

Engaging Children and Youth as Agents for Sustainability



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Stockholm Seminar
21 March 2018

What pivotal experiences in childhood and youth prepare people to actively care for the natural world and environmental justice?

pivotal experiences in developing active care for the natural world

- ❖ developing a connection to nature through extended play and exploration in nature in childhood and adolescence
- ❖ enjoyment of agency and discovery in nature
- ❖ appreciative attention to elements of nature
- ❖ learning active care for nature through role models and apprenticeships
- ❖ developing a social environmental identity
- ❖ engaging in collective action to investigate and address environmental issues

Why do people who actively care for the natural world often report extended play and exploration in nature in their childhood or adolescence?

central human capabilities - Martha Nussbaum

life

bodily integrity

bodily health

senses, imagination & thought



play

social affiliation

emotions

affiliation with other species

practical reason

control over one's environment

William James and the ecological psychology of James Gibson:

The world is not a neutral, unstructured ground on which our minds impose value, meaning and structure. It comes to us full of meaning, value and structure—information we detect and select.

We detect and select information in the world through movement and action.

James Gibson

The Ecological Approach to Visual Perception

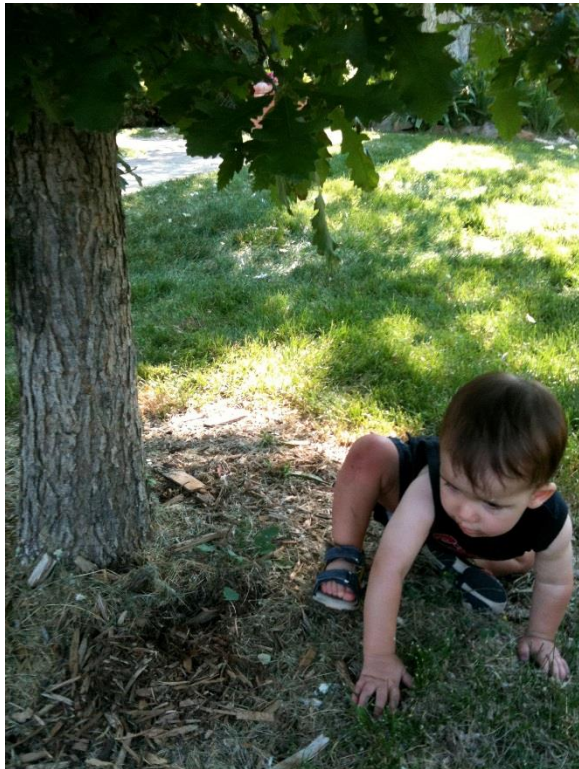




photo by Kees Both

The environment's meaning comes to us as affordances—opportunities for action in the environment.

The best environments offer diverse affordances and a rich flow of sensory experiences.



Affordances are present in the environment whether an organism detects and uses them or not; yet they are both objective and subjective, as their actualization depends on the capabilities of the organism.

photo by Andy Howard



photo by Emily Stanley



photo by Emily Stanley

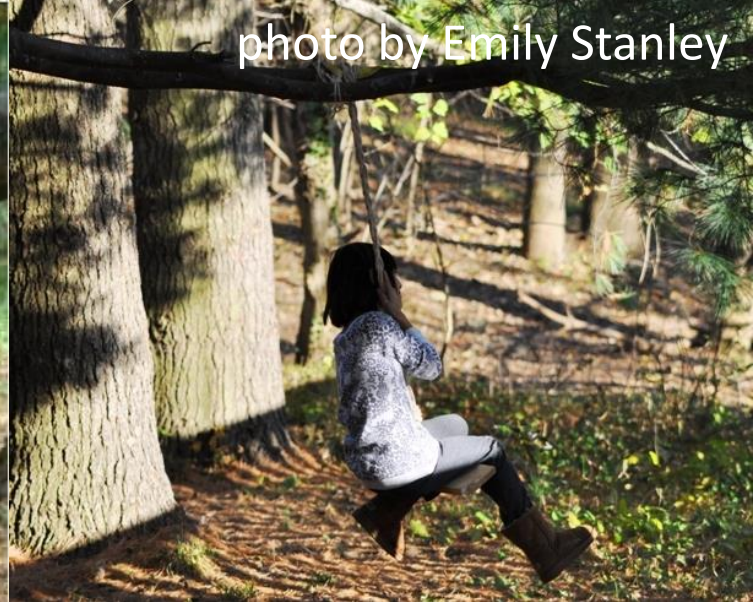


photo by Willem van Vliet



The natural world is full of affordances that children can creatively detect and construct.



nature's
loose
parts

all photos by
Emily Stanley

Because the natural world was not created by human beings to support socially defined functions and roles, children can respond creatively. Therefore the natural world affords many opportunities for mixed-gender and gender neutral play.

In her observations of 1-6 year old children in a Swedish nature preschool, Eva Anggard observed four play themes in the woods.



war and
superheroes
—
for boys only



photo by Eva Anggard

girls
playing
house

family play – as the mother, girls had
roles of power, but boys could join



photo by Eva Anggard

boy and girl jumping “into the bathtub”

physical play – for boys and girls



boy
and
girl
playing
snail
family

animal play – for boys and girls



Nature affords many opportunities for socially creative and cooperative play.

Through all of these experiences, children are developing **connection** and a **sense of agency** in nature.



photo by Angela Meyers

These are **primary experiences**—firsthand information that human beings acquire from their environment by looking, listening, feeling, sniffing and tasting—by direct contact with things, places, events and people.

Primary experiences allow us to explore and engage with the world for ourselves.

Edward Reed

The Necessity of Experience

When parents and other adults provide opportunities for children to encounter nature through free play and exploration, they give children “fields of free action” within “fields of promoted action.”

Edward Reed

Encountering the World



a family nature club
photo by Chiara D'Amore



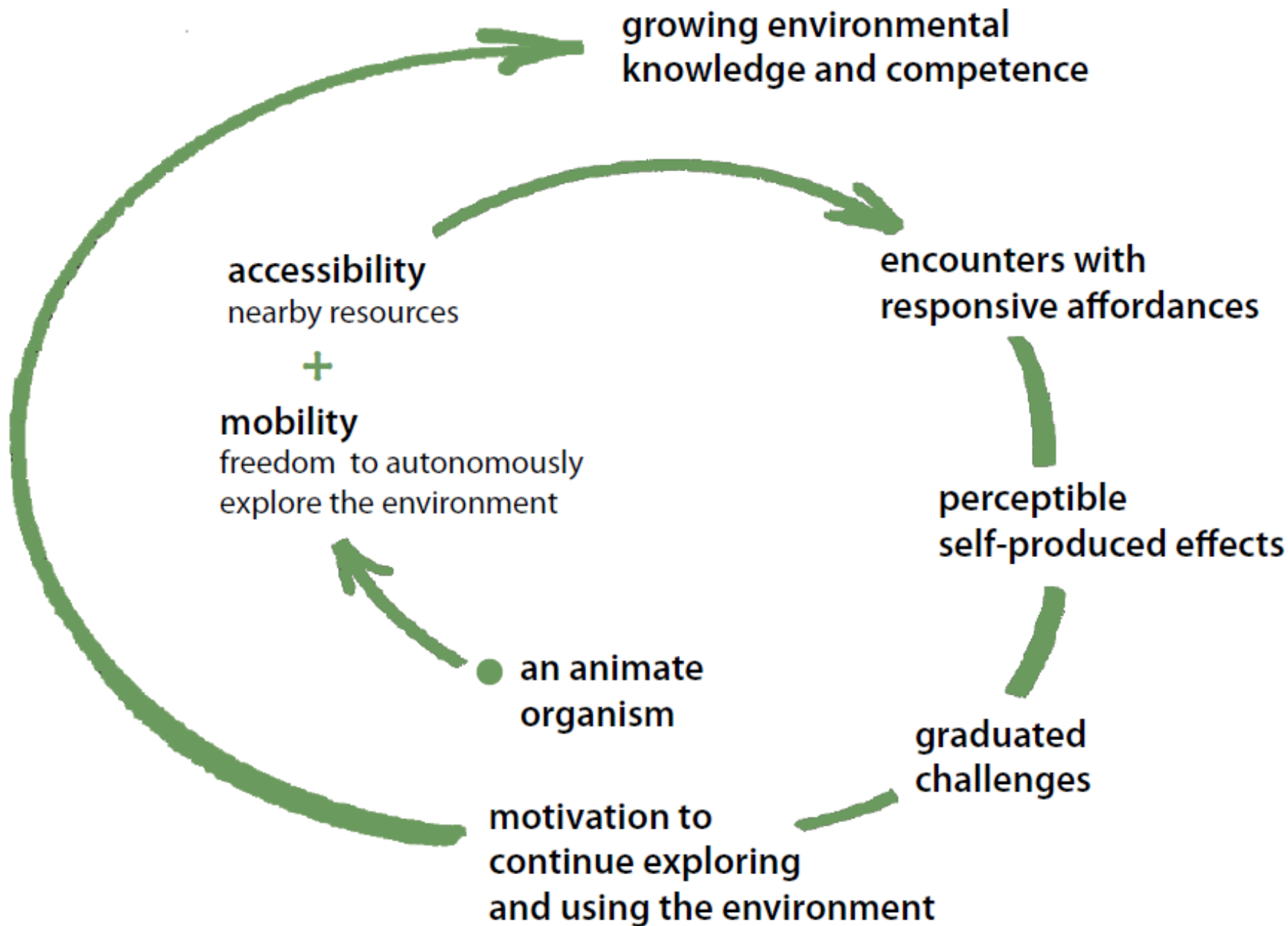
photo by Chiara D'Amore

Through social referencing, children learn how to respond to new and uncertain situations.

Natural areas for free play are examples of the best environmental condition for children in the terms of Marketta Kyttä :



independent mobility in a field of free action that is rich in engaging affordances.



Through active encounters with the natural world, children's bodily health, senses, imagination, thought, emotions, playfulness, control of their bodies, sense of control over the environment, social affiliation and affiliation with nature develop.

phytoncides
boost natural
killer cells &
the immune
system

diverse
microbiota
build a strong
immune
system

antiviral
effects of
geosmin in
forest soil



photo by Emily Stanley

lower
rates of
many
diseases

better
mental
health

greater
sense of
wellbeing
and
happiness

more efficient cognitive
processing

better impulse
control

less brooding

more focused
attention

better memory functioning

increased
activation of insula
and anterior
cingulate—parts of
the brain
associated with
pleasure, empathy,
unconstrained
thinking



photo by Chris Berthelsen

deeper neural connections in the
brain from play in early development

opportunities for social connection and collaboration

more creative & collaborative play

moderate to
vigorous
exercise

reduced stress

less noise

fewer distractions

fractal
patterns



fascination & mystery

awe

How do appreciative attention to elements of nature and skills to care for the natural world develop in childhood?

In the words of Edward Reed, through their physical and social encounters with the world children are “becoming a person.”

Their caretakers must make “proper persons” out of them, who know what to do where, when, how and with whom.

Edward Reed
Encountering the World



Through processes of **joint attention**, a child and its caretakers indicate to each other what is worth noticing and how to respond to it.

photo by Holly Hunter
Children & Nature Network



photos by
Karen Malone

photo by Alanna Medearis
Children & Nature Network



Aldo Leopold Nature Center



photo by Emily Stanley

Look closely -- a field of promoted action

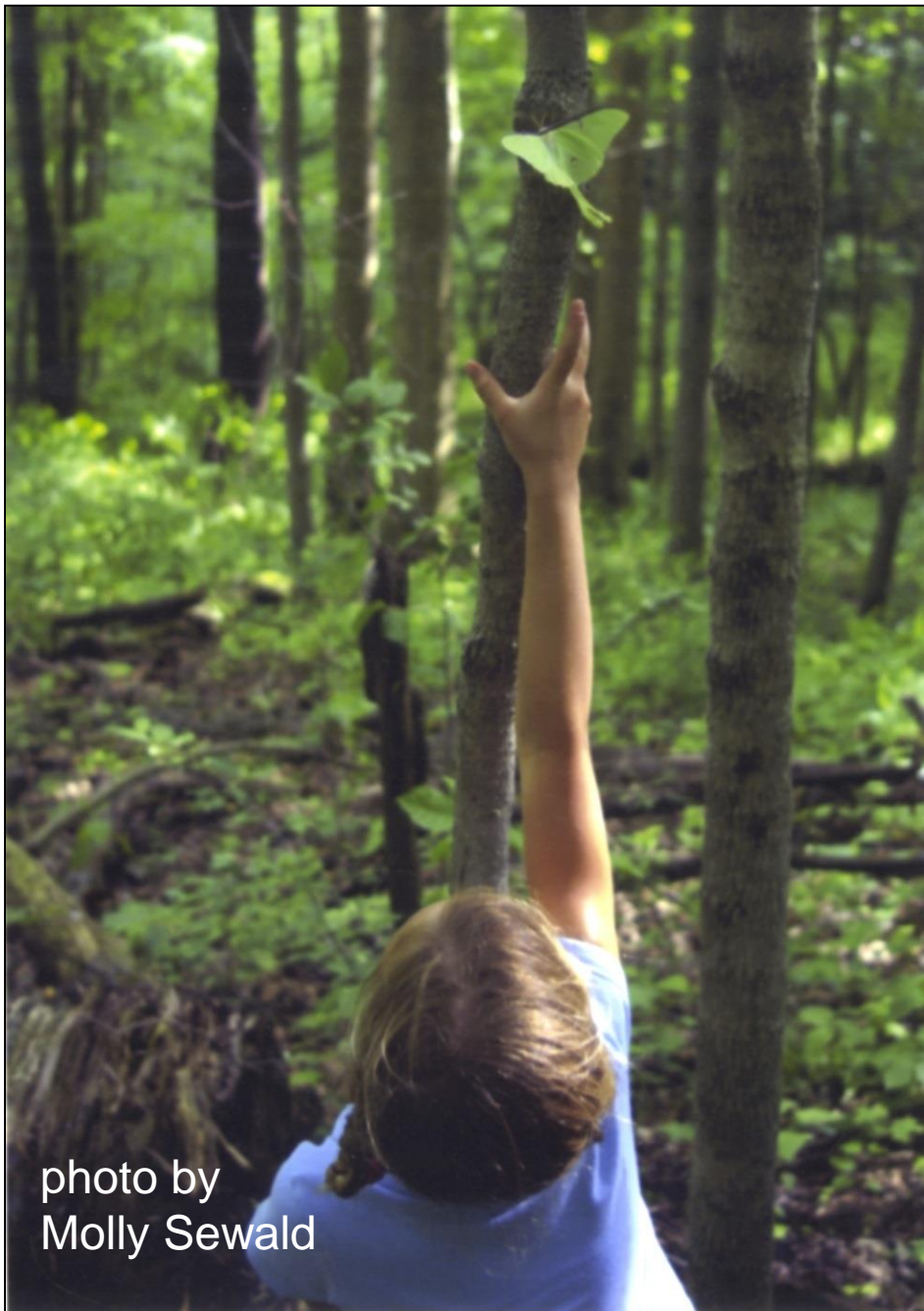


photo by
Molly Sewald

If children are lucky,
they grow up with
people who are willing
to follow the child's
indication of things
worth attention.



During episodes of joint attention, the guide can show respectful, caring treatment for living things.



photo by Christian Both

Through narrative, children can be encouraged to turn innate empathy into understanding sympathy.



children in a Danish forest preschool – photos by Inger Lestrup

photo by Reba Rye



Joint attention and promoted action are part of **apprenticeships** to learn skills to care for the world.

As children learn skills, they can take responsibility to perform caring actions for the environment individually and in groups.

Through mastery experiences, they acquire a sense of self-efficacy and collective efficacy to achieve meaningful goals.



photo by Sylvia Samborski



photo by Bo Hoppins

In **collective action** for the environment, children's **role models** are adults and other young people like themselves.



When children and adults belong to groups that care for the environment, they develop a **social environmental identity**.

photo from Thorne Nature Experience

pivotal experiences in developing environmental justice activism

- ❖ [for some environmental justice activists, developing a connection to nature]
- ❖ growing up in a family with an ethic of social justice
- ❖ learning active care for people in conditions of disadvantage
- ❖ direct experiences of social injustice, environmental injustice
- ❖ engaging in collective action to investigate and address environmental justice issues
 - ❖ developing a social environmental identity

central human capabilities - Martha Nussbaum

life

bodily integrity

bodily
health

**senses,
imagination
& thought**

play



emotions

**social
affiliation**

**practical
reason**

**[affiliation
with other
species]**

**control over
one's
environment**

Parents who foster prosocial development model empathy and sympathy to their own children and encourage their child's natural empathy for others' suffering, as well as caring responses.

photo by
Toronto4Kids





photo by
David Driskell

Young people motivated by a sense of social and environmental justice have often witnessed difficult circumstances firsthand.

photo courtesy
Laura Johnson
& Julie Pynn



Working in solidarity with other youth for environmental justice cultivates a social environmental identity.

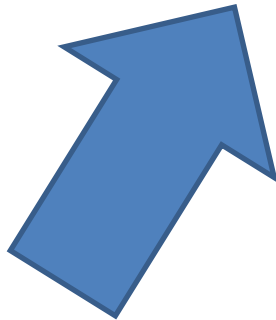
Creating a sustained framework for child and youth participation in environmental problem solving on a city level



photo by Stephen Cardinale



Growing Up Boulder



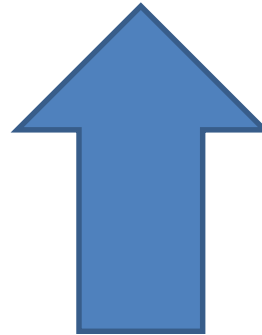
UNESCO

Growing Up in Cities

advocacy planning

participatory action

research



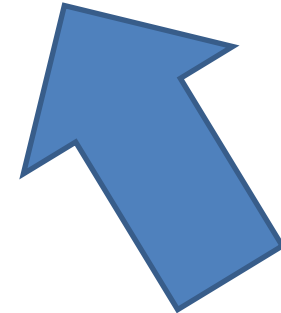
UNICEF

Child Friendly Cities Initiative

children's rights

**Convention on the
Rights of the Child**

Habitat Agenda



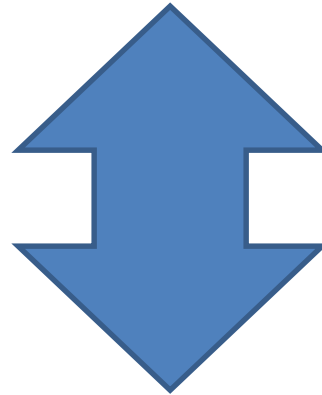
UN HABITAT

City of Boulder

Community Planning & Sustainability * Transportation * Parks & Recreation * Open Space & Mountain Parks * Children, Youth & Family Services * Arts & Culture * Boulder Housing Partners

Boulder Valley School District

University of Colorado



* I Have a Dream * Youth Services Initiative * Boulder Museum of Contemporary Art * Boulder Journey School * and other groups as they share interests

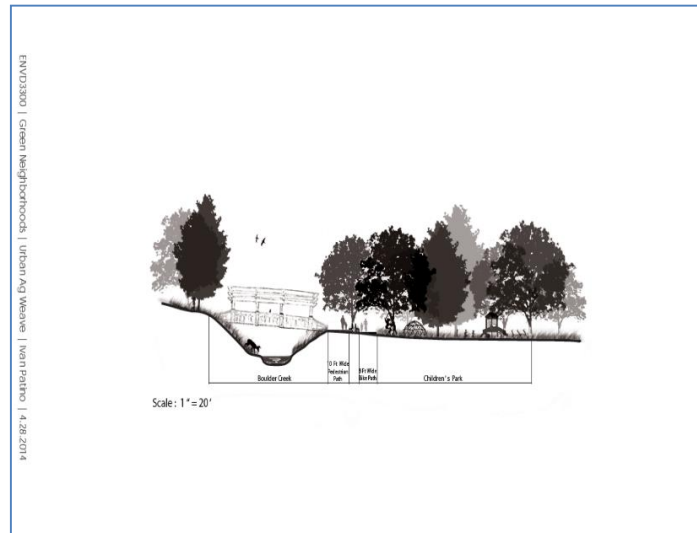


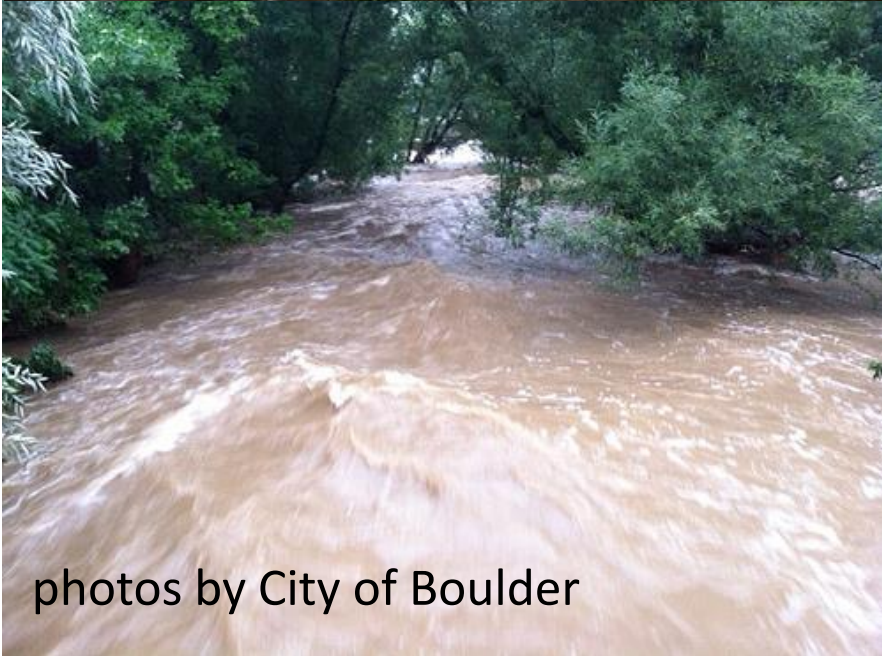
photo by Lynn Lickteig

Great Green Neighborhoods project



a fall participatory design project in a public school passes children's ideas to a spring undergraduate design studio that passes ideas to the Boulder Department of Community Planning and Sustainability





photos by City of Boulder

As the 8-9 year olds began to study the design of green, child-friendly family housing in a flood plain, a 100-year flood hit their city.



photos by
Lynn Lickteig



photo by Stephen Cardinale



photo by Lynn Lickteig










GREEN HABITAT

Informing family friendly sustainable living via high-density neighborhood design.

Ben Plumber. Nathalie Doyle. Chris LeFebvre. Shane Powers.

ENVD 3300 GREEN NEIGHBORHOODS PRAXIS SPRING 2014: MICHAEL TAVEL & DAVID KAHN

-  vehicular pavement
-  bicycle/multi-use
-  pedestrian concrete
-  pedestrian footpath
-  child-supportive spaces
-  semi-private greens
-  proposed development

Growing Up Boulder enables children and youth to move through a variety of behavior settings for civic deliberation: classrooms, public workshops, City Council meetings.

behavior setting: a stable pattern of action among interdependent individuals in a specified location at a scheduled period of time

Roger Barker

Ecological Psychology



photo by Willem van Vliet



photo by Lynn Lickteig

“We need to promote the ability to experience the world. To do this we must recognize that a certain amount of hands-on, direct experience is crucial. Similarly, a certain amount of group engagement, of learning how to work on firsthand problems with others is also crucial.”

Edward Reed

The Necessity of Experience

“Because all human experience, from the simplest stroll to the most complex technical skill, carries limitless possibilities, the most important aspect of our experience, hope, is not a subjective feeling but an objective property of our encounters with the world. In its broadest sense, hope means that a goal *is achievable*.”

Edward Reed

The Necessity of Experience, 153

“Hope . . . is rooted in direct, not secondhand experience.”

“Hope is neither subjective nor private. It is an aspect of public experience and public action.”

Edward Reed
*The Necessity of
Experience*, pp. 153,



Growing Up Boulder
students getting the
bench near their school
bus stop that they
identified as a need.

In her research on how Swedish children and youth cope with climate change—a problem that is greater than an individual can cope with alone—Maria Ojala found the most healthy form of coping when young people found grounds for **constructive hope**: seeing positive trends such as increased social understanding of the problem, and trust in social actors who take the problem seriously.

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