The role of green spaces and their management in a child-friendly urban village

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ABSTRACT

Environmental child-friendliness is affected by how built environments and green spaces are planned and designed, but also by their ongoing management, including both development and maintenance. This study examined children's perspectives on their local environments with focus on green spaces and their management in an urban village. Five groups totalling 16 children aged 10–11 were interviewed through child-led walks. Both the qualities of the village as a whole and of specific places within it added to the child-friendliness of the local environment. The children showed planned and managed spaces including playgrounds and parks, and unmanaged places such as abandoned gardens. They found many qualities in multifunctional planned places with a varied, rich content. In unmanaged areas the lack of management was seen as positive for exploration, play possibilities and for the place to be children's own. The findings suggest that children's perspectives can play an important role not only in planning and design, but also in the ongoing process of landscape management, including the provision of more variation in local green spaces.

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1. Introduction

The child-friendliness of built environments has been described as having multiple values. Children's access to local child-friendly environments, including green spaces, contributes to sustainable development in several ways (Björklid and Nordström, 2012), including diminished car transportation (Freeman and Quigg, 2009) and support for children's healthy development (Bell et al., 2008), physically active free play (Veitch et al., 2008) and concern for the environment (Palmgren and Kuru, 2000). The freedom to access and explore varied local environments is also important from children's own perspectives (Elsley, 2004), as children relate to the environment differently than adults; their relationship is more sense-oriented (Björklid and Nordström, 2012) and can include direct construction and manipulation (Moore, 1989; Jansson, 2015).

There have been attempts to summarise and concretise factors or determinants of the child-friendliness of built environments. Kyttä (2004) has described and empirically tested the interrelation between children's independent mobility with perceived environmental qualities for use and activities – so called affordances; the latter described by Heft (1988, p. 32) as: "the functionally significant properties of the environment [. . .] perceived qualities that emerge from person-environment relations". Riggio (2002) and Horelli (2007) both point at the importance of versatile open spaces and their development, as well as children's perspectives and participation, as key aspects of child-friendliness, aspects with close connection to the management of green spaces. Further studies are needed to approach clearer definitions of child-friendly environments and their different aspects, although this might also be partly context-bound (Broberg et al., 2013). In this paper, we focus on children's own perspectives on green spaces and their management and the role they play in the child-friendliness of environments.

Children find affordances for play and form their own places – *children's places* – both in environments which are formal, planned *places for children*, and in informal, unplanned places such as abandoned lots or green fringes (Bell et al., 2003; Rasmussen, 2004). Children's places are often created in environments with unique qualities that they can use repeatedly to meet each other and physically interact with or manipulate elements (Rasmussen, 2004). The difference in qualities between places which are *managed* and *unmanaged* might be of specific relevance (Berg and Medrich, 1980), since in places which are "free of adult regulation [children] feel

at liberty to play quite creatively" (Bourke, 2014; p. 41). Children can therefore appreciate access to both planned places for play and other, particularly green, spaces (Noschis, 1992; Elsley, 2004; Jansson, 2008).

Environmental child-friendliness might be threatened by shrinking open spaces, increasing traffic levels and limited independent mobility, due in part to social aspects such as adults' safety fears (Björklid and Nordström, 2007; Prezza, 2007; Björklid and Gummesson, 2013). Particularly in Western countries, childhood is currently transitioning towards diminished time for free outdoor play and a rise in indoor, adult-controlled and organised activities (Skår and Krogh, 2009). This might be counteracted by the development of local environments that facilitate outdoor play. Adults, including green space managers, can play a role in counteracting children's alienation from green spaces and the many associated benefits (Bell et al., 2003; McAllister et al., 2012), if children's perspectives are recognised (Elsley, 2004; Björklid and Nordström, 2012).

Urban green spaces are commonly formed through planning and design and thereafter maintained and further developed through landscape management, forming the content and quality of green spaces (Jansson and Lindgren, 2012). Planning, design and management of landscapes all affect environmental child-friendliness (Horelli, 2007), but management remains particularly unexplored in this aspect, despite its main goal being to meet users' needs and perspectives (Jansson and Lindgren, 2012). In municipalities, three green space management levels can often be distinguished: policy/strategic (politicians), tactical (civil servants) and operational (park workers, often entrepreneurs) (Randrup and Persson, 2009; Jansson and Lindgren, 2012). Management processes have the potential to approach users on a local, informal, hands-on and 'everyday' level which can be valuable for including children's views (Clark and Percy-Smith, 2006).

Few previous studies have applied a child perspective on urban green spaces with focus on their management. It has been found that management of school grounds is important for children's play and learning (Malone and Tranter, 2003) and that managers need more insight into the perspectives of children and young people in their use of green spaces (Bell et al., 2003). Roe (2006) found that children felt that the management of their local environments was not adapted to their preferences. More knowledge on landscape management practice for environmental child-friendliness is needed, also in a larger local context than specific places for children.

This study takes its starting point in the need for more knowledge on the complexity of child-friendliness of built environments. It aims to reveal more about the role of green spaces and their management, from children's perspectives, for management to adapt to children as users of the local environment. 1. Which socio-environmental qualities are affecting the child-friendliness of local environments? 2. What is the role of green space management? 3. What is the role of the properties of green spaces? 4. How do children see themselves as users of their local environment and its green spaces?

2. Method

The study has a qualitative approach, with an urban village as a single case. Case study methodology is based on the interest of exploring one or several cases in a context using a selection of methods (Stake, 1995) and is therefore suitable for studies in relation to concrete environments (Johansson, 2005). An important methodological driver for this study is the approach to explore children's own perspectives on their local environments (Kylin and Lieberg, 2001; Elsley, 2004; Rasmussen, 2004; Cele, 2005; Roe, 2006; Bourke, 2014).

2.1. The case study area

A village in southern Sweden was selected as a so called intrinsic case, with properties of particular interest to explore further (Stake, 1995). The village has a number of qualities which have been found to be representative of child-friendly environments (Riggio, 2002; Horelli, 2007), including a green outdoor environment which is rich in affordances and safe. A previous study (Johansson et al., 2011) revealed that children aged 10 in the village have high levels of independent mobility and physical activity on an everyday basis and that they frequently play and socialise with friends. Furthermore, a high sense of community was discovered amongst adults living in the village (Johansson et al., 2011). A further study (Wales et al., manuscript) also revealed a high sense of community amongst local children aged 10–11.

The village has approximately 4300 inhabitants and is the second largest built area in a municipality with 23 000 inhabitants in total. It is situated in a rather urbanised region in close proximity to larger towns to which it is connected through regional trains with a local station. The socioeconomic and education levels are relatively high and unemployment low. The village is comprised of mainly detached houses with gardens, but on the western side of the railway line there are mainly rental apartments. The village is expanding, and planned to expand further, through building projects on surrounding arable land and on both former industrial sites and green spaces within the built areas. There is very limited car traffic in central parts and good possibilities for walking and biking. Green space is plentiful and consists mainly of lawns, but also shrubs, trees and woodlands, flower plantings, two large storm water ponds and roughly ten playgrounds, mainly managed by the municipality. There are local schools, of which the centrally placed municipal schools are attended by most of the children living in the village.

The physical planning of the village is both organised and conducted by the municipality. Green space management is organised by the municipality (policy and tactic level) while performed (operational level) by a company specialising in green space management. The same company has had responsibility for the village for several years and is local or perceived as local, e.g. in the sense that equipment is stored in the village.

2.2. Child-led walks

When studying children's perspectives on outdoor environments, the methodological approach is of main importance, in order to both diminish the risk of influencing the results too much and for having a child-friendly research process. Group methods are often preferred by children, although some see the risk that certain children may dominate in the group (Hill, 2006). Outdoor walking interviews with small groups of children, so called child-led walks, have been found to be of particular value in studies of children's perspectives on environments (Kylin and Lieberg, 2001; Cele, 2005; Loebach and Gilliland, 2010). Children in year 4, aged 10–11, were involved through the local municipal school. This is an age commonly included in similar studies (Kylin and Lieberg, 2001; Cele, 2005; Bourke, 2014), when children often are able to communicate their perspectives, have some independent mobility and are interested in their local environments.

The study included sixteen local children from four classes, 11 girls and 5 boys, which is around 15% of the local children in that age group. All children who were given written consent from their parents participated. With help from their teachers, the children were formed into five groups, of which one included four children