

# The Healing Nature of Landscapes

Daniel Winterbottom

**I**ncarnation Children's Center (ICC), housed in a former convent in New York City, appears indistinguishable, on the outside, from the nineteenth century apartment buildings surrounding it. Inside, its uniqueness is quickly apparent as children, many undersized and frail, using walkers or wheelchairs, surround a visitor, bubbling over with questions or shyly avoiding eye contact. All are curious about newcomers, and soon seek both a hug and a story. ICC is a refuge for 21

## Gardens as therapy

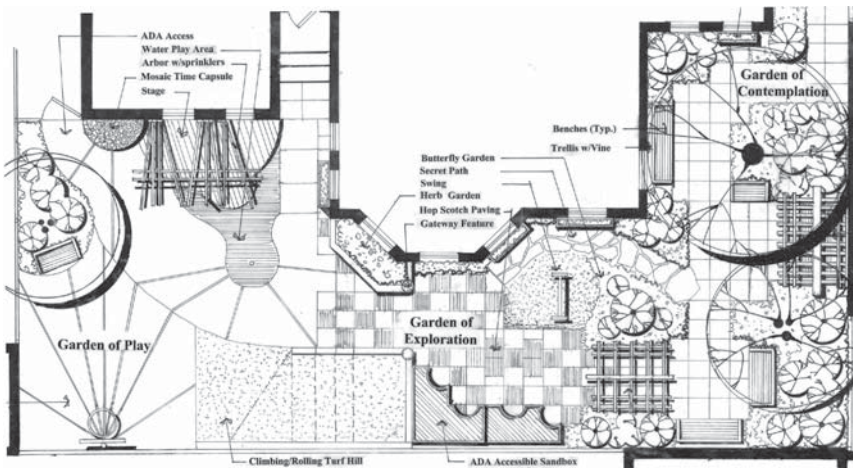
Healing or therapeutic gardens occur in many cultures, including Islamic, Christian, and Buddhist. In Western culture they first appeared as monastery gardens. In the late nineteenth century, the "hospital in a park" became popular. McLean Hospital in Massachusetts and the Menniger Clinic in Kansas are surviving examples. In the "hospital in a park," patients, assisted by staff, were encouraged to explore picturesque grounds, planted with large trees, open swaths of lawn, and perennial borders. Later, at the turn of the century, as tuberculosis became rampant, patients were brought out onto rooftop patio spaces, based on the belief that fresh air would cure patients of the illness. With technological and pharmacological advances during the mid-twentieth century, medical care focused more on cure than care, and at this point, the corporate model of hospital design emerged. Efficiency was the goal, and buildings were stacked vertically, removing patients from any physical interaction with nature.

Research on the benefits of nature interactions for those affected by a serious illness is limited, but a growing body of work affirms these interactions can be beneficial. Research has shown that interactions with nature reduce stress, and lowering stress is known to help those facing a serious medical condition with long hospital stays. A 1984 study by Professor Roger Ulrich, "View Through a Window May Influence Recovery from Surgery," found that recovering surgery patients who have a view of nature required less pain medication and had shorter hospital stays than those without a view.

Designers in health care settings are creating gardens for physical rehabilitation. In this model, patients use stairs, walking paths, and specially designed railings and paving surfaces in a garden setting instead of, or as an adjunct to, the utilitarian gym room.

## Design process used at ICC

Landscape architects understand that their gardens can humanize health care environments, which are usually dominated by medical equipment and artificial lighting and have few places for gathering in private. Although highly skilled at designing and constructing these gardens, most landscape professionals are not trained to understand the complexities of health care nor the needs of those suffering from serious illnesses. Given the range of treatments and care and the unpre-



The play garden at Incarnation Children's Center.

children, from 18 months to 15 years of age, who live there at the advanced stage of their illness.

Founded in 1988, ICC was the first foster home for children with pediatric HIV/AIDS. In 1988 HIV/AIDS was emerging as a major public health issue, but the particular issues of children with HIV/AIDS remained little understood for another decade. Due, in part, to the intense stigma associated with the illness, many children with HIV/AIDS feel uncomfortable in public parks, playgrounds, community centers, and schools. The building, converted into medical facilities, nurseries, offices, and residential accommodations, is often crowded, offering few quiet, private spaces for family visits or contemplation. Although less institutional than many care facilities, ICC feels more like a group home than a residence, and the children are often reluctant to invite friends or family to the facility. With strong support from ICC staff, the Diocese of New York, and Columbia Presbyterian Pediatric Hospital, the University of Washington's Department of Landscape Architecture Design/Build Program was invited by ICC to design and build a series of gardens where residents could explore, learn, and play. The gardens would create a "home" environment and provide a natural, nurturing refuge.

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dictability with which patients might experience many illnesses, landscape architects need to use a participatory design process.

Many children at ICC have autism or cognitive disabilities that limit their verbal communication. Some are too young or lack the attention span to fully participate in the design process, so the engagement with residents was limited. Since the staff and medical personnel had years of experience working with the residents, they were the central resource. By engaging staff in the design process, the design team understood how the children were cognitively and physiologically challenged by AIDS. Staff psychologists explained how the separation from family affected the children, and the medical staff described some of the children's common health risks. Other staff offered particular garden elements, plants, or activities that should be avoided along with those determined to be beneficial. From this process several goals emerged.

- **Create spaces with diversity of character and function.** The children at ICC have a broad range of abilities. Their daily activities are dominated by a regimen of medical appointments, rehabilitation and counseling sessions, and medicine consumption. A variety of spaces would enable residents to choose activities compatible with their physical and cognitive abilities. The freedom to choose enhances their sense of empowerment and their accomplishments, strengthens their sense of self-esteem, and helps alleviate the feelings of powerlessness common among patients.

- **Create identifiable transitions.** The spaces designed for ICC vary in character and type of activity. To inform and remind users of these differences, transitions would be marked by gateways, sculptures, or other features. These markers help residents understand that their behaviors may also need to change as they move from space to space.

- **Create a “home” landscape for a diverse “family.”** Because residents had for the most part been taken from their natural home, and, for many, ICC would become their home, the landscape should represent one of domesticity.

- **Provide places that nurture both social interactions and connections with nature.** At ICC such places might include quiet spaces for conversation, rest, and observation. Areas might offer opportunities for hands-on gardening, performance, water play, and nature interactions. Activities range from meditative to physically active, as children under medication need to burn off excess energy and calm themselves through bouts of anxiety or hyperactivity.

The design team also spent considerable time observing the ICC residents in their daily activities and engaging them to gain their trust. This direct input enhanced the designers' understanding of the residents' concerns, needs and aspirations. By observing the social dynamics daily, they gained deeper insight into effects of the disease. The design team then developed multiple design options and presented them to the residents and staff for feedback. To encourage resident participation, students worked with the children, explaining the designs and helping the children articulate their reactions. ICC reviewers chose various elements from several of the designs. The design team then integrated these elements and produced a final design.

Engagement with the users continued through the construction process. This flexibility is unique to the design-build model. The team periodically considered proportion, scale, and location of elements during construction and adjusted the design to best meet the users' needs. For example, residents tested a wheelchair-accessible sand play table and found it to be too high, so the legs

were trimmed. Through the inclusion of staff, administration, and residents in the design and construction process, stronger connections are made between users and the garden, insuring long-term engagement and stewardship.

## Using the gardens

The three gardens at ICC, the Garden of Contemplation, Garden of Exploration, and Garden of Recreation, succeeded in creating a home-like environment that offers diverse experiences. The vegetated spaces in the Garden of Contemplation allow residents to visit with friends and family with a degree of privacy that supports relaxed exchanges, storytelling, and the intimate expression of deeply held emotions. The Garden of Exploration, with its butterfly garden and mystery walk, entices residents to discover the wonders of the natural world and, in the process, strengthen their fragile bodies. Planting boxes and a sand play table develop

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## Public Health and Landscapes

Nature has played and continues to play a critical role in public health. Frederick Law Olmstead, the distinguished nineteenth century landscape architect and designer of New York's Central Park, believed that urban park systems were the “green lungs” of the city. The Emerald Necklace park system in Boston, also designed by Olmstead, provides recreational opportunities in a natural landscape, enabling urban dwellers to improve both health and spirit. Although revolutionary in Olmstead's day, these same principles are being applied to address current public health issues.

With rising levels of childhood obesity, the National Science Foundation is funding the community development of regional trail systems to encourage children to walk/bike to school and play outdoors in their free time. Urban greening is a strategy employed by public health officials and planners to address health problems common among impoverished urban populations. Research indicates that tree and shrub plantings can reduce some of the debilitating effects of poor air quality for those suffering from asthma, lung problems, and heart disease. The plantings filter out and screen particulates and also absorb carbon dioxide and release oxygen. Several studies also indicate that green environments have a calming effect on users, reduce stresses associated with urban environments, and provide beneficial consequences as chronic stress is lowered. Increased tree plantings in housing projects in Chicago, for example, have been shown to improve the sense of well-being, increase social interactions, and slightly reduce crime.

On a smaller scale, gardens are employed in an effort to increase the nutritional intake for urban populations living below the poverty level. The schoolyard garden initiative promotes plant cultivation as a part of the school curriculum. Science and nutrition teachers use the gardens as outdoor classrooms educating children on horticultural stewardship and advocating the nutritional and health benefits of gardening. Community gardens, community-supported agriculture programs, and green markets are other strategies commonly employed to improve community health and nutrition. ■

social skills as residents learn to work cooperatively. In the Garden of Recreation, many elements found in traditional play parks are brought into the backyard. Residents now invite friends to play basketball, perform karaoke on a stage, engage in water play, or roll down the grassy hill. Most importantly, the gardens enable the residents to be children, who despite their difficult situations, regimen of medicines and examinations, separation from family, and the anxiety of facing death, can laugh, play, hope, and for the moment, forget. The gardens at ICC won't cure any child of AIDS, and therefore the term healing garden may be misleading. They can, however, relieve some of the effects of the illness, in particular the emotional pain of being ostracized. Play activities in the gardens help to heal the pain of a childhood lost to illness.

### *Final thoughts*

The garden, modest in cost when compared to the budgets of most buildings, offers users a transformative experience at a time of great need. Beyond programmed activities, the garden at ICC offers a counterpoint to the institutional environment inside the building. The effects of displacement, compounded by the illness, result in a high degree of alienation, anxiety, lack of self-esteem, and depression among the residents. Each illness has differing effects on patients, and the users of medical facilities include not only those who are affected by the illness but also the families, care providers, and staff. Consequently, the landscape should be considered a healing campus, with a great variety of gardens and diversity of spaces in which the differing constituents will find a garden that best meets their needs. As nurturing natural environments become more common in medical facilities, they will support and expand the essential care component of medical practice.

The use of environmental design to confront a broad range of public health issues from physical health (obesity and poor body development) to mental health issues (autism and lack of social development) are just beginning to be explored. The use of environmental design, especially nature, as a catalyst to engage children in meaningful and healthy ways is being considered by a wide spectrum of people involved in or concerned with public health. Some examples include schoolyard gardens, environmental learning centers, gardens in juvenile detention centers, mental health facilities and rehab clinics. With the growing concern over the declining condition of children's health, environmental design as a new strategy for health improvement should be further explored. 🐾