

David Sobel's Children and Nature "Play Motifs" (Design Principles) — A Summary

Instead of looking at the relationship between children and nature from an adult point of view, i.e. starting from a problem or concept in the adult world and imposing it on children, Sobel is more interested in cultivating relationships of children with nature in their own backyards. By observing children interacting with nature he has identified seven "play motifs." These motifs are common among all children regardless of socioeconomic status, ethnicity, or ecosystem when they have safe free time in nature.

Spend time at a safe, woodsy playground and you'll find children (1) making forts and special places; (2) playing hunting and gathering games; (3) shaping small worlds; (4) developing friendships with animals; (5) constructing adventures; (6) descending into fantasies; (7) and following paths and figuring out shortcuts. [p.20]

Sobel speculates that it is during these kinds of play that transcendental experiences occur. Using the motifs, "educators can structure learning experiences that provide powerful vehicles for curricular knowledge and court the possibility of transcendental experiences."

The design principles are not developmental. The developmental stages of empathy in early childhood, exploration in middle childhood, and personal definition and social responsibility in adolescence provide the warp of the fabric while the design principles are the weft—they run through all the developmental stages.

Principle 1: Adventure

Environmental education needs to be kinesthetic, in the body. Children would stalk, balance, jump, and scamper through the natural world. Activities with a physical challenge component speak directly to children via the mind/body link.

- "Walks" are for adults; "adventures" are for children. "Adventures" imply that you don't know what's going to happen when you start out.

Like any true adventure, what started out as a simple idea grew more and more complex as we trudged along. We ended up doing things I had not anticipated, and going where I had not planned to go. There was valuable learning for both children and adults in dealing with the unexpected. [Vermont teacher]

Principle 2: Fantasy and Imagination

Young children live in their imaginations. Stories, plays, puppet shows, and dreams are preferred media for early childhood. We need to structure programs like dramatic play; we need to create simulations in which students can live the challenges rather than just study them.

- "Our role as storytellers and world creators precedes our roles as imparters of knowledge and cultural heritage." [p.25]
- According to an English study (1991), *paracosms* are "elaborate fantasy creations—imaginary worlds created by individuals or small groups of children. They tend to emerge around age seven or eight, flourish up through age thirteen or fourteen, and then gradually subside."

- They have four key characteristics:
 - Children must be able to distinguish between what they have imagined and what is real.
 - Interest in the fantasy world must last for months or years.
 - Children had to be proud of the world and consistent about it.
 - Children had to feel that the world mattered to them

These are not illusory afternoon imaginings, but places in their minds that children return to over and over.”

- “I have found that truly inspired teachers...create paracosmic worlds in their classrooms through the use of historical simulations, play production, class creation of an evolving story, or involvement in addressing real life community issues.” [27]

Principle 3: Animal Allies

Brenda Petersen said, “In our environmental wars, the emphasis has been on saving species, not becoming them” (1993). If we aspire to developmentally appropriate science education, the first task is to become animals, to understand them from the inside out, before asking children to study them or save them.

“Animals play a significant role in the evolution of children’s care about the natural world and in the own emotional development. Joseph Chilton Pearce, author of *The Crack in the Cosmic Egg* and *Magical Child*, even contends that a majority of children’s dreams are populated with animal characters.” [p.29]

- Children feel an inherent empathy with wild and domestic animals. Their first impulse with some animals is to pick them up, hold them close, take care of them, and become them. Other animals inspire fear.
- Children often identify themselves as a specific animal—“What’s your favorite animal?”
- These strong feelings towards animals in the early and middle childhood are indicative of our evolutionary heritage. Early relationships with flora and fauna are an integral part of feeling bonded to the matrix of the earth.
- Projecting feelings and human characteristics onto animals facilitates relationships. It makes animals and people part of one larger family, with kinship relationships and rules for sharing and caretaking that weave the clans together. Rather than consider [anthropomorphizing] as immature or undeveloped, we can consider it advantageous as an opportunity to create empathy, a feeling for other creatures that can develop into a willingness to care for other creatures. [p. 31]

The period from second to fifth grade was most significantly characterized by a major increase in emotional concern and affection for animals. The years between fifth and eighth grades witnessed a dramatic improvement in factual knowledge and cognitive understanding of animals. Finally, the change from eighth to eleventh grade was marked most of all by a major expansion in ethical and ecological concern for animals and the natural environment...The results suggest educational efforts among children six to ten years of age might best focus on the affective realm, mainly emphasizing emotional concern and sympathy for animals. (Kellert quoted in Chawla, 1988)

Principle 4: Maps and Paths

Finding shortcuts, figuring out what’s around the next bend, following a map to a secret event.

Children have an inborn desire to explore local geographies. Developing a local sense of place leads organically to a bioregional sense of place and hopefully to biospheric consciousness.

Principle 5: Special Places

Almost everyone remembers a fort, den, tree house, or hidden corner in the back of the closet.

Especially between ages eight and eleven, children like to find and create places where they can hide away and retreat into their own found or constructed spaces.

- “In any environment, both the degree of inventiveness and creativity, and the possibility of discovery, are directly proportional to the number and kind of variables in it.”[Nicholson, 1971] In other words, children like play settings where there are lots of things to do and lots of “Loose parts” to use to create new structures or be transformed into horses, swords, kitchenware, or furniture.

In *Children’s Special Places*, I described what appears to be a universal tendency for children to create or find their own private places, especially between the ages of seven and twelve. I believe the creation of these places serves many developmental purposes for children. The fort is a home away from home in nature; it provides a bridge between the safe, protected world of the family and the independent self in the wider world of adolescence. The places also serve as vehicles of bonding with the natural world, allowing children to feel comfortable in the landscape, connected to it, and eventually committed to acting as stewards of it.

- What are the just-right elements for schoolyard forts?
 - Twenty or more children, aged seven to twelve
 - A wooded area adjacent to the school building or playground that is accessible to the children (if the woods are off limits, nothing happens)
 - Enough “loose parts” to be used in construction (branches, fallen trees, old brush piles, or scrap wood)
 - An open-minded faculty and administration who understand the value of children’s exploratory play in the woods.

“The special places impulse in a school setting invites children to relive the history of the species. They create primitive shelters, form tribes, battle over resources, learn to barter, create legal systems, invent currency, learn to monitor the own behavior, recognize the impact of the built environment on the natural environment, learn to restore changed ecosystems.” [p.45]

Principle 6: Small Worlds

From sand boxes to doll houses to model train sets, children love to create miniature worlds that they can play inside of. Through creating miniature representations of ecosystems, or neighborhoods, we help children conceptually grasp the big picture. The creation of small worlds provides a concrete vehicle for understanding abstract ideas.

“Small worlds work wonders for children. They provide the same kind of emotional security that islands provide for vacationers. The world is simplified and knowable. They provide cognitive accessibility because all the disparate elements of a place are brought into one view. It’s like the one-page organizational chart for the organization, the site map for the website, the logic model that describes the underlying assumptions for a project. You look at the chart and think, “Oh, I see how it all fits together.”

Principle 7: Hunting and Gathering

From a genetic perspective, we are still hunting and gathering organisms. Gathering and collecting anything compels us; searching for hidden treasure or the Holy Grail is a recurrent mythic form. Look at the success of Where's Waldo. How do we design learning opportunities like treasure hunts?

"We were so lost today! Keith took us way far away and dropped us off and we had to find our way back to camp. In the beginning I was really scared and we were all arguing. But eventually, we sat down with the map and compass and remembered what we were supposed to do, and we figured it out. We came out of the woods on the road only about a hundred yards from the camp!

Today we ate grasshoppers. We collected them in the field and then brought them back and fried them in some oil over the fire. I was grossed out and swore I wouldn't eat any. But Keith popped a couple in his mouth and Ryan tried one and said they were OK so I tried one, and, you know what? They were good, kind of like popcorn."
[New Hampshire middle-school student]

- "Isn't this what we want, this sense of friendship between the natural world and our children? It's so easy to take all the risk and solitude out of our children's lives—don't play with matches, don't go out there alone. No you can't use your pocketknife unless you're with an adult. Instead, we need to follow their hunting and gathering predispositions and use them as the basis for skill development.
- For me, hunting for treasure is one of the core metaphors for what education is all about. One of the objectives of schooling should be to engage students in searching for the meaning of life—the quest for the Holy Grail. When students get really enraptured in a topic and start to search for pieces of information, see the connections between different ideas, and then glimpse the big pattern, they're really engaged in a kind of treasure hunt." [p. 55]

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