Master’s thesis

Landscape planning from a child’s perspective
A case study in the Vombsänkan in southernmost Sweden
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Lund University Master’s Programme in Environmental Studies and Sustainability Science
“LUMES”

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Abstract
Landscapes are mostly managed by adults, for adults. Children are usually not taken into account in decision making and this is unsustainable on the short- and long-term. The aim of this thesis is contribute to the sustainable planning of rural landscapes by raising awareness among decision makers about the importance of children’s stakes, and among scholars so they will be inspired to do follow-up studies on the topic. The research methods for this study are: literature study; an assignment for school children; field observations; and interviews with teachers and authorities. The focus is on landscape planning in the Vombsänkan in southernmost Sweden, and on children between seven and twelve years old. The first part of the research focuses on children’s landscape needs and preferences, and the second part on how these are reflected upon in ‘regular’ landscape planning. Children need and wish for places that are diverse, natural, easily accessible, and where they can do activities. Authorities often do not take children’s needs into account when they make decisions, and they do not ask children for their opinions. However, authorities have different needs than children. To make landscape planning more sustainable authorities should start involving children in landscape planning.

Key words: Landscape planning, children, stakeholder participation.

Acknowledgements
I want to use this opportunity to thank all the people without whom I would not have been able to write this thesis. First and foremost I want to thank my supervisor Göran, for not giving up on me. I am grateful to Hilla and Ingegerd for helping me through a long Swedish winter. I want to thank Sarah for listening to my complaints and watching so many (bad) movies with me, and Yasmijn, Moniek, Saramaria, Peter and Sebastiaan for their (pep) talks.
Last but not least, I want to thank my interviewees and all the children who inspired me with their beautiful drawings.
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List of abbreviations

FCA = Field of Constrained Action
FFA = Field of Free Action
FPA = Field of Promoted Action
PA = Potential Affordances
1. Introduction

As a child I liked to play football with my brother and his friends at the grass court in front of our house. Neighbours were not pleased with our activities, because they had their cars parked close to the field and were scared that our ball would harm their vehicle. Our municipality thought to solve the problem by placing football goals on another part of the field, where we could not do harm to the cars. However, me and my companions did not like this new development. The goals were placed too far apart to play a match with a small group of children, and the borders of the field had a slope which made playing here less attractive. As a result we continued to play as we used to do.

Landscape planning is usually done by adults and for adults. Children have to be satisfied with the places that grown-ups leave for them (Spencer and Blades, 2006). Adults design these places for children, which does not always lead to ideal play opportunities, as is illustrated by the anecdote above. Previous research has revealed that playgrounds with for instance swings and slides are boring for children. When they have the choice kids rather play in the bushes around playgrounds then on the playgrounds themselves (Jansen, 2008).

It seems evident that children should be consulted if we want to create places where children can flourish best. However, this far, decision makers rarely take children’s opinions into account (e.g. Tisdall and Bell, 2006; Roe, 2007). When decision makers ask stakeholders to contribute to the planning process, they ask certain groups more often than others. Children’s voices, amongst those of other groups like women, elderly and disabled, are usually not heard (Jones, 2007). In chapter 2 it will be argued that for the sustainable management of landscapes and sustainability of the society as a whole, it is important that decision makers change their habits and start taking children into account.

With this research I want to contribute to sustainable landscape planning, by providing landscape planners and the scientific world with a new view on landscape planning: planning from a child’s perspective. Previous research has focused on children’s landscape needs, mainly in urban areas (e.g. Pyle, 2002). This study puts the needs of rural children in the spotlights. The goal of this study is not to give children a ‘real voice’ in decision making for landscape planning, but to motivate others to do this. To the best of my knowledge, no scientific studies are done in which it is investigated to what extent decision makers normally incorporate children’s needs in planning. In this sense, I present a topic which is ‘new’ in science and in practice.
This study consists of two main parts, each part focusing on a different research question;

Part I: What are children’s landscape needs and preferences?
Part II: To what extent are children’s needs and preferences represented in real life management?

To answer the questions, a case study is conducted in the Vombsänkan (‘the Vomb valley’), a rural area in southernmost Sweden. The focus within this case study is on seven to twelve year old children living in the area. The choice of this specific case study and group of children is motivated in section 3.1.

The structure of this report is as follows: Chapter 2 further explains the rationale behind this study, it elaborates on children’s stakes in landscape management and their implications for sustainability. Chapter 3 starts with an introduction to the case study, and continues with the methodology that is used to answer the research questions. Chapter 4 and 5 respectively present the results of part I and II of the research. Chapter 6 follows with a discussion of the results and recommendations for future research. The final conclusions are stated in chapter 7.

2. Children, landscape management and sustainability

2.1 Children’s involvement in decision making

The political interest for stakeholder participation in decision making is increasing (Prout, Simmons and Birchall, 2006). In more and more policies it is stated that people with an interest should be consulted before decision makers finalise their plans. In this way, stakeholders are more likely to be cooperative during the implementation of plans (Prout, Simmons and Birchall, 2006). One of those policies is the European Water Framework Directive, with as one of its main objectives to get citizens involved in water management planning (European Commission, 2000).

In spite of this agreement about the need for stakeholder participation, there is much controversy about how to bring it into practice. As a result, decision makers use a variety of approaches, ranging from simply providing stakeholders with information to joint decision making of authorities and people with an interest. In addition to this, the moment in the process at which stakeholders are invited to participate differs per case. Sometimes it happens
at the beginning of a planning process and in other cases when the most important decisions have already been made by the people in charge (Jones, 2007).

No matter how stakeholder participation is practiced, it seems clear that decision makers have a preference for some groups over others. Children, especially those younger than twelve years old, are usually not asked for their opinion, although there are a few cases known in which even very young children have successfully influenced decision making (e.g. Clark and Moss, 2001). In many of the exceptional cases in which children are asked to contribute, their ‘voices’ are not really heard. Children’s freedom to express themselves in mostly limited by adults’ interference (Roe, 2007). In other cases, children’s participation is seen by adults as an educational exercise, and their input is not used for final decision making (Davis and Hill, 2006; Tisdall and Bell, 2006).

2.2 The importance of children’s participation for sustainability

2.2.1 Children’s rights

Even though decision makers have not shown much interest in children’s participation this far, there are multiple reasons why changing this would make landscape planning more sustainable, now and in the future.

First, each child has the right to have his or her voice heard as much as grown-ups. This right has been acknowledged by the UN Convention on the Rights of the Child (a Convention that was ratified by most countries in the world, including Sweden). According to the Convention’s article twelve, ratifying countries have to ensure that each capable child in their country has the possibility to express his or her views related to matters that affect his or her live (UNCRC, 1989). Children, as an important user group of the landscapes in their neighbourhoods, should thus be asked by planners about their needs and preferences. It is impossible for adults, including those who are parents, to guess what children wish for themselves (Roe, 2007). Children are experts in their own lives and they are the only ones who can explain why they use certain places and others not (Heft and Chawla, 2006).

In addition to this, children are willing to participate (e.g. Roe, 2007). Roe (2007) found that children in here research were frustrated that they were not consulted in a community project concerning a river were they used to play. When the researcher first contacted her child participants they were clearly enthusiastic about what they were going to do. This enthusiasm continued during the whole process.
2.2.2 Children’s well-being and development

The lives of today’s children are filled with planned activities (like school, football training, music lessons, etc.). The rest of their time, most children use to watch television and play computer games. This means that the young generation spends little time on playing and exploring in their neighbourhoods. According to Kardell (in Johansson, 2009) children around Uppsala spend fifty percent less time in forests than 20 years ago. This has negative consequences for children’s health and development (Taylor and Kuo, 2006). According to Kyttä (2006) children’s mobility influences their physical (e.g. weight, motor skills and resistance against diseases), social (e.g. bonding with other people) and cognitive (e.g. concentration) well-being and development (e.g. Taylor and Kuo, 2006).

For this thesis it is assumed that children will spend more time outdoors when landscapes are adapted to their wishes. Therefore, it is considered more sustainable when children’s opinions are taken into account during the landscape planning process. Section 4.3 will further elaborate on landscape planning in relation to children’s well-being and development.

2.2.3 Children as future decision makers

On the long-term, sustainable management of landscapes is in the hands of today’s children (e.g. Heft and Chawla, 2006). Involving children in planning processes now will prepare children better for their future tasks as decision makers in two ways.

First, children can develop ‘democracy skills’ when they are allowed to contribute to the process. Decision makers can claim that children are not capable to make useful contributions. However, without practicing children will never become capable. When they start developing their skills at young age, the society as a whole will benefit from this, because children can use their expertise when they are grown up (Heft and Chawla, 2006).

Second, if we want children to manage the landscape sustainably in the future, we need to make sure that they start caring about it now. This means that they have to get to know their environment and that they have to bond with it (Chawla, 2007). The rural landscape consists mainly of natural elements (in this case study for instance rivers, lakes, wetlands, forests, pastures and meadows; see section 3.1). Previous studies have revealed that many of today’s environmentalists attribute their activity to childhood experiences in nature. Especially places for which they felt a sense of ‘ownership’ seemed to be important in this context (Bögeholz, 2006; Chawla, 2007; Derr, 2006; Wells and Lekies, 2006).
The young generation should also get in close contact with nature to prevent the occurrence of what Kahn (2002) calls ‘environmental generational amnesia’. He argues that children need to see nature in its least disturbed state. Nature is deteriorating over time as a result of human impacts. Each generation of children gets to know nature in a more damaged condition. They will use this damaged condition as the norm against which they measure harm that occurs during their lives. It would be good, when children could see children in a pristine state, and when they used this state as the norm. In this way, they would see a much larger difference between the norm and the deteriorated state. This difference would make children more motivated to take action in favour of the environment, and this would benefit the sustainable landscape planning.

2.3 The barriers for including children in decision making

In spite of the great benefits of including children’s perspectives in landscape planning, many authorities seem to be reluctant to implement it. According to Barlett (2002), decision makers think that children’s participation is difficult. Adults need to facilitate children’s participation. For instance, they have to make sure that the children can travel (accompanied or alone) to the meeting place, and thought must be given on how the participation methods can be adapted to children’s level (Prout, Simmons and Birchall, 2006).

According to Lyons (2004), the greatest obstacles for children’s participation are adults’ attitudes and their adherence to methods which are not adapted to children’s way of expressing themselves. Adults think that they know what children want, and they do not trust children’s decision making skills. Therefore they claim that they can enforce things without consulting the young generation (Prout, Simmons and Birchall, 2006). Including children in decision making thus requires a shift in thinking on the site of adults. According to Mayall (2006), there is plenty of evidence that children are knowledgeable and experienced enough to contribute to decisions that affect their lives.

It is not argued that children should always have the final word in decision making. Not all children may be able to assess all the risks they can be exposed to. Therefore, adults can negotiate with children about the boundaries within which decision making takes places (Roe, 2007).
3. Methodology

3.1 Case study – The Vombsänkan

This study focuses on the Vombsänkan (‘the Vomb valley’), a rural area in southernmost Sweden, located in the municipalities of Lund and Sjöbo (see figure 1). I could easily get data from a school in Dalby, and therefore I have moved the south western boundary of the area outwards. The south eastern border of the area has been moved in northern direction (in the rest of the text I mean with ‘the Vombsänkan’ the extended area as delineated in figure 1).

The area is characterised by shallow lakes, rivers and wetlands, cropped land, grazed and un-grazed pastures and meadows, and on the sandiest soils (mixed) pine forest. The area has been used less intensively that surrounding lands, because of the relatively nutrient poor soils. This has lead to the preservation of high natural values. Large parts of the area have been given a conservation status. There is a Ramsar wetland, some nature reserves, several parts are designated to the European Natura 2000 network, for both the Birds- and Habitats Directive, in addition there is a (drinking) water protection area and an animal (deer) protection area (Länsstyrelsen, 2009; Lund Kommun, 2009).

Important land users in the area are farmers, horse breeders and the military. The last use a large terrain surrounding Krankesjön for their training. Other large land users are the drinking water company (that extracts water from Vombsjön), villagers, a variety of recreants, and of course all the vegetation and animals (Länsstyrelsen, 2009; Lund Kommun, 2009).

The choice for the Vombsänkan as an area of interest for this study is based on an existing project from the concerned municipalities to make a management plan for a nature reserve (Klingavälsåns naturreservat) and to develop sustainable strategies for the rest of the area. At the moment, there are no long term strategies for the area, which causes fear that short term gains will bring the long term sustainability of land use in danger (Wise Use of Wetlands, 2009). With the Vombsänkan as a case study, I hope to be able to directly influence the authorities involved. I intend to get their attention for children as important stakeholders in landscape management. Thereby, I hope they will use this ‘new’ perspective in this specific project and in future projects. Hopefully they will also spread the word to other authorities.
Figure 1: Large map: ‘extended’ Vombsänkan, and locations teacher interviewees’ and field observations (adapted from Lantmäteriet, 2009); small map: location Vombsänkan in southern Sweden (adapted from Eniro, 2009)
This study focuses on seven to twelve year old children living in the Vombsänkan, who are dependent on the area for their daily activities, their education and well-being. Children younger than twelve asked the least often for stakeholder participation (Kirby et al., 2003). Children between six and twelve are usually said to be in their ‘middle hood’, a stage in their live in which they learn to think critically and develop problem-solving skills. It is a period in which their interests expand, as well as their curiosity and their ability to learn about, and understand the world surrounding them. Thereby, it is a time in which children are interested in showing their competencies, and by withdrawing themselves from the nonstop control of their parents (Kellert, 2002). This makes the age groups suitable for my research. The six year olds are excluded from this study, because of their limited drawing and writing skills.

3.2 Part I – Children’s landscape needs and preferences

3.2.1 Literature
In order to investigate children’s landscape needs and preferences in general, scientific literature from both books and journal has been consulted. The results from this literature study has been kept in mind while performing the rest of the research. None of the research consulted considered landscape needs for children in the Vombsänkan specifically and therefore field work was required.

3.2.2 Interviews with school teachers
To identify which landscape characteristics are suitable for children’s outdoor education and (organised) play activities, I conducted interviews with school teachers working in the Vombsänkan. Five teachers were invited for an interview of whom four eventually participated. The fifth teacher preferred to receive the questions by email. However, she did not provide full answers on many of the questions and therefore her contributions were not used for further analysis. My first interviewee had invited her colleague for her interview and thus this interview took place with two teachers at the same time. Table 1 gives an overview on the interviewees (in the rest of this report they will be referred to by the code given in the first column of the table). All interviewees were selected because they are active in outdoor education activities for their pupils.
### Table 1: Background information about interviews with school teachers

<table>
<thead>
<tr>
<th>Code(^1)</th>
<th>Teacher’s function</th>
<th>School</th>
<th>Village</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>It(_1) and It(_2)</td>
<td>After school assistant 3(^{rd}) class teacher</td>
<td>Uggleskolan</td>
<td>Södra Sandby</td>
<td>27 March 2009</td>
</tr>
<tr>
<td>It(_3)</td>
<td>F-class teacher(^2)</td>
<td>Byskolan</td>
<td>Södra Sandby</td>
<td>30 March 2009</td>
</tr>
<tr>
<td>It(_4)</td>
<td>Physical activity teacher</td>
<td>Nyvångskolan</td>
<td>Dalby</td>
<td>2 April 2009</td>
</tr>
<tr>
<td>It(_5)</td>
<td>Physical activity teacher</td>
<td>Revingeskolan</td>
<td>Revingeby</td>
<td>14 April 2009</td>
</tr>
</tbody>
</table>

\(^1\) It\(_{1,2,3,4}\) = Interview teachers 1, 2, 3, 4 and 5

\(^2\) F-class = (pre)school for 6 year olds

The interviews were semi-structured, which means that a list of questions was set up prior to the meetings. Additional questions were asked during the conversation, as a response to the interviewees’ reactions, and in order to get deeper knowledge about the topic (Kvale, 1996). All interviews took place at the respective teachers’ school in locations they selected themselves. The first interviewees did not want their interviews to be recorded, because they felt uncomfortable speaking English. After that, it was decided not to record any of the interviews. Instead, intensive note taking took place. The conversations took between 20 and 90 minutes. Two interviewees (It\(_3\) and It\(_4\)) invited me for a guided tour over their schoolyards after their interview. It\(_1\), It\(_2\) and It\(_4\) invited me to make observations during outdoor education activities with their pupils (see section 3.2.4).

The interviews took place in English which was difficult for some of the interviewees. It cannot be excluded that misunderstandings were a result of this language barrier. However, in many cases I managed to ask the questions in different words to make myself understandable, and the commonalities between my own language (Dutch) and Swedish could help to clarify some of the answers given by the interviewees when they could not find the right English words.

### 3.2.3 Children’s assignment

School children between seven and twelve years old were asked to carry out an assignment for me. The purpose was to investigate their rural landscape preferences and their opinion about the landscapes in their neighbourhoods. The children were asked to make a drawing and to answer five questions. Both the English and Swedish version of the assignment are added as Appendices (A and B).

The assignment was spread amongst pupils from four schools via the teachers I interviewed. In the end, only two schools delivered useful results. I did not receive answers.
from Revingeskolans. It3 (Byskolan) sent a limited number of answers mostly from children younger than seven, and most incomplete answers. Therefore, I disregarded all answers from this school. From the other two schools, most answers were used for analysis. Only a few answers from thirteen year olds, and contributions from three children were disregarded (the last because they lacked both a useful drawing and answers to a few or all questions; all of these were contributions from Nyvångskolan).

In total, 233 answers have been taken into account in analysis (see table 2 for an overview of the participants). Some children had forgotten (or were not asked by their teachers) to write down their age and sex. These pupils have only been taken into account in some of the analysis (see note 1 below table 2). In Appendix C it is explained how the drawings were analysed, illustrated with an example from one pupil’s contribution.

Table 2: Overview distribution of participants for children’s assignment over schools, age- and sex groups

<table>
<thead>
<tr>
<th></th>
<th>Uggleskolan</th>
<th>Nyvångskolan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td>n girls</td>
</tr>
<tr>
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<td>10</td>
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<td>4</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>44</td>
</tr>
</tbody>
</table>

1 Boys and girls (these children did not write down their age and sex on their assignment); all these children have taken into account while comparing the different the schools, the children have not been taken into account when comparing boys and girls, and only the 9/10 year olds and the 11/12 year olds have been used to analyse the differences between different age groups.

2 One boy without a drawing and another without answering the questions.

The assignment was given to the children by their teachers. At Uggleskolan this was done by the each of the pupils’ class teachers. This may have resulted in different interpretations by different teachers. Also because some teachers got my assignment in Swedish (Uggleskolan) and others (Nyvångskolan) in English. At Uggleskolan the assignment was given to the children by their class teachers, while at Nyvångskolan all children got the
assignment from the same teacher (It₄). The chance for different interpretations between the children at Nyvångskolan was thus limited. An alternative option had been to give the assignment to the children myself. However, this seemed impossible, because of my limited Swedish language skills.

The children were allowed to write down their answers to the questions in Swedish. This made it difficult for me to interpret them, however, with a dictionary and help from several native Swedes, translation became less problematic.

As Barker and Weller (2003) argue, it is difficult to interpret children’s drawings without asking them for their motivations and exact intentions. I tried to limit this, by asking children to write down why they liked the place they had drawn and what they could do there. Interviewing the children would have been another option that might have resulted in deeper knowledge, but was considered impossible because of the language barrier. An advantage of the assignment as it was used for this study is that more children could be reached, than would have been possible with interviews.

In order to find out whether significant difference exist between contributions of different schools, boys and girls and age groups, statistical analysis has been conducted in the form of fisher-exact tests and chi-square tests (the last for testing the difference between three age groups).

3.2.4 Field observations

I was invited to join outdoor education activities at two schools (see table 3). The purpose of the observations made during these trips has been to analyse how children use the rural landscape. The observations at Revingeskolan (O₁) took place during an hour of physical education. With Uggleskolan I joined a day trip to Fågelsångsdalen (a nature reserve close to school; see figure 1), which consisted of educational activities and time for free play. During both observation days the sun was shining and the temperature was similar.

<table>
<thead>
<tr>
<th>Code</th>
<th>School</th>
<th>Group</th>
<th>Location</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>O₁</td>
<td>Revingeskolan</td>
<td>7-9 years old</td>
<td>Revingefältet</td>
<td>14 April 2009</td>
<td>10.00-11.00</td>
</tr>
<tr>
<td>O₂</td>
<td>Uggleskolan</td>
<td>9-10 years old</td>
<td>Fågelsångsdalen</td>
<td>16 April 2009</td>
<td>09.30-13.00</td>
</tr>
</tbody>
</table>

¹ O₁ and ₂ = Observations 1 and 2
Notes were taken after the trip, because I did not want to influence children’s behaviour as a response to my presence in the role of a researcher. The pupils at Revingeskolan were not told about my purposes. Children from Uggleskolan on the contrary had met me before when handing out the assignment to their teacher. However, it is uncertain how many children remembered me and my intentions. Teachers’ consent was given for studying the children.

### 3.3 Part II – Children’s needs and preferences in real life management

#### 3.3.1 Literature

To find out how important children are according to authorities at different institutional levels, I analysed Convention texts and policy documents. I looked if children were mentioned in the texts, and if so, whether it was said in the text that children should participate in decision making.

#### 3.3.2 Interviews authorities

To assess the extent to which authorities take children into account in decision making, I conducted five interviews with people involved in the management planning of (a part of) the Vombsänkan (see table 4). Two other people were asked to participate, but they did not respond to my request. The interviews were semi-structured and took between 30 and 75 minutes. The questions were split up in two parts. The first part consisted of questions relating to management of the area in general and the second part on the inclusion of children’s perspectives in landscape planning. The interviewees were not told beforehand that my focus would be on children, because I did not want to influence their answers to the first set of questions. After the conversations I explained my real intentions. According to Kvale (1996) this is ethically correct. The interviews were not recorded, but notes were taken instead. The conversations took place in English, which could have resulted in the same misinterpretations as described in section 3.2.2. The first four interviews were conducted in the participants’ own offices, while the last one took place at the university according to the interviewee’s preference.
Table 4: Background information about interviews with authorities

<table>
<thead>
<tr>
<th>Code</th>
<th>Authority</th>
<th>Function</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia1</td>
<td>County Board Skåne</td>
<td>Water management</td>
<td>27 April 2009</td>
</tr>
<tr>
<td>Ia2</td>
<td>County Board Skåne</td>
<td>Wetland strategist</td>
<td>30 April 2009</td>
</tr>
<tr>
<td>Ia3</td>
<td>Lund municipality</td>
<td>Kävlingeån project</td>
<td>4 May 2009</td>
</tr>
<tr>
<td>Ia4</td>
<td>Sjöbo municipality</td>
<td>Sustainability strategist</td>
<td>5 May 2009</td>
</tr>
<tr>
<td>Ia5</td>
<td>County Board Skåne</td>
<td>Management protected areas</td>
<td>15 May 2009</td>
</tr>
</tbody>
</table>

1 Ia1, 2, 3, 4 and 5 = Interview authorities 1, 2, 3, 4 and 5.

PART I

4. Children’s landscape needs and preferences

4.1 Theory of affordances and child-friendly landscapes

This chapter is used to describe and analyse the results for part I of this study. In order create a readable story, the results of all different research methods this part (see section 3.2) have been mixed, and structured according to broader themes. For each result it will be made clear in the text from with method it is derived.

As an introduction to this chapter, I will discuss Gibson’s theory of affordances (Gibson, 1986) and the related Bullerby Model (Kyttä, 2002; Kyttä, 2006), to explain how children can use landscapes. It is purely a theoretical notion, based on scientific literature. In later sections of this chapter the theory will be combined with empirical data.

Psychologist James Gibson, first focused his work on the relationship between animals and their environment. Later he connected his findings to human beings. Gibson’s ‘theory of affordances’ can be used to explain what children can do in their environment. What an area ‘affords’ to a child is determined by landscape characteristics as well as the child’s capabilities. Because all children are different, the same landscape can offer different ‘affordances’ for each child (Gibson, 1986). For instance, a tree trunk can be used by children as a chair. However, the trunk may be too high for the smallest children to climb on it. It thus offers only an affordance for longer children.

Kyttä developed a model about child-friendly environments with Gibson’s theory of affordances as a basis (Kyttä, 2002; Kyttä, 2006). She called the model the Bullerby model, after an ideal village for children as described in a series of books by Astrid Lindgren. Kyttä argues that there can be numerous affordances for a child in a landscape. These are called ‘Potential Affordances’ (PA; see figure 2). However, children will not use all these affordances. Some affordance are not perceived by children. For instance, a child can use a
tree with thick low branches to climb in. However, if the child has never tried this, and also not seen anyone else doing it, it is likely that the child does not know that he or she can climb the tree. When children encounter an environment more often, they can start perceiving more affordances. This can happen for instance when they try something they have never done before, or when they see others do something new. Also, when children grow older and have more experiences, they can do more different things (and old skills may get lost). According to Kyttä, exploring more affordances in an environment will stimulate children to discover even more of the available potential affordances, because the children become more self-confident about their skills. This is a positive cycle in which children who develop their capabilities will find more and more opportunities to develop their skills even further.

Facilitating adults or peers can either encourage or limit children’s use of affordances. Kyttä calls this respectively the ‘Field of Promoted Action’ (FPA) and the ‘Field of Constrained Action’ (FCA). Thereby, there are affordances that are explored by children on their own, without supervision. These belong to the ‘Field of Free Action’ (FFA), these are the affordances a child utilises. Children do not always do what their parents want, and therefore not all affordances in the FPA belong to the FFA. In other cases, children do not listen to the rules enforced by their parents, that is why some affordances in the FCA are included in the FFA. In an ideal landscape (a so called ‘Bullerby type of environment’), as is depicted in figure 2, the FPA and FFA are large and the FCA small. To give a practical example: a child can be encouraged by his mother to climb in a tree (FPA), but not allowed to

Figure 2: An Bullerby type of environment, in which children can utilise the most affordances. PA = Potential Affordances; FPA = Field of Promoted Action; FFA = Field of Free Action; FCA = Field of Constrained Action (adapted from Kyttä, 2006)
climb higher than two meters (FCA). When sitting in the tree, the child can fantasise that he is a monkey, something his mother could not imagine (FFA; Kyttä, 2002; Kyttä, 2006).

4.2 Diversity

According to the Bullerby Model, a child-friendly landscape offers many different affordances for children. In practice this means that a landscape needs to be diverse. In this way, each child can find something to do within his or her capabilities, and can develop him or herself by exploring ‘new’ affordances. Also, children can use the same landscape for different activities, according to their preference at each moment (Kyttä, 2002; Kyttä, 2006).

Diversity is a topic that spontaneously came in the minds of three of my interviewees when they were asked which landscape characteristics would be good for children’s outdoor education and organised play activities. According to It1 and It2 a diverse landscape consists of long and short grass, trees to climb in, bushes to hide, and water. For It4 it is important that children get familiar with all variety that can be found in the landscapes in their neighbourhoods. In addition to this, the teacher stresses that each child is different and can flourish in a different setting. This is in line with the Gibson’s theory of affordances (Gibson, 1986). To have something to do for every child in their surroundings, it is important that there are many landscapes have many different characteristics. It1 and It2 add that it is good for educational purposes to have several different landscapes close to school, because each place offers different learning opportunities. For instance, some places can be used to study flowers and others to experiment with water (O2). Another comment made by these teachers is that different seasons allow for different activities in the same areas. For instance a grassy hill can be used for running in summer, while it can be used for sleighing and skiing in winter. It is important for children’s education that they get to know their natural environment in different seasons, to learn about the processes that take place in nature (It1 and It2).

Children were asked in their assignment to write down their favourite activities outdoors. From the results, visualised in figure 3, 4 and 5, can be derived that children have many different interests. The variety is even larger than is shown in these figures, because the graphs only show the main categories of favourite activities, while many of the categories consist of several different activities. For instance, the group ‘calm activities’ includes amongst others: walking, picking flowers, having a picnic, taking care of animals and shooting bow and arrow. To the category ‘exercise’ belong: running, biking, playing tag and some other energy intensive activities, while ‘ball games’ are sports like football, handball and basketball. Some children mentioned only one favourite activity while others mentioned
several. This means that there is not only variety in preferences between children, but also that most children like to different activities at different times. For instance, an eleven year old girl writes that her favourite activities are swimming and building huts, and a nine year old boy likes to play, to shoot bow and arrow and to play football. These children do not have enough opportunities in a landscape that can only be used for one or a few activities.

Some activities can be done in almost any landscape, while others need special landscape characteristics. For instance, walking can be done about everywhere, while building huts requires loose materials like fallen tree branches and stones on the ground. To play football, an open field of a certain minimum size must be present.

Each individual child has different capabilities and preferences. However, I want to use this opportunity to make some generalisations about needs of different groups of children. Figure 4 visualises the differences between boys and girls. Only a few categories of activities show significant differences between the sexes. Girls like calm activities, swimming and horse riding more than boys, while more boys than girls seem to like ball games.
There are also some significant differences between age groups (see Figure 5). The preference for calm activities seems to increase with age, while building and playing with huts becomes less popular when children get older. According to It4, the last can be explained by older children’s perception that fantasy play is childish. They rather compete against each other in sports than play role games that can be performed in huts. Especially the youngest children mention ‘play’ as their favourite activity. However, ‘play’ could be many different activities that might be included in other categories when the children had specified their answer further.

It goes beyond the scope of this research to explain the differences between boys and girls and the different age groups further. Thereby, the possible explanations would only be based on speculation and not on empirical data. However, showing the differences has an important function: they are used to explain that different groups of children have different needs. Prout, Simmons and Tisdall (2006) confirm that children are not a homogeneous group. For authorities who decide to involve the young generation in the decision making process this means that children of all groups should be taken into account. Without this, the stakes of some groups will be underrepresented and this will threaten the full democracy of the process.
4.3 Nature

According to Kyttä (2006) rural landscapes generally offer more affordances than urban landscapes. This has to do with the relative naturalness of rural landscapes. Nature offers more affordances than constructed areas. A constructed playground with swings and slides can only be used for a limited number of activities (mainly swinging and sliding), while natural objects can serve several purposes. For instance, fallen tree branches can be used to build a hut, to jump over, to throw with, to investigate which insects live in or under it, etc. Nature is thus more flexible than human constructions, and children can use their fantasy when attributing a function to a natural object (Heft and Chawla, 2006).

Because of the large number of affordances in a natural landscape, nature can provide chances for children to develop their motor skills. Where constructed places can usually only be used to train one skill, the flexibility of nature allows children to develop more skills in the same landscape (Fjørtoft and Sageie, 2000). The positive effect of a natural environment is confirmed by some of my interviewees (It₁, It₂ and It₃). A reason for giving outdoor education (as an important addition to the ‘regular’ indoor classroom teaching) is according to It₁ and It₂, that some children are lagging behind in their physical development. They are brought to school by car and therefore practice their motor skills too little. The teachers consider a natural area a good place for children to train the skills they do not use in their day-to-day activities. Outdoors children can do things they cannot do inside like running and climbing. Playing outside can also be a way to prevent obesity, because children are more stimulated to
exercise outdoors than indoors, where playing computer games and watching television are popular activities (Orr, 2002).

Taylor and Kuo (2006) explain that playing in nature has several other advantages for children’s well-being: Nature can have a positive effect on children’s psychological condition. Wells and Evans (2003) have shown that children in rural areas around New York, in the age six to twelve living in a neighbourhood with lots of nature around, could handle stressful situations better than children with little nature around their house. According to Kuo and Taylor (2004), children with an attention deficit disorders show less symptoms of their disease when they play in nature after school and in the weekends. This positive effect of nature can, possibly be attributed to nature’s effect on relieving pressure from the part of the brain that is concerned with paying direct attention (Kaplan and Kaplan, 1983). Kaplan and Kaplan’s hypothesis is based on the notion that there are two types of attention: direct and indirect attention. People use their direct attention when they concentrate on a task and at the same time trying to ignore impulses that could get them out of concentration. Using direct attention continuously, during a longer period of time, results in mental fatigue. This will reduce a person’s concentration, because the brain will no longer be able to shut the impulses from outside out. According to the Kaplan and Kaplan (1983), children (but also adults) will be able to recharge the ‘direct attention’ part of their brain when they are in a natural environment (although some human constructed places can do the same trick). A precondition is that children are fascinated by their environment to such an extent that paying attention is not difficult. In addition, they must be able to lose themselves completely in their activities, without thinking of anything else that worries them (Kaplan and Kaplan, 1989).

Children can also develop their social skills by playing in nature. This is confirmed by It1 and It2 when they said that one of the additional goals of facilitating children’s outdoor activities was for them to learn how to play together and to let them solve conflicts on their own. Outside, children have the space to come together, but also to separate from each other when situations get tense. Previous research shows that children of different ages are more likely to play together in natural environments than they do in constructed places. Thereby, it turns out that children connect better to accompanying adults when they play in nature (Chawla, 2002)

According to It4, it should be a priority for the authorities to create more nature in the neighbourhoods where children live and go to school. The teacher does not only mean ‘planned’ nature with this, but also ‘wild’ nature, in which human influence is very limited.
Safety restrictions enforced by adults (FCA) limit children’s FFA, and thus the number of affordances children can use (Kyttä, 2002; Kyttä, 2006). For instance, It₁ and It₂ argue that their pupils are not allowed to climb in trees at the schoolyard, because this is against school regulations. If accidents would happen at the schoolyard, and it turns out that rules were broken, the school could expect a claim from parents. Accidents can happen in nature, and are a potential cause of injuries. However, as is argued before, children can practice their motor skills by playing in nature, more than by playing in constructed areas or indoors. Children with better motor skills have less chance on accidents (Fjørtoft, 2004). The question remains what weighs more, potential harm or gained skills?

Some parents restrict their children’s FFA because they perceive so called ‘stranger danger’. This is the fear that strangers will do harm to children, for instance kidnap or rape them (Heerwegen and Orians, 2002). To what extent this fear plays a role in the Vombsänkan is not assessed in this research. Teachers did not talk about it, but this may be because they are able to keep a constant eye on the children when they are on school trips, which minimises the chance for incidents. In general it is being said that rural areas are relatively safe compared to urban areas, because of the high social control that is present in small communities. Valentine (1997) shows that this so called ‘rural idyll’ may be exaggerated, and that it is not as safe as expected.

Wells and Evans (2003) argue that children in general have a preference for natural over constructed landscapes. This statement has not been tested directly in this research. However, the children were asked to draw a place in the rural landscape where they like to be (or in the Swedish version: in nature; see Appendix A and B). Many children drew natural as well as human objects. Figure 6 shows that about 36 percent of the children drew a landscape with mainly human features, compared to about 50 percent who drew a mainly natural setting. From this empirical evidence, it can be derived that children are not only attracted to landscapes with merely natural objects, but also to landscapes that contain one or more constructed objects. I will elaborate on this in section 4.5. As a limitation to the data, it must be commented that some children have not taken the assignment seriously, for instance three of them drew a store where they could buy computer games. These children were also counted in the ‘mainly human’ category and have therefore distorted the final figure.
Accessibility issues can restrict children’s use of the landscape. When children cannot reach certain areas they perceive less affordances, and when adults prohibit children to go somewhere their FFA is limited by the FCA. In this section three types of accessibility issues will be discussed: travel distance, traffic danger, and openness of the landscape.

Travel distance has been discussed in the first three interviews, when talking about ideal characteristics for outdoor education settings. According to It₁ and It₂ an important consideration when selecting places for outdoor education is how far the places are located from the school. The maximum travel distance depends on children’s age: the youngest children have to stay close to school, while the older ones are able to walk and bike further. According to Rissotto and Giuliani (2006) the travel distance is also important for children during unsupervised play activities. The older the children get, the more they will extend their action radius. Young children are unable to travel far, and tend to stay close to home because they will feel safe here. In addition, young children are more limited by parental restrictions.

According to all interviewed teachers, most outdoor education activities take place in the close surroundings of the schools. Locations within 500 metres from the school are visited most frequently. Only the teachers from Uggleskolan (It₁ and It₂) told they make regular use of places up till about four kilometres distance. Longer trips are only made occasionally. The children from Uggleskolan for instance spend three days in summer in Simrishamn (a beach at southern Sweden’s east coast).

The reasons for not travelling further more often, mentioned by the teachers, are the high prices of busses, the inconvenience of scheduled bus times and the planning it requires in advance (It₁, It₂ and It₃). For It₃ the main priority for planning to make the Vombsänkan more suitable for outdoor education, is to improve the bus situation. It₃ now mostly uses the creek about 50 metres from the school (Sularpsbacken) and the schoolyard for children’s outdoor
education. If she had the opportunities, she would like to take the children further from school.

The second accessibility issue addressed here is traffic danger. According to It$_3$, children at her school do not have enough space to play on the schoolyard. A closer investigation of the schoolyard during a guided tour with It$_4$, showed that there is a large green area with trees and swings in front of the school. This would be a nice place for children to use during breaks or for physical education activities. However, the teacher argued that the children are not allowed to go there without intensive supervision of teachers. The reason for this is the service road between the schoolyard and the place. In the morning, parents use this road to drop off their children in front of the school. The rest of the day, the road is used only a few times by food delivery trucks. Despite the little use of the road, children are not allowed to cross it because of fear for traffic accidents.

A similar danger limits children’s ‘Field of Free Action’ in Revingeby. Children are not allowed to cross the road between the village and Revingefältet on their own (see figure 7). Thereby, a second danger is present at this place: at unexpected moments, military trucks can show up and threaten children’s safety.

Figure 7: Illustration accessibility problems in Revingeby: a dangerous road and military activity make up children’s Field of Constrained Action (adapted from Lantmateriet, 2009)
The last accessibility problem addressed by the teachers is the openness of the landscape. In this research its importance is only confirmed for organised activities. It₁, It₂ and It₃ argue that they need an open space in the landscape to gather children and to count if everybody is still present. It₅ claims that a relatively open landscape is a prerequisite for an ideal place for organised outdoor activities. His motivation for this is that teachers can easily keep an eye on all children when they are scattered over a large area. This would be impossible if trees and other objects would impede teachers’ view. The usefulness of openness was confirmed during field observations (both O₁ and O₂). Children could distance themselves a few hundred metres from their teachers, without getting out of sight. In this way, the children could play ‘freely’ without teachers’ interference (see figure 8). Children themselves have not commented on accessibility issues in their assignment, however, they were not directly asked either.

Figure 8: Free play at Fågelsångsdalen where the open landscape allowed the children to distance themselves from their teachers without losing sight on them (private picture taken during O₂)

* Children’s and teacher’s faces have been made unrecognisable for privacy reasons
4.5 Activities
Children were asked in their assignment to explain what they liked about the place they had drawn. The children gave wide variety of answers which were difficult to put in categories. However, some generalisations about the answers can be made: 31 percent of the children wrote that they liked their place because of its cosiness, niceness, peacefulness, beauty or something similar. Another group argued to be pleased with the presence of certain landscape elements like flowers and trees. This indicates that children like places because they attach a high value to the things they can find there. The largest group of children, 58 percent liked their place because of the activities they could do here (either directly for instance by writing ‘I like to play football here’, or indirectly by writing ‘there is a trampoline’). This points towards children’s preference for places where they can do specific activities. In other words, they are attracted to certain places because of the affordances that are available here. As is shown in section 4.3 these landscapes do not only need natural landscape features, but human constructions are also appreciated. Also some teachers argue that they select places for outdoor education and organised play activities, by looking at which activities can be done there (It1, It2 and It4).

4.6 Proposed management
Both teachers and children were asked what they would like to change in the landscape to make it more attractive for respectively outdoor education and organised play; and ‘free play’ activities.

Teachers and children are in general happy with the landscape of the Vombsänkan in its current state. During the interviews, I had to pressure the teachers to tell me what could be improved in the area. This means that they do not face large barriers when visiting the area. As can be derived from figure 9, children’s second most frequent answer to the question what they would like to change in the outdoor landscape was ‘nothing’, which implies that many are content what the area offers them. The validity of this explanation can be questioned, because it is possible that some children wrote down ‘nothing’, because they could not quickly think of another answer. This would also explain the large number of children answering ‘don’t know’. In this case only speculation is possible about the reason, while future research could shed more light on the issue.
Figure 9: Children’s responses to the question: If you were in charge, what would you like to change outside to make it more attractive for you? (n=233)

Figure 10: Children’s responses to the question: If you were in charge, what should absolutely stay the same outside? (n=233)
Table 5: Measures that should be taken in the Vombsänkan according to the interviewed teachers.

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>It₁ and It₂</td>
<td>Establish a (natural) place for ice skating</td>
</tr>
<tr>
<td></td>
<td>Restore the water stream flowing on the schoolyard</td>
</tr>
<tr>
<td></td>
<td>Create more nature at the schoolyard</td>
</tr>
<tr>
<td></td>
<td>Construct a drinking water pipe at Gläntan</td>
</tr>
<tr>
<td></td>
<td>Establish an animal farm close to school</td>
</tr>
<tr>
<td>It₃</td>
<td>Improve accessibility to places in the area (by bus)</td>
</tr>
<tr>
<td></td>
<td>Create more forest around the school (comment by It₃: where is space for this?)</td>
</tr>
<tr>
<td></td>
<td>Establish an animal farm close to school</td>
</tr>
<tr>
<td></td>
<td>Construct more fire places</td>
</tr>
<tr>
<td>It₄</td>
<td>Make more nature available for children around their homes</td>
</tr>
<tr>
<td></td>
<td>'Create’ places without a destination (‘wildlands’)</td>
</tr>
<tr>
<td></td>
<td>Create more nature at the schoolyard</td>
</tr>
<tr>
<td></td>
<td>Extend the schoolyard for the youngest children</td>
</tr>
<tr>
<td>It₅</td>
<td>Make it possible for the school to hire an expert guide to teach the children about nature</td>
</tr>
<tr>
<td></td>
<td>Establish more sports clubs in the village (for instance a football club)</td>
</tr>
</tbody>
</table>

The teachers proposed several measures that could be taken (see table 5). The first four interviewees said that they wanted more nature at their schoolyards. It₃ and It₄ want more nature around children’s homes as well. They want this, because it would increase the diversity on the schoolyard, and because it offers more places for learning for their pupils.

This indicates that even while children in a rural landscape grow up in a relatively nature rich environment, the need for more nature is still present. Also children themselves are interested in more nature. The most common answer from children is that they want more trees or forest in the area. The reason they provide is that they like to climb trees and build huts, and the more trees there are, the more they can do this. When asked what should not change in the landscape, children are even more consistent in their need for trees and forest. Thirty-one percent does not like to see the trees disappear (see figure 10). Other evidence that children like to see more nature in their neighbourhoods is their request for more vegetation, animals and natural water.

It₁, It₂ and It₃, whom are all teachers from the same village (Södra Sandby), lack an animal farm close to their schools. There are horse farms which they can visit with their pupils, but other animal farms are not available. It is thus difficult to introduce children to other farm animals, while this is important for children’s education. It₁ and It₂ gave an example of a child who had only seen a cow from the backseat of a car. In real life the child did not know what a ‘cow’ really was. The only way to find this out, according to the teachers, is to let the children meet a cow, see it, smell it and feel it. According to Myers and Saunders (2006), bonding with animals is important for children’s development. The authors claim that direct interaction with animals is the starting point for care for the natural environment. When children start understanding ecological dependencies, they find out that
care for an animal means caring for habitats and ecosystems as well. Evidence from the children’s assignment shows that the pupils are fond of animals. Several of them would like to have more animals around and existing animals should not disappear. This includes a wide variety of animal species, from birds to horses.

It1 has different concerns than the other interviewed teachers. He argues that children lack sufficient organised activities in their village, like football- and other sports clubs. This may be because the village in which he teaches (Revingeby) is much smaller and has less facilities than the villages of the other teachers. It3 argues that his pupils have to travel to other villages for their activities and that it would be more convenient if there were more possibilities close by, so children are not dependent on their parents to get to their activities.

It5 also feels the need for a nature expert to teach the children every now and then. He and his colleagues have basic knowledge about the environment, but it would be nice if a specialist could give the children more detailed information and answer their difficult questions. It seems as if this need is not felt by all teachers. It2 commented during a conversation after O2 that she knows enough about nature to teach the children. This indicates that some teachers need help when giving nature education and others do not. This issue might not be a direct issue to be targeted by management, however, maybe it is possible that decision makers organise a pool of nature experts in the area that could offer their services to schools. Another solution would be to make knowledge about the natural environment a more important topic in teachers’ education program. Children’s knowledge about nature in comparison to their teachers’ understanding is not assessed in this research.

It is noticeable that most of the proposed measures by teachers, should be taken close to school. This stresses on the accessibility issue discussed in section 4.4, claiming that the areas close to children’s school and homes are the most important for children.

The last point I make about teachers’ wishes for the landscape is the drinking water pipe It1 and It2 would like to have at Gläntan (a nature area). There is a fire place there on which the children can cook. However, without clean water, this is difficult to organise. The current solution is that teachers bring water from school to the area, which is inconvenient. The establishment of a water pipe would be a better way out. This confirms that nature alone is not always enough for children. Human constructions can add important affordances to a landscape. Children agree with this when some of them ask for more playgrounds, sport fields and swimming pools.

One of the issues that is touched upon by children, but not by teachers is littering. Twelve percent of the children claims that they want litter to be removed from the places
where they play, in order to make these places more attractive. This answer was given by children from both schools and all ages, which means that it cannot be explained by recent education about the negative consequences of trashing for the environment.

4.7 Conclusions part I
What are children’s needs and landscape preferences?

- Children need landscapes that offer many different affordances.
- Both teachers and children are in general happy with the landscape of the Vombsänkan, but improvements can be made.
- Children mainly stay close to home for their activities, partly because they cannot travel further and partly because of accessibility issues. Therefore, landscapes in the close surroundings of children’s homes are the most important for children. Planning could solve some accessibility problems.
- A diverse, natural environment is appreciated by children and beneficial for their well-being and development, however human objects can add valuable potential affordances to a landscape.

PART II
5. Children’s needs and preferences in real life landscape planning
5.1 Children in authorities’ minds
When looking into official documents dealing with management of natural resources, children are not often mentioned as a group of interest as is visualised in table 6. This indicates that little attention is paid to children concerning nature and landscape management. On an international level it is only the UN Convention on the Rights of the Child which has children as its main target group, that deals with children as a separate group and also asks for participation of the young ones in decision making. Other international policies including the European ones, do not mention children at all. When going down to local level, the interest seems to grow. Two local policies from the city of Lund mention children as important stakeholders. Only in Lund’s Grönstruktur- och Naturvårdsprogram (Green structure and Nature protection plan; Lund Kommun, 2005), there is a request for children’s participation in decision making. Here the authors refer back to the Convention on the Rights of the Child, claiming that attention should be given to children’s perspectives. In addition to the documents listed in table 6, two of my interviewees (Ia₂ and Ia₄) showed documents in which
they had taken children’s needs into account in landscape planning. However, in these cases, the young ones had not been consulted before decisions were made.

Table 6: Important landscape management documents and their mentioning of stakeholder participation; children’s participation and children as stakeholders

<table>
<thead>
<tr>
<th>Document</th>
<th>Stakeholder involvement</th>
<th>Children’s participation</th>
<th>Children mentioned as separate group</th>
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<td>UN Convention on the Rights of the Child¹</td>
<td>Yes</td>
<td>Yes</td>
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<td>Ramsar Convention on Wetlands²</td>
<td>Yes*</td>
<td>No</td>
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<td>UN Convention on Biological Diversity³</td>
<td>Yes</td>
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<td>Water Framework Directive⁴</td>
<td>Yes</td>
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<td>Birds Directive⁵</td>
<td>No</td>
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<td>Habitats Directive⁶</td>
<td>No</td>
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<td>LundaEko (Lunds agenda 21)⁷</td>
<td>Yes</td>
<td>No</td>
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<td>Lund’s Grönstruktur- och Naturvårdsprogram⁸</td>
<td>Yes</td>
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* According to the Convention, all stakeholders involved should agree on the management, to what extent this means active stakeholder participation in decision making processes is not further clarified.


When asked, all of my interviewees said that they usually do not take children’s needs into account in decision making. The only way in which they might indirectly think about children is a result of their own experiences as parents or as leaders of a child group. According to Ia³, the city of Lund requires that decision makers sign a form in which they state how the new plans they present will benefit children. However, as my interviewee stated, this is usually considered as considered just a formality. She gave an example of a wetland creation plan where it was written that wetlands well benefit all people, including children. In this way, decision makers can get around their plight to seriously consider children’s needs and preferences.

In the first part of the interviews, I asked my participants what they thought were important sustainability issues in the Vombsänkan. The first three interviewees were ‘water experts’, and their main issue was run-off of nutrients from agricultural land. Farmers should be convinced to adapt to different techniques in order to solve this problem. Also Ia⁴ commented on the water pollution issue, but she mentioned other issues. She thinks it is important to maintain a high biodiversity for future generations to enjoy, and to create better
opportunities for recreation in the area for the current generation. The last would benefit the income for the local population. Ia5 wants to restore the meandering of the river, to create a better habitat for birds and to take measures on the military field to keep it open and make it more attractive for insects. None of the interviewees mentioned any issues that had to do with children directly. This means, once again, that children’s needs are not a priority issue for authorities.

5.2 Authorities’ view on children’s participation

I asked my interviewees which people they would invite for stakeholder participation sessions to decide on the management of the area. It turned out that landowners, including farmers, horse breeders and the military, would be the most wanted group. All interviewees agreed that people living and working in the area should also be included, but none of them mentioned children as a specific group. Ia1 came closest, when he said that odd groups whom are normally not asked for their opinion should be included. However, the only odd group he could mention was elderly.

After I had explained to my interviewees that my focus was on children, I asked them what they thought about children’s participation in decision making. The answers were varied. Four interviewees responded positively, only Ia2 did not like the idea. He argued that he is a ‘traditional man’, and for him this means that children are not seen as useful contributors to the decision making process. Ia1 wants to involve children, but the way he described the form of participation he had in mind, suggested that he took a tokenistic approach. He wanted children to make field trips in the area to learn about nature and the environment. Children would be asked for their opinions as an educational exercise, and not to really influence decision making. According to Ia3 children could be asked for their views to influence decision making at specific places. According to her, children are not able to oversee large areas and all the connections between its different aspects. She also argues that it cost a lot of time and effort to involve children, and this can be a barrier for the people in charge to implement children’s participation. Ia4 reacted the most enthusiastic of all interviewees. She argued that children have views of which adults never could have thought about. She wants children to be educated better in schools in order to develop their knowledge about nature and the environment. In this way, they are more able to form informed opinions. After this, children of different age groups should discuss what could be done to make the area they live in more suitable for them. Ia5 agrees with Ia3 that children are only able to make useful contributions to decision making at specific places, and with Ia4, that children have
views that are unknown by adults. It thus turns out that two of my interviewees take the same negative approach to children’s participation in described as is described in section 2.3 (Ia₁, Ia₂). The other interviewees seem to be more willing to ask children for their opinion in an effective way (Ia₃, Ia₄, Ia₅). However, they have not implemented this ‘new approach’ yet, and it is uncertain whether they eventually will. Future research could investigate how many people within the authorities are willing to involve children in their work, and how many actually enforce it.

5.3 Authorities’ needs versus children’s needs

When talking about children’s needs, most of my interviewees spoke from their own experience with children and not so much from their function within their authorities. However some of the interviewees could not manage to leave their professional perspective out. Ia₁, as a water specialist, claims that children need clean water and easy access to nature areas including rivers, lakes and wetlands. Ia₂ thinks that children will benefit when newly created wetlands are shallow, because children should not drown, and also that some wetlands and ponds should be created close to kindergartens and schools, so that children can visit these places regularly and learn about their biology. In addition to this, he thinks that the water quality in rivers and lakes should improve, and that more places are created where children can swim in natural water. It₃ speaks more from her experience as a mother. She thinks that children need a varied landscape where they can explore all different kinds of features. Her opinion mostly reflects what is being investigated in part I of this study. She experiences that children like to climb in trees and over stones. Thereby, she argues that children have eye for details in the landscape. It₄ sheds a new light on the topic when she says that it is important for the children’s well-being when their parents earn enough income. Thereby, she argues that children need clean drinking water and that the biodiversity in the Vombsänkan (including red list species) should be maintained, to give the young ones a chance to know all sorts of species. Some of my interviewees thus had a clear picture on what children need in the landscape (Ia₃, Ia₄, Ia₅), while others did not succeed to think outside their field of expertise (Ia₁, Ia₂).
Figure 11: Map Vombsänkan including locations for outdoor education and organised play activities for schools (black symbols) and places visited by authorities (red symbols; adapted from Lantmateriet, 2009)
At the beginning of each interview I asked my participants to point out on the map which places in the Vombsänkan they personally like to visit. The results are visualised in figure 11 (the red symbols). As can be seen, authorities’ (in their free time) like to visit many different landscapes. In this sense, they have the same need for diversity as children. When asked why they like certain places, my interviewees mainly mentioned activities they could do there, for instance bird watching and walking. Ia₄ prefers silent places, though which place she decides to visit at a particular moment depends on her mood.

In figure 11 it is also shown where my teacher interviewees like to take their pupils for outdoor education and organised play activities (black symbols). What can be derived from the figure is that adults have a much wider action radius than children in their free time and during (regular) school trips, even more when considering that some of my interviewees live more than 15 kilometres from the area.

5.4 Conclusions part II
To what extent are children’s needs and preferences represented in real life management?

- Authorities in the Vombsänkan usually do not think about children’s needs and preference when they make decisions about landscape planning.
- Some authorities are familiar with children’s needs and preferences in general, others cannot manage to think outside their field of expertise. This indicates that authorities’ are unable to speak for children, but they are not aware of this.
- Some authorities are positive about children’s participation in decision making, others are negative. None of my ‘authority’ interviewees, currently listens to children’s perspectives. Some claimed after their interview that they were going to take it into account from now on.
- Authorities, in their role as adults, do have some similar needs as children, like the need for a diverse landscape. Adults are less restricted by accessibility issues than children. When looking at the safety and traffic situation in a landscape it is thus required to take a child’s perspective, because children are affected in a different way than adults.
6. Discussion

6.1 The implications of children’s needs and preferences for landscape planning

At the moment landscape planning in the Vombsänkan, and in many other rural landscapes, is unsustainable, because children’s needs and preferences are not taken into account. To change this, decision makers have to rethink their working methods, and start asking children to contribute to the planning process in an efficient way.

The best method for children’s participation is currently unknown and more research is required. However, some aspects of children’s involvement seem evident. Children are in general enthusiastic to communicate their views to decision makers. This enthusiasm may fade away when the people in charge do not really listen to children’s voices. To keep children interested and to empower them successfully, their input should lead to real changes. In this way children will feel they can influence adults. The process should be democratic, which means that children should have an equal voice compared to other groups. They should not be cut off by adults. It may also be important to use different methods for children than for grown-ups. Roe (2007) reported about a case in which children were allowed to design their own methods. The young ones chose for amongst other methods, presenting pictures and videos that expressed how they felt about the environment in which they lived and which landscape aspects were suitable or unsuitable for them. One of my interviewees from the authorities was as he said himself ‘a traditional man’ who did not see any use in asking children for their opinions. Another interviewee, only wanted children to participate as an education exercise for them, which would not result in their empowerment. My other interviewees were more positive about my ‘new approach’. Two even claimed that they were going to involve children in decision making in the near future. Only the future can show if they will keep their word, and if and how fast the ‘new approach’ will spread among other authorities from the local to the global level.

Children’s landscape need and preferences differ in some respects to those of authorities. While the interviewed authorities where mainly concerned about natural values in the Vombsänkan, children in general will benefit from a diverse, natural landscape close to home where they can do a variety of activities. It is not necessarily true that fulfilling children’s wishes goes against (nature) conservation goals. According to Ia4, it is very easy to establish an obstacle course somewhere in a forest without threatening its natural values. Also my other interviewees claim that children’s activities do not harm the landscape too much. Ia2 even wants to make swimming in the rivers in the area possible. Not all of children’s wishes
lead to a more sustainable landscape. One of the child participants suggested that a new
Disneyland should be build close to his house. These kind of ideas go against the needs of
many other stakeholders in the area, and should not be implemented. However, decision
makers should listen to these ideas, because it might indicate that children have a certain need
that is not fulfilled in the area. By discussing and negotiating the ideas with children, it might
be possible to make compromises that will benefit all stakeholders.

6.2 Research limitations and recommendations for future research
Throughout the last three chapters I already touched upon some limitations of this study and
suggestions for future research. In this section I will further discuss some of these and add
other important limitations and recommendations.

- Teachers from Uggleskolan and Nyvångskolan received the assignment for children
  respectively in English and Swedish. As can be seen in figure 12, there were
  significant differences in the answers between the two schools. This may have been
  caused by a different understanding from the teachers because of the different
  versions. If the research was to be repeated, it would be better if there was only one
  version of the assignment and when the tasks were handed out to the children by one
  person, preferably someone familiar with the research.

![Figure 12: Children’s responses to the question: What are your favourite activities outside? Comparison between two schools (n=233)](image)
* Significant differences (Fisher exact test; p<0.05)
To understand children’s drawings and written answers better, it could be decided to do a follow-up study in which children were interviewed.

In this report I argue that landscape planners should take children’s needs into account, but also that they should involve children in the decision making process. However, the report does not explain how this could be done. Future research should be performed to find out which methods of children’s participation are preferred in different situations.

To analyse children’s landscape needs and preferences, I asked children and teachers for their opinions. Even though children are the most important group to ask, since they are experts in their own lives (Heft and Chawla, 2006), I think useful information could be extracted from other groups. Hereby, I think about parents who could explain why they enforce certain rules that limit children’s activities, but also about youth group leaders, like scout groups, because they can possibly provide additional perspectives above those of teachers.

Even though I used the children in the Vombsänkan as study objects, I have not identified all the possibilities and barriers that they encounter in the area. For instance, I know about roads close to two different schools that limit children’s Field of Free Action. However, when considering the Vombsänkan as a whole, there may be many more of such obstructions. Future research may be used to map all opportunities and barriers for children’s use of the landscape. This map could be used to find out where important improvements could be made.

The last limitation discussed here is the fact that I only interviewed five people from the authorities. Three of them were ‘water experts’ which means that they were overrepresented, since the planning for the whole Vombsänkan would require planners from all different disciplines (besides water experts for instance: traffic planners, ‘land ecologists’, agro technologists and foresters). Future research could be used to get the opinions of authorities from different disciplines. This could also help to compare between for instance the viewpoint from the province and the different municipalities.
7. Final conclusions
Landscape planning is done by adults, for adults, and this is not sustainable on the short and long term. Landscape management would become more sustainable when grown-ups could change their habits, and started taking children’s needs and preferences into account. Ideally, they would consult children during the decision making process.

Authorities in the Vombsänkan agree that they do not take enough notice of children when making decisions. The first part of this research has dealt with rural children’s needs and wishes. When comparing these with authorities’ priorities, it turns out that some of their needs and preferences are different. Children’s perspectives are thus not fully reflected in ‘regular’ landscape planning. Some people within the authorities showed willingness to change their habits and take children into account from now on, while others wanted to stick to ‘business as usual’.

The aim of this research was to raise awareness among landscape planners and scholars about children’s limited role in landscape planning. A part of this aim was fulfilled when I brought up the topic during interviews with people from the authorities involved in the planning for (a part of) the Vombsänkan. Now I can only hope, that those who were positive will spread the word to their colleagues and that interested scholars will be inspired by this report.

References


Jones, M.. 2007. The European landscape convention and the question of public participation. Landscape research 32(5); 613-633.


Interviews:
It1. Interview teacher 1. Uggleskolan, Södra Sandby. 27 March 2009.
Ia1. Interview authority 1. County Board Skåne. 27 April 2009.
Ia2. Interview authority 2. County Board Skåne. 30 April 2009.
Appendix A: Children’s assignment (English version)

YOUR OUTDOOR ENVIRONMENT

Hello,

I'm doing research about children's stakes in (rural) landscape management for my master's thesis. An important part of my research is this assignment for schoolchildren (age 6-12). The assignment consists of a drawing and a few questions that require a short written answer (see the box below).

For my research it is important that the children are given a minimum number of clues about what to draw or write. It must however be made clear to them that the assignment deals with the rural landscape (which can be considered anything from places in the villages, farms, cropland, pastures and meadows, forests, bushes and other vegetation, farm- and wild-animals, rivers, lakes, swamps etc.).

It may be difficult for the youngest children to write down the answers to my questions, however, I hope to find a suitable solution for this after consultation with the teachers concerned.

For my research I only need to know the age and sex of the children. Children's answers will be handled confidentially and without judging the children for their answers. Children can write down the answers in Swedish.

If you have any questions about this assignment, please feel free to contact me!

Mirjam van der Hoek
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mirjamvanderhoek@hotmail.com

| Age: ... |
| Sex: ... |
| 1) Draw a place outside (in the rural landscape) where you like to be. |
| 2a) What do you like about the place you drew? |
| 2b) What can you do here? |
| 3) What are your favourite activities outside? |
| 4) If you were in charge, what would you like to change outside to make it more attractive for you? Why? |
| 5) If you were in charge, what should absolutely stay the same outside? Why? |
Appendix B: Children’s assignment (Swedish version)

Hej!

I mitt examensarbete vid Lunds universitet undersöker jag barns intresse av naturen och vad som är värdefullt för dem i landskapet. En viktig del i mitt arbete ligger i att samla in barns teckningar föreställande ett ställe i naturen där de gillar att vara eller leka samt deras skriftliga svar på några korta frågor.

För att få ett så bra resultat som möjligt är det mycket viktigt att barnen inte får några tips eller exempel på vad de ska rita utan att de får tänka ut det själva. Barnen ska bara instrueras om att de ska beskriva en plats utanför staden eller byn som har med landskapet att göra som de tycker om.

För de yngsta barnen kan det vara svårt att svara skriftligt, men tillsamman kan vi försöka hitta en fungerande lösning.

För att kunna utvärdera mina resultat behöver jag kennt till kön och ålder på barnen. Barnens svar kommer att behandlas konfidentiellt och inte på något vis att ”betygssättas”. Sjäällan kan barnen svara på svenska.

Om du har några frågor kring min undersökning så kontakta mig gärna!

Mirjam van der Hoek
mirjamvanderhoek@hotmail.com
076-1108 144

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1) Rita en plats i naturen där du gillar att vara.

2a) Vad är det som gör att du gillar den platsen?
2b) Vad gör du när du är där?

3) Vad tycker du är roligast att göra när du är ut i naturen?

4) Om du fick bestämma vad skulle du göra så att det blev fler roligare, mer spännande platser eller i största allmänhet bättre ute i naturen? Och varför?

5) Om du fick bestämma vad ska vi vara rädda om i naturen? Och varför?
Appendix C: Explanation analysis children’s assignments

In this appendix I describe more detailed how I analysed children’s assignments. First all assignments were sorted and coded according to school, age and sex.

Drawings: The first step in analysing the drawings is to categorise all the landscape features children had drawn. In the end, this information is not analysed further for this study. The second step was to find out which children had drawn a landscape with mainly human objects and which with mainly natural objects. A third category was added for the drawings in which it was impossible to put them in the ‘human’ or ‘natural’ group.

Written answers: All the written answers were translated from Swedish to English (mostly by myself with help from native Swedes) and put into the excel file. When I had a general overview of the results, I started categorising the answers for each question. In this example, the answer from question 2a was grouped with similar responses like: ‘the place is nice’, ‘it is beautiful here’, ‘it is cosy’, etc.. Question 2b was only used to understand what the children had drawn (in cases where it was not clear from the start in this example it was not necessary). The answer from question three ended up in the ‘fantasy play’ category. Many of the categories for this question were very broad. To give some examples: ‘calm activities’ include amongst activities walking, playing with rabbits, shooting bow and arrow, having a picnic and picking flowers. ‘Ball games’ include football, handball and basketball and other ball sports. The category ‘exercise’ consists of running, biking, playing tag and other activities that require much physical activity (except jumping trampoline, that ended up in the ‘playground activities’ category). The answers from question 4 and 5 were also categorized. In this example the answers ended up respectively in the categories ‘more trees/huts’ and ‘fell trees/forest’.
* (2a) I like Fågelsångsdalen.
* (2a) It is good because it is a nature reserve and nice.
* (2b) I play there and take pictures.
* (3) I like to play war.
* (4) I want old trees to be cut down and plant more there
* (5) That one would block all rivers. Cut down trees