are being reduced as well as the amount and sizes of allocated playgrounds. There are plenty of research showing that the outdoor environment, especially nature, is important to children. But unfortunately, children are spending less time outdoors and in nature. And the independent mobility is steadily decreasing (Kylin & Bodelius, 2015; Gundersen, Skår, O’Brien, Wold, Follo, 2016).

By being outdoors and more independent children create an understanding of and an attachment to place (Bartos, 2013). An uncontrolled environment enables children to challenge themselves and learn their own boundaries (Bjarsell, Åkerblom & Åkerlund, 2016). Being in green outdoor environment also strengthen the care of environment and enable a creative and evolving play (Mårtensson, 2010).

While stress and anxiety are increasing problems among children and youth, it is proven that the green environment and spending time in nature has positive health effects (Chawla, Keena, Pevec, Stanley 2014: 3, 10). The risks of too high levels of exposure to sunlight and exposure to air pollution increase without trees and other vegetation. This is even more dangerous for children, who are more sensitive than adults (Göteborgs stad, 2011).

The green environment can be described by scale of planned or unplanned nature, as the differences between a forest and a park. These different typologies have different impact on children’s use and perception of space. It is therefore important to further analyze children’s perspectives on different typologies of green environment in order to plan and design child friendly outdoor environment.



One important role of architecture is to empower citizens for a socially inclusive planning process where they can influence the development. This increases sense of belonging, pride and commitment to their neighborhood. Urban development is never decided by consensus and it is a power privilege to formulate the question (Boverket, 2015:7; DeFilippis, 2004).

Children are seen as important knowledge carriers in this thesis. The thesis aims to investigate children's perspectives on different typologies of green environment which could help to analyze the role of the outdoor environment for their health, play and well-being, as well as how the green environment can become a valuable place for children.

This will be investigated by several methods, with an emphasize on a dialogue with two classes at Sandeklevsskolan i Bergsjön, Göteborg. A green environment in the same district, between three housing areas is the case study for this thesis. The green area is called Gärdsås mosse and is today planned as a wetland park in the municipal documents of the site.

The city of Göteborg has pointed out the area between the housing areas for densification. The larger roads that today divide the area is proposed to be transformed into streets, also enable additional housing areas in different typologies as well as schools. A part of Gärdsås mosse is proposed to be built but the largest part is left untouched.

The thesis will explore children's perspectives on the green environment and a development of the site, how it could link housing areas and create a coherent and child friendly district.

PURPOSE

The purpose of this thesis is to explore children's perspectives on different typologies of green environment in the million programme. This is important because while these areas are regarded as child friendly, they are also argued to be suitable for densification.

The purposes is to investigate how children's perspectives can inform the planning and design of the outdoor environment in the million programme in order to safeguard a valuable green environment. Or how to develop an unsatisfying environment. This could be especially relevant in a time of renovation and regeneration of the million programme.

While the thesis will explore children's competence and perception of green environment, it will also empower a group that seldom are heard in urban planning processes. To be listened to and to spend time in nature are proven to strengthen the care of the environment. Unfortunately, children are spending less time outdoors and in nature, though a lot of research indicate the importance and benefits of doing so. Children's perspectives are enriching planning and architecture but the participatory process itself is also important for a sustainable development.

AIM

The aim is to gain an understanding of children's perspectives on different typologies of the green environment and how children can inform the planning and design of the outdoor environment.

The aim is furthermore to exemplify the result on Gärdsås mosse in Bergsjön, Göteborg for an inviting outdoor environment for children's play and social interaction, which also could help to link housing areas.

MAIN QUESTIONS

Western Bergsjön is built during the million programme, outside the city center and integrated with green environment as the ideal of that time. However, the “green environment” needs to be described further and distinguished by its different characteristics. This thesis will divide green environment into three typologies. Unstructured and informal green areas refer to what one would call forest. Structured green environment is planned and formal, as a park. Semi-structured green environment can be described as a mix of the open, planned park and the dense forest.

What are the children’s perspectives on different green environmental typologies in a million programme area in Sweden?

How can children inform the planning and design of green environment in million programme area in Sweden?

DELIMITATIONS

This thesis focuses on social sustainable development, through better connections between housing areas and children’s mobility, play and social interactions.

The thesis is delimited to the local outdoor environment, as public spaces, nature areas and open spaces. The research and result will have an urban scale and connect the site with its surroundings, as well as zoom in to certain places within the site. The result will have a focus on spatial and green qualities in common spaces. The thesis will not analyze private properties or indoor environment.

The geographically boundaries for the case study is Gärdsås mosse, a green area in eastern Göteborg, but also its closest surroundings in order to find possibilities to link housing areas. However, Gärdsås mosse is seen as an important green environment for both the neighborhood and the city district. Gärdsås mosse is seen as a complement the closest housing yards and as a social adhesive for the district.

The theoretical frame for this thesis is the importance of including children in planning processes and the envi-

ronmental impact on children’s health play and learning, which is why a dialogue with two school classes is carried out in the thesis.

Organizational aspects as the management and maintenance, economical aspects and possible actors of an implementation will not be covered in this thesis.

METHODS

Several methods is used within this thesis, called method triangulation. By using several methods the research can result in a wider picture of the situation due to more perspectives. And the analysis can be more reliable. (Denscombe, 2012:188.)

These methods are chosen in order to get a theoretical child perspective and children’s own perspective on the research. Observations and site analysis are common architectural methods in order to analyze the characteristics and use of a site. Through the literature studies I base my theoretical point of view and my design on previous knowledge. The emphasize in this thesis is on the participatory series and survey, together with two classes, fifth and eight grade.

Observations and site analysis

The site has been visited and observed during the autumn 2016 to spring 2017. I had the opportunity to sit at an office in the area which led to daily walks through the area. By using maps and statistics, the site has been analyzed and illustrated through different perspectives, such as the green and built environment, functions and activities, street pattern, connections and barriers.

Literature studies

The literature studies present different reasons why outdoor environment is important for children’s health, play and learning. The chosen literature is focused on what impact the informal and green environment have on children and some perspectives on gender equal play spaces.

The development and characteristics of the million programme is briefly discussed, as well as the current ideal of the urban and dense city.

Workshops

Outdoor spaces of the million program, that are discussed both as child friendly and suitable for densification got me interested to do a workshops series with children. I wanted to be able to investigate my stated research questions on children's own perspectives. I got in contact with Sandeklevsskolan and was invited to come to fifth and eighth grade's geography class, which the teachers saw as a meaningful part of the education. This helped me a lot to organize and plan my workshops. On the other hand, as the workshops became a part of the education, this might have had an impact on the attitude among some of the pupils.

The workshop series consisted of two meetings with eight grade in their classroom. I met fifth grade three times, in classroom and on a walk. During the last meeting I told the pupils how I have understood their opinions and what my student project will conclude. I took the opportunity to come back this last time and give the pupils feedback for their participation. I planned the workshop by different themes in a series of workshops, see next page, which was supposed to answer the research question.

Survey

In order to analyze children's perspectives on different typologies of green environment I gave the classes homework, as an individual survey. This was an opportunity to get an insight in their own reflections, as a complement to the group discussions during the workshops. It was also a strategy to collect children's opinions for the different typologies that I would not be able to gather during the workshops.

Walk

As Cele (2005:95) explains, walks can reveal more of children's everyday environment and how they use it. It can be difficult for children to understand and describe how they really are using the outdoor environment if they sit inside.

A walk can generate a care about common space can increase, even among those who didn't participate, if those who did talk more about it (Teimouri, Åhlström, Svennberg, Björling, 2011:43).

Since many of the pupils in fifth grade did not visit or pass Gärdsås mosse often, or ever, I decided that we would go there. This was also something that I hoped to be able to do before I met the pupils. I wanted to know what they would discuss at the site.



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CASE STUDY

The case study for this thesis is located in western Bergsjön, in the eastern part of Göteborg, Sweden. It is a green environment called Gärdsås mosse that adheres to three housing districts, called Kortedala, Gärdsås and western Bergsjön. Gärdsås mosse consist of wetland, pond, allotments and pastures. It is located next to large roads which are separating the housing districts.

Gärdsås mosse is located in western Bergsjön, which mostly consist of apartment buildings built during the million programme, in 1960's and 70's. The houses are integrated with the environment, typical for that time. Western Bergsjön has a younger population than Göteborg in general and 71 percent of the population has foreign background compared to 33 percent in Göteborg in general.

Close to Gärdsås mosse is also a smaller farm, with horses, cows, pigs and other animals. And all this is located next to a tram stop, 20 minutes from the central station in Göteborg. I got in contact with one architect and one landscape architect at Familjebostäder, a housing company with a lot of apartments close to the site. They gave me valuable guidance and support for the thesis.

The site is further explained and analysed in the chapter for the case study, page 35.



READING INSTRUCTIONS

Introduction

This chapter has introduced the thesis for the reader, through background, purpose, aim and research question. The delimitations have been clarified, the case study and methods that are used in this thesis are presented. Last will be a project overview.

Point of departure

The second chapter presents the overall framework for this thesis. It will start with an explanation of important theoretical point of view, such as children's rights and children's perspectives. This is followed by theory on participatory process and ethics within planning and architecture. Important concept for the thesis are defined

Literature studies

Literature studies enables a theoretical point of view and design based on previous knowledge on outdoor environment for children and youth. A significant part of the literature focuses on environmental psychology perspective. The million programme as well as the dense and urban city is also described.

Case study

The case study is a green area that is located between several housing areas in Bergsjön, Göteborg. This chapter will describe the location and the context. Current and future planning legislation of the site are presented. This is followed by map analysis, starting with the green area and then looking at connections to surroundings. Functions and green environments are analyzed.

Participatory process

This thesis emphasize a dialogue with two school classes close to the site. The dialogue is carried out through different formats and perspectives. This chapter presents how these meetings were planned, how they were done and the most important conclusions I can draw from them.

Result

All the empirical research, from literature studies, site analysis and observations and the dialogue with Sandeklevsskolan are conducted into different themes, according to common conclusions and statements. These themes are transformed into design strategies. This chapter explains that analysis and transformation. This will be followed by a discussion and ten design strategies of how to plan and design semi-structured green environment in the million programme in Sweden.

Design proposal

The case study stands as an example of how the design strategies can be applied. The chapter will present the aim and place specific design concepts. This will be followed by the design strategies together with site plans. Sections and illustrations will help to further communicate the design proposal.

Reflections

The last chapter contains the author's final reflections on the work. The reflections are mainly on the chosen methods. Last is the reference list.

WORK PROCESS

Academic writing
(Preparation for MT.)
Got me interested in the outdoor environment of million programme in times of renovation.

Outdoor Environment for Children and Youth
(Course at SLU Alnarp.)
Focus on outdoor environment for children's health, play, mobility and learning.

Meeting with Familjebostäder
Talking about the outdoor environment around Siriusgatan and the connections to surrounding areas.

Municipal developing plans for Siriusgatan
Strategical plan and local area plan suggest a densification of Siriusgatan.

Literature
Study literature on environmental psychology, outdoor environment for children and youth, children's perspective in planning processes, the million program and densification.

Observation
Got a space at Familjebostäder's offices at Siriusgatan which enable everyday observation in the area!

Site analysis
Analyzing the area through maps and site visits. The land use and facilities and the mobility and connections...

Arkitekturpedagog
Meeting with Mania Teimouri, architecture consultant at *Kultur in Väst*, Göteborg.

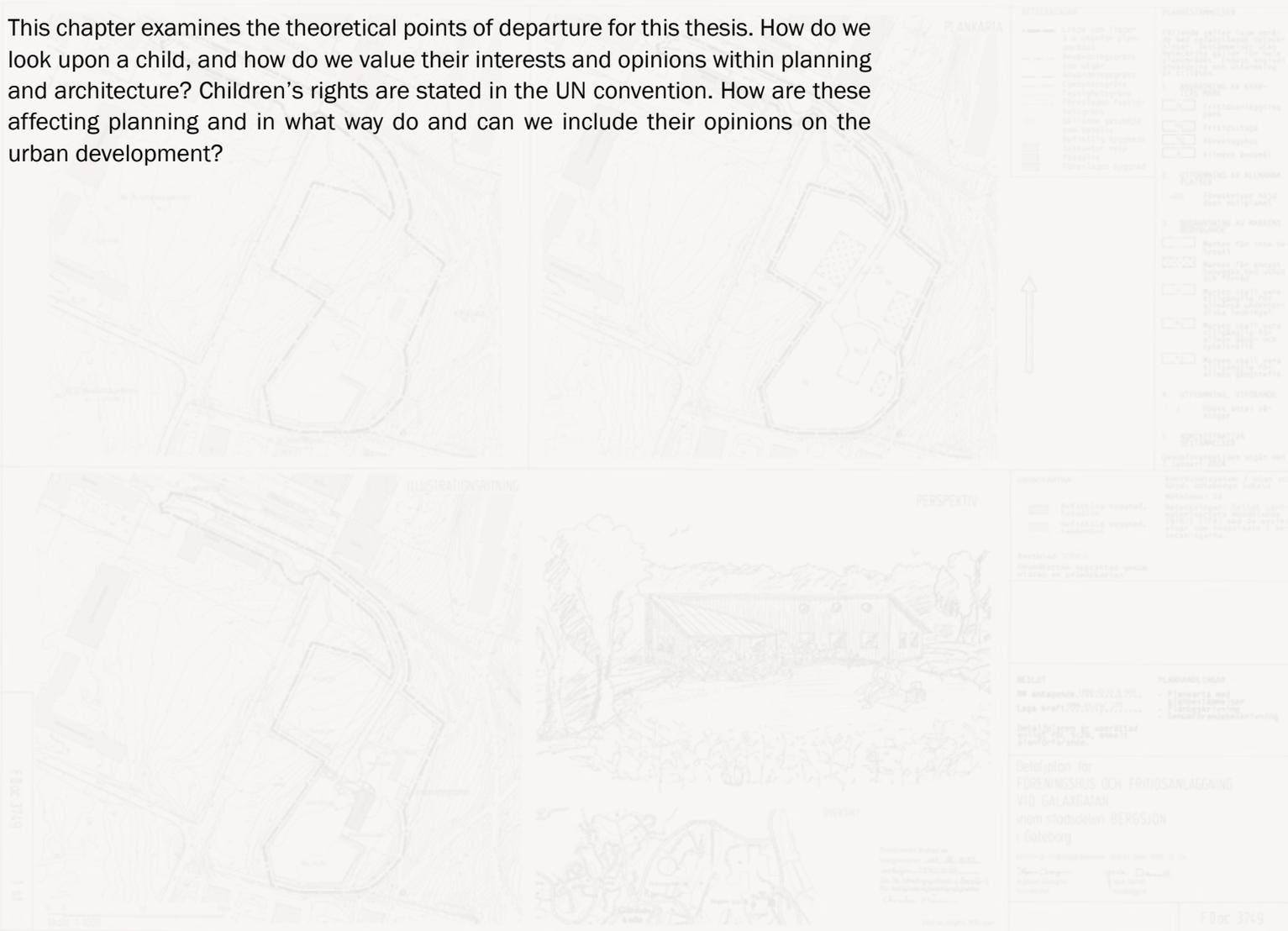
*Gärdsås mosse and Galaxen have so much qualities as child friendly spaces!
What is children's perception on semi-structured green spaces? And how can that be used to create possibilities for better connections between housing areas?*

*(thesis frustration..)
How should the workshops fulfill the research question? What is the research question?
What will be the result?*



POINTS OF DEPARTURE

This chapter examines the theoretical points of departure for this thesis. How do we look upon a child, and how do we value their interests and opinions within planning and architecture? Children's rights are stated in the UN convention. How are these affecting planning and in what way do and can we include their opinions on the urban development?



CHILDREN'S RIGHTS

UN Convention on the Rights of the Child

United Nations has 7 conventions on human rights and Convention on the Rights of the Child is one of them. It consist of 54 articles, where number 4 has significant relevance within planning of the urban development. Other relevant articles could be article 2 that points out that the child convention refers to the equal value of all children. Article 3 states that the best for the child should come first, in issues that relates to them. Article 6 refer to the right of survival and development (Unicef, 2014).

The article states that the child has the right express their opinion on things that directly relate to them. Adults should listen to the child (Unicef, 2014).

Who is responsible for the implementation of children's rights in the urban planning in Sweden?

National level

The National Board of Housing in Sweden, Boverket, provide guidelines and research on different themes in urban development and the built environment on the behalf of the government. In 2015 they published *Gör plats för barn och unga*, which consists guidelines on how to design the outdoor environment on schools for children.

Regional level

Länsstyrelsen provide basis, support and knowledge for municipalities within urban planning and protects the national interests. Länsstyrelsen Västra Götaland has conducted a report, from 2009, on how the child convention can be realized in planning.

Municipal level

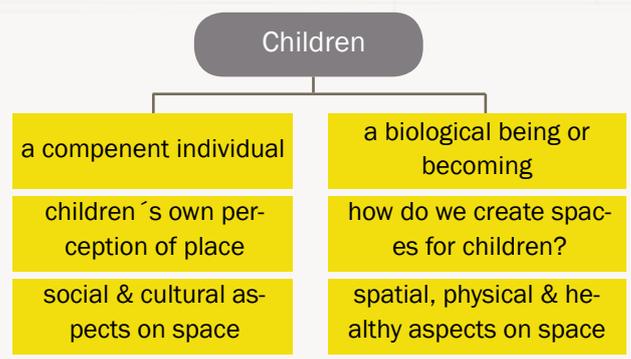
The municipalities has monopoly on urban planning in Sweden and an extensive responsibility to provide sustainable outdoor environment. The size of the outdoor area on preschools can be decided by each municipality, as long as they argue how they follow the government's guidelines. This discussion got a lot of attention, however

children's use of and movements through spaces in the city in general have to be admitted and enabled. Some municipalities uses child consequence analysis to evaluate both strategical plans and local area plans.

CHILDREN'S PERSPECTIVES

This master thesis builds on the reasoning by Kylin (2004:21) that it is necessary to include children in spatial planning, both through their needs and as social knowledge carrier. Their competence and use of space is enriching planning. However, in order to safeguard spacious, accessible and varied environments we also need to talk about needs in complex planning processes.

During 1960s and 70s a lot of investigations were made to learn what outdoor environments children need. There was a high ambition to create modern, safe and healthy living environments, which resulted in the child friendly million programme. Later, during the 80s and 90s, the focus shifted to children's rights, colored by the UN convention. Emphasize was on children's own perspectives on outdoor environment. Children that had been regarded as a group with certain needs later became individuals that carry knowledge and competence (Kylin, 2004: 16).



There is significant difference between child perspective and children's perspective, where child perspective refers to the adult view of the best for the child. Children's perspective is when children speak for themselves (Göteborgs stad, 2011).

Kylin (2004:35) points out that if children are involved before the informal planning process is on, their knowledge and experiences can be used before boundaries or agreements on the implementation is done. Planning processes are complicated and if children are involved before, a child perspective on the site can have an impact on the proposal from the beginning.

As Kylin (2004:35) conclude, allocated spaces for children is not child perspective. Children's use of and movements through spaces in the city in general have to be admitted and enabled.

There are two issues in today's urban development that make the child perspective even more urgent. Densification that create a risk for shrunked child friendly spaces and increased social gaps (Brunge & Engström, 2015; Kylin, 2004:22).

Children have generally been looked upon as in development, always in relation to the adult world and what they will be as grown up people. The value of being a child in its self needs to be pointed out. This can be done in a child consequence analysis (Göteborgs stad, 2011).

The research by Kylin (2004) reveals the differences between children's perspective and planning perspective on place. Children's experience of space is based on their activities while adults, that use their body and sense in a less degree, describe it through spatial structures and social norms.

Building den is a universal play and exemplifies children's interest to create and frame by themselves. Depending on the age of the child it is organized more or less close to home. Children collect material themselves and develop a secret place. This is far from the formal playgrounds that often are provided for children (Kylin, 2004).

CHILD CONSEQUENCE ANALYSIS

The city of Gothenburg has developed a child consequence analysis to support children's perspective and child perspective. Children and youth are using most of our outdoor environment but are often not included in the planning processes (Göteborgs stad, 2011).

The child consequence analysis is based on different scale levels, where all levels are needed for a child friendly city. However, for every project, the scales can be prioritized depending on the purpose (Göteborgs stad, 2011: 19).

The child consequence analysis should be a part of the whole planning process. Different steps in the process generate different questions. The analysis different scale levels focuses on five themes: coherent city, play and learning, everyday life, identity and health and security (Göteborgs stad, 2011).

Following aspects should be considered in every scale level of a child consequence analysis

A coherent city

Social and physical barriers need to be investigated and avoided in order to enable people of different background, age and lifestyle to meet. A well connected network of public transportation, pedestrian and bicycle together with a variation of functions create a diverse and accessible city (Göteborgs stad, 2011).

Interaction, play and learning

Interaction and interplay is fundamental for the development of our society, children's play and learning as well as culture and sports. Interaction has a value in itself for every person, not at least for youth that are developing their identity together with their peers. The use and understanding of outdoor environment develop through different ages (Göteborgs stad, 2011; Clark & Uzzel, 2006).

The coexistence of all ages and users need a physical environment that allows interactions and activities of different needs and interests. Elements in the outdoor environment communicates social norms and expected use. Both function and social values needs to be considered in order to create equal, accessible and attractive meeting places (Göteborgs stad, 2011).

Everyday life

A well-functioning everyday life for children and youth depends on connection between school, friends and different activities (Göteborgs stad, 2011).

The school yard has an important role for children's learning, play and wellbeing. It needs to be large enough to enable different play, provide enclosures for smaller groups and specially girls to play outside and variations on the environment and water to trigger creativity (Göteborgs stad, 2011).

Children tend to lose their interest in play equipment's rather soon, as they need challenges and risk taking while their organizing their own games. Other qualities in the outdoor environment are pedagogical elements, for example cultivation boxes and places for retreat and privacy (Göteborgs stad, 2011).

Children and youth need both allocated spaces, designed for the youngest, and other spaces for children's own organization and creativity. The older, the larger areas are explored and youth are attracted to the adult world. In Sweden, sports and other organizations provide meeting places and forums for many children (Göteborgs stad, 2011).

Identity

Feeling of attachment to place developed where we live, not least for children and youth that spend more time close to home than adults. However, it depends on how the outdoor environment is perceived and used. A well maintained living environment can strengthen the pride and a safe allowing place for co-creation can develop a sense of belonging (Göteborgs stad, 2011).

The identity of place is influenced by an outside perspective. In order to decrease exclusion and segregation it is important that different part are supporting an inclusive and connected city. The cultural environment help to de-

velop an identity of place and understanding of heritage. The built environment can strengthen the solidarity as a common heritage as well as strengthen the sense of belonging (Göteborgs stad, 2011).

Health and security

Children's health and wellbeing is more vulnerable than adults since they have a more sensitive skin, breathe more and eat more in relation to their body weight than adults (Göteborgs stad, 2011).

Shade, protection from noise and air pollution need to be considered in the design of outdoor environment, especially on school yards. Trees can be used for this purpose (Göteborgs stad, 2011; Boldemann, 2016).

The outdoor environment outside playgrounds is used by children and through their imagination. It is therefore important to plan child friendly traffic solutions to benefit the mobility and perception of safety among parents. The older children get the wider area are they exploring (Göteborgs stad, 2011).

PARTICIPATORY PROCESSES

During the Swedish development of the welfare state, a rational city planning was based on public interests and in the hands of experts and politicians. This developed to something some call social engineering during the million programme (Hall & Viden, 2005: 323; Johansson & Khakee, 2008: 56).

Later, during the 80s the municipalities had to increase the efficiency and the welfare state was declined. The Rio Convention during the 90s focused on the social sustainability and pointed out the need for participation and dialogue processes. This resulted in a focus on citizen's participation in the revision of the Planning and Building Act (Johansson & Khakee, 2008: 57).

Citizen's participation can be a time consuming and expensive process. However, if public participation is done and used, many benefits will be discovered. Trust and acceptance can increase for the planning projects if citizens are informed and involved, contradictions can come

forward and be discussed and the planning documents can be based on local knowledge. Thus, different network can be discovered or developed and an understanding of public interests compared to private can be spread (Johansson & Khakee, 2008: 62).

Citizens are able to discuss their own interests, have a say in the future design of for example their neighborhood, learn about these processes and how to participate in these dialogues and in the future solve other problems. They are also able to create contacts with other citizens and gain stronger voice together (Johansson & Khakee, 2008: 55, 68).

To be listened to and involved can generate acceptance between different groups, gain respect for one another and create a feeling of belonging (Johansson & Khakee, 2008: 53).

ETHICS

City planning shapes the future society and has a clear political matter. Contradictory interests create questions about power and influence in planning. According to power based ethic theory, cities and societies are divided in different layers of power, affecting both gender and different ethnical groups (Johansson & Khakee, 2008: 36, 39).

Social justice and social sustainability demands more than juridical rights. People of stronger socio-economic background are more used to make their voice heard and are more active in public participations. It is therefore crucial for planners to identify who really is affected by a planning project. (Johansson & Khakee, 2008: 31, 52.)

It is not unusual that developers discuss planning projects behind doors before public participation (Johansson & Khakee, 2008: 54).

If children are involved, the purpose need to be clear to children why they are involved in a planning process and what real influence they have, since there is a risk of high expectation. (Teimouri, Åhlström, Svennberg, Björling, 2011:14; Göteborgs stad, 2011: 19.)

In order to do so it is important to reflect on why are children involved in this project. There are different levels of participation, which often is illustrated by a ladder. The first steps do not give children the opportunity to influence, rather to be informed and of a symbolic reason. The higher up in the ladder, the more real influence and decision making (Göteborgs stad, 2011: 19).

However, the ladder is not to be understood as the highest step always is the relevant target. The ambition should be to let children believe in their say, get support from adults and trust adults that they are taken seriously. It is not only about asking children, it is about letting children formulate the question as well (Göteborgs stad, 2011: 19).

Children can tell other stories about a place, that come from their experiences, being a child and smaller (Teimouri, Åhlström, Svennberg, Björling, 2011:11).

CONCEPTS

Affordances

Within environmental psychology, Kyttä (2002) and Heft (1988) are two of many authors that have discussed affordances. Affordance is a concept that is used for the perceived functionality of the outdoor environment, which is as much depending on the individual as the environment itself.

A method by Heft (1988) is categorizing outdoor environment into different typologies, such as “Relatively smooth slope” or “Detached objects” and then what type of affordances that this could generate, for instance running (on smooth slope) or manipulate (the detached object).

Affordances can be perceived, used and/or shaped. A child can *perceive* that a tree is climbable but choose not to climb (*use it*) because his/her parents are worried he/she might fall. Or, a child might *shape* his/her own shelter because there is no at the playground (Kyttä, 2002).

This concept is used for the analysis of children’s use and understanding of environments. The use of the outdoor environment is shaped by the potential of the affordances and social norms or rules (Kyttä, 2002).

Child

In the text of this thesis, the word child refers to the Un Convention’s first article, which states that every human younger than 18 years old is a child (Unicef, 2017).

Environment

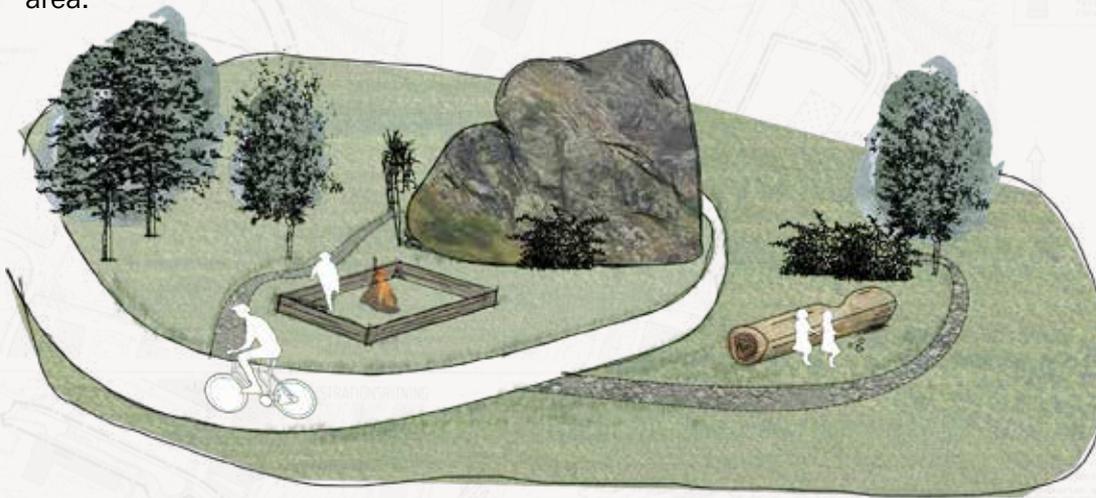
Following quote was found at dictionary.com: “Environment may refer either to actual physical surroundings or to social or cultural background factors...” (Dictionary.com, 2017) The concept green environment is used a lot in this thesis. It mainly refers to the physical green aspects of the surroundings, both in terms of ecology and environmental psychology.

The “green environment” needs to be described further and distinguished by its different characteristics. This thesis will divide green environment into three typologies.



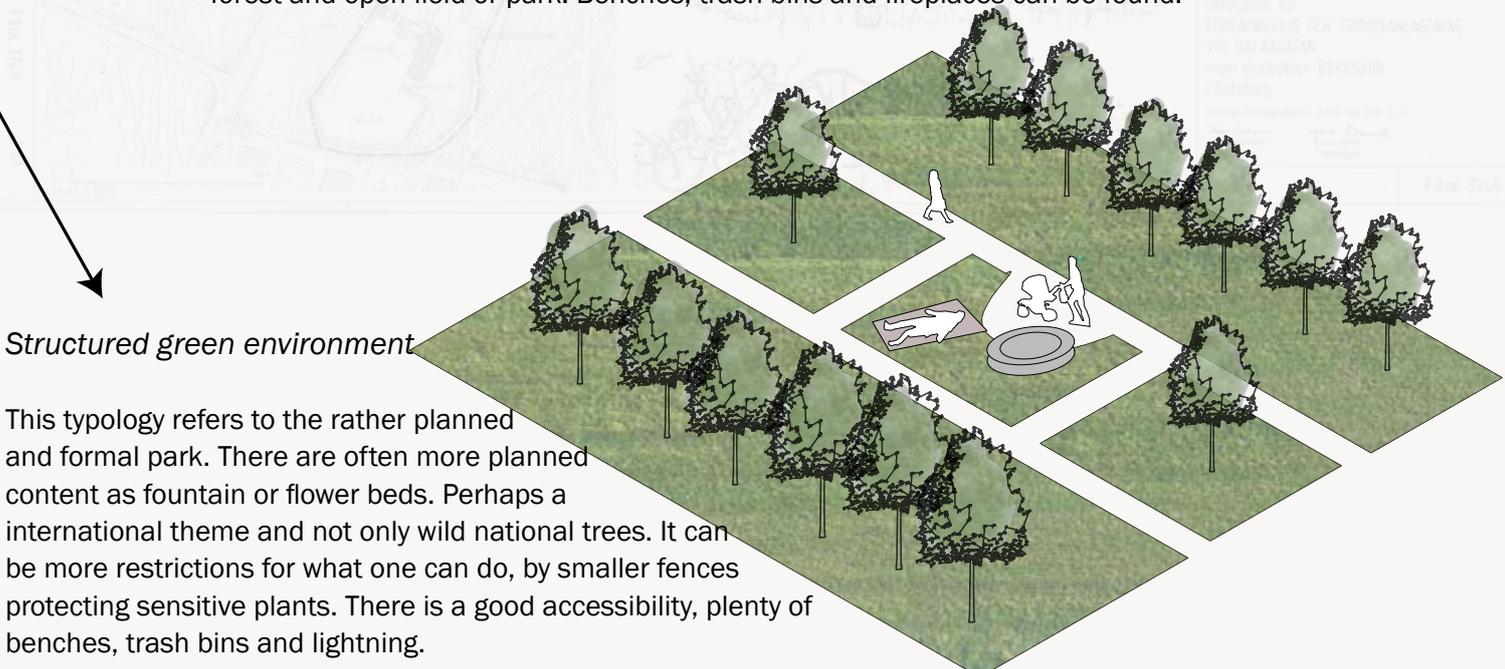
Unstructured green environment

This typology refers to what one could call forest. It could be a larger nature area or smaller grove. Humanity has shaped most of the nature areas today and there could be traces as smaller paths or a few benches, but the character is rather a dense forest area.



Semi structured green environment

This typology is a mix between nature and park. There are different hierarchies of paths, mostly gravel and paths in the grass but asphalt could be used in some places. Wild trees and open green spaces are integrated, creating a mix between the dense forest and open field or park. Benches, trash bins and fireplaces can be found.



Structured green environment

This typology refers to the rather planned and formal park. There are often more planned content as fountain or flower beds. Perhaps a international theme and not only wild national trees. It can be more restrictions for what one can do, by smaller fences protecting sensitive plants. There is a good accessibility, plenty of benches, trash bins and lightning.

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STADSPLANEKARTA

Skattning av 17 juli 1906

Tom Stenlund

Stadsbyggnadsingenjör



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Västra Bergsjöområdet I)
uppgjort på stadsbyggnadskontoret,
stadsplanavdelningen i juli 1966

STADSPLANEKARTA

LITERATURE STUDIES

The following pages will consist of a selection of previous research about outdoor environment for children and youth, the Million Programme and the dense, urban and green city. The outdoor environment for children and youth can be evaluated by several aspects, which are compiled in this chapter and summarized by CAN I [play] ASAP.



OUTDOOR ENVIRONMENT FOR CHILDREN AND YOUTH

Context and accessibility

Many Swedish born people have an almost romanticized perception of nature. There are a lot of research that shows what impact nature has of people's health and well-being. But if the green environment is not used by different groups then nature becomes a segregating and unhealthy space rather than integrating (Moshtat, 2007).

The eco system services should be accessible and supporting all groups of society. However, many immigrants in Sweden have a totally different experience of nature than Swedish born people. There are not many dangerous animals in the Swedish nature and there is a right of public access for all by the law. With other experiences of nature, as dangerous animals, restrictions or other risks it could be a contextual barrier to use or be interested in the green environments in Sweden (Moshtat, 2007).

A study by Sandberg (2012:114) reveals how the socio-economic factors can affect the use of and visits to nature. Children with Swedish middle income parents often associates nature with leisure, parents and friends while children to parents with foreign backgrounds often associate nature with activities in school or public care. However, a study by Mårtensson (2012) shows that the school-yard is the most accessible outdoor environment for children in general (Mårtensson, 2012: 261).

Organized leisure, such as sports, is increasing among children, compared to the informal play in the outdoor environment. This often takes place in larger sport or cultural centres. Children might as well be affected by the target-oriented society, where activities, sports or video games steal the focus from informal play (Skar, Wold, Gundersen, O'Brien, 2016).

Children are spending less time in nature today, foremost due to lack of adequate outdoor environments close to home and parent's safety concern (Gundersen, Skår, O'Brien, Wold, Follo. 2016: 122). The most common fear among parents seem to be fear from strangers and traffic (Skar, Wold, Gundersen, O'Brien, 2016).

The study by Skar, Wold, Gundersen and O'Brien (2016) show that time pressure, both among parents and among children is a very common constraint for spending time in nature. Despite this, the study shows that the parents often argue that the school need to provide after-school activities and they as parents need to stimulate an interest of outdoor activities.

Informal play in nature has several positive effects on children's well-being, see next spread, and the researchers conclude, the outdoor environment offers equitable activities compared to organizational sports (Skar, Wold, Gundersen, O'Brien, 2016).

Gender

The use of space is constructed by gender. The study of Karsten (2003) discovered that girls doubt their bodily skills more than boys. The girls that wanted to play football did not dare to do it with the boys, if they might do something "stupid". And the older the children were, the less girls were represented on the playground. Women's bodies are more often than men exposed to exploitation and objectification, personally and through media (Göransson, 2016).

Boys are generally more familiar with a larger area and play further away from home (Karsten, 2003). Kyttä (2002) also found in her study that there is a difference between where boys and girls find affordances in the outdoor environment. Girls generally stated that the affordances were in their homes or yard. Same answer for the boys where, in the surroundings. The outdoor spaces might as well replicate gender roles, and the result is that girls are not as present in school yards activities or playgrounds as boys (Armitage, 2000:44).

If there are no enclosures or borders that divide an area such as a school-yard, bigger games tend to dominate the whole area. Girls generally appropriate less space and do not participate in games with bigger groups as often as boys, and are therefore pushed away to the corners. Enclosure can trigger use of smaller spaces within a larger area and more variations of games (Armitage, 2000).

Girls are using playgrounds to a less degree than boys. But when they are, they usually play more with, on or close to the different equipment, while boys more often play ball games. Girls also generally play in smaller groups than boys (Karsten, 2003).

Some conclusions from the study by Karsten (2003) about playgrounds show that the playground have to be large enough to facilitate both genders, where the play equipment and other facilities should have equal an area as ball games.

The study also revealed that the standard and maintenance on playgrounds are important among girls. Karsten (2003) found that activities such as bicycle, skate, climb and mould sand and water can bridge the division of plays between boys and girls, since these are not that gendered.

The municipality of Copenhagen is ranked as one of the most clean cities in the world. One of the reasons could be its green footprints that have been painted on the streets, showing the route to the closest trash bin. In the study, students from Roskilde University gave paper wrapped candy do people on the street and compared the amount of papers that was thrown on the street before and after the footprints. The littering decreased with almost 50 percent (Simon, 2012).

Åsa Sandberg, from Nudging Sweden, explains:

“We constantly make decisions and often rapid and routine. Sometimes even illogical. Nudging is a method that takes advantage of this and are a way to gently nudge people to more sustainable choices.” (Bergh, 2016: my translation)

Gender is a broad concept. Gender and race are correlated and creating much more complex power relations in our society. It is not only about power hierarchies between men and women. There are also hierarchies between women (Mulinari, 2016).

Nature

Mårtensson (2010) show that outdoor environments that are large, spacious, consisting of a lot of trees, height differences and varied and wild nature have many positive effects on children’s play and well-being. Height differences can stimulate speed, create excitement and overview of the play. Uncontrolled nature that is dense, varied and wild that can be modified by creativity, adventure and different kinds of play.

Natural environment offer many possibilities, as being free to explore and modify for own purposes. When children decide themselves what to do in their play, they use their imagination, explore the environment physically

with their bodies and develop a bond both emotionally and physically through their senses. Children organize their play, develop their ability for social interaction with other kids and their creativity (Gundersen, Skår, O’Brien, Wold, Follo. 2016: 117) .

Children are using their senses to a much larger degree than adults. Attachment to place and personal bond to a place can be constructed through the sense of taste and eating. Place attachment is strengthened by the children’s own self-empowerment in nature (Bartos 2013:91, 94).

Cele (2005:90) argue that the natural environment is an embryo to many sorts of learning and play. How does food look like in wildlife, how can you make your way through a dense forest and what do you need in order to play with your friends.

Young people’s levels of stress and anxiety are increasing, which causes many health issues as “...risk for mental disorders, suicide, headaches, gastrointestinal disorders, respiratory disorders, and compromised immune systems.” (Chawla, Keena, Pevec, Stanley 2014: 2)

Activities in nature and study of nature has positive effects on stress and anxiety, and as a consequence, positive impacts on the academic achievement. With activities in green spaces young people can stay more focused and handle stress (Chawla, Keena, Pevec, Stanley 2014: 3, 10).

Informal spaces

The outdoor environment has a great significance for children’s development and bodily awareness. An uncontrolled environment let children arrange their plays and control the space as well as manipulate nature to as dig and mould the earth. This helps to explore nature, self-confidence and risk-taking. As children getting older they expand their limitations in play and mobility by investigating their own boundaries (Bjarsell, Åkerblom & Åkerlund, 2016).

Nature in city is permissive for different sorts of use and is varied which creates a continual evolving game. Children are able to shape and create a space for their own. This creates great possibilities for empowerment and to create own territory and organize their own games. Green and spacious school yards provide conditions for body, thought and fantasies to co-operate. Mårtensson states “The vast play is facilitated by an outdoor environment with large areas, shrubbery, trees and hilly terrain

integrated with open spaces, playground and greenery.”
(Mårtensson, 2010: 108, my translation)

Activities

Physical objects becomes multi-functional by children's imagination and curiosity. Cele argue that interactive features, not necessarily designed, in the outdoor environment seems to have a high degree of stimulation. For example conquer objects by climbing (Cele, S 2005: 89). In her study, she discovered the ability to run between different play equipment to be important. The thrill of risk-taking is important, and an outdoor environment that is more wild and unpredictable could be argued to be more encouraging (Cele, 2005: 2).

Playgrounds that are designated for one purpose are less triggering and children lose their interest sooner. Nature can offer risk-taking plays, as tree-climbing, with the promising reward for private space in the tree. The tree is also beautiful and reveals seasons (Cele 2005: 94).

Sensuous

Children create an understanding of the world by sensuous in a much greater extent than adults. With a direct contact with environment, senses and emotions that respond can be calm and curiosity. The contact with nature can also strengthen the feeling of sense of place and attachment. In childhood, where children explore and use their senses, they use this embodied direct contact with environment. This develops a sense of place, which always takes shape in childhood. Children use their senses in larger extent through touch and movement. Other senses, as smell and taste, can enhance the memory of place or experiences (Bartos, 2013: 91, 95).

Affordances and Play equipment

There are different tools and theories to analyse and reflect on the affordances in outdoor environment for children's play, learning and health.

Lerstrup (2016) uses the concept of affordances by categorizing physical elements into what feature it is, for example a place or an attached object. The feature is then described through function and design, for example a place can be “flat, relatively smooth surface” and what a child can do, like slide, roll and run.

Moore (1996) discuss different elements as entrances,

which should be welcoming and support easy access and have an inviting design and enhance the feeling of arrival/departure.

A hierarchy of pathways should be incorporated on a playground. Formal pathways that orientates with the surroundings. Paved pathways for wheeled activities or movements as well as less strict pathways that rather could be integrated in the environment to be discovered while playing. (Moore, 1996.)

Fences and enclosures have many purposes, such as supporting different social activities, defining play areas and movements, protecting vulnerable vegetation and secure children from traffic. Fences does not only divide, it can also be included in plays. (Moore, 1996.)

Ground covers depending on the demand and use, where synthetic safety surfaces can decrease the risk of fall accidents. Natural ground covers is stimulating for the use of children and also invites animal habitat which also often interest children. (Moore, 1996.)

Youth

Appropriating space for own creativity and use, can benefit sense of place attachment. Youth are attracted to public and where thing happen spontaneously. In the public, it is possible to discover the adult world while being anonymous. They are, as well, to a large degree left to the public. In the outskirts of cities, where functions often are separated, the public spaces offer less flows of people and unexpected happenings. Youth often add a content to place or develop it with their creativity. However, this come in conflict with the adult world. (Lieberg, 1993.)

Youth are searching for the adult and public world but is not able to be a part of the commercial life in the same extent as adults, so they use the streets. Appropriating of space is a sign of diversity and a possible threat to social order, if one group exclude others. (Lieberg, 2010.)

Adolescents are developing their self and in need of places for social interaction and places for retreat. As the ties to parents are loosening and they are shaping their identity, peers and social interaction have a great significance for how they use environments. Youth are not only creating their self based on their own needs, but to a large degree on what seems to fit in the society. The differences between youth and adults diminish.

Not least due to the entertainment industry and commercial interests (Clark & Uzzel, 2006:179-185; Lieberg, 1993).

Public and semi-public spaces are used by youth for activities including both interaction and retreat, with distance from the view and control of the adult world or other youth (Lieberg, 1993).

Lieberg argues that youth are experiencing the public space differently in suburbs than in inner city.

“The built structure and social organization in suburbs, make them [youth] vulnerable and exposed in public space, compared to youth that are living in the inner city. They [who live in the inner city] are integrated with the street publicity.” (Lieberg, 1993:215, my translation)

Youth has always been using a part of the public spaces, to discover the adult world. However, in the 1960s and 70s, youth recreation centers and social workers were created and developed in order to protect the youth from the dangerous streets, as well as protecting the public order (Lieberg, 1993).

The different research results that Clark and Uzzel examine convey some differences in how home, neighbourhood and city center is used by adolescents.

Home is used mainly for retreat, either with close friends or alone for the feeling of security. Home does not support social behaviour, rather it is used to avoid peers and other teenagers. At home, adolescents have control. Neighborhood is out of view of the public, where youth can relax. Younger adolescents have more social contacts within the neighbourhood while the older, who are more independent-striving, are attracted to the city center. City center is, compared to the neighbourhood a place for show off and to develop behaviour. However, behavior and social competence is practiced both by being anonymous in the city centre and in the neighbourhood. The public spaces in cities can be permissive and spontaneous (Clark & Uzzel, 2006).

According to a study on Swedish youths, adolescents argued that city centre offered more sites for social interaction. However, neighbourhood and city centre are in fact used as much for social interaction (Clark & Uzzel, 2006).

The reason why the neighbourhood is used as much as

city centre, even if the city centre appears more exciting and attractive, could be that the neighbourhood is more accessible. The environment near home is valuable due to the accessibility.

OUTDOOR AND INFORMAL LEARNING

Szczepanski (2016) argues that nature can be seen as the place for educational purposes, the subject of learning or as a pedagogical method. Children are spending a growing part of their day in school, which means that the school can have a significant impact on children's well-being and ability to learn.

Outdoor learning raises the understanding of our environment with the direct contact and interaction of species and biodiversity. Bodily awareness develops through physical activities. Outdoor learning also stimulates social development and the ability to co-operate, children's health and well-being and stronger attachment and concern of the environment (Szczepanski, 2016).

Informal learning can refer to the experiences we get in our everyday life and we can observe how people react to certain happenings. It gives us a more comprehensive understanding of other people and how the city is built up by social and cultural meanings (Åkerblom, 2010).

Cele describes that children, by regularly moving through the city, develops an understanding of the outside world through the every day phenomenon that occur in the adult world (Cele, 2010).

Lieberg points out that the informal learning occur in the public space, among social norms and cultural phenomenon. Especially youth develop their identity in the public and adult world (Lieberg, 2010).

Bourke (2014) interviewed a girl about play on the way home from school and she answers that sometimes they are messing around. The author argue that has the girl uses the word messing around, it reveals the children's understanding of the public space, and the perception of how adult proper behavior in public space. Adult rules around “messing” and what is considered an appropriate use of public space adversely affect their playful engagement with the urban environment.

The study also reveal, by the photographs of the children and the interviews, that public space which is not allocated play space, but informal and not regulated, is triggering for children's creativity. However, children are often perceived as problematic on public space and are often perceived to be better off at playgrounds (Bourke, 2014: 41).

If the innovative playfulness of childhood is to be a more visible presence in the streets of urban neighbourhoods, the implementation of urban policy must address how the regulation of public space mitigates against playfulness. This is supported by General Comment 17 on the Right to Play (2013), which stresses the need for "space for children to engage in spontaneous play... and to promote attitudes that support and encourage such activity" (Bourke, 2014: 3)

THE SWEDISH MILLION PROGRAMME

There was a serious housing shortage after World War II and many wanted to move into the cities. The increasing urbanization and subsequent household shortage, during the so called "record years" (swedish: "rekordåren"), eventually resulted in the social democratic party putting up a goal to build one million homes in ten years. Housing standards were raised during the Million Programme in Sweden, where the size increased to three or more bedrooms + kitchen instead of two bedrooms. The amount of households with their own bathrooms increased dramatically as well (Hall & Vidén, 2005).

Already in the end of 1960s, these newly produced residential areas were criticized, due to the monotony, separation of functions and lack of facilities. And when it ended up with a housing surplus in the beginning of 1970s, it was criticized even more, mostly due to the surroundings. As the criticism of the million programme was growing in the end of 1960s the immediate outdoor environment got a lot more attention, for example were smaller units of buildings or buildings placed in green open areas favored (Hall & Viden, 2005: 312).

The municipalities, who has the monopoly in Swedish planning system, that built a lot during this period showed an ambitious belief of the future and a modern, urban society. It is a misunderstanding that the architectural design was not discussed. The architects during

this time were very involved and respected through the process. It seems as if both politicians, industry and architects had a say (Hall & Vidén, 2005).

Larsson and Jalakas point out the role of the architect, since planning and architecture never is objective. The spirit of social engineer during the million program were created mainly by male architects. This was a time when the common interest was perceived as general and according to nuclear family. There was a traditional view on the family and a vision of neighborhoods (Larsson & Jalakas, 2008).

The main focus was to create modern dwellings and houses, with an architectural design that could enable large scale and rational solutions. It was common with architectural competitions and the jury favored design with correct separation of traffic and a hierarchy in the road system. Hall and Vidén (2005) argue that "The road safety for children is often highlighted in these contexts." (Hall & Vidén, 2005: 311).

The reason for producing such rational housing units was to create good standard affordable. The housing units of the Million Programme are often situated at location that previously had been regarded as too difficult to build on. The buildings are a result of both the technical and architectural ideas of that time. Many buildings are without details, flat roofs and in geometrical housing units (Hall & Vidén, 2005).

The new housing units were planned with a local center, with services as school and day care, connected within walking distance. Traffic was separated between cars and pedestrian (Hall & Vidén, 2005).

However, the outdoor environment was not given the same attention. Poor green and landscape design, monotonous facilities for children and long distances (Hall & Vidén, 2005:310).

What partly shaped the Million Programme was the high belief on planning and the expert role that could figure out what people needed instead of actually listening to what people wanted (Hall & Vidén, 2005).

In recent years energy efficiency and other ecologically measurements have had a larger impact on these areas. The outdoor environment got a larger attention after the million programme was finalized. Already in

1975 improvements of the outdoor environment were initiated (Hall & Vidén, 2005).

Renovations have been done in some of these housing areas, due to new technical solutions, new standards that is required of users but not seldom due to un-attractiveness and segregation. Some of these renovations have been exaggerated and expensive (Mangold, Österbring, Wallbaum, Thuvander & Femenias, 2016).

THE URBAN, DENSE AND GREEN CITY

What one perceive as dense depend on where the particular site is located in relation to urban and rural areas. The expectations regarding distances vary accordingly to the conditions on the particular site (Kristensson, 2013: 74).

Today is a growing need for guidelines for the outdoor environment for children and youth, as a tool to use in densification. While some argue that these type of guidelines overturn the building industry (Kristensson, 2013: 56).

Current architectural and planning ideal favor the urban, attractive and public spaces more than housing yards (Kristensson, 2013:79).

This urbanity is to a large degree a reaction against the Million Programme where actually the free open spaces and child friendly environment where two important and steering aspects (Kristensson, 2013: 466).

Kristensson argues for the importance of the housing yards, as a place for social life, children's play and the overall well-being for the residents. But the surrounding outdoor environment can also support the housing yards if it is accessible (Kristensson, 2013: 430).

Ståhle (2005) discuss the relationship between dense and green city. When cities are densified open spaces are decreasing in size and / or amount. However, green areas need to be placed along integrated streets in the urban structure to be of high value and often visited. The place and integration with streets is more important than size and amount.

In comparison to Kristensson, Ståhle (2005) found that

inner-city citizens do not experience lack of green environments more than citizens of housing areas in the "green" outskirts, rather less.

The study is based on research on space syntax, where streets that are integrated well with urban structure generate higher flow of people and accessibility to, for example, green areas (Ståhle, 2005).

The traditional way of measuring accessible green environment is done by comparing total area per person and the actual distance from houses. Ståhle argue for a measure that also correlates to the orientation in street pattern and the attractiveness / affordances (Ståhle, 2005).

Densification increases the population which means that the smaller but more integrated green areas need to fulfil more demands and purposes. In such situation, Ståhle argues that green, unstructured areas should be developed to parks and playgrounds (Ståhle, 2005). But, what is the consequence of developing green unstructured spaces to parks? What is lost?

Förslag
till stadsplan
för del av stadsdelen
BERGSJÖN
I GÖTEBORG
Västra Bergsjöområdet II
uppgjort på stadsbyggnadskontoret,
stadsplanavdelningen i juli 1966

BERGSJÖN
Laga stadsplan för västra Bergsjön och södra del av södra del av Bergsjön med
Förslaget gäller för Bergsjöområdet
Södra delen för västra Bergsjön och södra delen
för södra del av södra del av Bergsjön
Förslaget gäller för västra Bergsjön och södra delen av Bergsjöområdet
Allmän plats, park, promenad, skulptur, skulptur
Förslaget gäller för
Bergsjön, södra delen av södra del av Bergsjön
Bergsjön, södra delen av södra del av Bergsjön

CASE STUDY

This chapter will study the site by using maps, photos, statistics and observations. It starts with a presentation of the location. It will be followed by statistics about the population and a presentation of differences of life conditions depending on where one live, conducted by the city of Göteborg 2014. It will be continued by a study of the amount of playgrounds compared to other districts in Göteborg, current planning legislation of the site and the future plans. Last will be an analysis by using maps and photos, starting in Gårdsås mosse and continuing with the surroundings and in the end, eastern Göteborg.



CONTEXT

Population

Western Bergsjön has a young population and the city of Göteborg estimates an increase of more than 1500 children in the age of elementary school before year 2020 in Western Bergsjön (Göteborg Stad, 2016a).

Housing

Western Bergsjön consists mostly of apartment buildings, mainly built during the Million Programme in the 1960's and 70's. Overcrowded apartments are common today and there is a need of both large apartments for families and smaller apartments for the youth (Göteborg stad, 2016a).

Traffic separation

The traffic separation in the area is, from a child's perspective, traffic safe, as children living in the area are able to go to school from home without meeting traffic. Since there is a problem with overcrowding and lack of public facilities for children and youth in the neighbourhood, the local outdoor environment could be a valuable play space.

People use cars to a lesser extent than the average, although the residential areas in Bergsjön since the 1960s and 1970s are adapted for car traffic. (Göteborg stad, 2016a).

Feeling of unsafety

The master thesis by Wilson (2016) shows that the responding women in the study feel unsafe in the outdoor environment of Gärdsås mose and Galaxen, especially during evenings due to lack of adequate lighting and sightlines. The responding women also concluded that their feeling of unsafety has much to do with gang crime, and gang hangouts at certain places in the area.

Social equality

The city of Göteborg describe the social inequalities, health and life conditions within the city in a report from 2014. It is stated that equal societies are more functional societies. A socially equal and sustainable society in-

crease the trust and solidarity, while anxiety, criminality and suspicion decreases (Göteborgs Stad, 2014).

Income levels in Göteborg has generally increased the last 25 years, but decreased in some areas. The highest share of children in households that have had long term welfare (more than 10 months) is in Bergsjön, 23 percent, while more than half of the city districts are below 10 percent. Furthermore, 60 percent of the children in Bergsjön live in households with a risk of poverty (Poverty means 60 percent or less of the median income level in Göteborg.) (Göteborgs Stad, 2014).

Children to parents with economic constraints, no higher education and low status work are less likely to study at university but are at greater risk of developing lacking self-esteem, feel anxious and are more often bullied. Children with low socio-economical background have a worse dental health, living- and eating conditions (Göteborgs Stad, 2014).

Only half of the children to parents with low education are qualified for upper-secondary school. Same number for children to highly educated parents is 93 percent (Göteborgs Stad, 2014).

These issues have consequences for the lifelong health and possibilities for children. Life expectancy and trust among people depend on the socio-economic status. Göteborg is a segregated city and these issues are directly related to where one live. Bergsjön is one of the most stigmatized areas. How can urban planning contribute to a more equal and social sustainable Bergsjön? Some of the proposed strategies in the report are participation, influence, accessible outdoor environments and facilities, safe and healthy living environment and social integration (Göteborgs Stad, 2014).

Corkhill told during the seminar Jämlik Stad 25 January that an investigation regarding democracy in Göteborg revealed that 25 percent of people between 16-25 years old state that they don't feel included in the society, totally or partly. The investigation show that children to highly educated parents feel more included than children to parents with foreign background and/or low socio-economic status (Corkhill, 2017).

PLAYGROUNDS

These are print screens from the app Playgrounds (Lekplatser), made by the city of Göteborg. The app presents “...a selection of the playgrounds that the department of park and nature is maintaining.” (my translation).

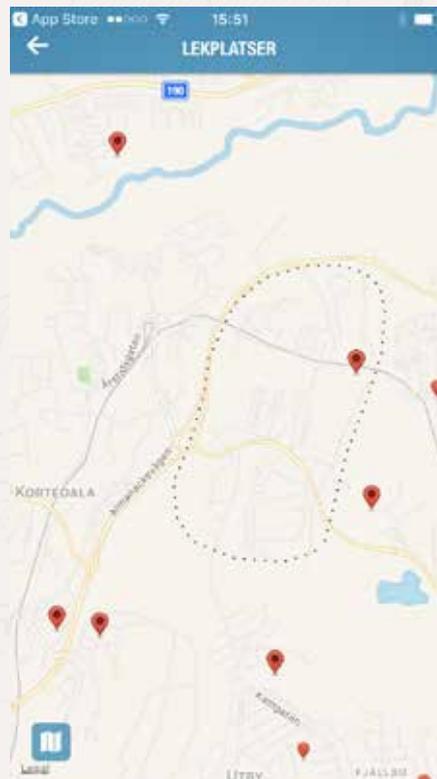
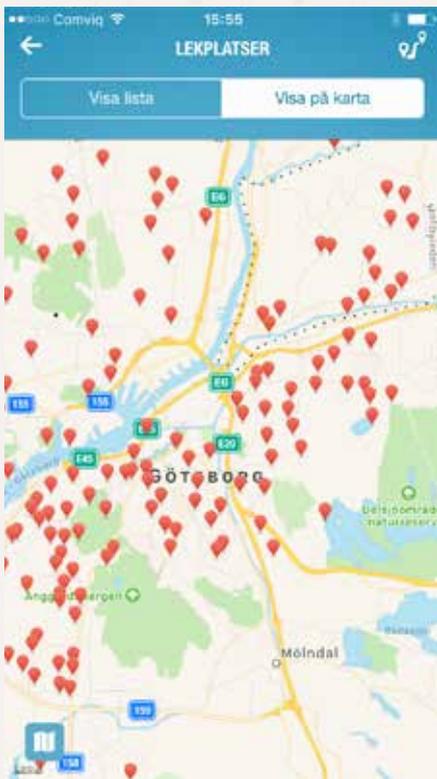
The first picture shows playgrounds in Göteborg. The second picture is the same selection but centered on western Bergsjön.

The third picture show where Göteborg’s four excursion playgrounds are situated, which are larger playgrounds for both children and adults and some of them have staff.

Next page illustrates the size of four housing districts in Göteborg, the amount of households, the amount of children and amount of playgrounds.

The illustration shows that the amount of playgrounds does not correlate to the size of district or of the amount of children. Western Bergsjön is a larger area than Högsbortorp and the amount of children is almost twice as many.

This could be argued by the fact that there are more of pedestrian routes and more green surroundings in the outskirts than in dense housing districts. However, the green environment is not always perceived as inviting to children, depending on children’s background and experience (Moshtat, 2007). Furthermore, girls are using the outdoor environment for play and social interaction closer to home than boys (Kyttää, 2002). The lack of playgrounds in western Bergsjön is especially an issue for girls.



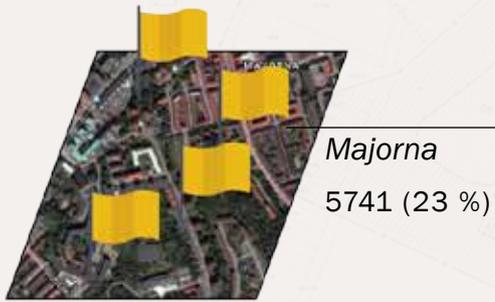
One flag is equivalent to 1 playground
(randomly placed on map)

This figure is equivalent to 1 km²

Housing district
Amount of households
(% of households with children)

One is equivalent to 100 children (0-9 years old)

One is equivalent to 100 teenagers (10-19 years old)



(Göteborgs stad 2017a)

PLANNING LEGISLATION

Initial plans 1966 and 1967

In 1966 and 1967 two local area plans were made for the Western Bergsjön. The area north of Bergsjövägen was in 1967 planned for new housing area, typical for that time with apartment buildings placed in an open character surrounded by green areas with different hierarchies of street pattern. Next to the housing unit a large area was assigned as public use (allmänt ändamål). Within the close surroundings 6 football fields were planned, approximately with 500 meters of distance between each field. The public use was aimed to be both nurseries, elementary school and upper secondary school. Between the houses, schools and football field there were only pedestrian paths and green areas with a large so called play park. Close to the tram stop a smaller centre with shops, elderly care and nursery was suggested.

Additional local area plan 1988

In the centre of western Bergsjön, within the green area at the football fields and play park, a local area plan from 1988 made it possible to build smaller facilities with the purpose of recreation, compounds and public use but the plan also preserved green land with no permission to build. The illustration map shows that the aim was to create an area with many activities and public meeting places, not the least for children. The plan was a building-play area, animal-play area, play-park area, football field, dancing, compounds houses and recreational cottages.

This seems to be an ambitious plan to activate the area during the time of criticism of these neighbourhoods.

Today's use of space

Many of the previous intentions have not been realized. There was never an upper secondary school, instead the place is today a green area with a wetland park, dog park, pastures and walking trails. The area has been described as unsafe due to the dense vegetation and lack of light. The public activity centre is not fully developed or used as the plan suggested. But there is a smaller farm, creating a unique value to the place.

The program for Bergsjön 2016

Bergsjön is a part of mellanstaden, that I choose to translate to metropolitan area, and they have certain strategies for these areas. The land use should be densified to be more effective and able to connect areas. The barriers could be mitigated by linking and develop the public transportation. The development should be based on existing qualities, while creating more and defined meeting places, mixed housing typologies and use and different green outdoor spaces (Göteborg Stad, 2016b)-

A compilation of comments by Swedish authorities, municipal departments and different organizations was done. Actors argue for better linkages between housing areas, in east-west direction, including Kortedala, Utby and Bergsjön. The city district council also stress the need for more working opportunities and enough customers for businesses on site. It also discuss conflicts as between nature areas and perceived feeling of safety, as well as child friendly built environment compared to the difficulties to orientate and the barriers between areas (Göteborgs stad, 2016c).

The park and nature department point out that there is a lack of parks and playgrounds in the area. Galaxen and the wetland park need to be better connected. A creative storm water solution could make use of the water and take care of heavy rainfall. The environmental department also stress the importance of the wetland park due to future heavy rainfall and the biological diversity (Göteborgs stad, 2016c).

A traffic investigation was done for the program and it is said that it is important that citizens in Bergsjön find the sports facilities at Kviberg accessible, since it is one of Göteborg's largest sports areas. The traffic council of Göteborg argue for a more mixed traffic solutions and mitigate the traffic separation in Bergsjön. This would increase the feeling of safety. Länsstyrelsen point out the environmental values in the area, GR stress the need to connect areas in Bergsjön and that there are not fully development plots at Gårdsås torg. B2021 point out the need for meeting places between housing areas (Tyréns, 2015).

It is concluded that citizens in Bergsjön have good accessibility to green environments, however mostly nature areas (with high environmental values) but not parks. There is also a lack of connections between different parts and destinations. A city district park could be developed by the lake. And Galaxen could be better connected to the wetland park of Gärdsås mosse (Göteborg Stad, 2016b).

Some suggestions in the program

- Link the districts and housing units by changing Ljusårvägen and Bergsjövägen into streets.
- New housing in mixed typology west of - Ljusårvägen and both sides of Bergsjövägen.
- Connect the green link from Utby, in the south up to Lärjeåns dalgång, through Gärdsås mosse. Gärdsås mosse is an important proliferation corridor with high environmental values.
- Galaxen is a city district park and in the future it should be better connected to Gärdsås mosse to create a larger park.
- There is a risk of flooding in Gärdsås mosse.
- A new meeting place in the intersection between Bergsjövägen and Ljusårvägen.
- Businesses by the petrol station, or remove the petrol station.
- Focus should be on movements from Gärdsås to Gärdsås torg and towards eastern Bergsjön.

A new local area plan

Recently, a new local area plan was initiated which covers Siriusgatan and its closest surroundings. The aim of the local area plan is to densify the area in order to create different housing typologies and to transform the road Bergsjövägen into a street. A part of Gärdsås mosse is in the new local area plan proposed to be built with new houses, while the rest of Gärdsås mosse is left out of the local area plan.

The purpose is to densify the area, add new houses to the area of a smaller scale to decrease the sense of distance and to increase population. The large space taken up by roads are planned to be more of a street with new housing blocks around it. A new school and houses are suggested at the green area with wetland. Car traffic is planned to be stretched through the area, in order to increase sense of safety when more people (cars) are

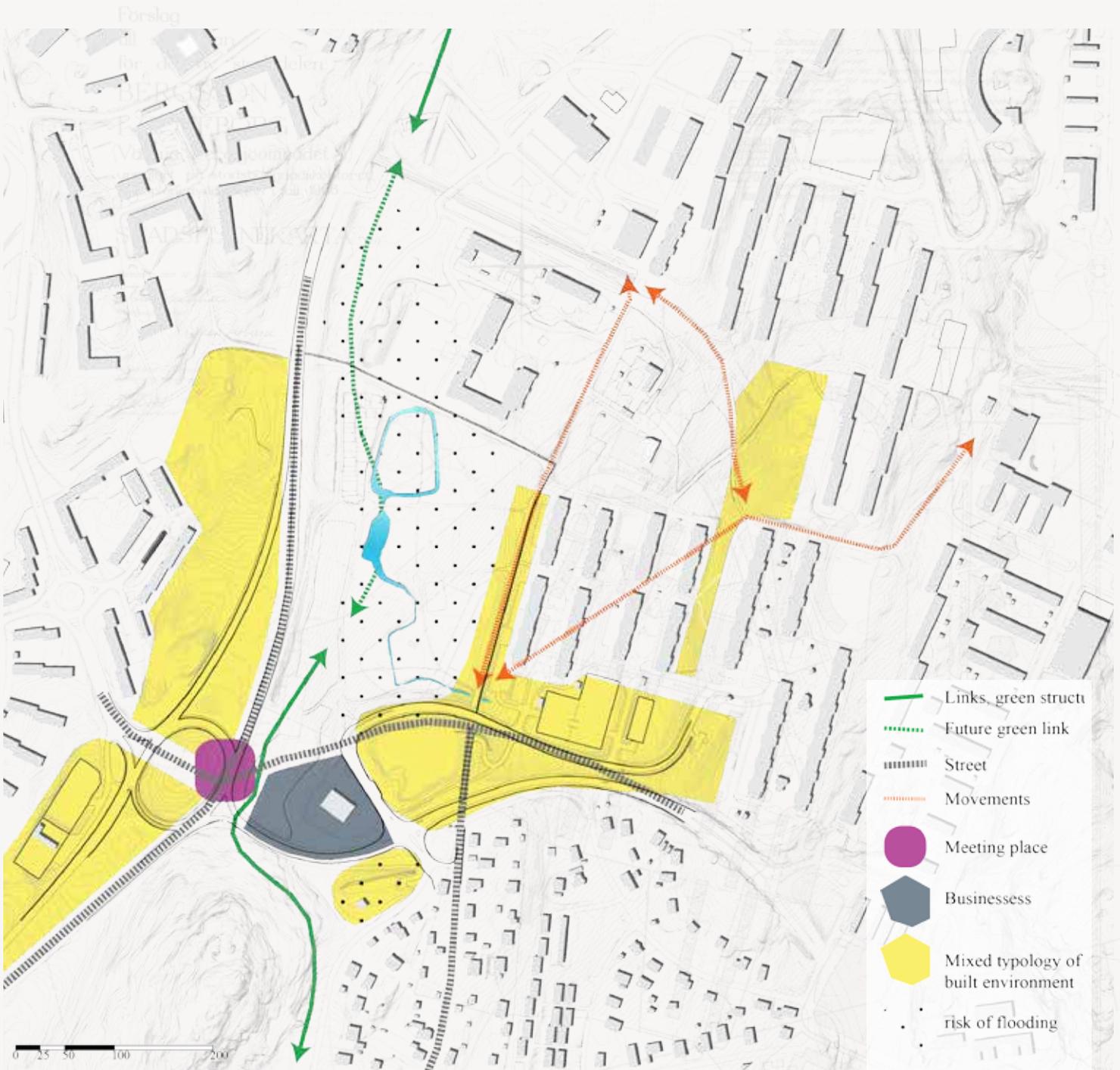
moving through the area.

The thesis will take its starting point in the program and analyse the potentials of Gärdsås mosse as a basis for how future development at the site. The city of Göteborg has not yet any official proposal for the new local area plan.

Sketch of possible densification

The city of Göteborg has made this proposal and volume study for a future scenario where Ljusårvägen and Bergsjövägen is transformed to streets and additional housing areas, as well as more houses around Siriusgatan.

This project will use this sketch and analyse it through a child perspective and through children's own perspective by the workshop series.



- Links, green struct
- - - - - Future green link
- Street
- - - - - Movements
- Meeting place
- ⬠ Business
- ⬠ Mixed typology of built environment
- · · · · risk of flooding



The intentions for Gärdsås mosse and its closest surroundings in the Program för Bergsjön, from 2016.

Strömholm 201, 303/304
F1ac 3177
 Sketch by the municipality of how the densification could be implemented.

The map analysis is done through three scale levels. It will start with maps and photos of Gärdsås mosse in focus. Secondly, the closest surroundings in terms of mobility, characteristics and built environment will be described through maps and texts. Last, but not least, a larger scale of almost whole eastern Göteborg will show main functions and green environments.

GÄRDSÅS MOSSE

Built environment

The housing areas in the map on next page consist of different housing typologies, which is easy to see on the map. Gärdsås is a single family housing area, while Kortedala and Bergsjön consist of apartment buildings. The larger roads and Gärdsås mosse separate the areas.

Pedestrian paths

The area is characterized by a separation between pedestrian network and car traffic. Several pedestrian paths are stretched through Gärdsås mosse. However there is a lack of connections in south and west direction.

Height differences

The area consist of several sites with a lot of height differences, while Gärdsås mosse appears relatively flat. The flat area by the pond and stream provide good conditions for the wetland.

Car traffic

There are two larger roads that separate the housing areas and with heavier traffic. Several smaller road lead the traffic further into the housing areas. The map shows how the car traffic is stretched around the housing areas, which create car-free surroundings but also long distances.



Förslag
till stadsplan
för del av stadsdelen
BERGSJÖN
I GÖTEBORG

Västra Bergsjöområdet
uppgett på stadsplanerings-
stadsplaneringsdirektivet

STADSPLAN
ART 1

Stadsplan nr 2017/01

Tom Stenlund

Stadsplaneringsdirektivet

2017/01

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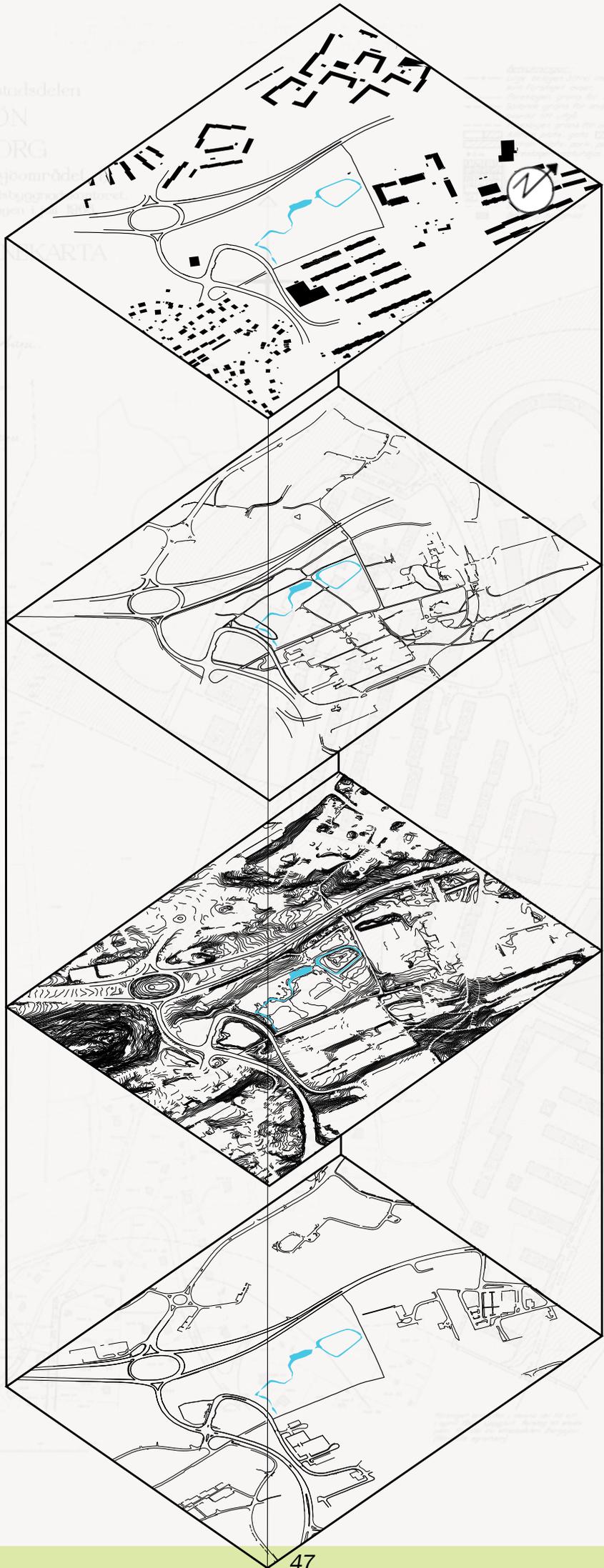
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Stadsplan 2017/01/016
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1 This open space is used as a dog park. However, there are no lights or trashbins available.



2 The trail that has lights in Gärdsås mosse passes by the allotments.



3 This appears as a center in Gärdsås mosse, where the trails intersect and it is close to pond, allotments and pastures.



4 On of the trails in Gärdsås mosse today.



5 Traces from somebody's den.



6 A walking trail along the pasture where the animals on Galaxen can be found during the summers.



7 The stream flows through the park.



8 One of the existing footbridges, but in poor condition.

Affordances

The affordances in Gärdsås mosse are analyzed by Lerstrup's (2016) method that is based on Heft's (1988) classification of outdoor features. This method helps to analyze what type of activities the outdoor environment generate.

On next page is a classification of the affordances in Gärdsås mosse. The method is mainly used for the classification of outdoor features for pre-school children. This is seen as good compliment to the dialogue with school children.

Table 1. Classification of outdoor features for children in preschool with outset in the concept of affordances

Affording features (Gibson, 1979)	Classes in Heft's functional taxonomy of children's outdoor environment (Heft, 1988)	Classes of outdoor features for children in preschool	Key activities¹
Places (Immobile)	Flat, relatively smooth surface	1. Open ground	Run, drive, walk
	Relatively smooth slope	2. Sloping terrain	Roll, slide, clamber
	Shelter	3. Shielded places	Hide, as frame
	Aperture		
Attached Objects, (Immobile, countable)	Attached object	4. Rigid fixtures	Climb, balance, jump
	Climbable object		
	Non-rigid attached object	5. Moving fixtures	Swing, sway, seesaw, spin
Detached Objects (Movable, countable)	Graspable/ detached object	6. Loose objects	Arrange, modify, as tools, props, treasures
Substances (Movable, not countable)	Mouldable material	7. Loose material	Dig, move, mould, smear
	Water	8. Water	Pour, mix, splash, float
Events (Changes)		9. Creatures	Look for, handle, care
		10. Fire	Feed, look after, sit by

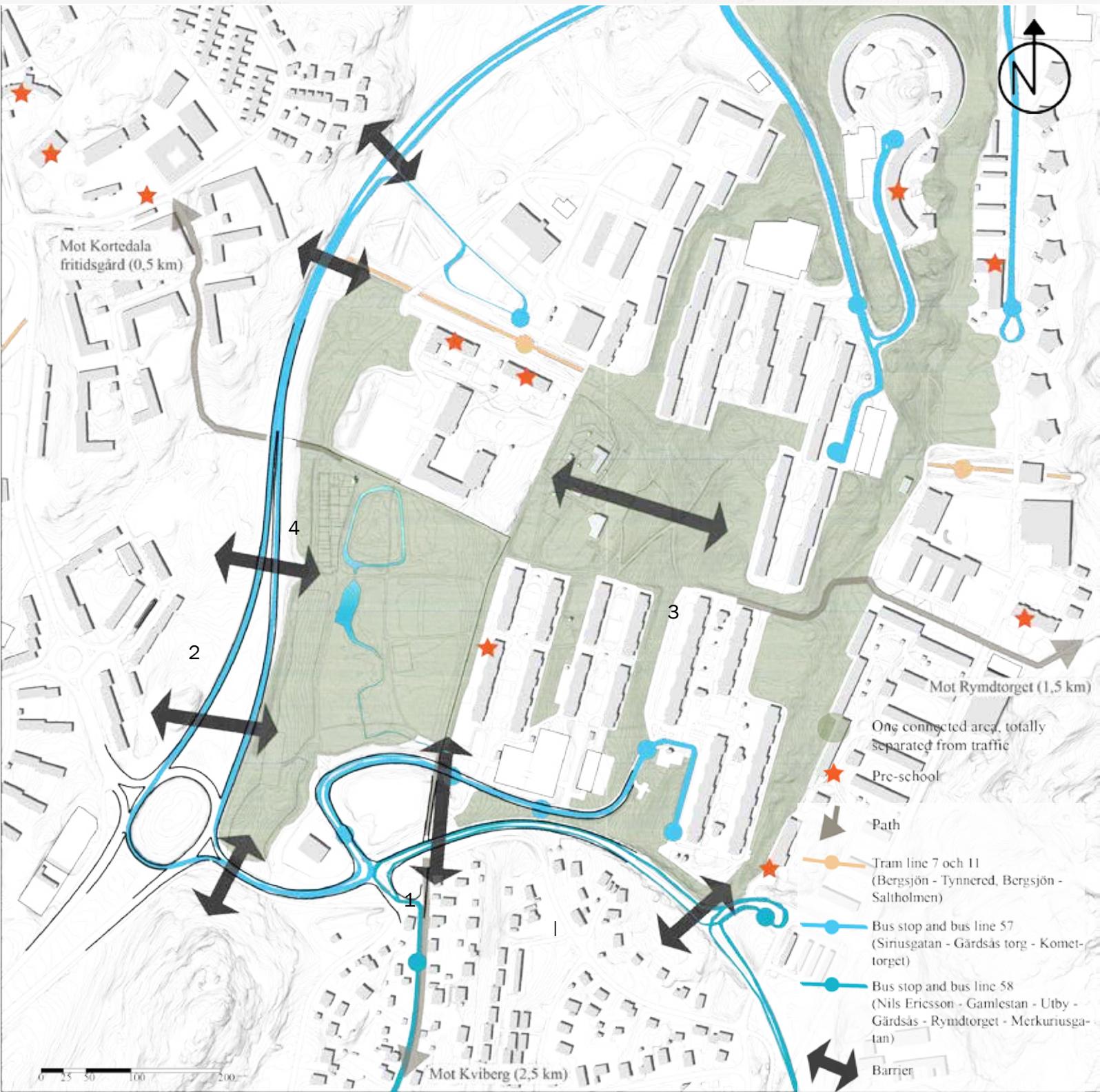
¹ Key activities = distinctive and attractive activities in each class.

(Lerstrup, 2016)

CONNECTIONS TO SURROUNDINGS

Västra Bergsjönområdet II
Centret
2018
KARTA
Tommy van der Stoep
Tommy van der Stoep

Bebyggelse:
 - - - - - Låg bebyggelse (1-3 våningar) och utvidgning
 - - - - - Medelbebyggelse (4-6 våningar)
 - - - - - Högbebyggelse (7-10 våningar)
 - - - - - Högbebyggelse (över 10 våningar)
 - - - - - Högbebyggelse (över 10 våningar)
 - - - - - Högbebyggelse (över 10 våningar)
 - - - - - Högbebyggelse (över 10 våningar)
 - - - - - Högbebyggelse (över 10 våningar)
 - - - - - Högbebyggelse (över 10 våningar)
 - - - - - Högbebyggelse (över 10 våningar)





The photos on next page show some places in the surroundings of Gärdsås mosse. Gärdsås mosse is located between Kortedala, Gärdsås and western Bergsjön but the larger roads Bergsjövägen and Ljusårsvägen are separating the housing areas.



1 The area between Kortedala and Ljusårvägen.



2 A walking path in Kortedala, close to Gärdås mosse.



3 The first houses in Kortedala from the roundabout at Ljusårvägen.



4 View towards Galaxen and the height differences in the green space behind.



5 View of gas station and Siriusgatan from the roundabout.



6 Walking path between Gärdås mosse and Siriusgatan, towards Gärdås.



7 Gärdås torg.



8 The single family housing area in Gärdås.

GREEN ENVIRONMENT

The city of Göteborg has a green strategy plan that divide the green environment into four typologies. Close-to-home park is a place for rest and a meeting place. It is often the common yard and mostly visited by those who live at the place.

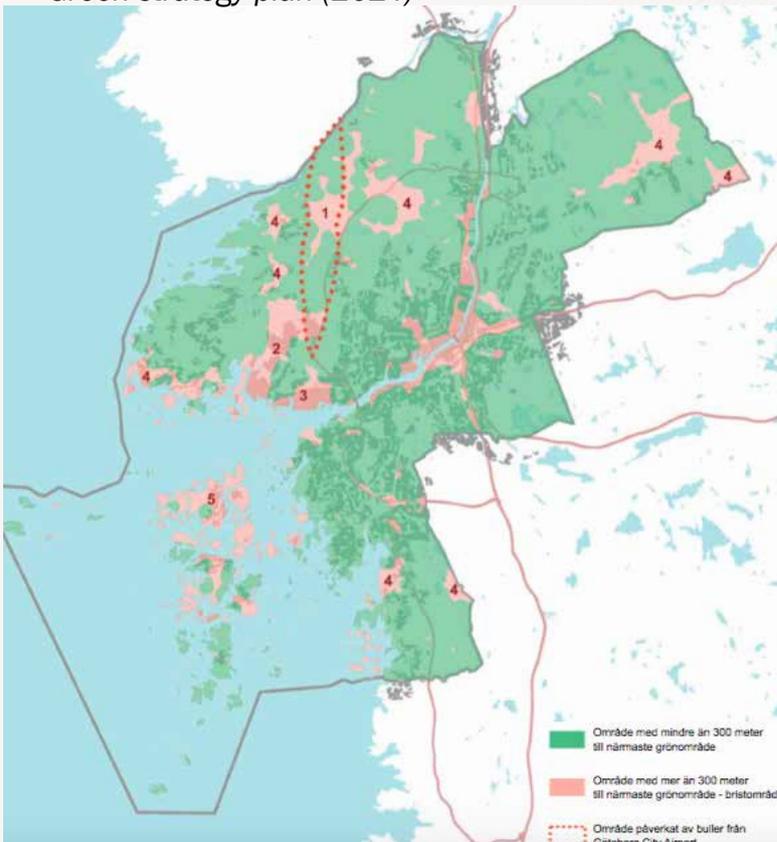
The city district park provides space for both rest and activity. The park should be approximately 2 hectare. It is mainly visited by people from the city district, 1 km distance or 15 min walk. The city park should attract people and citizens from all over the city. The different city parks have their own character but still multi-functional in itself for different users and needs. Larger nature and recreational areas have high biological and recreational values.

The larger green areas provide rich nature experiences but there are few parks in eastern Göteborg. The department of park and nature stressed this in their comments

on the program for Bergsjön. Gärdsås mosse could be a link between the larger areas and be a close to home green area, that is distinguished from other green surroundings. The semi-structured park could be better defined and provide a zone with more structured appearance, as a park. Gärdsås mosse together with Galaxen is a unique place in eastern, or perhaps, whole Göteborg.

1. Eriksbo park
2. Lärjeåns dalgång
3. Galaxen
4. Teleskopsgatan
5. Kometen
6. Kviberg-Gärdsås kulle
7. Utby-Bergsjön
8. Bergsjön
9. Kalasbacken
10. Månadsparken

Green strategy plan (2014)



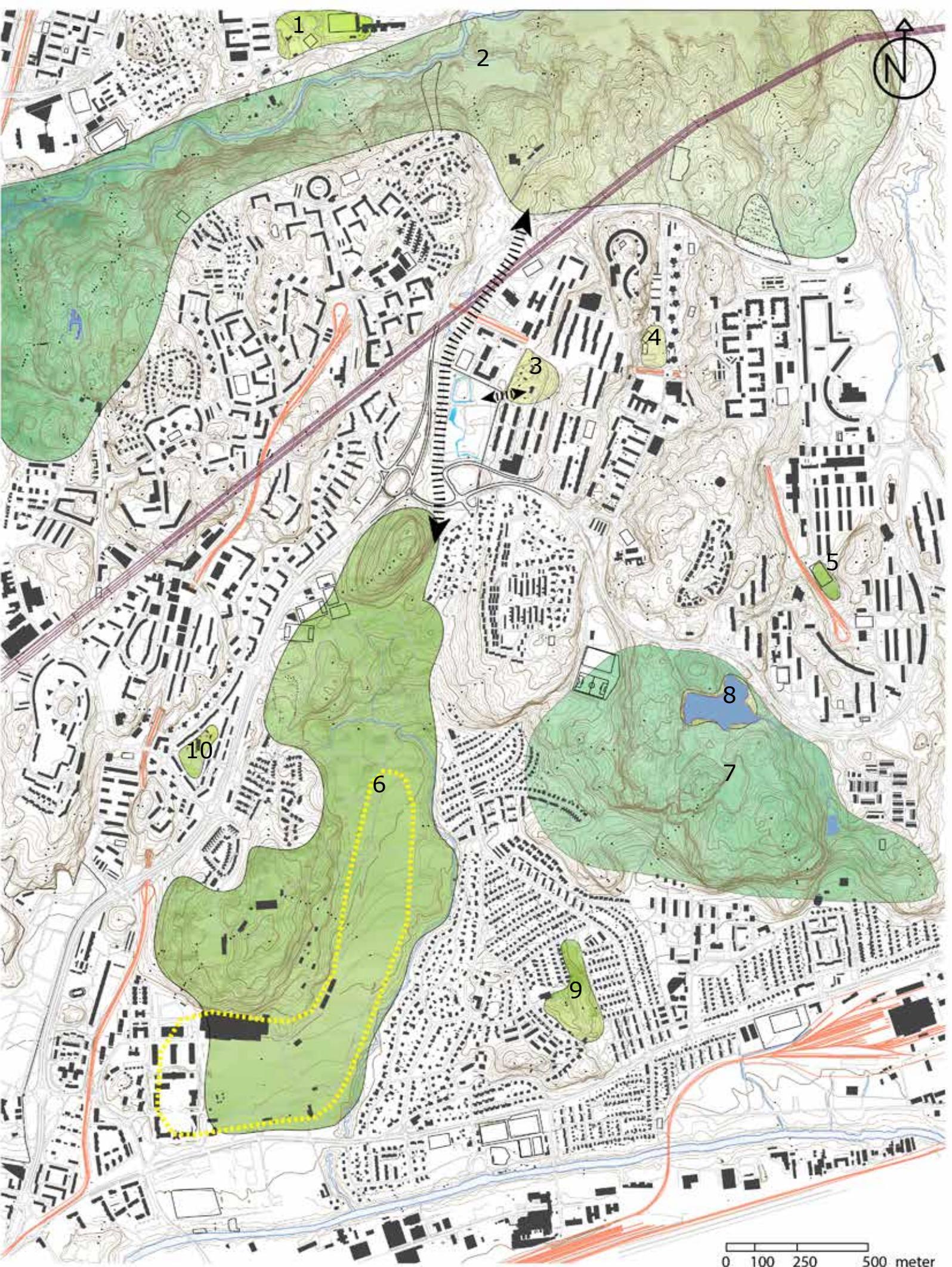
This map illustrates that there are very few citizens of Göteborg that have more than 300 m to the closest green space. (Green surface means that it is less than 300 m.)

Next page is a map where the four different scales of green environments that are close to eastern part of Göteborg are conducted.

There are about 40 city district parks in Göteborg and the closest are Bergsjön, Kometen, Teleskopsgatan, Galaxen, Månadsparken and Eriksbo park.

The closest city parks is Kviberg-Gärdsås kulle. The majority of city parks are found in the city center. Kviberg-Gärdsås kulle is one of the largest and outside the center.

The closest nature and recreational areas are Utby-Bergsjön and Lärjeåns dalgång.



PLANNING THE DIALOGUE

The dialogues have been planned in five different themes with respectively purposes and questions. The different themes are proposed to reveal different aspects on the stated issues. The dialogue has also been done by using different methods: workshops, walk and survey. The themes will be explained in this spread, why it is important and how it will be done and what questions that will be explored during the meeting.

1. Activities and movements (Present situation)

- *What?*

I want to find out the activities and movements in western Bergsjön among children and youth and if Gärdsås mosse is perceived as accessible. This can help me to analyze the affordances of the outdoor environment and how that contribute to children's mobility, play and social interactions.

- *How?*

Workshop with both classes.

This will be done by dividing the class into groups, using maps, post-its and markers during the first meeting with both fifth and eighth grade. They can draw destinations and movements on the map.

- *Questions*

What places have you visited in the area?
What do you do there?
How do you walk between these places and your home?

2. The site (Problem formulation)

- *What?*

I need to identify the qualities and possibilities of Gärdsås

mosse, as a close-to-home semi-structured green space, through children's perspective. This can help me to understand the characteristics of the site today how it can be described. I can also get an understanding of what would be important to develop through children's perspectives.

- *How?*

Workshop with eighth grade and walk with fifth grade.

This will be done by visiting the site together with fifth grade and a doing a SWOT-analysis with eight grade.

- *Questions*

What do you think are the strength and weaknesses with the site?

How would you describe the site to someone that never have been there? What makes it unique?

What can be better?

3. Connection to surroundings (The context Gärdsås mosse)

- *What?*

I want to analyze the value of Gärdsås mosse's to surrounding areas. What are the unique characteristics compared to other destinations in Kortedala, Gärdsås and Bergsjön? This could increase the possibility to transform Gärdsås mosse to a adhesive between housing areas. I would then also get a wider perspective on the qualities and weaknesses of the site.

- *How?*

Workshop with eighth grade.

This will be done by putting Gärdsås mosse on a larger map and context together with eight grade, expanding the limit to the closest surroundings.

- *Questions*

How can Gärdsås be a complement to other facilities in Kortedala, Kviberg, Rymdtorget?

How are the physical connections between the different housing areas?

WORKSHOP WITH FIFTH GRADE

Workshop with fifth grade (seven-year-old children).
Fifth grade consisted of eleven girls and seven boys.
21 February 2017, Sandeklevsskolan, during a geography class for 50 minutes.

The workshop was held in the ordinary classroom and the class was divided in four groups, with four children in each group. I had with me two fellow students and there were two teachers, so all groups had one adult to assist them to focus on the map and the questions. I organized a lecture, where I introduced *city planning* and explained the workshop. I also participated a short while in each group during the lecture.

After my introduction about city planning and the groups were divided, I gave each group a big map of western Bergsjön. All pupils were given one blue sticker. They were told to start with place the sticker on their house. This helped them to start understanding and using the map. This was also a way for me to get an overview of where they lived, which helped me to pick area for second part of the workshop.

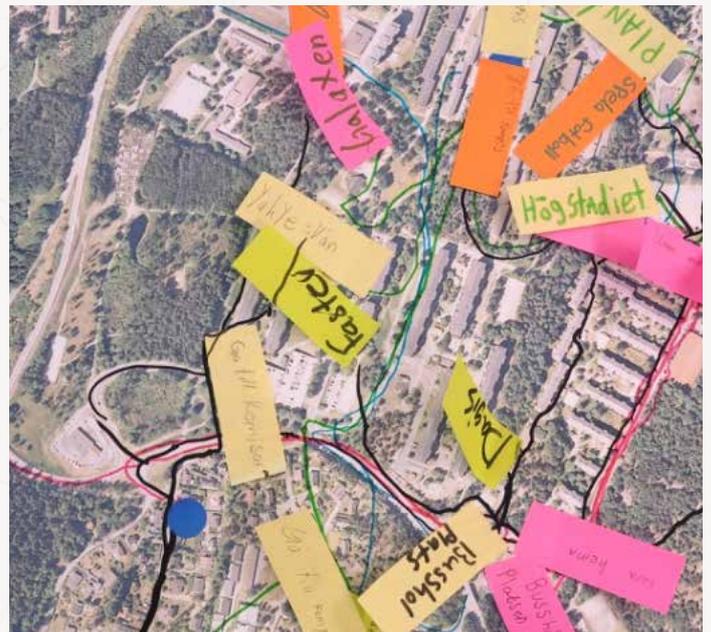
Activities and movements

(Present situation)

- What places have you visited in the area?
- What do you do there?
- How do you walk between these places and your home?

All the pupils were given their own post-its and they got to pick a coloured marker pen. They were told to place post-its on places they have visited within the map. I gave examples as places where they meet friends, go for a walk, play football and buy groceries with parents. Then they also were supposed to draw lines how they walk to these places from home or school.

Many pupils live and move around in north-south direction from Astronomgatan - Siriusgatan - Gärdsås. Therefore, I decided that episode 2 should focus on the green area in the middle of these, Galaxen and its surroundings, as the pupils seemed familiar with the site.



Förslag till
ändring och utvidgning av
för delar av stadsdelarna
BERGSJÖN och **K**
I GÖTEBORG

Västra Bergsjöområdet II
uppsett på stadsdelavgränsningar
stadplaneringsdelningen i april 1967

STADSPLANEKARTA

Stadsplaneringsdelningen i april 1967

Stadsplaneringsdelningen i april 1967

Lena Sjöberg

Stadsplaneringsdelningen i april 1967

Fredrik Stenlund

Lena Sjöberg

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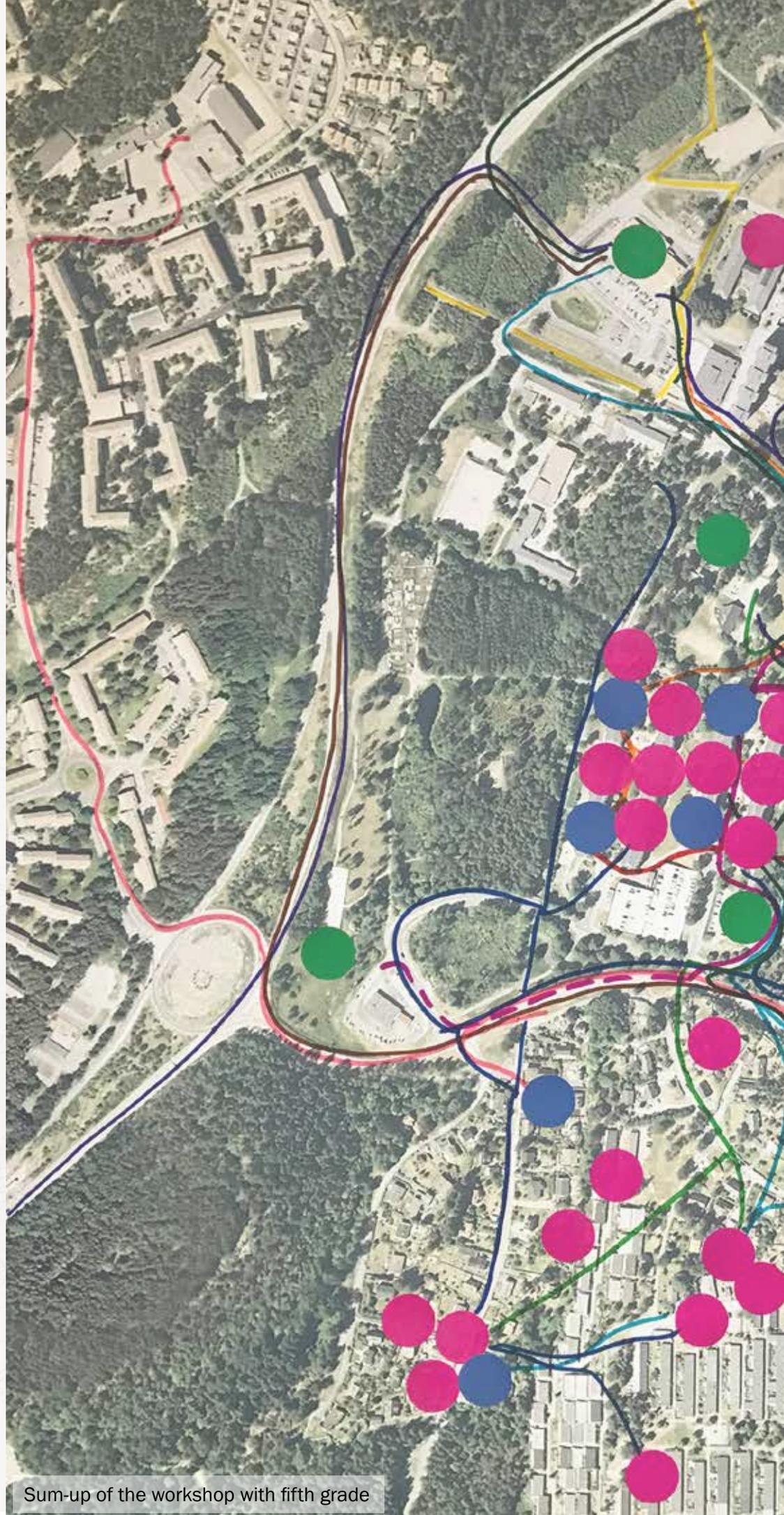
Fredrik Stenlund

Stadsplaneringsdelningen i april 1967

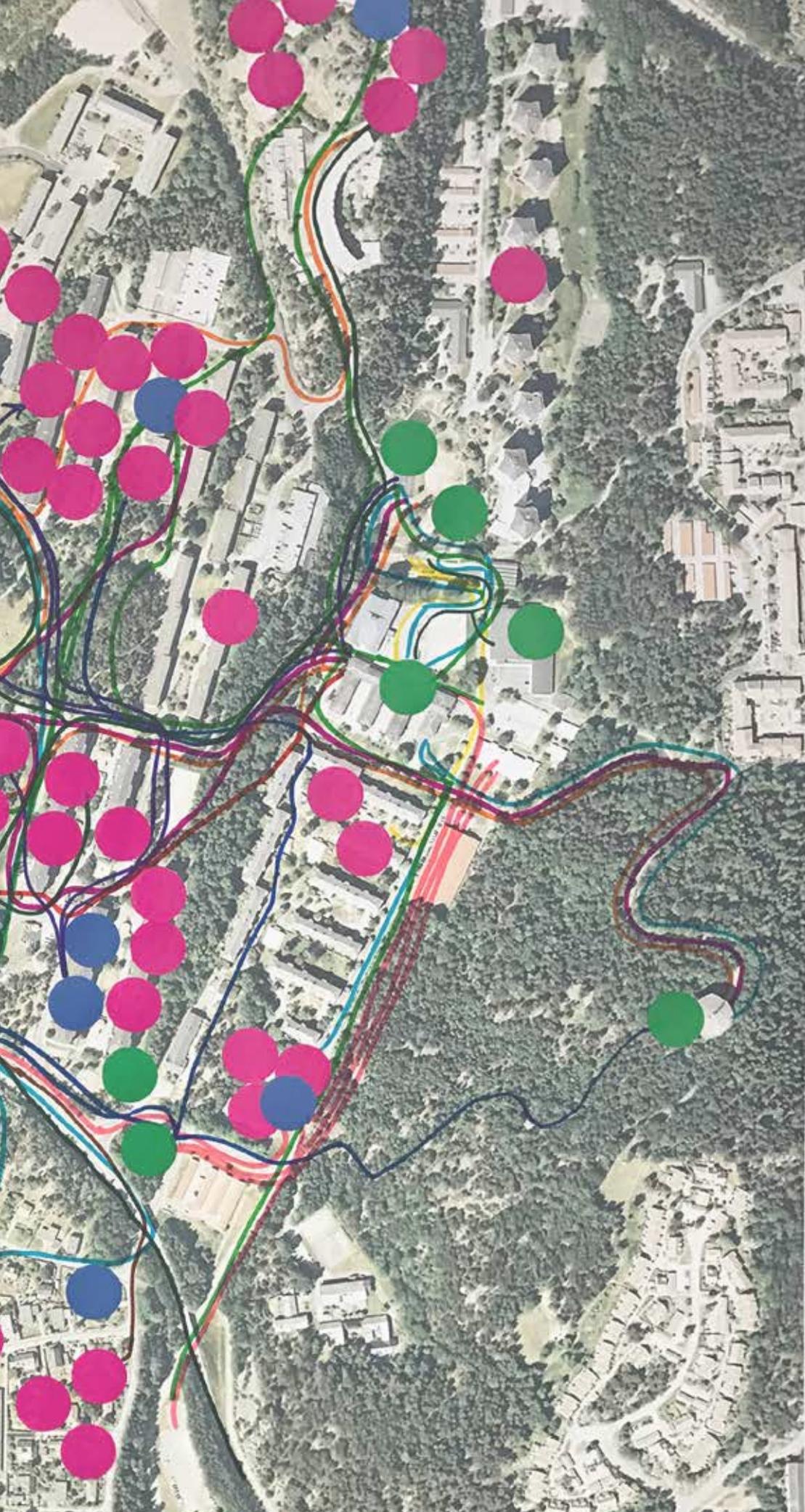
Lena Sjöberg

Stadsplaneringsdelningen i april 1967

Fredrik Stenlund



Sum-up of the workshop with fifth grade



1. The network is a graph where nodes are homes, friends, and activities.
 2. The nodes are connected by edges representing relationships.
 3. The network is a directed graph where edges have a direction.
 4. The network is a weighted graph where edges have a weight.
 5. The network is a bipartite graph where nodes belong to two sets.
 6. The network is a complete graph where every node is connected to every other node.
 7. The network is a tree graph where there are no cycles.
 8. The network is a cycle graph where the nodes form a closed loop.
 9. The network is a path graph where the nodes form a single path.
 10. The network is a star graph where one central node is connected to all other nodes.

11. The network is a planar graph where the edges do not cross.
 12. The network is a Hamiltonian graph where there is a cycle that visits every node exactly once.
 13. The network is a bipartite graph where nodes belong to two sets.
 14. The network is a complete graph where every node is connected to every other node.
 15. The network is a tree graph where there are no cycles.

16. The network is a bipartite graph where nodes belong to two sets.
 17. The network is a complete graph where every node is connected to every other node.
 18. The network is a tree graph where there are no cycles.



19. The network is a bipartite graph where nodes belong to two sets.
 20. The network is a complete graph where every node is connected to every other node.
 21. The network is a tree graph where there are no cycles.

22. The network is a bipartite graph where nodes belong to two sets.
 23. The network is a complete graph where every node is connected to every other node.
 24. The network is a tree graph where there are no cycles.

Legend Homes Friends Activities

Result

Purpose of the questions about activities and movements:

With these questions I wanted to discover the affordances of the outdoor environment in western Bergsjön. How do the affordances contribute to children's mobility, play and social interactions? Is Gärdsås mosse accessible in children's perspective?

The workshop revealed that many pupils in the class live in north-south direction from Astronomgatan - Siri- usgatan - Gärdsås.

Four students live outside the area (Rymdtorget, Kviberg and Hisingen). None of the pupils marked that they live in Norra Kortedala, the west side of the map, or the housing areas at the east side of the map. Only one pupil have marked a destination outside the north-south direction, workout in Norra Kortedala at Utmarksskolan.

I categorized the post-its into either "friends" or "activities". The majority of the post-its referred to friends. Some of the symbols for friends refer to the same person pointed out by different pupils. A majority of the activities referred to Sandeklevsskolan and football fields.

It seems as the groups focused on different things, where one map reveals that every person in the group had put one post-it on Lidl but none in Gärdsås while another group had done the opposite. The result of the mapping therefor needs to be analysed critically.

The children have friends all over western Bergsjön. They seem to have rather independent mobility. Children's movements between home, school and friends are the most prominent lines. The intersection of many of the lines are within the car-free area, illustrated on map at page 52. It seems as the car-free outdoor environment have a positive impact on children's mobility, play and social interaction. The school seems to be the social adhesive.

All groups marked out many post-its but none on Gärdsås mosse. Galaxen is a well-known place and is well integrated between the movements and places that the children are visiting.

The site

(Problem formulation)

What make the site special and unique? How would you describe it to someone that never have been there? What is good and bad with the site? How can the site be better?

The pupils were told that this part is more of a discussion and that we zoom in on a particular site that seemed familiar for most of them. The task was to think creatively and describe Galaxen in a general matter. Since most of the pupils draw lines for their movements across Galaxen and the green area next by Galaxen I decided that we should focus on this place during this section.

Result

Purpose with the questions about the site:

I wanted to discover the characteristics of Gärdsås mosse today and how it can be described? What are important to develop in the future? Are children passing by or visiting the area - why/why not?

Group 1

Galaxen is a fun place. There, one can meet animals and pet them. One can pet and ride the horses. They also have chickens, roosters and hens. There is also a small shop. During the summer they have a maypole which they dance around. Galaxen can't be improved as it is already a very nice place.

Group 2

Good things

It is possible to have picnic.

There are animals.

There are planting boxes.

There is a big lawn.

There is an arcade (?), where one can play table tennis, just dance and billiards.

Negative things

The place does not feel as home.

The gate to Galaxen closes at 7 pm and it is not possible to visit the animals when it is closed.

It is very uphill.

How could it be better?

Less forest (trees), more open space so that one can do more things / activities.

More playgrounds.

More animals, big animals that one can pet.

Group 3

There are animals that one can see on the way to the shop.

It smells weird there.

It is hilly and difficult for elderly to carry home their groceries.

It is icy in the winter.

It is like a swamp where the animals are and the area smells a lot.

Good things

Close to groceries store or shop, animals, green spaces and playground. However there is only one spinning thing that is fun.

The animals are cute. It is nice that one can walk through the area.

Negative things

It is a hilly area.

The horse riding should be open more often.

There should be more activities on Galaxen and extended opening hours.

How could it be better?

Develop the football field by Galaxen.

Add more lights, since it is very dark during the winter and feels unsafe. I take the tram instead of walking when it is dark. There has been a gun shot once.

One big playground and area for the animals would be good.

There are a lot of space there.

There should not be more houses at Galaxen.

The area is fun because it is beautiful and cosy with the animals.

One can eat there and there is a shop.

It would be good with extended opening hours.

One can play table tennis, billiards and other things. It is fun. More activities for children in the playground would be good.

The football field is crappy, the goals are really bad. The grass is yellow and sharp.

Conclusions from workshop with fifth grade

The children mostly live and move north-south within western Bergjön. The children move independently from place to place. Home, school and friend are the most prominent reasons for movements. The school is a social adhesive and children did not mark friends in Kortedala.

There were no movements or activities marked i Gärdsås mosse.

The animals have an obvious and clear impact in the children's sensuous experience of place. They talk about how they can pet the animals and how it smells weird around the animals. The children would like to see extended activities and opening hours at Galaxen. Most of the children walk or bicycle to school.

FIRST WORKSHOP WITH EIGHTH GRADE

Workshop with eight grade (fourteen-year-old children). The class consisted of five girls and seven boys. 24 February 2017, Sandeklevsskolan, during a geography class for 60 minutes.

Activities and movements

(Present situation)

What places have you visited in the area? What do you do there? How do you walk between these places and your home?

The workshop was held in the ordinary classroom in the morning. The hour started with some technical issues, which resulted in a blinking projector with my power-point. I started with an explanation of the Swedish urban planning processes in 10 minutes. I had also promised the teachers to give some advice on possible programs on high school if they find urban planning interesting.

Then the class was divided in three groups. I gave each group a big map of western Bergsjön. All pupils were given one blue sticker. They were told to start with place the sticker on their house. This helped them to start understanding and using the map. This was also a way for me to get an overview of where they lived.

All the pupils were given their own post-its and they got to pick a colored marker pen. They were told to place post-its on places they have visited within the map. I gave examples as places where they meet a friend, go for a walk, play football and buy groceries with parents. Then they also were supposed to draw lines how they walk to these places from home or school.

This first section was done in same procedure as the first section with fifth grade. However, eighth grade got a map over whole eastern district of Göteborg, as I thought a map of only Bergsjön would be too small for activities and movements by eighth grade pupils. It proved to be difficult for the pupils to find places they often go to or the map consisted too many destinations so they didn't know what to start with. The result was a lot fewer lines and post-its than fifth grade.

The map was too big or perhaps I could have started with a task to find certain locations, to better understand the map.

The site

(Problem formulation)

What do you think are the strengths and weaknesses with the site? How would you describe the site to someone that never have been there? What makes it unique?



Maps from the workshop

This section started with that the groups got a new map, a map of only Gärdsås mosse and the closest surroundings. They were told to start to explain the place for someone who never has been there. What makes it unique?

Then I explained what a SWOT analysis is and is used for. The pupils got one example from me of strength, weakness, opportunity and threat. Then the three groups got a paper divided in four blocks with the four headlines. They were told to do a SWOT analysis of Gärdsås mosse.

I walked around the three tables and tried to help with the discussions if the groups seemed quiet.

Result

Purpose with the questions about the place and SWOT analysis:

With the questions I wanted to discover the characteristics of Gärdsås mosse today and how can it be described. What are important to develop in the future? Are children passing by or visiting the area - why/why not?

The answers, with my translation:

"In Gärdsås mosse there is mostly forest, but there are other things as well. For example: a meadow, people that grow crops and a grocery store, Lidl, a bit further away."

"Take tram number 7 or 11 and get off at Galileis gata, then walk the road down and later turn to the right."

"In Gärdsås mosse there is a school, a farm, an elderly home, Lidl, shops and public transport stops."

The result of the swot-analysis:

Strengths

- To and from tram stop
- One can play fotball there, next by Gärdsås mosse
- People grow crops there
- One can jogging there in the nature
- One can take long walks or walking the dog in the nature around Gärdsås mosse

Weaknessess

- Lights [are missing] at the paths and roads
- There are no youth recreation center

- It is dirty/rubbishy
- It is pretty dirty/rubbishy there
- There are not enough with lights
- One does not feel so safe

Opportunities

- One can build many houses there since it is a large area
- More shops
- Youth recreation center
- Roads for cars

Threats

- If many people move to Sweden, one can do residences there
- People will we able to see you if there will be more densily built
- Unsafe during evenings
- Some move
- Dark places

Conclusions from first workshop with eighth grade

Gärdsås mosse and Galaxen are not marked as destinations by this group. The pupils did not mark any destination in Utby, Kortedala or Kviberg.

The pupils describe Gärdsås mosse as a forest and how it is located in relationship to Gärdsås torg where one can find groceries store and tram stop.

A summary of the different group's SWOT analysis is found on next page. The pupils had most difficult with opportunities and threats - consequences of other circumstances.

Nature is described as a strength for recreational purposes. Same weaknesses that was pointed out are that it is dark, unsafe and a lot of rubbish. The opportunities are that there are a lot of space than can be used for other purposes. Threats where pointed out as what happens if more people are moving to western Bergsjön or if people are moving away.

HOMEWORK BY FIFTH GRADE

Fifth grade got a survey with following pictures of different green typologies. The survey consisted of three questions

- A. Describe your opinion about places that the picture shows and how would you feel if you were there?
- B. Do you know similar sites close to where you live?
- C. What would you do at the site, what activities can you think of?



1. Unstructured // informal // nature



(Svensk Natur iFokus, 2017)

2. Semi-structured // park in nature



(City of Lancaster Texas, 2017)

3. Structured // formal // park



(Sveriges Vackraste Park, 2017)

A

9 negative answers on the characteristics of place and the feeling if one would be there.

11 positive answers on the characteristics of place and the feeling if one would be there.

1 negative answers on the characteristics of place and the feeling if one would be there.

13 positive answers on the characteristics of place and the feeling if one would be there.

None negative answers on the characteristics of place and the feeling if one would be there.

14 positive answers on the characteristics of place and the feeling if one would be there.

B

11 of 13 pupils answered that they know a similar place close to where they live.

7 of 13 pupils answered that they know a similar place close to where they live.

4 of 13 pupils answered that they know a similar place close to where they live.

C

7 specify that they would go there together with a friend, family member or someone else.

4 did not specify if they would go alone or with someone.
2 specify that they would go there alone.

2 specify that they would go there together with a friend, family member or someone else.

10 did not specify if they would go alone or with someone.
1 specify that they would go there alone.

3 specify that they would go there together with a friend, family member or someone else.

10 did not specify if they would go alone or with someone.
No one specify that they would go there alone.

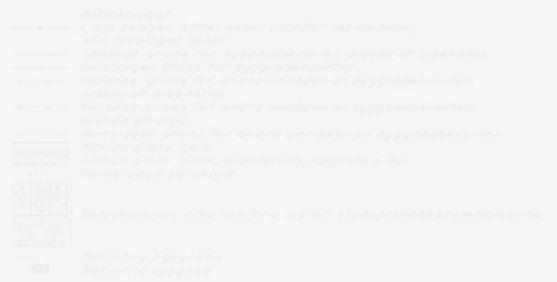
Förslag till
ändring och utvidgning av stadspLANEN
för delar av stadsdelarna
WALK WITH FIFTH GRADE

GÖTEBORG

Västra Bergsjönområdet II

uppsett på stadsbyggnadskontorets
stadspLANEändringen i april 2017

STADSPLANEKARTA



Common walk with fifth grade

28 February 2017, a walk together from Sandeklevsskolan, during a geography class for 50 minutes.

Ideas for the future

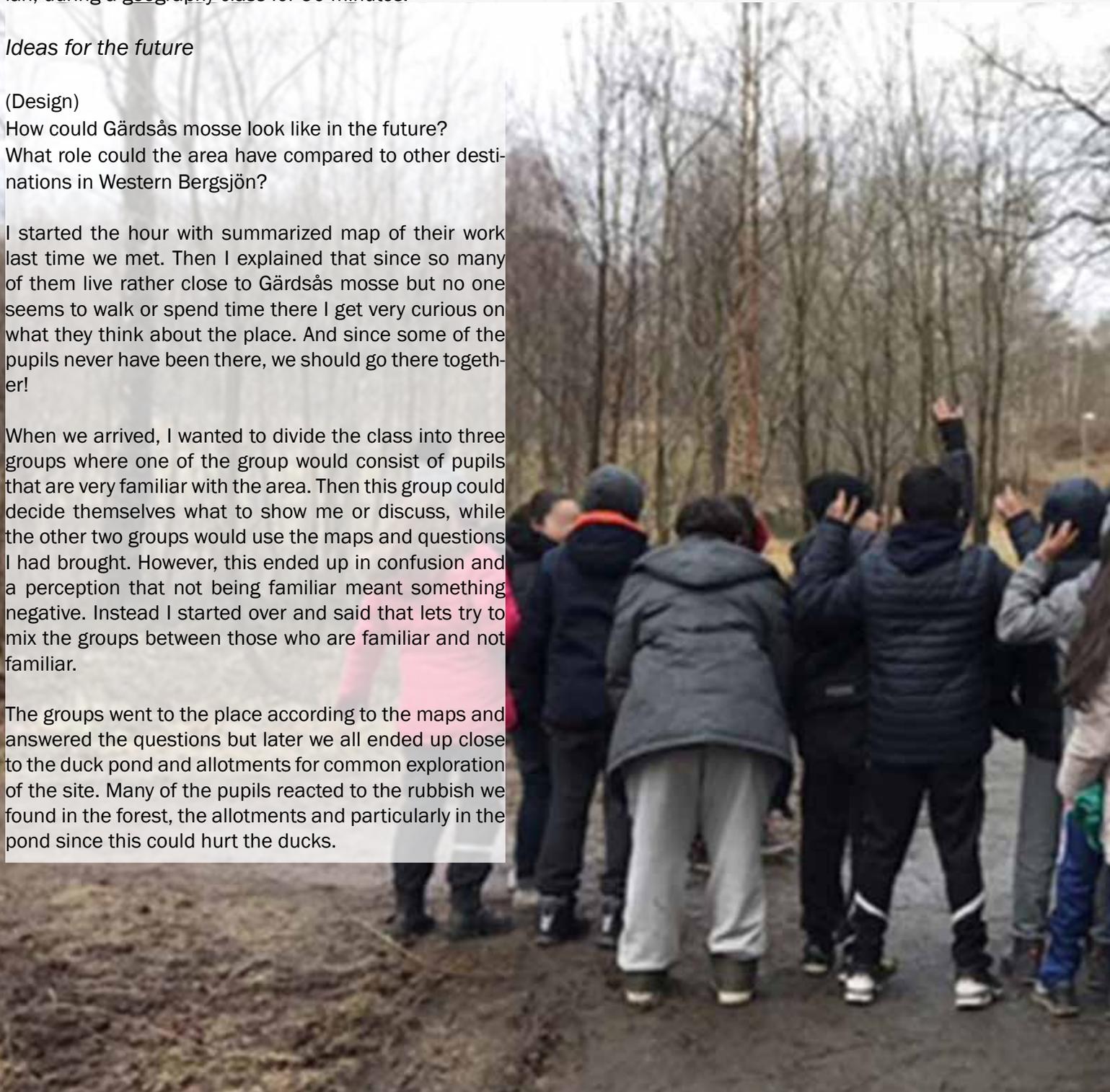
(Design)

How could Gärdsås mosse look like in the future?
What role could the area have compared to other destinations in Western Bergsjön?

I started the hour with summarized map of their work last time we met. Then I explained that since so many of them live rather close to Gärdsås mosse but no one seems to walk or spend time there I get very curious on what they think about the place. And since some of the pupils never have been there, we should go there together!

When we arrived, I wanted to divide the class into three groups where one of the group would consist of pupils that are very familiar with the area. Then this group could decide themselves what to show me or discuss, while the other two groups would use the maps and questions I had brought. However, this ended up in confusion and a perception that not being familiar meant something negative. Instead I started over and said that lets try to mix the groups between those who are familiar and not familiar.

The groups went to the place according to the maps and answered the questions but later we all ended up close to the duck pond and allotments for common exploration of the site. Many of the pupils reacted to the rubbish we found in the forest, the allotments and particularly in the pond since this could hurt the ducks.



Förslag till
ändring och utvidgning av stadsplanen
för delar av stadsdelarna
BERGSJÖN och KORTEDA
I GÖTEBORG
Västra Bergsjöområdet II
uppsett på stadsplanen och stadsplanens
stadplanensdelningen i april 1967
STADSPLANEKARTA

Stadsplanen

Stadsplanen

Stanna vid siffran 2.

Frågor att diskutera!

1. Vad tycker ni om området?

När finns ju en lite våtmark/sjö, hagar för djuren, koloni-område och promenad

Hämskt för det är skräp

... och det finns djur

... Det finns inte mycket mat
Det finns mycket öl buricar

2. Vad tycker ni om gångvägarna och skogen
(är det otryggt, fint, tråkigt...)

Dörren
är S



A walk in Gärdsås mosse

Resultat GÖTEBORGS Köster Bergsplanområdet II

Purpose of the questions about Gärdsås mosse in the future:

What are children's perspective on the future Gärdsås mosse? What need to be strengthened and preserved?

(The answers are written by the teacher and translated by me.)

Group 1

What do you think the open space is used for?

The pupils knew that the open space was used for a dog park. One of the pupils said it should remain while the seven other pupils said they thought the site could be used for playground and football field.

What do you think of the walking paths and forest?

It is boring and muddy. Some pupils think it is scary when the dogs are barking. It is rubbishy/dirty and that makes it difficult to jog.

What do you think one could do with this place in the future? What would make you to come here?

Asphalt on paths, turn the dog park to a football field, parkour park or an activity park for many purposes (allaktivitetspark).

Lights to make the place safer. Keep the forest but sort out the trees for a safer environment.

Group 2

What do you think about the area?

The door to the horses is broken.
It is terrible because of all the rubbish everywhere and there are animals that can die. There are not so much food available to the animals. There are a lot of beer cans and plastic in a pond where the ducks lives.

What do you think of the walking paths and forest?

It is good but a lot of rubbish.

What do you think one could do with this place in the future? What can you find in other parts of the city but not here?

A new nice park and that it should be cleaned here.

(My general notes during the walk.)

Many pupils talk about football fields, with artificial grass or roof. I asked some of the girls that also discussed football fields, if they play football? And they answered "no, but everybody wants a football field." One boy suggested a space for many activities (allaktivitetspark).

Quite many talked about a better youth recreation center. One where you could do more things than on Galaxen and with better opening hours. One pupil suggested a small cottage for both children, youth and adults to meet. I asked if they know about the pavilion that Chalmers did at Siriusgatan recently. Some of the children said that they participated in Chalmer's project. Other suggested playground for both young and older kids.

The walking paths were described as too wet and muddy. (It was a rainy day but it did not rain so much while we were walking.) We talked about the street lighting, that some of the paths have lights but some don't. Many children described as dark and unsafe.

The children thought that the vegetation was very dense and that the forest needs to be sorted out. We discussed the difference between forest and park. Park can be more cleaned up, less trees and asphalt on the walking paths. Asphalt would be good for the joggers in the area. One pupils said that "At Teleskop they have cleaned up, why can't they do it here?".

Many of the pupils became very upset about the rubbish around the pond, for example beer cans, fireworks and plastic bags. Some felt sorry for the ducks and said there should be more food for the birds.

Conclusions from the walk with fifth grade

The walk revealed the pupils opinions about the present conditions. They mostly discussed the maintenance, lighting and ground cover.

Most of the children argued that trees need to be sorted out, that new possibilities for activities should be added to the place and that asphalt would be good to prevent the mud. This can be understood as a wish for a more structured green environment.

We had a discussion regarding that every everybody does not like football. Instead, there could be a place for spontaneous activities or "all-activity space".

SECOND WORKSHOP WITH EIGHTH GRADE

Workshop with eight grade

10 March 2017, Sandeklevsskolan, during a geography class for 60 minutes, 8 am - 9 am.

Connection to surroundings

(The context Gärdsås mosse)

How can Gärdsås be a complement to other facilities in Kortedala, Kviberg, Rymdtorget?

Ideas for the future

(Design)

How could Gärdsås mosse look like in the future?

What role could the area have compared to other destinations in Western Bergsjön?

Twelve pupils participated in this workshop and I started off with a summary of what we did during the first meeting and what they had stated as strength, weaknesses, opportunities and threats of Gärdsås mosse. I concluded the two main points, based on their discussions and answers: activities and feeling of safety.

The pupils were divided in three groups and got one map of whole eastern Göteborg where I had marked out different meeting places, activities, commercial and non-commercial facilities. This map was supposed to help the pupils to analyse Gärdsås mosse in relation to the whole district.

The groups also got a large map of Gärdsås mosse and the closest surroundings. The purpose was to encourage the pupils to draw on the map and analyse what improvements that could answer their previous analysis. I suggested that Ljusårvägen could be transformed from a road into a street, which release space for other purposes. The groups also got photos taken on the site, with transparent paper on top. This gave them different scales to work with.

The task was to elaborate on how a development could increase feeling of safety and what more activities could look like. After half of the session I gave the groups two

characters each, to think of and develop their ideas further. The characters were: retired man, a family, a couple, a girl in upper secondary school, two friends in seventh grade and siblings in the age of 6 and 8.

Result

Purpose of the question about the surroundings and the design of Gärdsås mosse:

With the questions I wanted to discover what role has Gärdsås has compared to other sites in western Bergsjön? What are children's perspective on the future Gärdsås mosse? How can the qualities be strengthen? This workshop did not turn out as expected. I was afraid that this workshop would end up in a list of things instead of answers on how it actually could look like. The groups wanted to use post-it on the map instead of draw directly on the map. I believe that the post-it changed the focus from why and how to what. We would have needed one more meeting to follow up the SWOT and discuss the why and how of their ideas.

Some ideas from the workshop

The pupils see the possibility to fill the space around Ljusårvägen, Bergsjövägen and Gärdsås mosse with new content, that they don't find in the surroundings today. Gärdsås mosse could be a place for new activities as sports, youth centre and café by the pond. There were also suggestions for a continuation of the farm at Galaxen and bathhouse. Outside Gärdsås mosse, at the existing roads there could be possible sites for more urban content as shops, restaurants, new housing areas of different characters. All groups proposed park facilities and playgrounds at the other side of Ljusårvägen, instead of in Gärdsås mosse.

INTERVIEW WITH ERNE AND BIRGITTA

I did an informal interview with Erne and Birgitta, that have run Galaxen for many years. Galaxen was from the beginning a municipal business but in the 90s it became a private business and have been since then. Galaxen have many animals, such as horses, cows, hens, pigs and sheep's. It is possible to pet the animals and ride the horses but they also run a café in a building where for example school classes can meet for music classes. It is also possible to play table tennis and billiards.

Galaxen uses Gärdsås mosse in several ways. The animals use the pastures during summer and the paddock and the trails are used for horse riding.

The café and inside activities are open at evenings on Tuesdays and Thursdays. Both children and adults visit Galaxen, however it is more common with children between 7-13 years old.

I told about some of the findings during the workshops with children at Sandeklevsskolan, that even children that live at Siriusgatan not often visit Gärdsås mosse, that they find it dark and unsafe, too dense with trees and too much rubbish.

But there is risk that the lights will make it more unsafe, because then people go there when it is dark, said Erne and Birgitta. "Why would anybody go there if it is dark?" It used to be more bushes around Galaxen but it was taken away in order to increase the view and sense of safety. Erne and Birgitta argued that since then, there has been a decrease of the use of space.

We talked about the planned densification of Siriusgatan and the surrounding areas and the increased wear and tear on green areas like Gärdsås mosse. I suggested that some paths could be transformed to asphalt, as the children suggested, and to protect and suppress the wear on other trails. But then it is not nature anymore, argued Erne and Birgitta. If people want to walk on asphalt, they can do so on other sites. "It does not have to be city everywhere!"

Children at Gärdsmosse skolan and citizens in northern Kortedala are apparently walking and spending time in Gärdsås mosse. Most of the allotments belong to citi-

zens in northern Kortedala, according to Erne and Birgitta. There is a elderly home close to Gärdsås mosse and this is one of few nature areas they have accessibility to, due to the height differences. They need more benches, today there is only one by the duck pond.

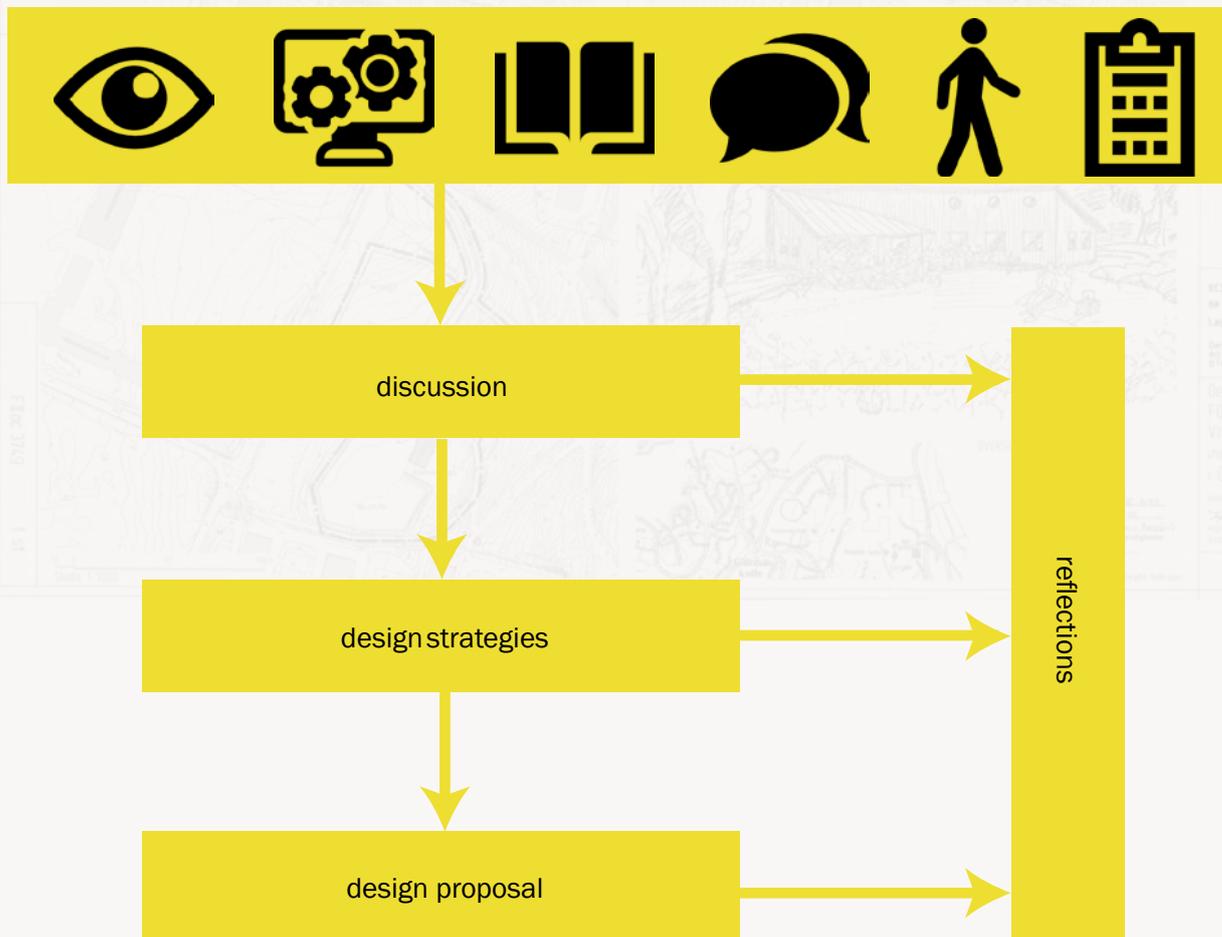
Generally name and name think Gärdsås mosse should be preserved but better equipped by benches, trash bins and threes should be sort out so that the wetland park becomes more visible and not grow shallower.



RESULT

This chapter presents the findings and initially will be an explanation of how I did the compilation of empirical findings. This will be followed by a discussion with the main points of the result. This will be followed by ten design strategies for the planning and design of semi-structured green environment in million programme areas in Sweden. The strategies are based on the previous research, the participatory process, observations and site analysis. Last will be a design proposal for Gärdsås mosse and its surroundings, which is based on the previous design strategies. The design proposal will stand as an example of how the strategies can be applied.

The findings are based on literature studies, observations, site analysis and workshops serie with children. The workshop serie that was done with two school classes can obviously not be generalized to what "children" think. But their perspectives indicate certain aspects and issues that can be compared to the literature.



COMPILATION OF FINDINGS

The photos show how I have worked with the compilation of all the conclusions and findings in my research. I stated all the main points and statements from the literature, the workshops, the homework, the walk, the observation and the site analysis. Common points or similar content between different empirical findings were grouped and categorized in order to find a structure and to find the most important aspects to explore further. These groups and categorizes have been developed into design strategies. This means that the design strategies are derived from both previous research, on my site analysis and on the children's perspectives.

I did the compilation by writing down short sentences and keywords that I interpreted as important from the discussions during the dialogue and from the literature as well as from the site analysis. I interpreted keywords and sentences as important if I could see a parallel to the stated issues of the thesis. This means that topics or certain questions that came forward during the dialogues that I thought had something to do with different typologies of the green environment or the planning and design of the outdoor environment, were written down. Conclusions from the research that confirmed, questioned or complemented any particular question from of the dialogues were also included. The site analysis provided an understanding of the children's perspectives on the outdoor environment.

There are a lot of different possible aspects that could have been investigate further. However, after I had done the compilation in several steps there where certain groups of keywords that consisted strong correlations between the dialogue, the literature and the site analysis. These categories where chosen to be explored further as design strategies.

Step 1

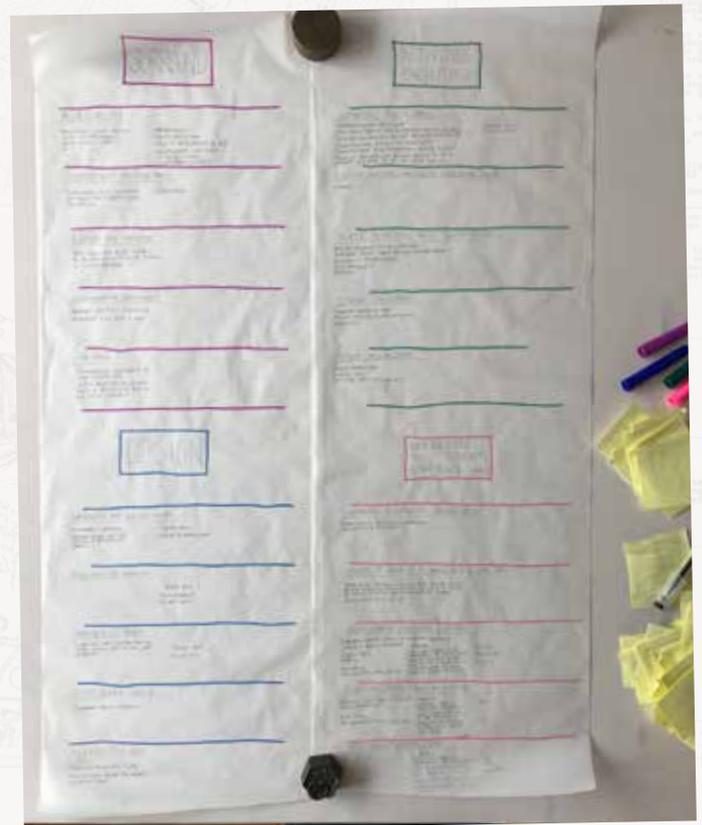
I collected a lot of keywords from my notes and the discussions during the dialogue, the literature and the site analysis. I started to divide the keywords into four categories:

The design

The surroundings

Activities and facilities

Unstructured - structured space



Step 2

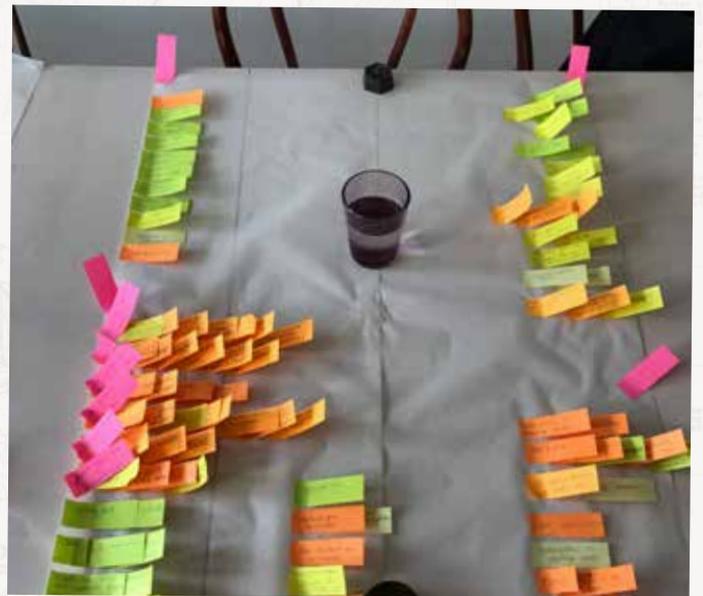
I concluded all the keywords in a SWOT-analysis of outdoor environment for children, which also helped me to identify additional aspects and keywords. This was done before mid term seminar at Chalmers University.



Step 3

After the mid term seminar I decided to do the SWOT-analysis of outdoor environment for children one more time as I got a lot of feedback that helped me to analyse the empirical findings further. This time I grouped all the keywords and sentences in a new set of categories. Example of categories that consisted of many keywords:

- Gender perspective
- Public space for children and youth
- Design
- Densification



Step 4

The categories that consisted many keywords or sentences from the dialogue or literature were chosen to be further explored and formulated into design strategies.

DISCUSSION

The survey that fifth grade did on Sandeklevsskolan revealed that the children describe unstructured green environment (forest) by negative characteristics and feelings 9 times of 20. Some answers given were: fresh air, a feeling of freedom, lack of fruit and berries, scary, dark.

Semi-structured and structured green environment are almost exclusively described by positive characteristics and feelings. Examples of answers are: beautiful, open, warm and sunny, fun.

At the same time, 11 of 13 pupils know a similar site to unstructured green environment close to where they live. The number of pupils that know a similar site to semi-structured green environment is 7 of 13, while the number that know similar to structured green environment is 4 of 13.

In other words, the children perceive most of the outdoor environment close to where they live as unstructured green environment but they find semi-structured and structured green environment more fun, social, beautiful, open and safe.

Both fifth and eighth grade describe Gärdsås mosse as a forest, while my pre estimation of Gärdsås mosse was that it is a semi-structured green environment, due to the different uses and integration of open spaces. During the walk with fifth grade at the site, most of the pupils argued that trees should be sorted out for a more open character. They described the dense and dark forest as unsafe.

Furthermore, 7 of 13 pupils specify in the survey that they would go to the unstructured green environment together with someone. Only 2, respectively 3, specify that they would go together with someone to semi-structured or structured green environment. This could be interpreted as that they prefer company in the forest in order to feel comfortable.

The proposed activities for the different typologies are possible to distinguish to some degree. Unstructured green environment is thought of as a suitable environment for walks and games such as hide and seek, climbing in trees and building a den. Semi-structured

green environment is also perceived suitable for hide and seek, climb in trees and build a den, but also to grill. Structured environment is perceived as suitable for running, having picnics and having fika. These general opinions among fifth grade could be used for the planning and design of the outdoor environment. The green environment could then be adjusted to achieve the intended perception and use of the environment.

Perhaps the children could perceive Gärdsås mosse as a forest because they are shorter than me and then the green environment becomes larger for them? However, eighth grade also describe Gärdsås mosse as a forest and both classes claimed that there should be more park furnitures and less trees. During the walk with fifth grade, many of the children argued that it should look more like a park to become safer.

The park and nature department in Göteborg claims that there is a lack of parks in this city district. This is something that the children also claim according to their answers in the survey. Furthermore, the survey also clearly indicates that the lack of playgrounds and parks can't be excused by the large areas of unstructured green environment since children favor semi-structured and structured green environment and because these typologies are used for different purposes. This provide basis for the planning and design of child friendly green environment in the million programme.

The unstructured green environment could actually be a cause of segregation rather than an asset. As Moshtat (2007) argues, people of some backgrounds associate the forest to something unpleasant or forbidden to a larger degree than to people that are used to the Swedish cultural bond to the forest.

Sandberg (2012) found in his research that children with Swedish middle income parents associate nature with leisure, parents and friends to a larger degree than children of parents with foreign background, who associate nature with activities in school or public care.

Gärdsås mosse is located in a city district where 71 percent of the population has foreign background, compared to 33 percent in Göteborg in general. This could indicate that the findings in the workshop series with the school children correlates to the studies by Moshtat and Sandberg.

It would be enriching to continue this research with a comparative analysis between similar outdoor environment but with a different cultural background among the participants.

This research points at the need to distinguish different typologies in the green environment and favor semi-structured green environment to become an inclusive space for play and social interaction. Perhaps one would object this by saying that nature is important for its own value and if children are scared or unfamiliar with spending time in the forest, shouldn't adults or society focus on the reasons behind that? I argue that this research shows that it is important that children can play and learn about their boundaries and about nature independently to raise their self-awareness and bond to nature. Nature can also provide a rich and stimulating environment for both exciting play and social interactions, in a much more flexible and sustainable matter than the designed playground. The aim should be to make nature inviting to children without the company of adults.

There are certain barriers that hinder children from getting this experience. The dense city can hinder the independent mobility, and uppermost make parents anxious due to the traffic. Fully booked leisure is a growing trend among children and is argued to be a part of the result-based society. In other words, there is not much time left for these children to just "be" and learn to organize their own activities. Sport and cultural facilities could be located and integrated with the green environment to mitigate the mental and physical barrier for children to spend time in nature.

There are also many children that come from a cultural background where nature is neither fun nor public. The dense forest prevents sight-lines, can be inaccessible and it can be difficult to know if one is welcome to be there. This research concludes that in the context of million programme in Sweden, which is both integrated and surrounded by green environment, it is a good idea to distinguish the semi-structured green environment. The semi-structured green environment is not apparent to many of the children, as they perceived most of the green environment as forest. The semi-structured green environment can support a closer experience to nature, while providing play and park facilities through a design that is based on nature. Children that play at the site can, step by step, come further into the wild forest.

As the research reveals, Göteborg is a very segregated city and unfortunately the segregation is continuing to increase. This means that if there is a high share of both children and adults in one area that is not spending time in the forest nearby, then it is difficult to argue that children would learn from other children.

Nature can be a social adhesive and valuable for the well-being of the public but it can also be a segregating and scary place. There is a lack of parks in the million programme area Bergsjön, Göteborg. The lack of playgrounds and parks have greater consequences for girls than boys. This is due to the fact that girls are using the outdoor environment for play and social interaction closer to home than boys. And studies show that it is generally fewer girls on playgrounds to begin with.

Girls generally value maintenance, play equipment and park furniture more than boys (Karsten, 2003). That kind of characteristics are rather associated to semi-structured and structured green environment than unstructured. This implicates that the semi-structured and structured green environment probably provide more equal play spaces.

Children's perspectives and other findings in this research will be compiled and formulated into design strategies for the planning and design of semi-structured green environment in million programme area in Sweden.

Further research

It would be interesting to continue this research by asking the same questions to children in a class where the majority has Swedish born parents. This could be compared to the research by Sandberg (2012), which showed that children with Swedish middle income parents associate nature with leisure, parents and friends while children to parents with foreign background associate nature with activities in school and public care.

DESIGN STRATEGIES

The design strategies should be followed by an analysis of the specific site and adjusted accordingly. Certain unique qualities could be highlighted rather than apply the strategies fully. However the design strategies are an attempt to distinguish the semi-structured green environment in million programme areas in Sweden and analyze them for a child friendly development.

1. Evaluate the green environment
2. Make use of large green environment
3. Demonstrate equality
4. Enable private spaces
5. Encourage maintenance by nudging
6. Let nature stimulate senses
7. Provide meeting places for all ages
8. Use natural ground cover
9. Emphasize accessibility
10. Connect surrounding housing areas

Children's perspective or child perspective?

All the strategies could be done through a dialogue with children, as children are enriching the planning process and a dialogue would have a wider purpose to empower children. However, a division has been done between strategies by children's perspectives and by a child perspective. This aims to support a child friendly development in all urban development processes.

Strategies by a child perspective focuses on materials and design of meeting places and playgrounds. Strategies by children's perspective focuses on the perception of space and a contextual based planning of the site.

Two of the strategies is described by both child perspective and children's perspective.

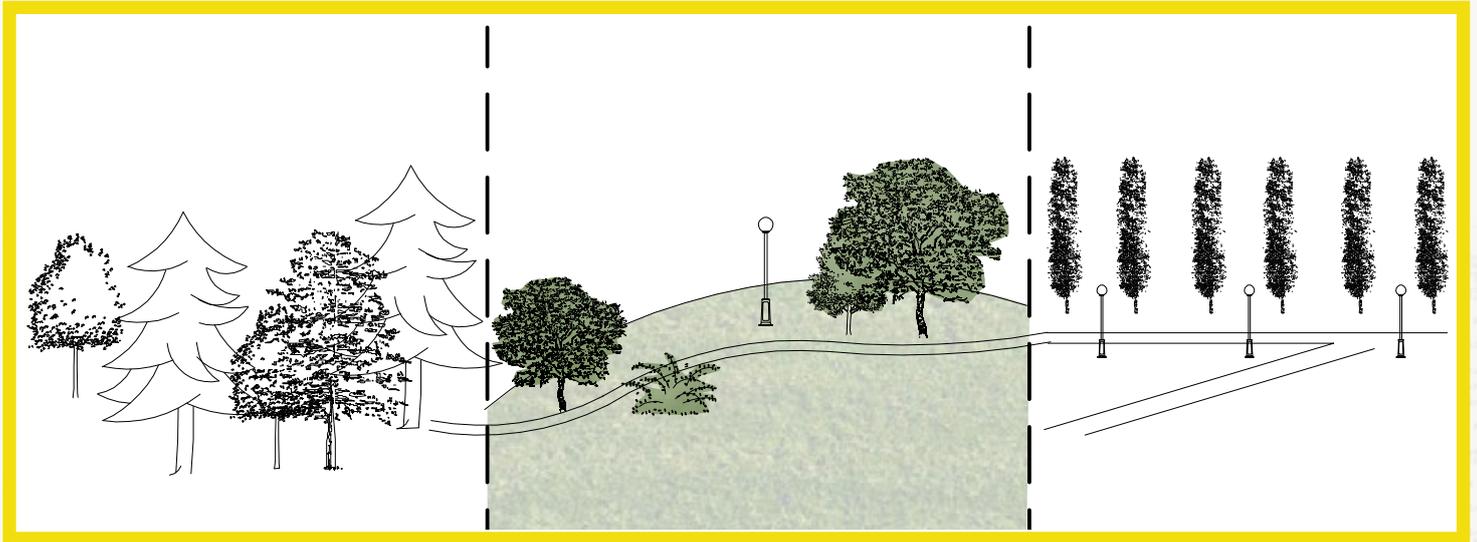


children's
perspective



a child
perspective

1. Evaluate the green environment



children's
perspective



a child
perspective

What?

Distinguish the green environment in order to support the intentions of perception and use of space. Semi-structured green environment is a place where wild nature is integrated with open spaces, creating a flexible, creative and including environment. Play and park facilities such as benches, fireplaces, rocks and logs could be artefacts to support play and social life in nature. Evaluate the green environment through children's own perspectives in order to base the result on the local context.

Why?

Housing areas built during the million programme are often integrated with the green environment. The "green environment" could however be distinguished further in order to implement intentions of the site.

The survey that fifth grade answered revealed that different typologies of the green environment are associated to different activities. The same survey also shows that unstructured green environment is more often perceived as unsafe, compared to structured and semi-structured green environment, mostly due to the dense and dark character.

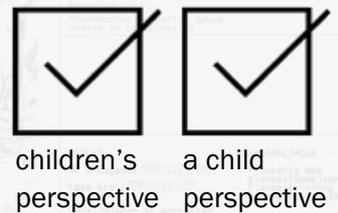
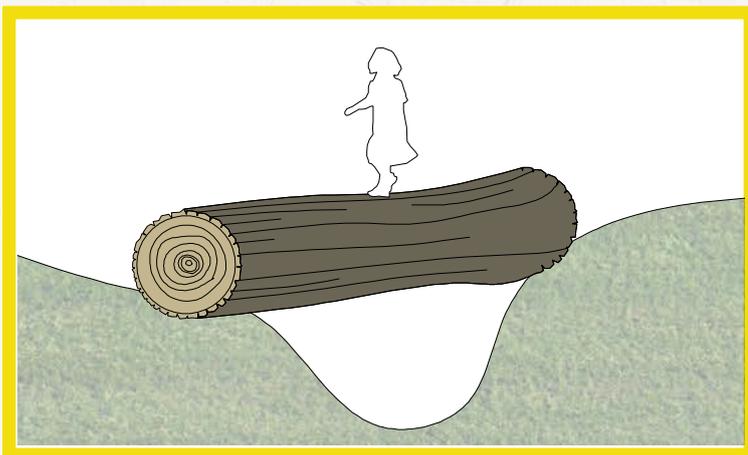
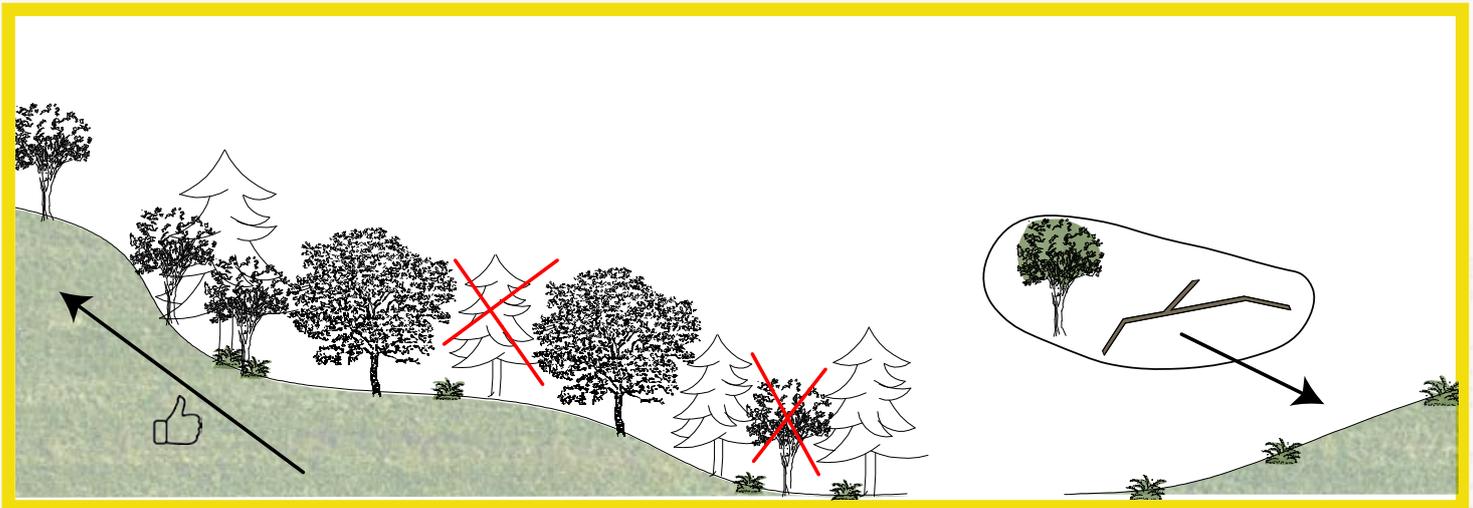
Semi-structured green environment provides variations between the wild forest and structured park and supports a closer experience to nature while still providing play and park facilities. The semi-structured green environment provides a much more stimulating and flexible use of space than the ordinary playground.

Research indicates that nature can be perceived differently, depending on where you come from and what experiences you have. For many new Swedish citizens, the forest is associated with something unpleasant and forbidden.

How?

This could be done by asking children how they would describe the site to someone who has never been there and compare that to the intentions of the site. It could perhaps be described either as a park or a forest, by the contents of the site or by the surroundings. A walk together at the site would enable a discussion about aspects that could be forgotten when sitting inside. An evaluation of the site could be combined with a survey with questions about different typologies of the green environment in general. This can give an understanding of what typologies children favor and what typologies they don't seem to have close to where they live.

2. Make use of the large green environment



What?

Make use of the often large green environment in the million programme by providing a variety of open and dense nature. Sort out trees when it is dense and dark, while adding vegetation when it is a larger, monotonous space without sun-protection. Allow height differences in the topography as it is important for an exciting play with speed and good overview. Leave logs and twigs for children's play and adventures.

Why?

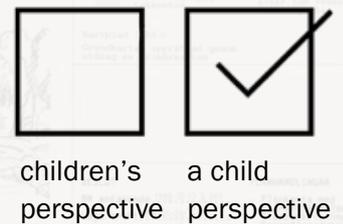
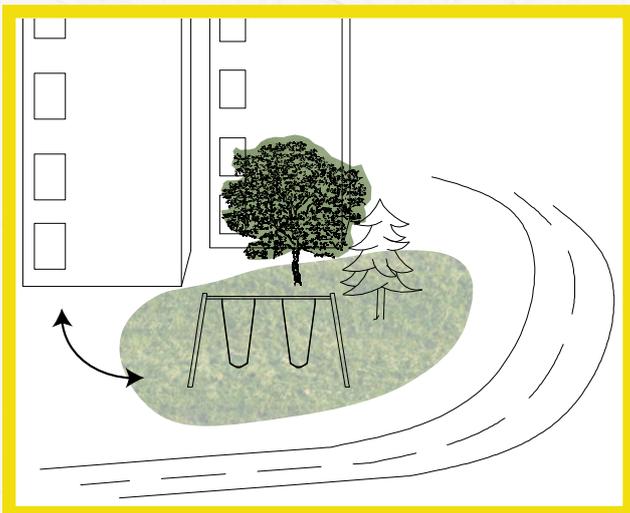
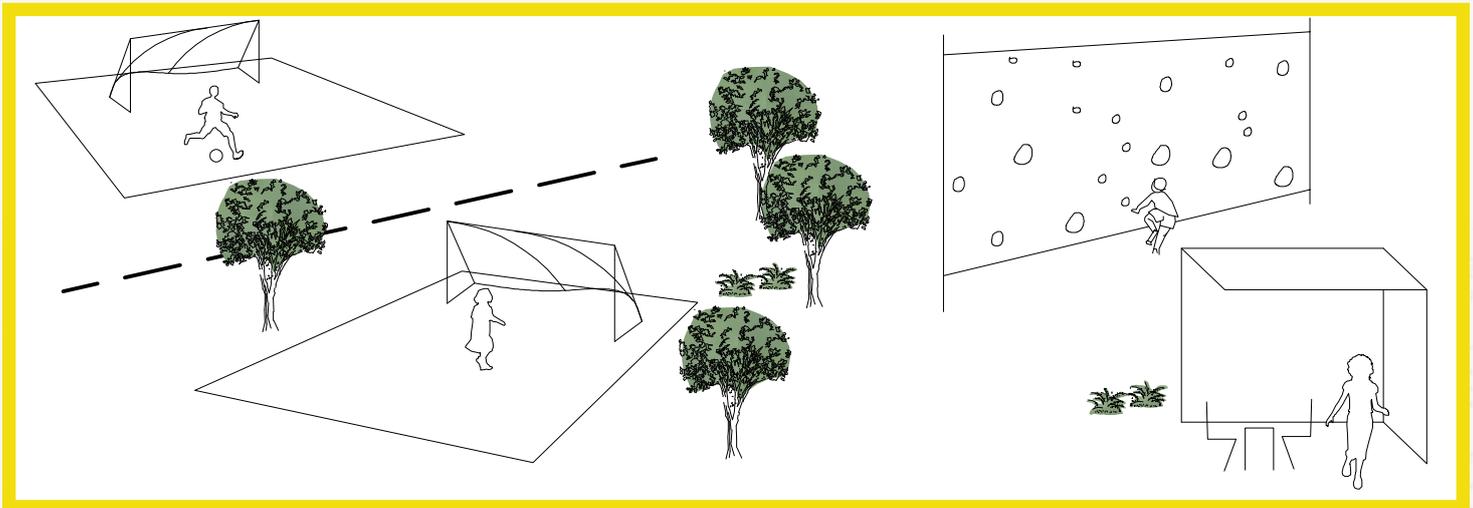
The outdoor environment in million programme is regarded as child friendly as children can run independently from place to place. This create a good basis for a child friendly development. A variation of open and dense environments provide possibilities for both larger and

smaller play, as running and building dens. Children are more sensitive to the sun than adults, why sunprotection is important. Natural detached objects such as twigs and logs can be included in play and trigger children to use their own imagination. By doing so children's confidence and bodily awareness can be strengthened.

How?

This can be done by evaluating the green environment through children's perspectives (strategy 1) and by continue to plan and design together with children. However, in a planning and design process without children's participation, this strategy is possible to do with a child perspective, using the mentioned design elements.

3. Demonstrate equality



What?

Provide green spaces for play and social interaction close to housing areas. Divide the play area into at least two, using vegetation or playful fences as enclosures. Playful fences means that fences actually can be seen as part of the play. Soften up borders and enable smaller enclosures. An amount of space equal to the amount provided for ball games should be provided for other activities. The ball game area can also be divided in two.

Why?

Research shows that from a gender perspective it is important to divide a large open area into smaller, due to the fact that girls are often “pushed” into the corners as they are appropriating smaller spaces than boys. Ball game areas should not be larger than area for oth-

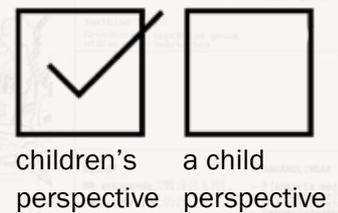
er purposes and the ball game area could preferably be divided into two smaller parts.

During the walk with fifth grade many pupils said that it would be fun to have a football field, but as we discussed that everyone doesn't like football some pupils argued for an activity park. This activity park can provide possibilities for both sports and socialization.

How?

This can be done by a child perspective, while implementing the mentioned design ideas. A research based planning and design could actually mitigate the risk of getting stuck in existing norms of what a play area is, as the discussion with the fifth grade regarding the football field showed. But it could also be done by a focus group with girls, as girls are generally less represented on playgrounds in general, to develop ideas of how they would feel more comfortable outdoors.

4. Provide private spaces



What?

Enable space for people's own retreat and reflection. Use benches and height differences to provide smaller peaceful and quiet spots, with sightlines and good overview of the surroundings.

Why?

Today's urban development is often focusing on meeting places and public areas. While this is important, housing yards and public spaces big enough for people's retreat should perhaps not be forgotten. Public, outdoor environment could support a small housing yard.

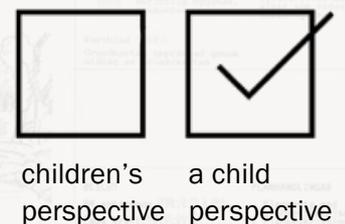
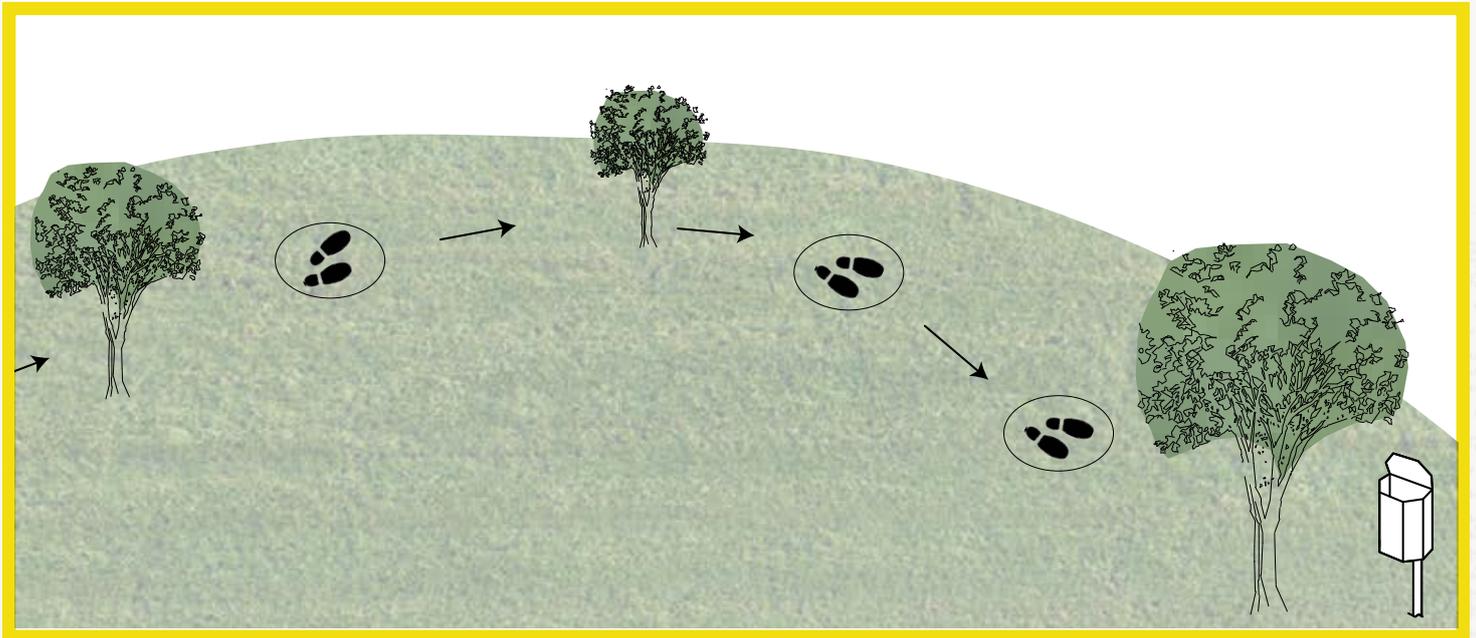
During the workshop with eighth grade, while doing a SWOT analysis one of the pupils mentioned an issue with densification or development. It could hinder the possibilities to be outdoors without being seen by oth-

ers. Research also indicates that the open character of the million programme exposes the presence and use of space in comparison to the urban and dense city.

How?

The survey with fifth grade shows that many pupils prefer to have company while being in the unstructured green environment, probably due to the dense and dark character. In order to provide spaces that are perceived as safe, it is preferable to explore children's own perspectives. If this is not possible in a particular case, this study indicated that semi-structured or structured green environment with good sightlines provide the best conditions for a comfortable private space.

5. Encourage maintenance by nudging



What?

Nudging is a method of using design and creative solutions to guide people into sustainable actions and choices. A maintained living environment requires basics such as enough of trash bins. But one can also use design to encourage people to take care of nature. The design can be used for guidance to where the closest trash bin is located, for example by markers on the ground. It can also be used to communicate reasons and consequences of certain behaviour in a playful way.

Why?

During the walk with fifth grade in Gärdsås mosse, many pupils were upset about rubbish in the area. The pupils found rubbish in the grass and in the pond. This became evident during the walk but eighth grade also discussed

the rubbish at site, while we were sitting in the classroom.

Research shows that a well maintained living environment is important to increase the feeling of safety and belonging and that standard and maintenance of playgrounds is especially important among girls.

How?

Creative design could be developed together with children, as well as with inspiration from previous nudging experiments. However, the dialogue has an evident value in itself when it comes to maintenance. This thesis shows that the children that participated in the walk became engaged with their environment and conducted own comments and pictures of the site to the municipality. Research shows that spending time in nature strengthens the care of the environment, which is why this is a very meaningful dialogue with children.

6. Let nature stimulate the senses



children's perspective a child perspective

What?

Let nature stimulate the senses for a stronger bond and care of the environment. Loose materials and objects such as logs, stones and mud can be shaped, moulded and enable children's own creation of spatial organization, by using their body. Different sorts of trees and flowers can be explored by smell, taste and touch. Physical contact with wild or domestic animals can be an exciting experience.

Why?

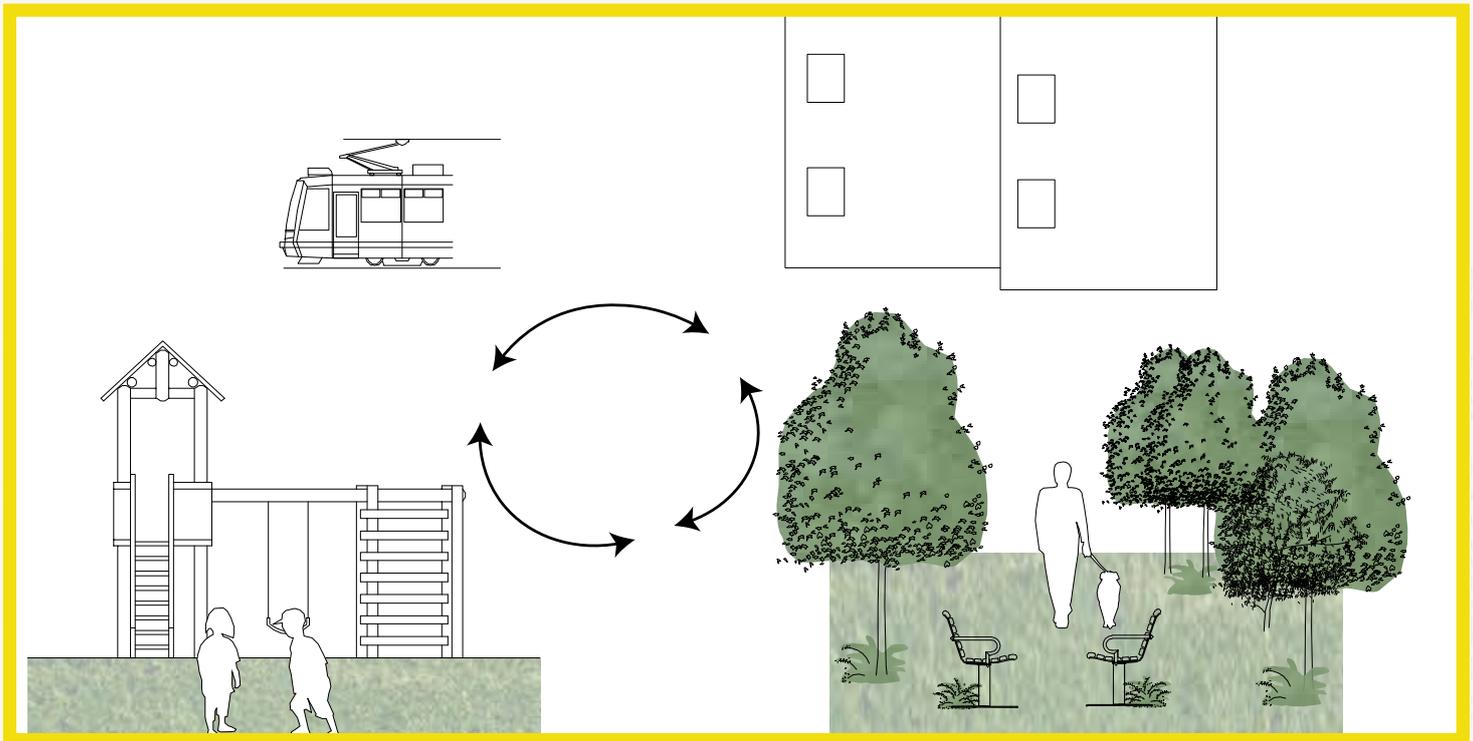
Research shows that when children can use objects in the environment for their own imagination, they learn to

organize their own activities, take risks and be independent. Children explore the environment and develop an emotional bond to the place through their senses. Children's place attachment can be strengthened by their sensuous experience in nature, such as smell, touch and taste.

How?

The planning and design of sensuous experience in parks, meeting places or playgrounds can use edible plants, loose objects, quiet places and other elements that trigger the senses. But this could also be planned and designed by children's perspectives through workshops at the site.

7. Provide meeting places for all ages



children's
perspective



a child
perspective

What?

Mitigate functionalistic division of use as it also divides people of different ages. Provide meeting places in semi-structured green environment and good accessibility to other destinations. These meeting places could be a non-commercial social adhesive for all ages.

Why?

Research shows that youths are attracted to the spontaneous, public and adult life in the city center. This environment enables youths to study different behaviors and to develop their identities among peers. In a functionalistically separated environment, their presence and use of space becomes much more vulnerable to the view of adults, and makes it difficult to be anonymous.

During the first workshop the same pupils were told to describe Gärdsås mosse to someone who has never been there. Two of four groups described this green environment through what there is in the surroundings, as a tram stop, a groceries store, a school and a football field.

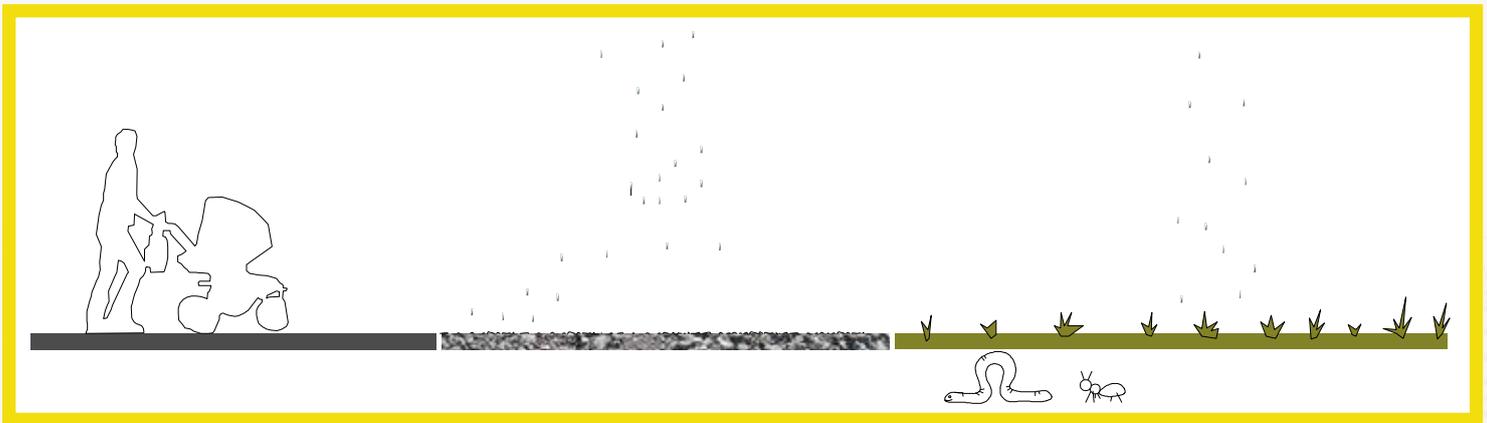
During the second workshop with eighth grade, we discussed how the site could be developed based on their SWOT analysis. A lot of the suggestions can be drawn to an urban cityscape with mixed functions, such as housing, restaurants, sports facilities, shops and health care.

Both these workshops indicate that the mix of uses (and ages) and accessibility between places are important for meeting places among youth.

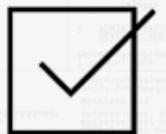
How?

The discussion regarding meeting places and functions should be done together with youths or other groups at the site. This can enable children's own perspectives on the use and perception of space at the particular site and context. This can be done by common architectural methods, using maps, markers or walks at the site. This dialogue could investigate current activities and movements, and could also be used to define unique values that could be used when developing new meeting places

8. Use natural ground covers



children's
perspective



a child
perspective

What?

Use different ground covers on pathways to enable different experiences and accessibilities. Preserve gravel paths for a biological and natural experience. Allow smaller paths in the grass.

Why?

During the walk with fifth grade in Gärdsås mosse several pupils discussed how it would be if there were paths with asphalt. This walk took place in early spring during a rainy day but it still indicated that a variety of ground covers could enable different groups during the whole year. Using asphalt could also help to mitigate the tear of other natural paths.

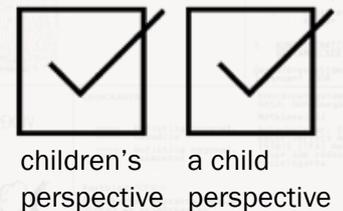
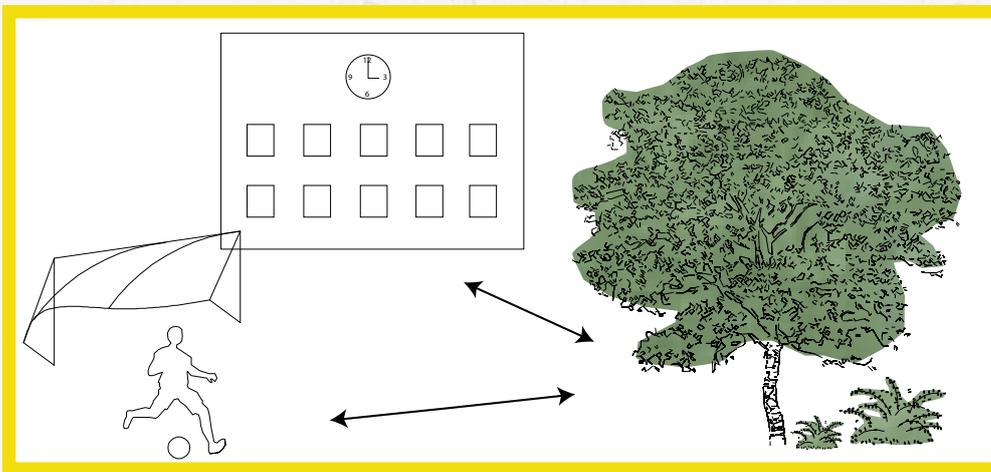
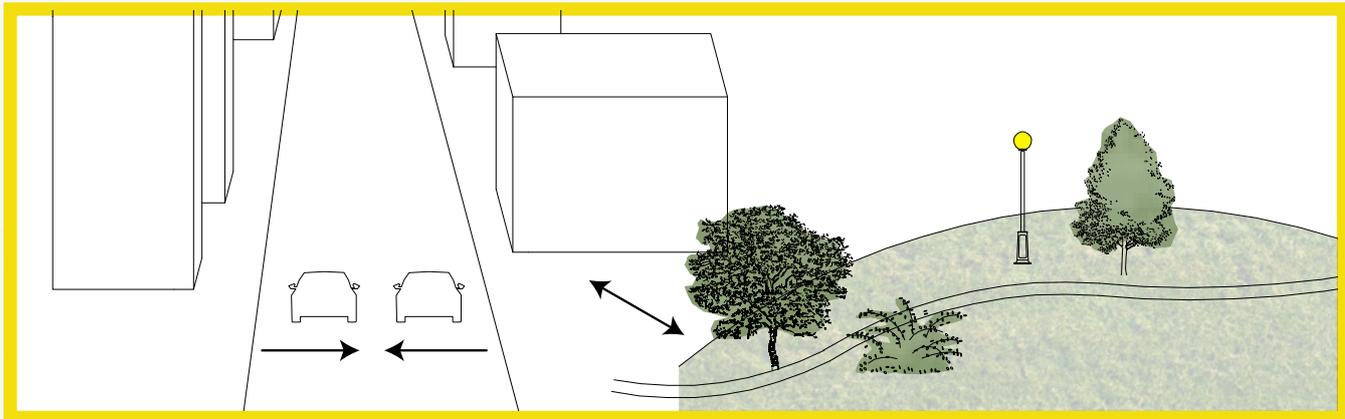
However, natural ground cover should be favored for a biological diversity and nature experience. Gravel, grass and mud enables rain water to be infiltrated and children can discover smaller animals. This interactive ground cover should be used when possible. Synthetic ground cover is seen more often today, as a creative and de-

signed play space and because the dense city is causing a high tear of public spaces.

How?

This could be done by using a hierarchy of pathways, with different ground covers. Different typologies and materials can provide accessible and resistant pathways, as well as pathways with gravel and grass, the latter providing a more adventurous path through the environment. A dialogue with children could reveal important movements and connections, which then could be in need of a more resistant ground cover. However, this could also be done by a dialogue with other groups or be planned by planners and architects.

9. Emphasize accessibility



What?

Accessible and child friendly green spaces should be located close to sports facilities and schools. Integrate these functions with the green environment to provide an inviting environment to children and youth. Protect and favour functioning car-free paths and areas for children's independent mobility, not least for play and social interaction in green spaces.

Why?

During the workshop with fifth grade, we marked out destinations and movements in western Bergsjön. The movements were mostly in south-north direction. Galaxen is a city district park in the center of this area, close to the tram stop and the housing areas with only pedestrian routes between. The children were familiar with Galaxen and the smaller farm at the site. The group were not as familiar with Gärdsås mosse and they didn't mark any destination or movement to or through the site, even though it is located next to Galaxen.

The workshop with eighth grade also indicate that acces-

sibility is important as they describe Gärdsås mosse by the surrounding content.

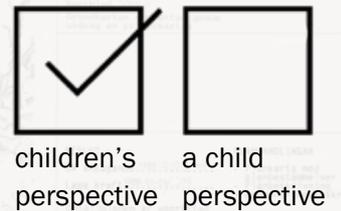
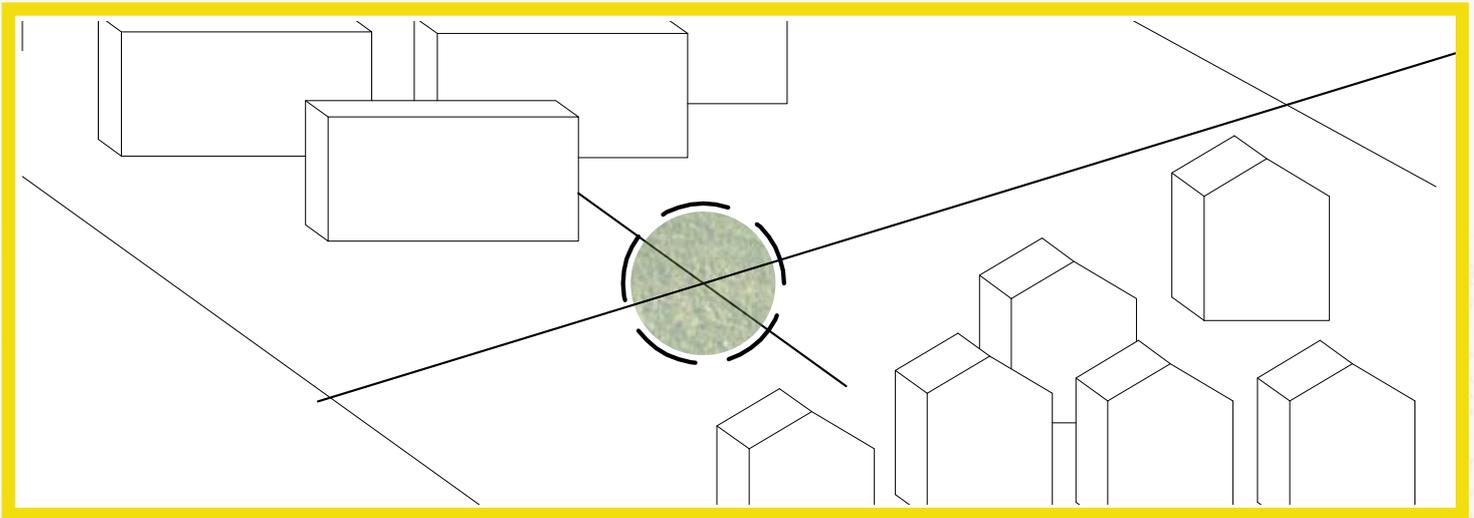
Research indicates that some children do not spend time in nature due to fully booked leisure while some children do not have any experience of nature. People with foreign background can perceive nature as unpleasant and forbidden, which is why children only associate nature to school.

How?

This could be done by analysing the accessibility in the city in general, for children's independent mobility. This can be done by having a workshop with children and asking them about their perception of space and movements.

Schools and sports facilities should be planned close to inviting and accessible green areas that enable shorter visits and a view of nature. Integrated pedestrian networks and the location as well as the typology of green environment should be analysed, in order to provide an inviting child friendly green space.

10. Connect surrounding housing areas



What?

Identify intersections and connections between housing areas for new facilities or public spaces. Use the densification of the million programme to complement the existing housing areas. Strengthen the pedestrian routes between housing areas for in order to provide an accessible and child friendly outdoor environment.

Why?

During the first workshop with fifth grade where we mapped destinations and movements in western Bergsjön only one pupil marked a destination in Kortedala. No more movements were in east-west direction between Kortedala and Bergsjön. Gärdsås mosse and two larger roads are separating the areas. A densification of the area could enable better connection by complementing

with facilities that are of interest for both housing areas. Gärdsås mosse could become an inviting green area with a higher feeling of safety, where people from different housing areas can meet.

How?

This could be done by creating a social adhesive for different ages as school was an apparent social adhesive for the children during the workshops. This meeting place should be connected to the important routes between areas, that could also connect to additional housing areas. A dialogue with children at the site could create better conditions for the densification as it would be based on existing needs and conditions. Architectural methods could be combined with the dialogue for an analysis of possible movements, typology of housing and uses.

AIM

The aim for the thesis is to distinguish the green environment, through children's perspectives in order to provide and benefit an outdoor environment that is safe, inviting and interesting to children. This could benefit an outdoor stay for play and social interaction and hopefully mitigate barriers between housing areas. As a continuation of that, the aim of the design proposal of Gärdsås mosse is to link housing areas and create a coherent child friendly district.

This will implicate a development of Gärdsås mosse and closest surroundings by increased accessibility, better possibilities for meeting places in informal public space, new playground and facilities that create a social adhesive and a learning environment. Gärdsås mosse will be further defined as a semi-structured green environment and designed according to stated research on gender equality in this thesis. The development will add new facilities to the site and try to integrate the different housing areas.

Gärdsås mosse will in future provide a variation of environment, with spacious areas and height differences for a vast play. Rocks, trees and fences will help to create enclosures and shade. Informal play can be triggered by the detached objects as twigs, rocks and one can hide behind different bushes. There will be space for spacious and flexible plays, as role play or other plays that the children organize themselves. The forest that surrounds the wetland park is dense and wild, which can be explored step by step from the semi-structured park.

The design proposal will be presented by site plans in three scale levels and sections, with focus on Gärdsås mosse and on a strategical urban scale. New roads and pedestrian paths are proposed in order to connect Kortedala, Gärdsås and Bergsjön. Gärdsås mosse is distinguished to a semi-structured green environment with a defined meeting place in the center. New housing areas will be pointed out by plots, but not precise by number of apartments or exact placement of buildings. Comments are given to changes in the site plan compared to the proposal by city of Göteborg on page 45.

DESIGN CONCEPTS

The concept Access it implicate that Gärdsås mosse will be more accessible to provide possibilities for a better defined meeting place and glue between Kortedala, Gärdsås and Bergsjön. This can help to mitigate barriers between housing areas. The concept also propose that Gärdsås mosse will strengthen the connections between the surrounding housing areas, especially by pedestrian routes.

The movements by fifth grade at Sandeklevsskolan are obvious north-south, between home, school and friends. Gärdsås mosse will be the glue to connect housing areas west-east, by adding content to the site and make it more accessible.

Access it

STADSPLANEK

avsedd för

Tomte Stadsplan

avsedd för

Stadsplan



Stadsplan 201, 303/304
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Resilient storm water system

The wetland park in Gärdsås mosse have to handle future heavy rainfall and provide environment for biological diversity. The concept resilient day water system propose an area, a buffer-zone, along the pond and smaller streams in Gärdsås mosse, that should be an area for controlled flooding. The area should be free from other uses and opened up from the dense vegetation, leaving a good view for passersby.



GÄRDSÅS MOSSE

The design strategies will on the following pages be applied on gårdsås mosse, on different scale levels.

1. Evaluate the green environment

Gärdsås mosse has some of the characteristics of a semi-structured green environment, however it needs to be distinguished further, while make use of the allotments, pastures and wetland. Trees are to be sorted out and a defined meeting place with play spaces and other facilities as fireplace will be added. The wetland will be highlighted by less trees and a footbridge.

2. Make use of large green environment

Trees will be sorted out in order to increase the accessibility in to the nature and the visibility through it. This will tone down the feeling of a forest. Some of the tree trunks will be saved as natural detached objects for children to play with, climb on and mold with. There will be a variety of dense and open nature, both smaller groves, pastures and open gathering points.

3. Demonstrate equality

As Gärdsås mosse is proposed to be better defined as a semi-structured green environment, the aim is create an inviting place for more people than today. The new meeting place in Gärdsås mosse will be designed with enclosures by trees and bushes to provide separated spaces for different uses. Gärdsås mosse will be an accessible place for play and social interaction close to several housing areas.

4. Enable private spaces

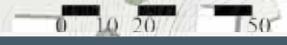
Private spaces are proposed in connections to the meeting place, by benches with a good view over the site and nature. In addition, the footbridge and other trails throughout Gärdsås mosse will provide spaces for people's own retreat and reflection in the outdoor environment.

5. Encourage maintenance by nudging

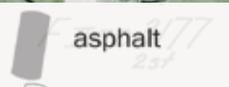
Waste management is an important part of developing Gärdsås mosse to prevent litter in nature and the pond. Trash bins will be added but emphasize will be on nudging that will decrease litter. This will increase the feeling of a maintained living environment and feeling of safety.



-  park
-  dense vegetation
-  open or green space
-  paddock
-  pasture
-  allotments
-  water





- | | | | | |
|---|---|--|--|---|
|  park |  open or green space |  allotments |  water |  asphalt |
|  activity park |  dense vegetation |  pasture |  footbridge |  gravel |

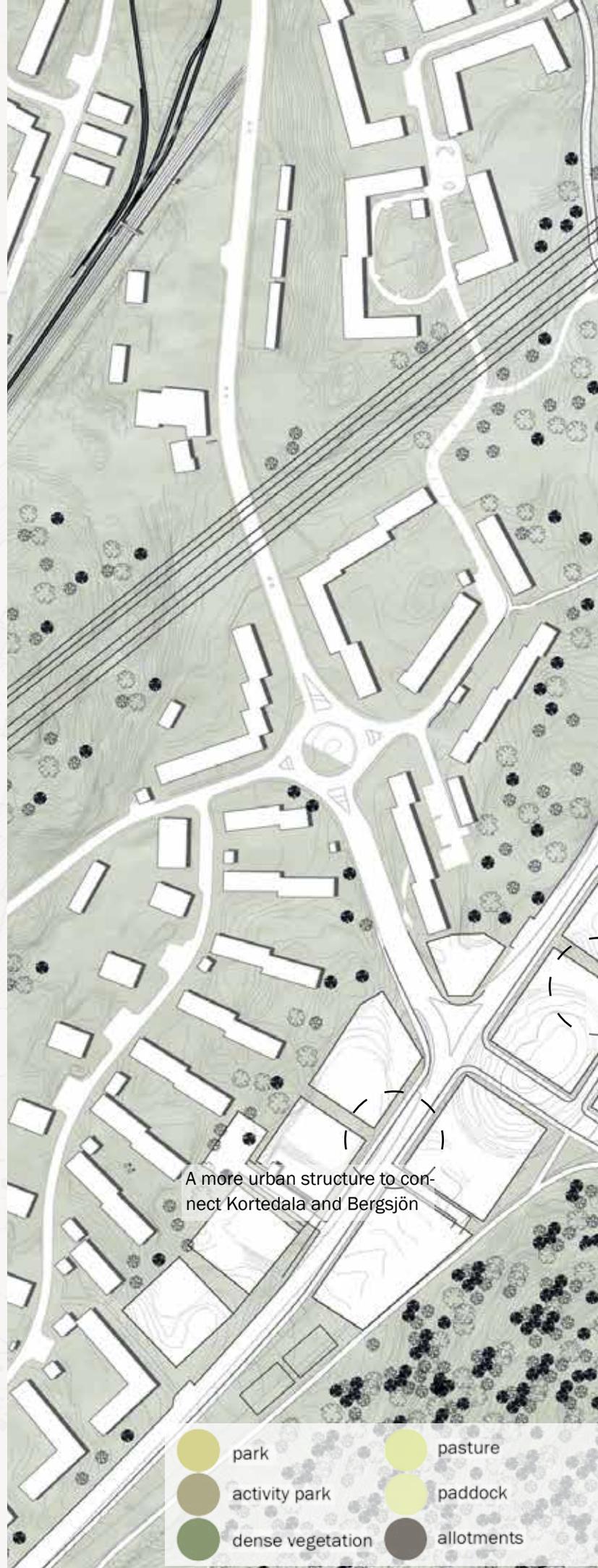
CONNECTIONS TO SURROUNDINGS

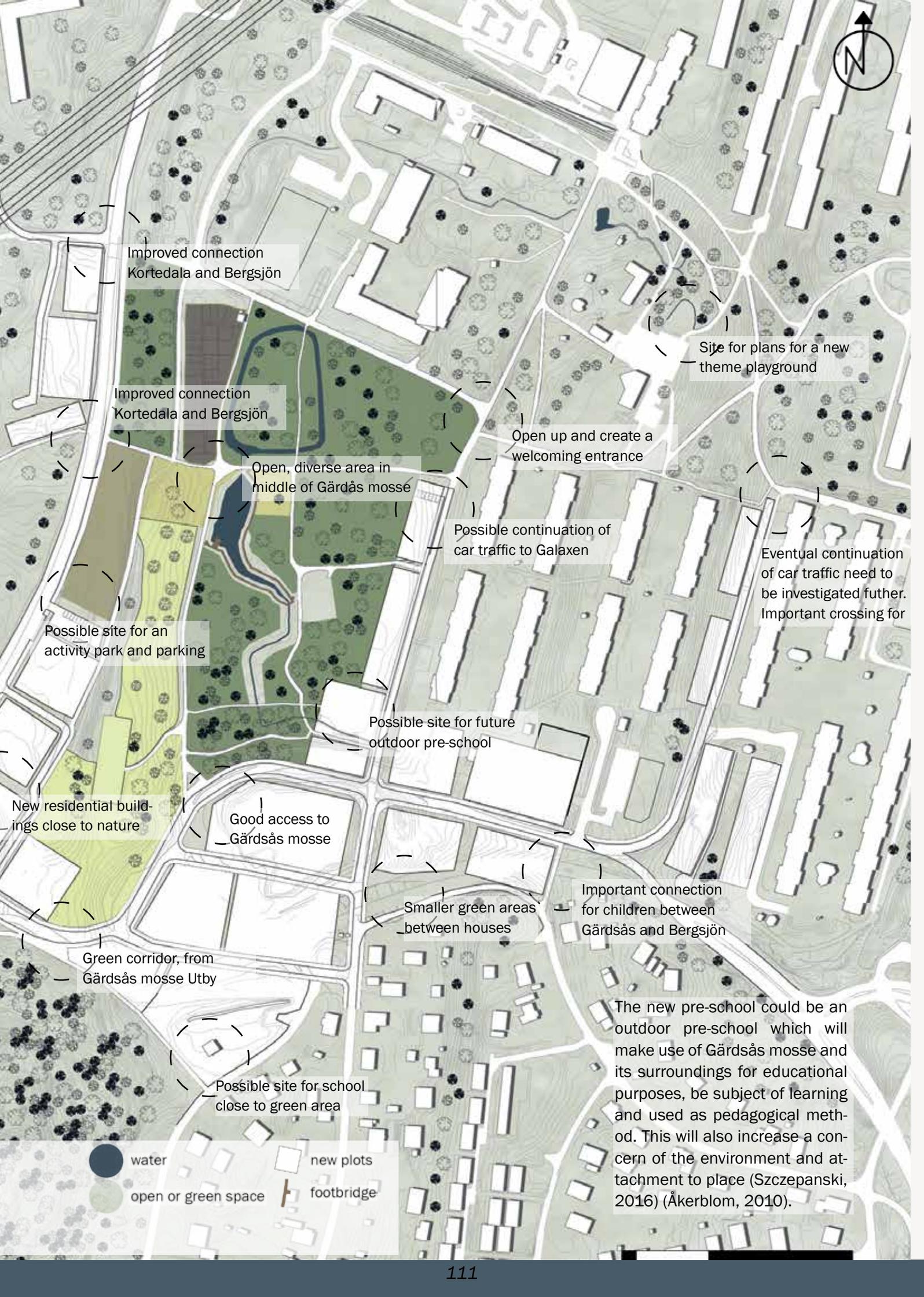
9. Emphasize accessibility

Accessibility and children's independent mobility have been of the main points for the design. The weakest connection (west-east direction) will be improved by new pedestrian routes between housing areas. The aim is to increase physical accessibility from housing areas and between other green environments. New housing areas are possible when the existing roads are transformed into streets. An activity park will be added in connection to Gärdsås mosse, to enable exchange between organized activities, in the activity park and spontaneous time in nature. The activity park will be added to Gärdsås mosse as a social adhesive in Gärdsås mosse. This is a park where different activities and sports can take place. It can be an equal and flexible use of space. Hopefully, this activity park can play an important role to integrate play and target-oriented sports.

10. Connect surrounding housing areas

The roads are transformed into streets with additional housing areas to create connections between existing areas. This also enables new functions and facilities as health care and schools. This whole new densification should be designed child friendly and accessible, not only the allocated playgrounds. The new plots are placed close to Gärdsås mosse for equal and accessible play areas close to houses. The new housing areas at Ljusårvägen will be placed towards Gärdsås mosse, in order to create accessible and close outdoor play possibilities. The larger, green environments as Utby-Bergsjön and Lärjeåns dalgång could be connected through Gärdsås mosse for a network of accessible, green spaces. The city park Kviberg-Gärdsås kulle is stretched further north, to Gärdsås mosse, creating a green and social glue between housing areas. The city district park Galaxen together with Gärdsås mosse create unique place and animal habitat.





Improved connection Kortedala and Bergsjön

Improved connection Kortedala and Bergsjön

Open, diverse area in middle of Gärdsås mosse

Open up and create a welcoming entrance

Site for plans for a new theme playground

Possible continuation of car traffic to Galaxen

Eventual continuation of car traffic need to be investigated further. Important crossing for

Possible site for an activity park and parking

Possible site for future outdoor pre-school

New residential buildings close to nature

Good access to Gärdsås mosse

Important connection for children between Gärdsås and Bergsjön

Smaller green areas between houses

Green corridor, from Gärdsås mosse Utby

Possible site for school close to green area

The new pre-school could be an outdoor pre-school which will make use of Gärdsås mosse and its surroundings for educational purposes, be subject of learning and used as pedagogical method. This will also increase a concern of the environment and attachment to place (Szczepanski, 2016) (Åkerblom, 2010).

-  water
-  open or green space
-  new plots
-  footbridge

SECTIONS

Section A

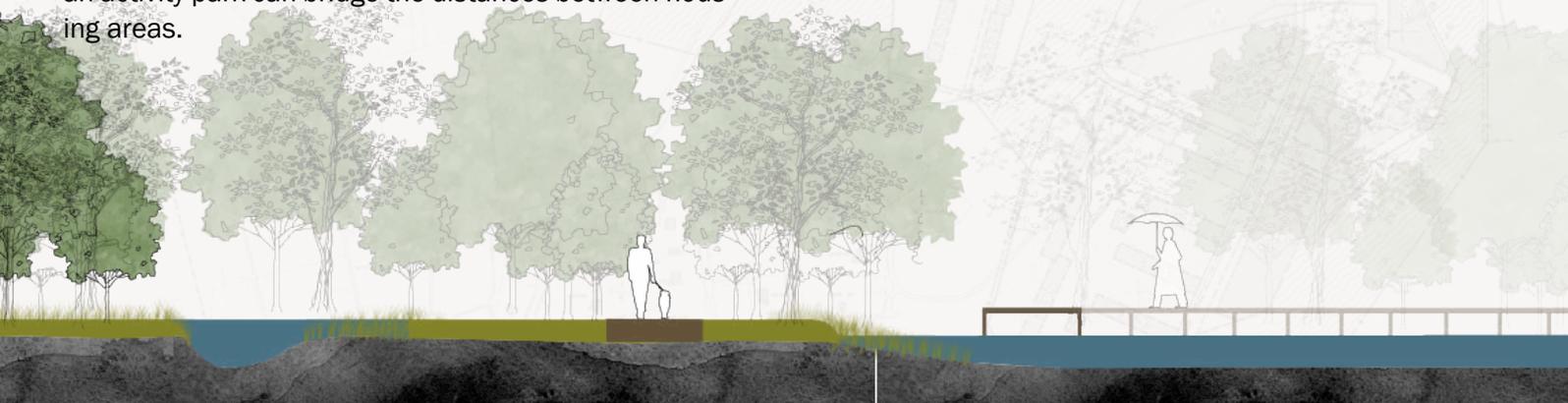
Section A illustrates the height of Gärdsås kulle, which is a part of a green environment, pointed out by the municipality, however not very accessible. Gärdsås kulle is connected to the climb-friendly mountains in Utby and is further connected to Gärdsås mosse in this project. A green corridor stretches in south-north direction, between new proposed plots.

Section B

Section B illustrates the relationship between the green environment and the wetland in the center of the park. The footbridge enables walks close to the water but still a bit up from ground to not disturb nature and animal habitat. The wetland and pond need to take care of water when heavy rain falls. That is why there is a floodable area marked. This means that no benches or other facilities should be placed in this area.

Section C

Section C illustrates Gärdsås mosse's location between Kortedala and Western Bergsjön. Gärdsås mosse is a rather flat area, enables wetland park, while it is surrounded by hilly areas. There are several walking paths and a variety of green environments that together with an activity park can bridge the distances between housing areas.



The purpose and main question

The main questions of this thesis were to explore children's perspectives on different typologies of the green environment and how children can inform the planning and design of child friendly outdoor environment in the million programme. The first question provided an understanding of the importance of structured and semi-structured environment for an inclusive and inviting space for children. The literature complemented the findings of the dialogue with a deeper understanding of why semi-structured green environment can provide a more flexible and child friendly space than the structured park and ordinary playground. A large part of the literature is written in an environmental psychology perspective, which is why the positive effects of being nature is the main principle in this thesis. It has resulted in ten design strategies for semi-structured green environment.

Strengths and weaknesses of the chosen methods

A lot of the time has been used for the preparation of workshops and the analysis of results. This got me to analyse and talk about the site and conditions on a substantial matter, beside the architectural concepts as sight-lines, barriers and interactions. That was very helpful to concretize the project. The preparations were for example to produce maps, pictures and formulate a clear communication with the children about the purpose of their participation.

This thesis has an emphasize on a participatory process with two classes at Sandeklevsskolan, in Bergsjön, Göteborg. From a previous course at the University of Agricultural Sciences in Alnarp, I had experience of child led walk as a method for children's perspectives and to unfold knowledge that could be forgotten in a classroom. This was something I wanted to use in my master thesis in order to reveal children's perception and use of different green typologies. I wanted to see what they would talk about while being on site and how they would use the space, compared to their discussions in a classroom.

As some of the pupils in fifth grade was unfamiliar with Gärdsås mosse, the walk together became even more important. Due to the amount of children it was not possible to do a child led walk, but me and the teachers could let the pupils investigate the site rath-

er independently since it is a car-free public space, which enabled an observation of their spontaneous movements on site. This was an important contribute to the understanding of children's perspective of the site. However, the informal discussions during the walk made it difficult to conclude everything that were said.

The survey (homework) was initially a complementary method to discover children's own reflections and deeper understanding of the green typologies, compared to the intense group discussions we had together. It gave me an opportunity to get quantitative answers to use in my research. It turned out to be the conclusive method in this thesis. Not only because I got individual answers to the same questions, which enables quantitative analysis, but also because I was able to ask rather theoretical questions, compared to the workshops with maps and markers. The survey points out the children's perspective on the different typologies of the green environment, which is one of the main result in this thesis.

The workshops that were held in the classroom focused on the case study, Gärdsås mosse. The first part of the first workshop was held in a similar manner with fifth and eighth grade, except that eighth grade got a map with a larger scale that showed the whole eastern Göteborg. This was done because I thought that a map of only Bergsjön would be too small to cover eighth grade's movements. While this could be true, the scale of the map made it difficult for the pupils to fulfil the task. They argued that the map consisted too many destinations and movements and they did not know where to start or that it was too difficult to read the map. Perhaps it would have been better to start with smaller tasks or questions to help them to understand the map before starting the workshop.

Generally, I had a harder time to engage and discuss with eighth grade. I was well prepared and used maps, photos, markers and other equipment for a creative workshop. I also tried to start discussions with the different groups if I noticed that they seemed quiet. This is an important lesson to me and will help me to question my participatory methods and questions in the future, to adjust them according to the target group. However this meeting was probably negatively affected by the first ten minutes where I held an introduction about spatial planning and how to become an architect.

As I was allowed to use their geography class, the

school principle had asked me to talk about urban planning as a subject and what upper secondary education they could strive for the next year, during ninth grade, if they found this interesting. I was supposed to provide an insight in how to become an architect. This introduction was probably to closely associated with their ordinary classes, instead of being something fun and creative.

The wide and open questions that I used throughout the participatory process enabled me to explore what children saw as important issues to discuss. However, if I would have had more narrowed focus I could have come further with the design together with the children.

The second workshop with eighth grade ended up to focus more on the content than the actual design. That was perhaps rather a result of the method than the questions. I wanted them to draw on the maps and analyse the area through our previous discussions. However, they asked their teacher for post-its. The post-its made it easy to propose many ideas without the thought of the needed space for it or how it could look like. It would have been interesting to encourage them to draw on the maps instead of writing on post-its.

I would have needed one more meeting with fifth grade to explore the design of the discussions that we had.

This thesis also builds on previous knowledge on outdoor environment for children and youth. This was a decisive knowledge for the design strategies and the design proposal. The research provides a child perspective, but several of the researchers have also based their studies on children's perspectives. The literature helped me to use the findings from the dialogue in my strategies and result, to build on previous knowledge. The observations and site analysis stand as vital methods in urban planning processes and gave me an architectural understanding of the site.

The previous research also enabled me to analyse the stated issues through a wider perspective. The literature provides aspects I did not have time to investigate myself, for example gender perspective.

Children's perspective and child perspective

Children are not often included in planning and architecture, which is one of the reasons for the relevance

of this thesis. The thesis shows how children can participate and inform the planning and design of child friendly semi-structured green environment in the million programme.

The result is ten design strategies and all of them could hopefully be helpful for a participatory process with children. A dialogue with children has a value in itself, as it strengthens the children's care of the environment, the attachment to place and children's confidence.

Children's perspectives on the outdoor environment is important to understand how a site is perceived for children. It is also important as their perspectives can help to understand the situation for other people that does not drive cars not have strong economy, as well as people that are especially vulnerable in an unsafe environment. Children's participation can also help to contextualize common issues in urban planning processes, as safety, barriers, meeting places and recreational spaces.

At the same time, this thesis aims to safeguard child friendly outdoor environment in all urban planning processes. Children's perspectives could be seen as limited when it comes to complex planning processes. A larger urban scale can be difficult to analyse through children's perspectives. A child perspective, that is based on previous research, can help to question existing norms that children already are used to. The design strategy named Demonstrate equality is an example of what could be strengthened by a child perspective. This is why the design strategies are divided into either children's perspective or a child perspective. This builds on the reasoning by Kylin (2004) that it is necessary with both a child perspective and children's perspectives. A child perspective is important in complex urban planning processes to protect child friendly outdoor environment.

Interpretation of children's perspectives

The dialogue and interpretation of children's perspectives comes with a responsibility. The open questions that were used in this thesis helped to let children steer the discussions. Still, interpretation of children's perspectives into urban planning is unfortunately coloured by the researcher/architect.

One example of a difficult interpretation during this project is the second workshop with eighth grade.

This workshop resulted in many suggestions for additional functions, activities and content of the site, while I had planned to discuss the design of smaller improvements on the site. Their suggestions were, for example, restaurants, shops, activity park, playground, bathhouse, sports arena, housing and youth recreational center. I interpreted it as a will to transform the site into a more urban structure, with mixed functions and shorter distances between meeting places. This is something I brought with me to the design proposal for the densification of the area, but I did not point out which of these facilities that could be possible to implement. I did not see that as relevant to this thesis and it would have needed a more thorough analysis.

Unfortunately I was not able to come back to eighth grade for a last meeting and to conclude what I have learned from our discussion. (I contacted the both classes but only fifth grade answered my request.)

During the last meeting with fifth grade, I concluded what I had learned and what my project would consist of. I had already talked about the fact that I am a student and I brought that up again, in order to remind the pupils that I don't have the authority to actually implement anything. But I told them that hopefully somebody who has the authority will find it interesting. Then the children decided, together with their teacher, that they would conduct their own words and photos and send to the municipality. By being straight forward with the possibilities to make their voice heard, it actually ended up in an increased interest of the future of Gärdsås mosse.

The design proposal

The design proposal for Gärdsås mosse is not very different from the current use of space. The main idea is to create a more inclusive outdoor environment for children by a better defined centre in the park and by distinguish the character as semi-structured green environment. The design strategies derive from both children's perspectives and from the literature are exemplified on Gärdsås mosse. The need to sort out trees and use different ground covers are examples of strategies that are concluded from the children's perspectives. The design strategies Connect housing areas and Demonstrate equality are examples of what I have concluded from literature. However, the lack of movements among the children in east-west direction, between Bergsjön and Kortedala, also confirm the

literature and that this strategy is relevant for the site. Gender perspective was not a focus in the dialogue but it can be supported by previous research.

The design proposal for Gärdsås mosse and its surroundings is an attempt to connect separated housing areas. The main concepts for doing that are to transform the large roads into streets, which also enable additional housing areas and new functions, better pedestrian connections in east-west direction and a development of Gärdsås mosse into a better defined meeting place as well as adding an activity park. While this aims to add meeting places and increase the flows of people between areas, this would probably need a more thorough analysis of the placement of houses and roads. There are many challenges in order to connect housing areas, due to both physical and social barriers. The strength of the design proposal in this thesis is the analysis of child friendly spaces and the improvements of the sketch by the municipality. But unfortunately, I did not have the time to analyse the proposal for densification through other possible spatial structures. A more thorough analysis and exploration of a possible future urban morphology between the housing districts would probably improve the design proposal. I believe that the intentions of the development of Gärdsås mosse is strengthened by a development of the whole area. This is due to that Gärdsås mosse is located close to two larger roads, which mitigate the flows of people and use of space. The proposed semi-structured park in Gärdsås mosse would benefit from densification.

The design proposal for Gärdsås mosse aims to create an inviting environment for children. The literature study points out that children's independent mobility is very important for children in order to spend time outdoors. The accessibility to water has been one of the main points. But when the water becomes more accessible and interesting, the independent mobility among the smaller children could actually decrease. Their parents could become more anxious about the risks to fall into the water. That is a risk than can be compared to other areas that are located nearby lakes and the ocean.

However, the design proposal focuses on how to make use of the water for people's use of space. This aims to improve Gärdsås mosse as a recreational area, a learning environment, to develop a better meeting place and to create inclusive and creative play areas.

Gender perspective was unfortunately not a main focus in my dialogue with the two school classes. I chose to study previous research on gender perspective of playgrounds and meeting places for children. This means that gender perspective is analysed through a child perspective. However, in this case it seems as if that helped me to question existing norms. During the walk with fifth grade there were many pupils that talked about a new football field. Since I had read about that it is more often boys than girls that use these large spaces I said that “not all children like football”. Some of the pupils agreed and suggested an activity park that could provide different activities and sports. My interpretation is that the football field is something that is understood as “children’s place”. Perhaps boys are more often heard and their favourite activity is perceived as the best possibility for new activity and meeting places in the area. Even if one does not like football.

During the first workshop with eighth grade I paid a lot of attention to a couple of boys that were distracted. I tried to engage them, while the girls were quiet and seemed busy with the workshop. After the workshop I reflected on the fact that I gave attention to the loudest voices. In that moment I thought I did what was best in order to collect material for the study. However, during the second workshop I focused a lot more on the other pupils and discussed the workshop with pupils who showed interest. I think these situations mirror the fact that I was holding a dialogue in a school, during an ordinary class. I got a teacher’s role.

The findings

The findings in this thesis could be valuable for the park and nature department, in Göteborg, for their planning and maintenance of Gärdsås mosse. The findings could also be interesting for the urban planning office in Göteborg, in their work with local area plans in connection to Gärdsås mosse. But hopefully, the thesis could add on the discussion of child friendly outdoor environment, especially in other million program areas.

Weak voices in urban planning processes

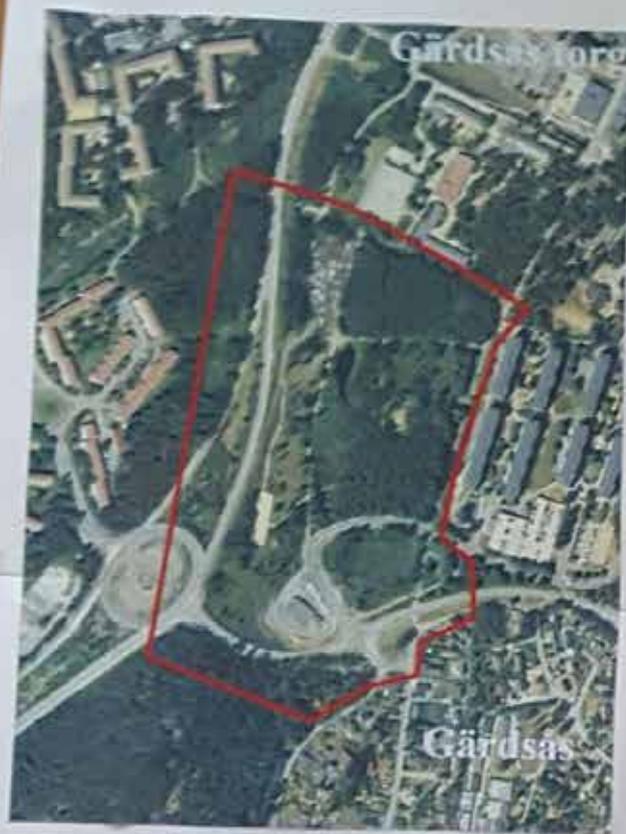
This thesis draws attention to three generally weak interests, in terms of profit and investments: children, green environment and noncommercial meeting place.

The findings show the relevance of these interests in urban planning, not least in the renovation and regeneration of the million programme. The outdoor environment has an important role for children’s health, play and learning. Children that one day will be adults, with more or less knowledge and care of the environment. Hopefully, this thesis and the design strategies can be used for various planning processes for an inviting and child friendly development, for a sustainable development.

Till

Park och Natur, Östra Göteborg

This compilation of opinions and reflections about Gärdsås mosse is done by fifth grade together with their teacher and was sent to the department of park and nature in Göteborg. This was done after my dialogue with the class.



Vi i 5A på Sannebovassåsen tycker att vi vill ha en ny park på Gärdsåsmossen för att det är mycket skräp där och farligt avfall som lenvatt, sprutor, vassa föremål och glas. Skräp var. Vi kan bli sjukta djuren kan dö av allt det som skräp är där.

När vi 5A var där och på området så fanns det en del med ankor. Dem simmade bland skräp som ölburkar, plast, fimpar, och plastpåsar. Vi vill känna oss där när vi går till och från och vi vill inte se djuren li





tittade
 n sjö
 nd
 , glas, sprutor
 s trygga
 skolen,
 da!

Vi vill att där skulle finnas flera papperstyggar, parkbänkar och träspångar runt dammen. Det är mörkt och kuschligt, kanske man kan gallra lite eller få belysning dit? Hoppas du kan hjälpa oss att göra vår miljö trygg och trevlig! Vi har själva försökt städa där men NU anses lärarna att vi inte längre får göra det. Det är farligt och vi vet inte vad vi ska göra med gamla cyklar, möbler, sprutor, glas m.m

MVH Amanda, Angel
 Moa, Ramello
 Jennifer, Johanna
 Argjenda, Anisa, Carmen
 Sarra, Ana, Yabek
 Sakshi, Eman, Mariana
 Jethro, Yabek,
 Nelson, Sebastian.



5A SANDEKLEVS-
 SKOLAN

Hauwele
 & Emmemel



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