

The Benefits of Nature for Children

Louise Chawla
November 16, 2007

“The charm of natural scenery is an influence of the highest curative value.”

Frederick Law
Olmsted



Central Park

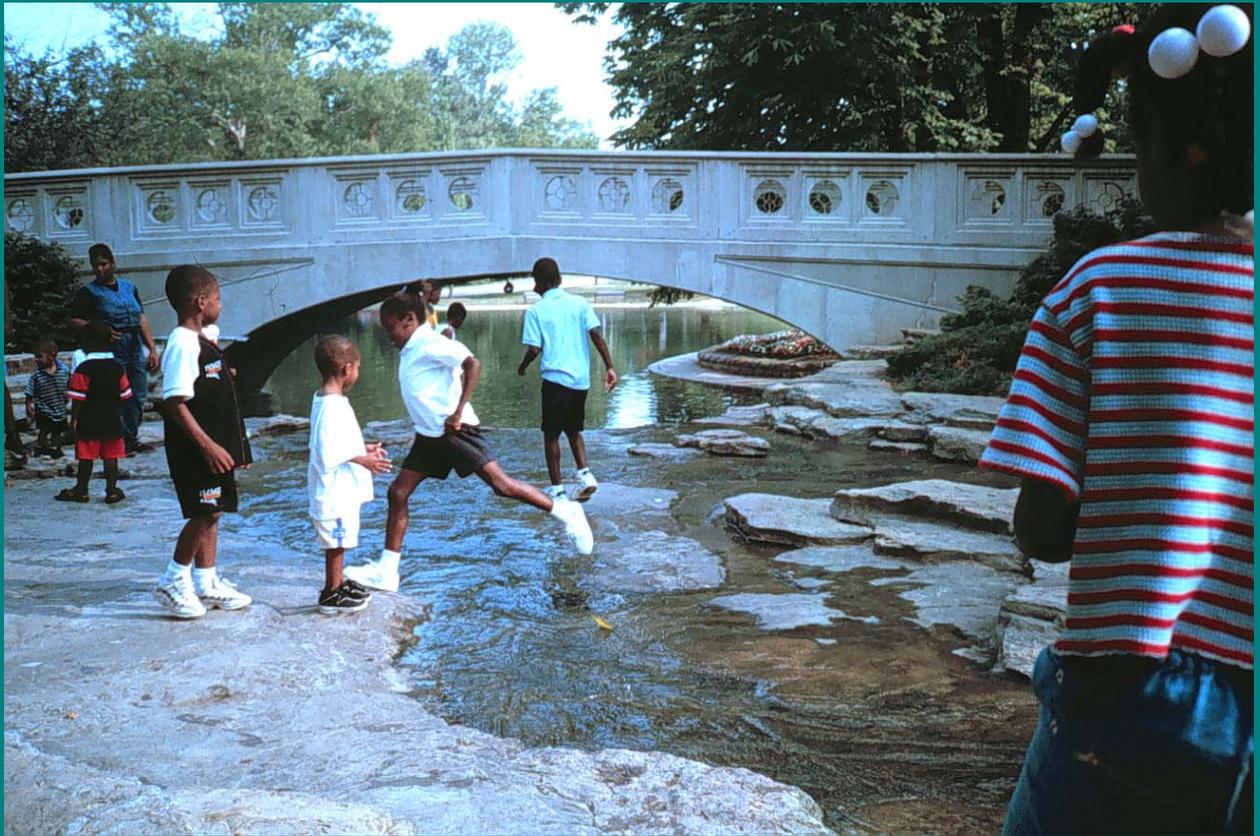


For children, nothing matches nature’s “loose parts” for creative possibilities—and as children play in nature, they are discovering the material of life on which human survival depends.



Photo by Roger Hart

creative social play in a world that is always new



graduated challenges

Among adults, access to gardens, parks, trees or green space has been associated with:

- reduced blood pressure
- reduced stress
- greater emotional well-being
- better concentration & problem-solving
- more rapid healing after surgery
- greater work satisfaction & productivity



Photo by Reba Rye

For children too, access to nearby nature has many benefits.

In a Norwegian study, children who played in the woods behind their school performed better on tests of motor coordination than comparable students who played in a traditional playground.

Fjortoft, 2001

In a Swedish study, young children whose playground contained a field and an orchard performed better on several measures than others who only had access to a traditional playground:

- o Better balance and agility
- o Better concentration
- o More varied and elaborated patterns of play
- o Fewer days of sickness due to illness

Grahn, Martensson, Lindblad, Nilsson & Ekman, 1997

In observations of young children's play, children in areas with trees and vegetation show more creative social play than children in hard surfaced or built play areas.

Faber Taylor, Wiley, Kuo & Sullivan, 1998;
Grahn et al., 1997; Kirkby, 1989

Children with ADD and ADHD concentrate, complete tasks and follow directions better after they play outside in green settings, and the greener the settings, the more improvement they show.

Faber Taylor, Kuo & Sullivan, 2001
Kuo & Faber Taylor, 2004

Children with ADD showed significantly better concentration after a walk through a park compared to a walk along a pleasant but built street.

Faber Taylor, Landscapes & Human Health Laboratory,
University of Illinois at Urbana-Champaign,
unpublished study

In a study of 7 to 12 year olds who moved from rundown urban housing to better homes in better neighborhoods, the best predictor of whether children would show the highest levels of concentration following the move

. . . was not the overall quality of their new home, but its amount of improvement in terms of more natural views and yards.

Wells, 2000

Among rural 8 to 11 year olds, those with higher levels of nature around their homes coped better with stressful life events, according to their parents' reports and their own self-reports.

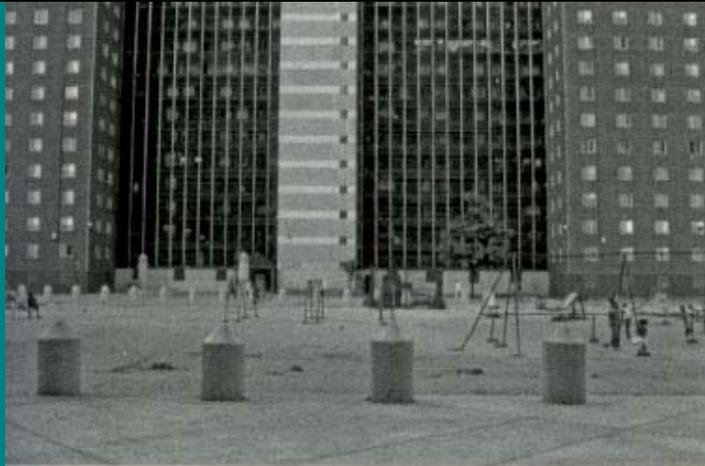
Wells & Evans, 2003

This protective effect of nearby nature was strongest for the children who experienced the highest levels of stressful events.

When Finnish adolescents wrote about places where they went after upsetting events, they said that they often sought out natural areas. There they could relax, clear their minds, and gain perspective on things.

Korpela, 1992

Robert Taylor
Homes, Chicago



Girls with green views from their apartments showed better functioning in terms of focused attention, less impulsivity, and the ability to delay gratification.

Faber Taylor, Kuo & Sullivan, 2002

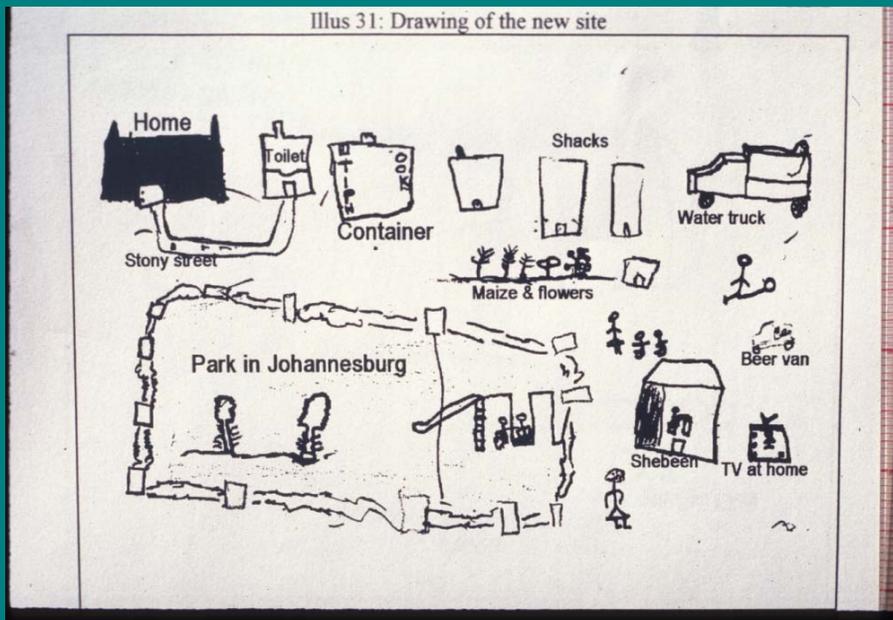
Children in public spaces with more trees played more creatively, and had more positive interactions with adults.

Faber Taylor, Wiley, Kuo & Sullivan, 1998

Adult residents with vegetation around their buildings showed:

- o Significantly better performance at cognitive tasks that required close attention
- o Better conflict management and less aggression in the family
- o Stronger social ties with their neighbors
- o A greater sense of safety and security
- o A stronger sense of community

Police records showed less violence and crime in the public housing areas with vegetation.



In urban areas across the world, children identify safe natural areas as important characteristics of communities which are good places in which to grow up.

Chawla, 2002

Care of animals

In a center for children with severe conduct disorders, boys who were involved in a program of animal care showed significantly less aggression and more cooperation than a control group.

Katcher & Gregory, 2000

In a study of boys with matched symptoms of ADHD:

- o One group participated in outdoor challenge activities involving canoeing and rock climbing
- o One took care of animals

Midway through the study, the groups switched activities.

Primary sources of commitment to protect the natural world



Special places in nature

Both groups showed positive gains in terms of better concentration and self-control, but the boys showed the most significant positive effects after taking care of animals.

Katcher & Wilkins, 1993

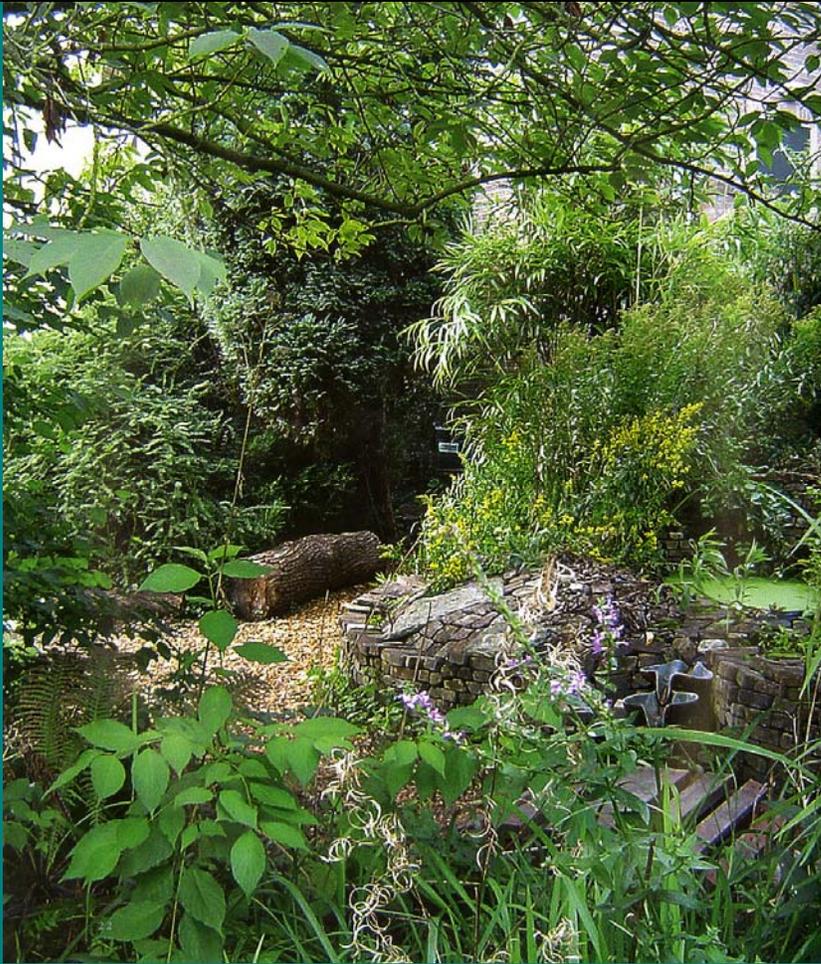
and to use parks and natural areas

According to surveys of 339 people in Scotland and 459 people in England, people who routinely played outside in natural areas as children are much more likely to visit green spaces or wooded areas as adults.

Thompson, Catharine Ward, Aspinall, Peter & Montarzino, Alicia. 2007. The childhood factor: Adult visits to green places and the significance of childhood experiences. *Environment & Behavior*.



Beieren,
Germany



Dutch
nature
schoolyard



Learning
Through
Landscapes
Schoolyard,
England





schoolyard, Nijmegen, The Netherlands



schoolyard
Oberdahlhausen,
Germany

the basics—
water



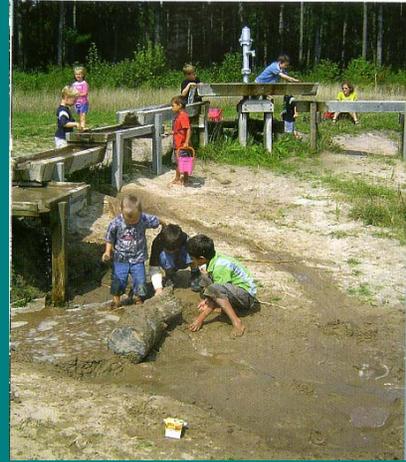


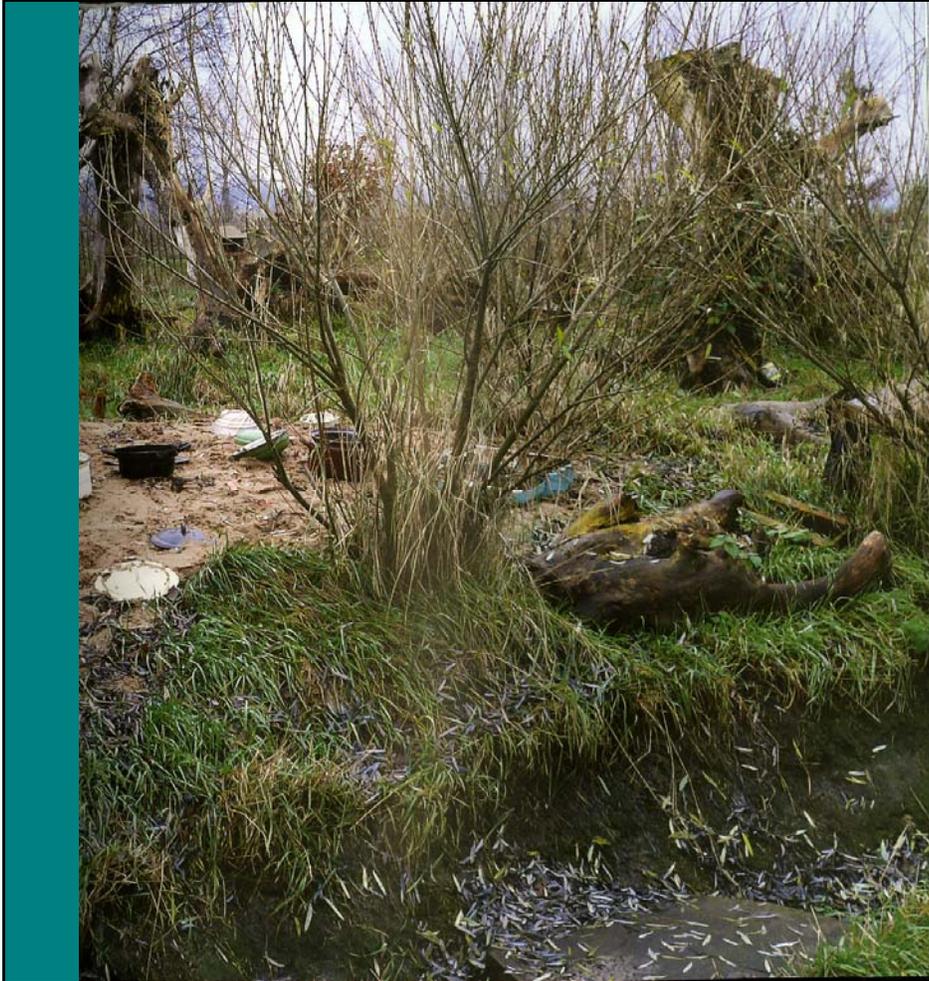
Dutch schoolyards and parks





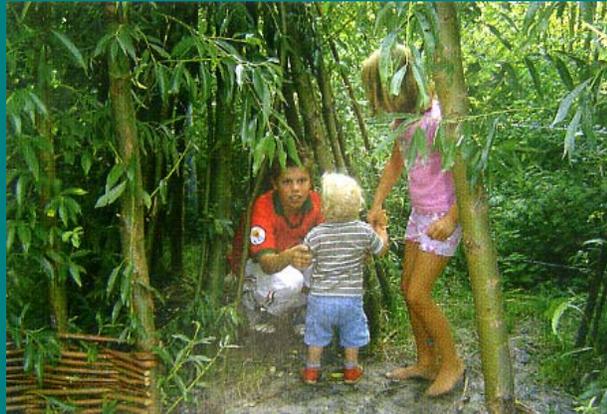
mud





sand

plants





hut building

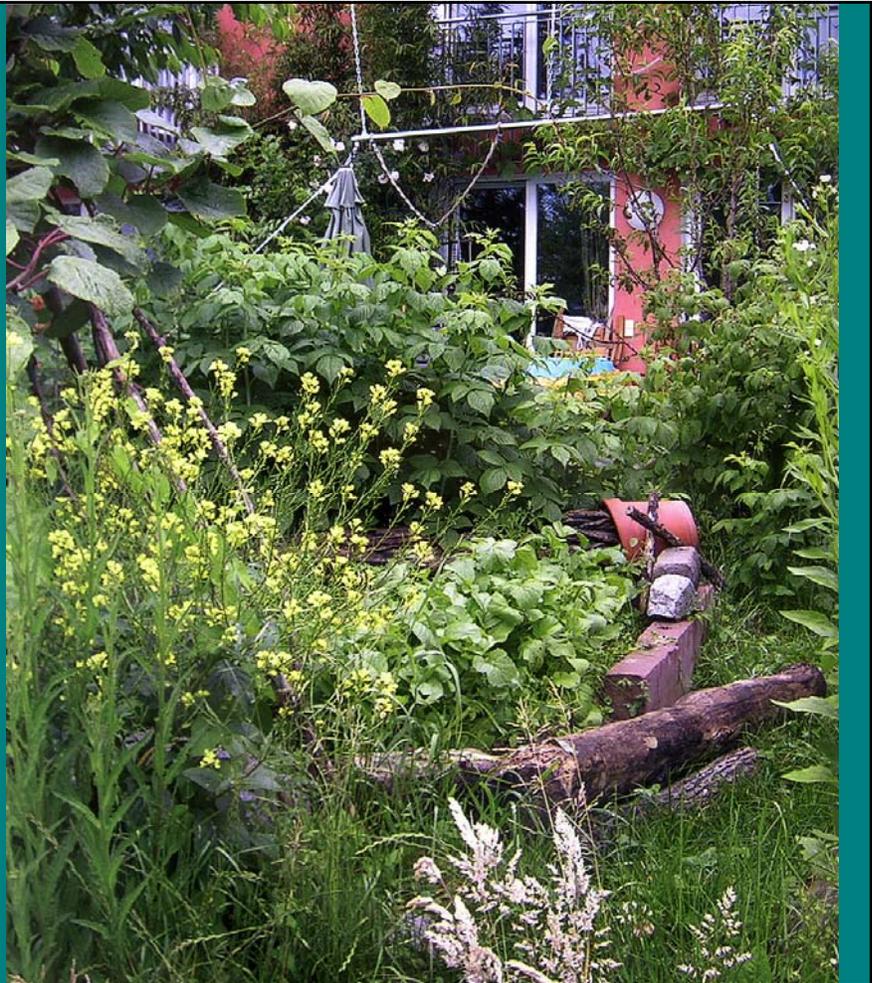


animals

eating
what you
grow



landscaping
around
Freiburg
homes,
Germany



Don't forget how you get there





Hamill Family Play Zoo, Brookfield Zoo
Photo © Chicago Zoological Society



Photo © Chicago Zoological Society

Special people
who show
appreciative
attention to
nature



Photo courtesy Mary Rivkin



Photo courtesy Mary Rivkin



Photo by Illene Pevec

Formative role models communicate “a contagious attitude of attentiveness.”



Photo by Mardi Solomon

“Is the exploration of the natural world just a pleasant way to pass the golden hours of childhood or is there something deeper?”

“Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts. There is symbolic as well as actual beauty in the migration of the birds, the ebb and flow of the tides, the folded bud ready for the spring. . . .

“There is something infinitely healing in the repeated refrains of nature—the assurance that dawn comes after night, and spring after winter.”

Rachel Carson
The Sense of Wonder

pp. 88-89

When adults remember experiences of a sense of harmony with nature in childhood, the benefit that they attribute to these experiences most frequently is a reserve of serenity and strength that they can draw upon in later life.

Chawla, 1990; Hoffman, 1992; Robinson, 1983



Children's Garden of Peace
Photo by Illene Pevec

All images of European landscaping
For children's nature play come from:

Leufgen, Willy & van Lier, Marianne. 2007.
Vrijspel voor natuur en kinderen. Utrecht:
Uitgeverij Jan van Arkel.

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