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ABSTRACT

Research on playground design in Japan and England offers challenges to the logic behind how playgrounds in the United States are designed. This paper presents observations of outdoor environments for children and youth in Japan and England where the space is not only useful and safe but also contributes to learning and play that reflects the regional and cultural elements of the surrounding community. It describes the educational, aesthetic, and environmental values embodied in these playgrounds and discusses the implications for school-ground design in the United States. Observations from both countries reveal a close connection between the inside and outside areas in playground design, but also show a very different attitude towards child privacy and socialization needs. (Contains 12 references). (GR)

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## DESIGNING LANDSCAPES FOR LEARNING: TRANSFORMING SCHOOL GROUNDS INTO 'SPECIAL PLACES'

Dr. Sharon Stine, ASLA

### Abstract

Based on the principal author's research in Japan (1985-95) and recent work in England (1995-97) this paper presents studies of outdoor environments for children and youth where the space is more than just useful or safe, but part of the fabric of learning and play, and a rich reflection of regional and cultural elements. Educational, aesthetic and environmental values are described and implications are discussed in reference to the design of school grounds in the United States.

### Introduction

*As the world becomes a more dangerous place and children's freedom to roam decreases, so the school grounds, as a safe open space, become ever more important—special place for generations of special people.*

—Titman 1994, p.i.

School grounds are probably the first public environment in which a child spends significant amounts of time. The outside environments are usually poorly designed expanses of hard surfaced material enclosed by perimeter fencing. Unfortunately given increasingly dangerous urban environments, children play less freely in neighborhoods. For vast numbers of our youth, formal school grounds are the only outdoors they experience (Nabhan and Trimble 1994). If we neglect the outdoor environments of our nation's schools, then we shouldn't be surprised if in this next millennium people show little regard for their natural world and its many environmental problems.

The authors' work in England and Japan has implications to the future design of outdoor educational environments for children and youth in this country. Studies of school grounds connected to the current Learning through Landscapes Trust (LtL)<sup>1</sup> in the United Kingdom and research of preschool settings in Japan (Stine 1997) provides new ways to challenge our thinking about the design and use of outside educational settings.

The process of transforming school grounds in England has been encouraged through the activities of LtL and guided by its' research (Adams 1990; Titman 1994) which describes children's perception of their outdoor play area as physical symbols of the ways their needs are understood and valued by adults. With this understanding we need to rethink the possibilities of our neglected school sites here. Descriptions of school grounds in England invite designers to look with us at these new possibilities.

While working in Japan the authors experienced a powerful cultural contrast to the predictable early childhood settings in the United States. Watching children play in a variety of Japanese preschools caused us to reexamine our assumptions about the design of outdoor environments. Trying to understand the many cultural issues involved helped us to question why we design and use outdoor spaces the way we do. Descriptions of this work in Japan invites designers to join us as we think again.

### Japanese Preschool Settings.

*Designers need to think about cultural differences and must not be afraid to get involved with them. We can utilize, in our design solu-*

*tions, situations that cause us to pause and question our particular world view.*

—Nakaba (in Stine) 1997 p. 138.

Outside school environments in Japan are predictably alike. There is a sameness in design whether in the humid rural countryside, the remote mountains, or the busy urban areas. School yards have a few small trees, very limited but similar fixed metal climbing equipment, open expanses of dirt and sand, an absence of cement, asphalt, fencing and grass but accessible water areas. Most schools, no matter what age group they serve, contain outside swimming pools and vegetable and flower gardens. Dimensions of school environments for young children seem to include an emphasis on nature, opportunities for physical challenge, clarity through consistent markers and an arrangement of spatial openness (Stine 1997).

**Nature.** School yards are dominated by dirt and sand surfaces. Water is accessible and easy to use even to the youngest child in centrally located sinks making it possible to create mud or moisten the sand (fig. 1). These mud/sand/water activities happen no matter what time of year (fig. 2). Vegetable gardens and small animals are part of the children's experience with their natural world at school. Even in dense urban areas brightly blooming flowers spill over containers edging steps or entrances. Children are expected to understand their place within the cycles of nature and to appreciate its beauty, mystery and changes over time; the harvesting and baking of sweet potatoes, the first blooming iris, the delicate fall shades of a leaf, or ice forming on a playground puddle.

**Physical Testing.** Children are encouraged to control their bodies. Physical testing is not a demonstration of individual skill but group learning through perseverance. Activities on school grounds during the National Sports Day<sup>7</sup> are celebrations of the children's physical learning that is based on being part of a group effort, rather than individual competition (fig. 3). The large open dirt areas at schools seem to make sense. As children in Japan learn to control their bodies, taking physical risks challenges American thinking about safety issues. Children in the United States are seen by Japanese teachers as extremely physically protected (Tobin, Wu and Davidson 1989). Permitting roughhousing, risk taking, and physical conflict happens at school, because it is believed that children are not acquiring the necessary socializing ability in the home setting today, as they did in the past (Obana 1989).

**Consistent Markers.** Surface changes mark

areas and help people understand expected behavior. Sand and dirt play means wearing outside shoes. Decks, that connect the interior of the classroom to the outside play areas, are places where you leave your messy shoes, and change to inside slippers. Not limited to transition spaces, decks are play areas during rainy weather and places to eat lunch (fig. 4). Inside, wooden floor surfaces contrast with the tatami mats. These fragrant woven rice straw spaces are fragile; slippers are not worn here, children go barefoot instead. Clothing also marks the environment. Children know their classroom group, without fencing, by the bright colored hats they wear. Markers are clear and consistent, whether physical in the built environment or in the clothing that is worn. They are the same in homes and schools, in cities and villages and throughout the country. Once a person can read these markers, such as bathroom slippers, and tatami mats, it is easier to understand the cultural expectations of behavior and accompanying spatial design elements (Stine 1997).

**Spatial Openness.** Inside classrooms and outdoor play areas are open and feel expansive (fig. 5). The environment is flexible. Shelving, tables and chairs are moved against the wall when not in use. Interest centers for reading, dramatic play, art etc. typical of preschools in the United States, are seldom seen in Japan. Segregating space into separate learning areas encourages individual or a small group experience, which is not a Japanese educational goal. The outdoors is not divided into separate activity areas by pathways, structures or plant material. Open space in Japanese preschools, both inside and outside, fosters large group interaction and physical play. The arrangement gives Japanese children the everyday experiences important for becoming an adult in their culture (Stine 1997).

## Elementary Schools - Learning through Landscapes, England.

*It is not necessary to go far from school to use direct experience of the environment as a basis for study. School grounds provide an obvious and easily accessible environment that can be used.*

—Adams 1991, p. 25

Unlike preschools in Japan, outside LTL environments in England are diverse in design and use. Each site is treated as a special place with its own characteristic setting and community. A school's rich

and varied family language, ethnic and cultural background is used as a resource in developing the special quality of each outdoor environment (Wong 1996). The history of a village, school land, region or urban area impacts the ways school grounds are transformed. Each step in changing school grounds involves the children. Developing children's connection and attachment to place is valued and interwoven into all aspects of transforming spaces. However, even with diversity of schools, there are similar elements that include enhancing children's play choices, supporting socializing activities and providing opportunities to explore the natural environment.

**Pathways as play places.** Pathways are seen as opportunities, ways to provide softness and extend plant material throughout the grounds especially in schools with limited space (Russell 1996). Pathways can be diverse as they shift in texture, scale and material (fig. 6). These circulation routes vary from perimeter trails that encircle the grounds through brush, flowers and woods, to a small maze, or painted patterns on asphalt. They may be narrow grassy trails edged by daffodils in the early spring or wider routes created out of mulch from recycled chipped green waste. Pathways are spaces offering children choices more complex than simply going to and from destinations.

**Seating to encourage social interaction.** A wooden chair located near the pond has carved in its boards, "The Story Tellers Magic Seat", a place where children gather to hear stories or use to sit with friends. Designed to fit their smaller bodies, seating creates private areas for children, each with its own special atmosphere and potential use. A woven willow structure leans out in the spring to become a shady cool space to gather with friends in hot weather. A 'castle' is a place to play with friends or to share with one special person (fig. 7). Rocks, logs, and garden walls, amphitheater steps, planters, sculpture all provide seating in a variety of sizes, shapes and textures. Because seating enhances children's varied opportunities to socialize, with a friend, in small groups or as a part of the larger school community, it is a critical element on L1L school grounds.

**Nature as exploration.** Water habitats are common additions. A pond encircled by a low fence entered via a gated pathway provides habitat for insects, birds and aquatic life. When accompanied by their teacher, children use the pond for dipping activities and explore this special ecosystem. An empty patio is transformed with the addition of a pond, solar powered fountain and a greenhouse (fig.

8). Bogs are built, bird boxes and feeders are located in different areas of school grounds and the addition of trees and shrubs provides a range of nesting sites. Plants are often chosen for their ability to supply food and habitat, or to recognize the range of cultures represented in a school community (Jones 1996). Trees may identify significant events or people—a memorial to a child, a 'tree dressing' ceremony. Plants provide loose parts; branches to weave, twigs and petals to form nests, dandelions to create patterns (fig. 9). Minibeasts are observed under rocks, logs, in hedgerows or through 'windows' in the earth. Children have a sense of ownership and ongoing involvement with their school grounds (fig. 10). Effort is made to provide environmental experiences where children value their outdoor environment and begin to make connections between plants, people and culture (Agyeman 1995).

## Summary/Conclusions

*It is indisputable that schools should have the right to their own environment, their own architecture, their own conceptualization and utilization of spaces, forms, and functions . . . the environment should act as a kind of aquarium which reflects the ideas, ethics, attitudes and culture of the people who live in it.*

—Malaguzzi 1987, pg. 11.

A major similarity in both Japan and England is that school grounds provide opportunities to be close to nature; ponds, gardens, wildlife, trees, flowers, mud, sand and water. Connections between the inside and outdoor areas are evident in schools in both countries. Children's privacy and socialization needs, however, are seen very differently in these two cultures. In Japan large group activity and cooperation with others is supported by the outdoor space, while in England socializing in small groups, places to be alone or privacy needs impact outdoor design elements. School grounds in England are used extensively as places where children learn, where curriculum happens, where the creative arts, history, mathematics, reading are all possible and have enhanced meaning in the outdoors. Japanese teachers, without any formal curriculum goals, permit young children long amounts of outside free play with mud, sand and water. In Japan the outdoor environments are predictable, however, in England teachers and children are continually shaping their space to make it a reflection of the community, the region and the special qualities of the site. These sim-

ilarities and differences raise questions that impact our assessment of outside educational spaces in the United States.

How do children experience their natural world, learn through active exploration outside their classroom door? What supports socialization, privacy, community gatherings, celebration? How do children connect and learn about others in the outdoors? What marks the environment physically so that children know what is expected rather than depending on adults telling 'rules'? Changing an outdoor school environment in the United States is an opportunity to rediscover values, cultural heritage and vast regional differences. By working with the community of children, staff and families these environments can develop a uniqueness that enhances children's understanding of place. As we move into the next millennium, when environmental problems will undoubtedly escalate, designers have the opportunity to work with schools to help develop 'special places' where this next generation can forge connections to their earth, their place and to each other.

## Endnotes

1. Learning through Landscapes (LtL) in the United Kingdom is an independent national charity addressing all aspects of school grounds. It acts to safeguard this vital childhood environment, supporting schools to make improvements to the use and design of their land for the benefit of the children in their care and to the benefit of society as a whole. (LtL Annual Report, 1996, pg. 2)

2. National Sports Day, *taiiku-no-hi* (Health-Sports Day) is celebrated October 10th. All schools in Japan hold their taiiku-no-hi on this day or some time during the month of October. "Sports are ideal for fostering a sound body and a sound mind. Health is the most valuable treasure of all. Therefore, mental and physical health are promoted through the enjoyment of sports. This day was established in commemoration of the Tokyo Olympic Games, which began on this day in 1964" (Momoo Yamaguchi and Seisuko Kojima *A Cultural Dictionary of Japan*, 1979, p. 266).

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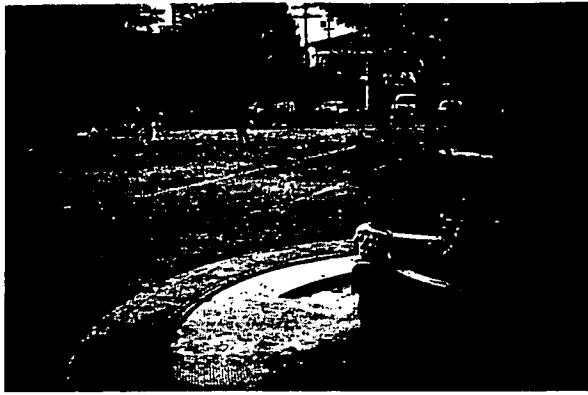
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All photos by Sharon Stine.





**Fig. 1**  
*Child scaled sinks make water easily available for children's use outdoors.*



**Fig. 2**  
*Children play freely with sand, mud and water at Japanese school.*



**Fig. 6**  
*Pathway through school's woody area is an invitation to explore.*



**Fig. 3**  
*During National Sports Day team relays are held on school grounds.*



**Fig. 4**  
*Porches connect inside to outside space and are used for many activities.*

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**Fig. 5**  
*Children wear brightly colored hats to mark their group.*



**Fig. 7**  
*Girls share special secrets together in a sitting area known as the 'castle.'*



**Fig. 9**  
*Nature provides the spare parts to paint yellow and white patterns on the grass.*



**Fig. 8**  
*Gardening in school patio adjacent to greenhouse and pond is joyous activity.*



**Fig. 10**  
*School grounds are special places where children feel ownership and pride.*

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