Graduation topic: Child play and urban morphologies

Most design interventions which are proposed in this master thesis are based in part on the results of different analysis techniques which were employed in order to study the effects of spatial characteristics on child play. During most of the graduation process the research questions were leading, while especially in the final stages there was room for some creative expression on the part of the author. On the larger scales of the neighbourhood and the urban block the relationship between the results of combined research approaches and the design proposals is quite direct. Interventions on the level of the neighbourhood were based on the analysis of the different layers of the urban fabric such as through routes and local networks, Space Syntax analysis, and information provided by children during mapping sessions at their school. Some relations between different urban morphologies and the opportunities for child play emerged from data analysis based on the maps drawn by the children. This lead to the further study of the characteristics of one of these morphologies – the semi-public courtyard – with the aim of establishing a set of guidelines for the child-friendly (re-) design of urban public spaces. The combination of observations of children playing in these courtyards with the documentation of the openness of surrounding gardens and building typologies made it possible to say something about the appropriateness of certain physical characteristics of these spaces – such as their size and the amount of visual connections with residences – and to propose interventions. The interventions are meant to strengthen or extend the pre-existing structures of the urban fabric, taking into consideration the intentions behind the original urban design principles which gave rise to these configurations in the first place.

On the smallest scales – such as that of the street with its plinth – the designs are more intuitive, and are meant to illustrate. While these proposals can be linked less directly to specific research results, some of the ideas that are expressed are informed by notions taken from the literature study. Making a final design proposal would require a participative design process with current and possible future residents of all ages. In order to be able to enter into such an operation it was necessary to do the groundwork through this research. It will be interesting to see if the relationships between spatial characteristics of public space and child play which have materialised during this graduation process will inform future designs, as they seem to collide with current trends.

While most work of adults is done indoors on private grounds, much of the 'work' children do happens outside in public spaces. The period when a child gradually gains autonomy and develops socio-spatial cognition of its environment is interesting to study as part of an inclusive urban design approach. Children are part of all residential settlements, requiring us to study the effects of spatial configurations of different urban design principles on their social life. Unfortunately children and child-friendliness are not a topic of any studio, course or lecture at the master programme Urbanism. This echoes the – absent or ad hoc – approach to children in urban design and planning practice as lamented by the many professionals and researchers quoted in the literature study of this graduation thesis. The techniques and methodologies which are taught are not typically geared to the study of the use of public space by children. That does not mean, however, that the established techniques used within the studio are of no use to the analysis of the child-friendliness of public space. Still, some of the hypothesis which are used to draw conclusions from such investigations may have to be adjusted if they show an obvious bias towards adult behaviour. For instance the notions that a person will naturally choose the shortest, straightest, safest or most beautiful path – which are part of current theory behind Space Syntax analysis – may not apply to children, who have a much shorter horizon and a different perception of space and time. By combining established techniques applied within the studio with novel approaches and insight from literature the author hopes to contribute to the expansion of those research tools.

The idea to map the social space of children within their neighbourhood was inspired in part by maps published in 2011 by the 'Architectural Center Aorta' in Utrecht in their research on the role of courtyards in the social life of residents. However, while the maps produced by Aorta show the network of social relations around a specific courtyard, they do not reach to the level of the neighbourhood – where children often have their social network.

Typically the study of children's use of public space has been done through observation or GPS tracking. Self-reporting by parents has also been used. In this research children themselves were addressed directly and were asked to indicate the reach of their play and their favourite play spots on a map of their neighbourhood. To the knowledge of the author this method is novel. To check the veracity of the maps drawn by the children they were aggregated and compared to observations obtained through the 'static snapshot' method. A high correlation was found between the indicated favourite play spots and the actual presence of unaccompanied children playing in those spots as observed by the author. A few weeks after conducting the mapping workshops a book was published by urban geographer Lia Karsten containing neighbourhood maps of children which share some commonalities with the maps presented in this graduation study. The novel method used in this research to map of the use of public space by children may be improved by including elements from the study by Karsten, and its usefulness should be tested by further studies in different spatial contexts.

Photographic documentation of child-play in public space was one of the techniques used during site visits. Children were asked if they agreed to be photographed. Because the focus of the research was on unaccompanied children, parents were typically not around. If parents were present or nearby the children also asked them for their consent. Photographing children with their consent – but not their parents – poses an ethical dilemma. Most children who were playing outside without supervision, however, seemed quite capable of making the decision if they wanted to be photographed. Many children resolutely rejected the proposition, while other gladly accepted, and a few asked themselves to be photographed. Children who were unsure were not photographed. Large groups of playing children – such as those on a pubic play square or school yard – were not individually asked if they agreed to be photographed. The goal of these photographs is to give an impression of the general activity (types) on such a spot. To protect the privacy of these children they are depicted at a distance, or facing away from the camera.

As part of the research more than a hundred children between the ages 9 and 11 participated in mapping workshops at three primary schools. Because the children involved did not have judicial autonomy a letter was drafted asking their parents for consent. No parent objected to the research, and no child abstained from participation. The research was conducted during regular teaching hours, which lead to the requirement that the workshops also presented educational value to the students themselves. Working with maps, or more specifically a map of their own environment, was something not all students had done before. However, to give the children a bit more understanding about the aim of the research a short introduction was given about the subject of urbanism, with some examples from the neighbourhood. During these workshop the children were asked to indicate specific details pertaining to their use and perception of the public space in their neighbourhood. Because some of the information which was asked was quite personal – such as the place of residence of friends – the participants were not asked to write their name on the map. To further protect the privacy of under-age participants, none of their individual maps are included in public documentation relating to this research – or will be published anywhere else. Any individual maps that are included in presentations and public documents were drawn by adult participants who agreed to their (anonymized) publication. Because the workshop could be too lengthy for the attention span of some children, it also had to be 'fun'. To make it more of a social exercise, the children were asked to indicate where their friends from school lived – who, incidentally, were mostly their classmates. Although this data was not required for the research, it gave the children an opportunity to discuss among themselves, exchange addresses, and perhaps place a new piece on

their cognitive map of their neighbourhood. A small number of children did not live in the same neighbourhood as where they went to school. To make it possible for these students to participate in the workshop, maps were prepared for their neighbourhoods – even though these areas lay outside the scope of the research.

In order to justify making designs for child-friendly public spaces the children of the neighbourhoods involved were again involved through a design session at their school.
The children were asked to chose from three different locations, which had been selected partly based on the maps they created themselves during the first workshop. A discussion was held on why these locations were problematic, and how they could be improved. The children were then asked to make their own design for the space they chose. This method was chosen to give all children the opportunity to contribute their ideas, and because of the limited time which was available for the workshop. A participative design session might, however, have yielded something even more valuable; a single design carrying the ideas of many children – something they could be proud of together, and possibly convince adults with.

The aim of the guidelines that are proposed is to create more facilitating and appropriate public spaces for *all* users by addressing problems facing those who are the least emancipated (children). The current approach of facilitating children in their own segregated spaces is not beneficial for any group in particular, and puts children at a disadvantage when they want to use other public spaces for their activities. The goal is not the turn all of public space into a playground, rather to integrate concepts relating to playfulness, play-ability or child-friendliness as guiding principles in the (re-)design of the urban environment. The researchers and designers cited in the literature study argue such principles also stand to benefit older users as well. The design proposals presented in documents relating to this research are meant to illustrate possible design approaches. They should not be seen as indicative or final, rather as instruments to facilitate a discussion on possible futures with residents and housing associations. Residents of all ages should be involved in decision making processes which influence their direct living environment.