Growing Up
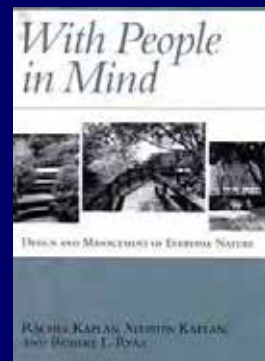### Why Nature is Essential in Residential Areas

Biophilia

The Biophilia Premise

Hypothesis:
humans have
an innate preference
for natural landscapes & respond
positively to both
viewing & being in Nature

Biophilic design:
design of built environment which fosters
people's interactions with Nature

With People in Mind

Design Implications 1

Research into human health & preference shows:

People need spaces
with opportunities for:

• *Control*
• *Privacy*
• *Socializing*
• *Physical exercise*

Design Implications 2

Natural spaces will be restorative if they provide:

• *Fascination*: effortless attention
• *Sense of being away*
• *Extent*: sense of being part
          of larger whole
• *Compatibility*

Parks & public spaces can do this!

Ethical Implications

Children & *Nature*

What is it?

"What is it, then, about nature that so attracts, stimulates, and retains the child's attention to the degree that it appears to exert a significant effect on childhood maturation and development?"
Kellert 2002

Childhood Remembered

Memories of favoured childhood places are most often

Parks

Hiding spots

"Leftover spaces"

Wild & untamed

What Children Remember

One study of adult memories:
95% remembered outdoor experiences of childhood more vividly & fondly than other experiences

Clare Cooper Marcus (1978) survey of university students' memories of favourite childhood places:
86% of environments recalled were outdoors

Nature Essential for "Growing Up" 1

Direct & indirect experience of Nature: critical component in human physical, emotional, intellectual & even moral development

For adults:
contact with **Nature** has restorative & healing benefits

Nature Essential for "Growing Up" 2

For children & adolescents:

Nature provides an opportunity to develop, learn & grow up

How Children Begin…

- children begin with **personal, local & emotional responses** to Nature

- over time: replaced with **social, global, & logical reflections** as children near adulthood

- **Linking specific instances of learning to contact with Nature**: strong argument for impact on human development

How do children learn to value sustainability?

The environment is a communicating medium.

It communicates what we value.

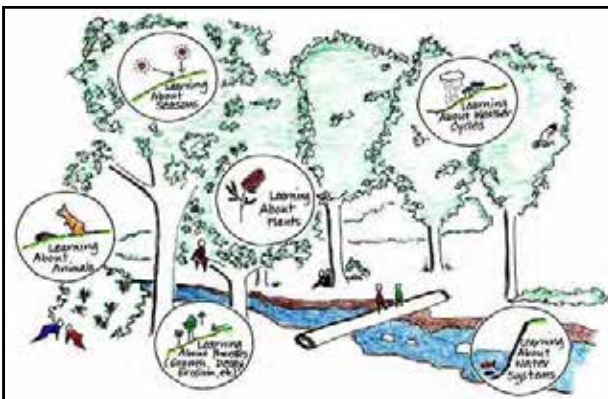## Ecological Learning

Diversity of city or urban environments:
- learning ground for children's ecological values

Creating sustainable environments communicates that sustainability:
- educates children (and adults) to value sustainability

Valuing sustainability & intergenerational equity:
- communicates that we value children & their futures

Ecological Learning

Children & Development 1

Direct, spontaneous & **everyday** interactions with Nature:

give children opportunities for physical, emotional, intellectual & moral development

Urban Nature: community gardens, children's farms & community nurseries

Children & Development 2

Children can…

1. Learn to count, classify & organize
2. Recognize cause & effect
3. Take risks & experience consequences
4. Be alone
5. Observe & learn to socialize
6. **PLAY**

Play

we see
the king of the skies

The king of the skies

Even Microsoft understands …

DESIGNING FOR PLAY

Play: significant shaper of adult intelligence, values & self-sufficiency.

"The work of childhood"

80 percent of a child's learning occurs before age 8.

Why is play important?

Play is children's way to..

- discover their social & natural environments
- be introduced to a world beyond their families
- learn to function on their own
- build feelings of self-confidence & self-esteem

Wendy Sarkissian 2009

What Children Need

Children Prefer

refuges

access to adults

wild spots

privacy

malleable materials

challenges

sensory diversity

safety

water

adaptable environments

Designing for Children's Play 1

Outdoors

most significant setting
for children's unstructured play
& everyday activities

Designing for Children's Play 2

Creativity &
extent of play
influenced by:

- Equipment
- Materials
- Design of landscape
- Amount of vegetation, particularly TREES

Play Needs
For children in middle years (6-12)

- **Convenient access within walking distance at neighbourhood scale**
- **Variety of diverse play spaces**:
  - formal & informal
  - for all types of play
- **Safety**
  - from cars
  - unwelcome older children or adults
  - extreme injury
- **"Wild" & natural spaces to explore**
- **Stimulating & manipulative components**:
  - sand play
  - raised garden beds
  - interactive sculptures
  - fountains

What Children Need in Parks 1

1. **Accessibility**: outside & within park
2. Safe & graduated **challenges**
3. **Diversity of settings** & spatial experiences: retreats & opportunities to play above ground
4. **Flexibility & open-endedness**: elements can be moved & manipulated by both children & adults
5. **Defensible**, visible space for safety

---

What Children Need in Parks 2

6. **Supervision**: greater range of activities
7. **Permanence**: a familiar, identifiable space
8. Elements **change over time**: seasons & events
9. Design for **year-round use**
10. Multisensory **stimulation** & clues
11. **Shelter**

What Children Need in Parks 3

12. **Spaces for social interaction among groups**:
    - **many sizes**
    - **different ages**
13. **Defined play areas** for children of different ages
14. Spaces for **interacting with plants & animals**
15. **Orienting devices**: visible completion points & landmarks

all ages can play…

All Ages can Play

all ages can play…
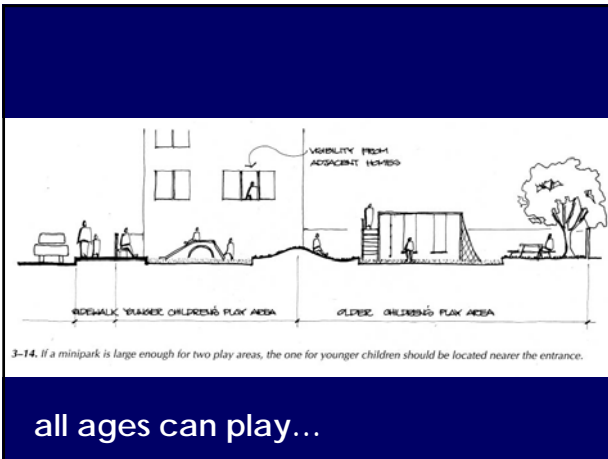
PLAY DIVERSITY
AND NATURAL PLAY

Diversity of Play Opportunities

- Variety of play environments
- Different & appropriate locations
- Variety of spaces, surfaces, levels & plant materials
- No one location sufficient
- Provide for all types of play

Multiple Levels of Activities

Who chose these play sculptures?

Hard & soft play surfaces

Mix of surface treatments

- Open grassed areas
- Variety of hard-surfaced areas:
  - wide pathways
  - small areas off main circulation route

Make sure you don't forget the basics!

NATURAL PLAY

- helps children build, develop & learn through doing
- Wooded areas, creeks & watercourses for exploratory & fantasy play

TREES

"Trees become entire environments for children."

Clare Cooper Marcus, 2001

URBAN BUSHLAND

- ❖ 'wild' areas contain few overt messages about what children 'should' do
- ❖ valuable educational resource
- ❖ protect & encourage animals & birds

Water Play

Remember…

We **get about** in public…

We **create** in public…

We **socialise** in public…

And we **socialise** in public…

We **people** the public realm…

Risky business

Brendan Gleeson

The **bubble-wrap generation**

On their screens, they can vanquish invading hordes, but in the real world, today's kids can't even walk to school without Mum. Have we taken the idea of protecting our children too far? **Jane Cadzow** reports.

WHY CAN'T BOYS AND GIRLS GO OUT TO PLAY?

Children's shoes have far to go

Start-rite

Far to go?

1. As proposed by the project sponsor
2. As specified in the project request
3. As designed by the senior analyst
4. As produced by the programmers
5. As installed at the user's site
6. What the user wanted