

## American Playgrounds and Schoolyards – A Time for Change

Lauri Macmillan Johnson

School of Landscape Architecture, College of Architecture and Landscape Architecture  
The University of Arizona

### Abstract

Research has indicated that children learn through play by manipulating the environment. However, activities such as building mud dams, constructing twig houses or climbing trees are not typically facilitated in American playgrounds. Often static manicured landscapes and playgrounds discourage manipulation of the environment and design reform seems warranted. Issues that need to be addressed include concerns for safety, play leadership and supervision, and general perceptions about play and the role of playgrounds. This paper presents a brief overview of the evolution of playground design research and introduces a technique that may help change adult (parents, and park/school administrators) perceptions about playground design.

**Keywords:** Children's environments; play; playgrounds; schoolyards; play as manipulation of the environment; nature and memory of play

### 1. Introduction

Children learn about themselves, others and the world they live in through play. Outdoor environments for play and learning can provide rich experiences for children who seek fantasy and adventure and are innately curious about nature. Children's environments, particularly school and neighbourhood playgrounds, parks and gardens, have the potential to facilitate learning through social, emotional, cognitive and creative opportunities. Unfortunately, in America, the play and learning potential for many outdoor play spaces is underdeveloped.

### 2. A Brief Overview of Playground Design in America<sup>1</sup>

The playground movement in America began in Boston in the late 19th century with the development of play equipment as early as 1891 (Eriksen, 1985). Athletic programmes within schools were established to promote physical fitness and demonstrate Puritan values of 'hard work and self-reliance' to immigrant children (Pregill and Volkman, 1999: 569). As World War I approached, organized baseball, football and gymnastics were employed to prepare youth for possible military engagements. This interest in organized sports gained momentum in 1961 under John F. Kennedy's administration through the establishment of the National Council on Youth Fitness. Playground equipment from this period included swings, monkey bars, flying rings, slides and other climbing apparatus designed to improve large motor skill development. Comprising a collection of isolated metal structures set upon a flat paved surface, however, play yards from this period evoke images of prison yards. These environments reflected the stark industrial image typical of modern machine-age design.

As a reaction to these stark playgrounds, a second playground movement occurred in the 1960s and 1970s. Partially informed by John Dewey's (1938) theories in education centred on childhood interactive learning, and environmental manipulation innovations in playground design arose. Layouts included wooden climbing structures, cobblestone-covered earthen mounds, moving cable bridges and softer ground surfaces such as gravel and sand. Richard Dattner (1969:137) wrote: "Play is the way that children learn about themselves and the world

they live in. In the process of mastering familiar situations and learning to cope with new ones, their intelligence and personality grow, as well as their bodies. The environment for play must be rich in experience, and it must be, to a significant extent, under the control of the child.” It was suggested that the places that children create for themselves have the power to evoke high levels of satisfaction and learning. Adventure playgrounds (Hurtwood, 1974) were cited as a prototype for satisfying children’s natural desire to learn through ‘arousal seeking’ behaviour-play (Ellis, 1973). Developed in Denmark in 1943, vacant lots were made into play areas by the children themselves under the safe supervision of an adult ‘play leader’ who co-ordinated the construction and regulated safety.

As this research progressed, natural features such as earth, water and trees were credited as important play stimuli that held long-term satisfaction (Hart, 1979; Moore and Wong, 1997; Nabhan and Trimble, 1994). Although the research clearly indicated benefits, American communities were not able to fully embrace accurately the precepts of adventure playgrounds. Yet today the word ‘adventure’ often appears in descriptions of playgrounds and schoolyards but the spirit of childhood adventure is often missing as the manicured landscapes, tidy jogging trails, and brightly-coloured, glossy-enamelled catalogue-selected play structures send the message to children ‘look but do not touch’ (see Figure 1). Trees are not climbable, children are not allowed to make forts, build tunnels, play with mud or find secret hiding places in most public parks or schoolyards. As urban children are increasingly removed from these activities in their home environments, public design for children must accommodate these primordial needs – allow children to create artefacts, even messy ones, and allow direct contact with nature.



*Figure 1. American playgrounds, such as this one in Denver, Colorado, frequently consist of climbing structures selected from playground equipment manufacturing companies. Play environments are often static and unused*

As playgrounds and schoolyards in America adhere to safety guidelines in an attempt to prevent injuries and reduce lawsuits, places for children have developed with the lack of complexity needed to challenge them and sustain their interest. Children often seek adventure in these ‘sanitized’ places by climbing across the tops of swing sets, crashing their bikes into climbing structures or vandalizing furnishings. By designing these environments to be ‘safe’ complex play interactions are discouraged and some children find deviant ways to satisfy their need for adventure. They use equipment in unsafe ways and seek alternative play spaces such

as drainage culverts, trash dumpsters (see Figure 2) or construction sites where they can manipulate scrap wood, tree branches, rocks, used tires, discarded mattresses and other found materials.



*Figure 2. Although there is a playground nearby, this child, from an urban neighbourhood in Baltimore, Maryland, chooses to play in a trash dumpster*

### **3. Nature and Play**

Nature has been cited as a valuable component in children's play and learning environments (Francis 1995; Moore and Wong, 1997; Hart, 1997; Wilson, 1997; Sebba, 1991; Cooper-Marcus 2001). Roger Hart, who has spent many years observing children at play, explained in an article in *Natural History* (1973: 69), "the natural environment offers a wealth of play potential for young children, with trees and small patches of water the most valued elements. One tree can engage a child for days at a time or, periodically, over a span of years. Manufacturers of playground equipment have found it impossible to recreate such richness". An early example of a nature-centred playground was the Washington Environmental Yard (Moore and Wong, 1997), an elementary school playground in Berkeley, California. The design, by Moore and Wong, transformed an asphalt playground into an ecological garden for play and learning. Roger Hart recorded another school situation in which children spontaneously built "dams, bridges, tunnels, islands, and waterfalls...[within] elaborate stream systems". These pioneering school examples use natural elements – trees, hills, water, and dirt – in design concepts that encourage children to manipulate the environment. Unfortunately, places such as these are the exception and not the standard.

Children place high value on natural places for play and personal investigation, as was revealed by Lisa Schicker (1987) who observed children playing. Within her sample, 50 per cent of all activity included direct contact and experimentation with natural materials, including animals and insects. She suggested that their least favourite play spots were, in fact, traditional playgrounds. Children seem drawn to unkempt landscapes, ones that include piles of dirt or sand, discarded materials and overgrown plants. In a study by the author (Johnson, 1988), children living in a housing development in Loveland, Colorado, were asked to show the design/research team their favourite play places (see Figure 3). Results indicated that natural drainage ways and construction sites with piles of dirt and discarded materials were favourite sites. These non-designed places seem to attract children, as they are freer to manipulate the environment in ways that parks and playgrounds often prohibit.



*Figure 3. Children in a housing project in Loveland, Colorado, were asked to show the design/research team their favourite play places: these included natural drainage ways and piles of dirt that were manipulated with twigs, pieces of lumber, and other construction materials*

#### **4. Adult Memories of Valued Play Places**

In a pilot study by the author, 118 students from a University of Arizona general education class were asked to explore childhood memories of play places and experiences. The questions asked were: 1) Where did you play as a child? and 2) What were your most memorable play activities or experiences? Participants wrote a short story about their childhood play places and play experiences and included text with hand drawings (see Figure 4) and photographs (see Figure 5) from family photo albums of the actual places where they played.



*Figure 4. A drawing from a study about memories of favourite childhood play places. Results indicated that participants had a predominant preference for natural places as their favourite play areas.*



*Figure 5. Photographs of an actual favourite childhood play place used in study about adult memory of play. Seventy-five per cent of the places presented were not playgrounds – most of these were natural areas.*

#### *4.1 Results*

Results were categorized into: 1) play settings; 2) play activities; 3) play objects; and 4) feelings associated with the play experience. Play settings were divided into two sub-categories: a) constructed public parks and playgrounds; and b) non-constructed public parks and playgrounds such as trails, riparian areas, private yards, tall grass meadows, parking lots, culverts and streets. Results indicated that approximately 25 per cent of the responses mentioned constructed public parks and playgrounds as their places for play whereas approximately 75 per cent of the responses reported the use of non-constructed spaces. Regardless of the setting, play activities largely included interaction with natural materials such as digging in earth or sand, gathering sticks, grass or other materials for construction, and exploring a variety of insects and small animals. Predominant play objects included dirt, sand, mud, grass, rocks and plant parts such as branches, twigs and pinecones, with less mention of manufactured objects such as toys. Imaginative play was also commonly mentioned and included descriptions with words such as “dangerous”, “adventurous”, “magical”, “mysterious,” “private”, “no adults”, and “forbidden”.

In a partial replication of the study, with over 100 elementary school educators and administrators from Fort Worth, Texas, the question asked was: Where did you play as a child? Results displayed a wide range of play places including an underground fort, a swamp, and the church bell tower and adjoining passageways but not one designed playground. Although these participants work with children on a daily basis and understand child development theories, several individuals made private comments after the exercise indicating that their attitudes about school playground design had been altered. They seemed moved by

the exercise through realization that their school campus had untapped potential for creative play.

## 5. Conclusion

American playgrounds are in need of design reform. Some of the considerations for success might include community involvement, adult supervision (hired play-leaders/teachers) and provision for ongoing physical change, particularly environmental modifications by children. Attitudes regarding how playgrounds and schoolyards are supposed to look (pristine and well manicured) versus how they might look if children were more actively manipulating the environment will play a role in reform as well as issues regarding liability concerns. The technique of asking adults to recall favourite childhood play places could be used as a component in design process and development. This technique could be adapted to public meetings with parents and municipal administrators as a means toward playground reform. It seems when adults are asked to remember where they played as children they more clearly identify with what children need. It seems that adults begin to realize that most playgrounds are static and not really places where children can engage in manipulation of the environment – an important component of play.

## Key Concluding Points

- Many American playgrounds are not being used in complex play activities that involve environmental manipulation.
- Observing children and asking children about their favourite play places indicates that they play in locations other than playgrounds, such as drainage ways, construction sites and empty lots.
- Asking adults to remember their favourite childhood play places and experiences reveals a diverse variety of places that predominately do not include playgrounds – play experiences are predominantly centred on manipulating the environment.
- The technique of asking adults to remember and record favourite childhood play places may prove useful in playground design reform as it makes adults aware that playgrounds are static and may not facilitate meaningful play experiences.

## References

- Dewey, J. (1938) *Experience and Education*. (1970 printing) New York: Collier-Macmillan Company.
- Cooper-Marcus, C. (2001) 'For children only', in *Landscape Architecture*, **91**(12), 66-71, 85.
- Dattner, R. (1969) *Design for Play*. New York: Van Nostrand Reinhold Company.
- Ellis, M. (1973) *Why People Play*. London: Prentice-Hall International, Inc.
- Eriksen, A. (1985) *Playground Design: Outdoor Environments for Learning and Development*. New York: Van Nostrand Reinhold Company.
- Francis, M. (1995) 'Childhood's garden: Memory and meaning of gardens', in *Children's Environments Quarterly*, **12**, 183-191.
- Hart, R. (1979) *Children's Experience of Place*. New York: Irvington Publishers.
- Hart, R. (1993) 'Adventures in a wooded wonderland', in *Natural History*, **82**(9), 67-69.
- Hurtwood, Lady Allen of. (1974) *Planning for Play*. Cambridge: The MIT Press.

Johnson, L.M. (1988) 'The Brook Knolls Cooperative Community: A case study for resident design of public open space', in *Landscape and Urban Planning*, **17**, 283-295.

Moore, R.C. and Wong, H.H. (1997) *Natural Learning: The Life History of an Environmental Schoolyard*. Berkeley, California: MIG Communications.

Nabhan, G. and Trimble, S. (1994) *The Geography of Childhood: Why Children Need Wild Places*. Boston: Beacon Press.

Schicker, L. (1987) Design criteria for children and wildlife in residential developments, in *Integrating Man and Nature in the Metropolitan Environment: Proceeding of a National Symposium on Urban Wildlife*. Columbia, MD: National Institute for Urban Wildlife, pp.99-105.

Pregill, P. and Volkman, N. (1999) *Landscapes in History, Design and Planning in the Eastern and Western Traditions*. Second Edition. New York: John Wiley and Sons, Inc.

Sebba, R. (1991) 'The landscapes of childhood: The reflection of children's environment in adult memories and in children's attitudes', in *Environment and Behavior*, **23**, 395.

Wilson, R.A. (1997) 'The wonders of nature: Honoring children's way of knowing', in *Early Childhood News*, **9**(2), 6-9, 16-19.

---

<sup>1</sup> Some of the text in this overview will appear in revision in a forthcoming book publication on schoolyard habitat design now under contract with the author and the University of Texas Press.