

## Nature for playing



Creating green play areas in our towns and cities is a new trend. The concept is a perfect match for the goal of green-blue urban design and reinforces all the desired effects: reduced heat stress, advances in the water mission, greater biodiversity, enhanced aesthetic quality and improved air quality and health. This trend can also be easily combined with the concepts of urban agriculture by planting berries, fruit trees and nuts in playgrounds.

The book 'Speelnatuur in de stad' ('Natural Play Areas in Towns and Cities') offers a clear summary of the benefits of playing with and in nature, as well as the construction, design and laws and regulations relating to natural play areas. This book serves as the basis for this chapter.

Children are spending less and less time playing outside, despite the fact that all the experts agree that playing outdoors is of inestimable value for children's development. Children are spending less time outside because people's schedules are becoming fuller and fuller, because parents are too concerned about letting their children go outside unsupervised, but also because there are simply fewer play areas outside. Town and city centres are becoming more and more densely built up and undefined residual spaces are disappearing. Play areas in urban centres generally have a standard appearance: some playground equipment on a level space, sometimes featuring a meadow and some trees. The vegetation is not for playing, but serves merely as decoration.

Children's aesthetics are not the same as those of most adults. If children were in charge, they would prefer free nature for playing in, rather than fenced-off playgrounds with some man-made playground equipment. Multiple studies have shown that children prefer natural equipment to play with, trees for

climbing, sand and water for playing, a meadow with higher and lower areas for rolling in. Children also prefer physical equipment such as cableways and climbing frames made of wood or simply old trees for balancing on and climbing in. Many children consider the commonly used brightly coloured equipment to be 'childish' while natural playing equipment is 'tough'. Add a possibility to build fires and huts, and the picture is complete. A natural playing area with rough-cut stones for hiding, or spots to daydream or pick flowers, offer plenty of opportunities for children to take initiative in coming into contact with nature. They also experience the changes in seasons and learn to love nature.

Depending on the size of the town or city, child-friendly municipalities have some of these natural playgrounds and adventure woods, as well as play areas in green locations, within walking distance from homes.

Children experience the world differently from adults and have other requirements for playgrounds than many planners of the standard playgrounds imagine. Children's perceptions are more sensory, and it is important to them what they can feel, that they can influence things and that they can change their playing environment. Children need multiple layers, differences in height, nooks, crannies and different shapes. 'Stones to throw in the water to make splashes, holes that you can put things in, wobbly pavestones, and fences to climb on: these are all important discoveries and interesting origins for games' [Boogaard, 2007]. German pedagogue Otto Herz has stated that children need places where they can rest, make noise, move around and let themselves go, where they can be 'above' and 'below', where they can hide, that they can give shape to and change, where they can show the results of their activity, where they can have fun together, where they can experience the elements of earth, water, air and fire, where they can take risks and responsibility and where they can feel at home [Boogaard, 2007]. Anybody with children will recognise these as being a child's requirements.

Playing in and with nature has a range of positive effects on children's locomotor, psychological, emotional and cognitive development. [Boogaard, 2007]



Unstructured play means that children can play at their own initiative, at their own pace, according to their own rhythm, with or without children of their own choosing, with the minimum number of conditions. This form of play is under pressure in this day and age, owing to the children's full schedules and the lack of possibilities for children to play outside without supervision. Unstructured play is important for helping children develop independence and their own identity.

Playing with nature means that nature itself is the inspiration for the games: balancing on tree trunks, climbing in trees, building huts out of branches and playing with water and sand, but also playing around with plants and fruits, etcetera. Nature should not be only the backdrop, but instead an actual element of the play.

Natural playgrounds offer space for children to take risks. They also create opportunities for children to make their own estimates and decisions regarding risks.

### **Areas for different experiences and functions**

Essential elements in the design of natural playgrounds are different areas with a variety of functions, for example places with dense vegetation for hiding, places with loose branches for building huts, a fire pit, flowing water and a sandpit (possibly with water), but also places to rest and daydream. It is important to create spots with different qualities, such as dry and warm, cool and muddy. The spots can be connected by different routes. Naturally, places should be included that are geared toward different age groups. Toddlers and preschool children require supervision and very shallow water. Older children can play by themselves and can be active in deeper pools.

### **Varied topography**

Including higher and lower spots is a way of making natural playgrounds more interesting, yet this is too often overlooked. It offers possibilities for movement play and creates rises with views and hollows for hiding. For small children a 50 cm hill is a challenge. For older children the differences in level need to be more challenging.

### **Possibilities for change**

Creating the possibility for children to change the areas they play in is a vital part of natural playgrounds. In everyday life children have very few possibilities to shape their own environment; however, a properly designed natural playground that takes this desire into account will include elements that children can change. Waterways should be given shape in such a manner that children can build dams to divert the stream. Sand presents possibilities for creative construction play. Loose branches in a clump of trees can be used for building huts or building bridges over the waterway, etcetera.

### **Visibility**

Visibility is an important factor. With smaller children it is important that their parents or accompanying adults can easily keep an eye on them. Older children, however, do not always want to be watched.

Playing in and with nature has many positive effects. For example, coming into contact with nature at a young age creates a lasting sense of connection. People who actively work to protect nature and the environment as adults have usually had positive experiences in nature as children. That playing in and with nature stimulates children's emotional, cognitive, social and motoric development has repeatedly been demonstrated in studies. Playing in nature is also good for children's health: more physical activity reduces the risk of obesity, and playing in nature calms and relaxes children and so reduces stress. Precisely because of these positive effects, it is very important that natural playgrounds be easy to reach and are located in the immediate vicinity of homes. Studies show that children develop their motoric skills better in natural playing environments than in standard playgrounds with generic equipment. Studies also show that children who regularly play in more challenging and adventurous play areas have fewer accidents because of their better motoric skills, despite the seemingly more dangerous surroundings.



### Types of nature for playing

Nature for playing exists in different dimensions and degrees of accessibility. Play areas and playgrounds need to be easily accessible. A few dozen square metres close to home are important for children: they can go there by themselves and use them on a daily basis. These playing facilities might be part of the district's green facilities, and in existing districts traditional play areas can be transformed into natural playgrounds. Urban courtyards, schoolyards and unused residual spaces can also be transformed.

Besides play facilities within the neighbourhood and the immediate vicinity of homes, larger playgrounds can be integrated into urban green facilities. Natural play areas can be combined with facilities for above-ground rainwater drainage or rainwater retention systems.

Urban woods and green facilities that already help to reduce heat stress can include natural play facilities. Obviously a natural playground creates chances for biodiversity and urban agriculture, combines well and is a welcome addition to natural playgrounds.

Design elements that are part of a natural playground are varied topography, water features and

## Urban green-blue grids

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waterways with rocks, a sandpit, trees for climbing, shrubs with paths running through them for hiding and loose branches for building huts; other elements that can be added are rafts, fire pits, paths with trees, tree huts, ponds with small islands, etcetera. Planting high fruit trees, nut trees and berries is a useful addition to introduce children to the concept of food production.

Managing natural playgrounds calls for a different approach. Meadows with high and low areas can be difficult to mow using a large mower, and not cutting the branches off trees to a height of 3 metres deviates from commonly accepted policy.

Studies show that recreational traffic drops when there are more attractive green facilities close by. The huge popularity of attractive green playing facilities in the Randstad conglomerate on summer days, such as Delft's water playground, eco-farm 't Geertje and the Speeldernis playground in Rotterdam, shows that this claim is true, while at the same time proving that there are not enough of these facilities.