

83 2013

# Plants and Design

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# FOLLY FOREST IN WINNIPEG



With little effort the tarmac in a school yard in Winnipeg, Canada, has been transformed into a meeting place for all the neighbourhood. Trees, grasses and flowers now grow in the perforated tarmac.

Winnipeg is a city with extreme climates. Winter temperatures have been known to plummet to minus 40°C in the south of Canada and rise to similar values on the plus scale in the summer. Since children in Canada spend the whole day at school the schoolyards are of great importance and should entice pupils to play outside even in icy temperatures.

Strathcona School lies in a socially deprived district that has been neglected by urban planners in the north of Winnipeg, in the Province of Manitoba, a town with a population of 700,000. The school grounds were typical of many of Winnipeg's schools: car parking, a slide, a lot of tarmac. The Strathcona School became a kind of testing ground for readiness to take risks and for improvisation. In a dialogue with teachers, pupils and the Winnipeg School Division we defined what the 'nature' of the future site should be, but also discussed the risk all the participants would be willing to take. In the end we managed to convince everyone. It took only two weeks in the summer holiday to perforate the tarmac, plant trees and sow grasses and flowers.

The key to the Folly Forest project is the reuse of materials and their transformation within a new context. The whimsical bricolage plays a major role in a design. The Folly Forest project stands for a small budget, high risk, easy and fast implementation and careful use of resources. The concept of perforating the 50-year old tarmac demonstrates how a simple measure can have an ecological and aesthetic impact as well as being the key visual element of the design. The stellate cracks create space for trees, stormwater infiltration, microorganisms in the soil, plant communities and



Within two weeks in the summer holidays, the tarmac yard of Strathcona School in Winnipeg was converted into a green yard with trees growing in fields broken into the 50 year old tarmac. The new yard turned from a boring and unused place into meeting point of the neighbourhood.

insect habitats. The existing grassy joints in the tarmac are part of the concept and now contribute to the site's ecology and biodiversity. Bricks, logs, asphalt and boulders – all materials found on or extracted from the site have remained there. The broken up tarmac was used to pave the tree pits, the soil and mineral substrate for the base course shaped into mounds – now a favourite place with the children.

The whole schoolyard serves as a reservoir for stormwater. We did not change any of the existing gradients, not least to save on cost and avoid having to get planning permission. Our aim was to plant trees and keep stormwater on the site in order to relieve the wastewater treatment plant and to irrigate the trees. Russian Olive (*Elaeagnus angustifolia*), European Mountain Ash (*Sorbus aucuparia*), Trembling Aspen (*Populus tremuloides*) and Tower Poplar (*Populus x canescens* 'Tower') now grow in the perforated tarmac. Trembling Aspen is known for its vigorous root sprouts that will spread under the tarmac, crack, break and perforate it, creating ever more fissures and gaps. We seeded the tree pits and gaps with prairie flowers and grasses such as Heartleaf Alexander, Black Eyed Susan, Purple Prairie Clover, Philadelphia Fleabane, Wild Bergamot, Meadow Blazing Star, Western Silvery Aster, Pasture Sage, Little Bluestem, Side Oats Grama and Prairie Dropseed. The seeds colonised in the fissures and cracks that the poplar shoots had created in the tarmac. These plants are not only beautiful to look at from spring to autumn, they also feed bees and other insects.

All the tree species withstand the extreme conditions in one of the world's coldest cities. Reducing wind-chill temperatures in the winter and shading and cooling in the summer are planned microclimatic effects intended to prolong the time this outdoor space can be used.

The first step has been accomplished by transforming a field of tarmac into a complex living environment. Not least because the tarmac area has changed the neighbourhood; even after school hours the yard has become an important meeting place. The Folly Forest is neither particularly luxurious, nor purely functional. Perhaps the best experience for everyone involved in this project was the presence of a certain unpretentiousness and humbleness during its implementation. The small budget was a challenge but also a good opportunity for testing concepts and ideas outside the all too familiar routine.



Straub Thurmayer landscape architects worked together with pupils and teachers. They used materials found on the site, planted trees and sowed prairie flowers and grasses. The chosen species like Russian Olive, European Mountain Ash and Trembling Aspen withstand the extreme Canadian temperatures.