Therapeutic Landscapes: Gardens for Horticultural Therapy Coming of Age

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Therapeutic gardens are appearing as features in national publications and are being built with increasing frequency in health-care settings. Among these new gardens there is a remarkable degree of correlation between physical design and programming factors likely to improve therapeutic benefits to garden visitors and participants. There are seven identified factors: scheduled and programmed activities and features; features modified to improve accessibility to plants and gardening techniques; well-defined perimeters; a profusion of plants and people-plant interactions; essentially benign and supportive conditions; universal design for completely accessible plant-dominated features, details and spaces; and recognizable pacemaking. All emphasize the experiences of the five senses; of understanding, time, comfort, and freedom of movement; and of personal achievements associated with the garden and its components. Each of the seven characteristics interrelates with a vigorous plant-dominated landscape to achieve horticultural-therapy objectives.

A growing awareness of the power that outdoor experiences in garden landscapes can have in the healing process has been accompanied recently by the increasingly frequent construction of therapeutic gardens in clinics, hospitals, and residential care centers. The 1994 Plant-People Relations Research Symposium addressing "The Healing Dimensions of People-Plant Relations" disclosed a stunning array of research about therapeutic and beneficial landscapes ranging from *ad hoc* community gardens to carefully designed and constructed horticultural-therapy gardens. A wide range of therapy-garden participants were reported, including people with Alzheimer's disease, gardeners with vision impairments, inmates at correctional facilities, children in preschools, and patients in various types of health-care facilities. (Francis et al., 1994).

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Today, many national publications without a direct landscape architectural or horticultural focus are reporting on the therapeutic landscape as an area of interest for their readers drawn from a broad sampling of the general public, garden enthusiasts, health-care staff and executives, public agency administrators, and people with disabilities. In December 1994, *The New York Times* published a feature article on therapeutic garden spaces and the beneficial effects they have upon the lives and experiences of those who encounter them (Raver, 1994). The May 1995 issue of *Child Health Design*, a periodical serving administrators and managers of hospitals and clinics for youth, introduced the concept of therapeutic landscapes and gardens with an article on plans for the proposed children's play garden at New York City's Rusk Institute (Kavanagh and Chambers, 1995). *Harper's Bazaar* showcased the healing gardens of landscape architect and cancer survivor, Topher Delaney, in its August 1994 issue (Dwight, 1994). The January 1995 issue of *Landscape Architecture Magazine*, a professional publication of the American Society of Landscape Architects, devoted 25 pages to an examination of the new generation of designed therapeutic landscapes around the United States (Dannenmaier, 1995). The idea of a therapeutic garden is unmistakably engaging the imaginations of those who manage and those who experience short- and long-term care centers, such as those described in the January *Landscape Architecture Magazine*.

Therapeutic garden design characteristics

In a purposefully therapeutic garden, the well-being of a wide variety of people with diverse abilities and special needs is stimulated within a flourishing garden environment. A survey of 42 therapeutic gardens (Kavanagh and Musiak, 1994), followed by site visits to more than half of the survey respondents' installations and to other therapeutic garden sites in the United States, revealed common elements within gardens and landscapes. Despite ambiguity about the exact nature of a therapeutic landscape, and notwithstanding the high degree of diversity in actual implementation, details, and plant selections, site evaluations indicated a remarkable degree of correlation between the physical design and programming of these new places for horticulture. The common management and design factors exhibited in

Fig. 1. Raised planters in the walled enabling garden at the Chicago Botanic garden.

these landscapes were identified to include 1) scheduled events and programmed activities and features; 2) features modified to improve accessibility to plants and gardening techniques; 3) well-defined perimeters; 4) a profusion of plants and people-plant interactions; 5) essentially benign and supportive conditions; 6) universal design for completely accessible plant dominated features, details, and spaces; and 7) recognizable pacemaking. Each of these characteristics is predicated on its setting in a vigorous plant-dominated landscape.

Scheduled and programmed activities. Events and activities bring regular visitors and newcomers to the garden and to the horticultural experiences and environments it provides. Even in gardens designed for the passive enjoyment of visitors, special events increase the number of visits. Horticulture classes in composting, pruning, integrated pest management, plant propagation, and other garden routines familiarize targeted treatment populations with the garden and its programmed activities and often are extended to the facility's staff, families of clients or patients, and residents from the adjacent community. Nancy Chambers, a horticultural-therapy garden director, insists that regular activities such as therapy sessions, classes, concerts, receptions, picnics, and parties, are critical to encouraging user comfort and familiarity within the garden (N. Chambers, personal communication).

Features modified to improve accessibility to plants and gardening techniques. Today's therapeutic gardens are careful, even gracious, compositions of paved walks, open and planted spaces, raised planting beds varying from knee level to waist height, and bubbling fountains or cool placid

pools of water. Garden elements, features, and equipment all are selected or modified to provide accessible places, activities, and experiences to the greatest extent possible. Ledges, tables, shelves, or other provisions are provided to hold and display collections of container plants, flowers, fruits, seeds, and other items of interest. As easily as they shelter people, arbors and pergolas shade and support wall baskets, planked plants, or hanging baskets on easily managed pulleys. Garden access extends to the choice of hardware and other utilitarian features: water taps with simple lever-like handles, lightweight tools, watering cans balanced to better distribute weight, and long-handled trowels and dibbles to extend the reach of gardeners with disabilities. Simple changes to standard garden tools may even be accomplished using special adaptive equipment. Each modification to the therapeutic garden environment eases the task of gardening and enhances the horticultural experience for the gardener. In gardens where visitors are not gardening actively, accessible features permit and encourage visitors to see and study plants, touch or smell them, and encounter the luxuriant garden growth in their own way, on their own terms, and at their own pace.

Well-defined perimeters. Edges of garden spaces and special zones of activities

within the garden often are intensified by enclosing features. A visitor's perception's of the boundaries, the solitude, insulation, spatial separation, and the security within a therapeutic garden derive from its relation to nearby buildings and from its garden walls, fences, plant masses, and structures of all types, which define and enframe places in the landscape. Clients in the therapeutic garden often benefit from secured enclosures limiting off-site visibility, uncontrolled entries, and unsupervised exits from the garden enclave. Although materials and methods vary, the net effect of a well-defined perimeter is to redirect the attention and the energies of the visitor to the activities, plant masses, and displays in the garden.

A profusion of plants and people-plant interactions. The importance of plants as therapeutic agents is well-established by the findings of Ulrich and Parsons (1992) and Kaplan and Kaplan (1989). The plant emphasis in constructed outdoor therapy spaces underscores the conscious provision of spaces and places for horticulture, therapy, and social exchanges. Therapeutic gardens introduce individuals to plant-intensive outdoor environments teeming with natural materials and plant forms. These gardens organize the horticultural variety of plant masses, interactions, and opportunities into legible open spaces with simple patterns of paths and workplaces exhibiting some of the biological and evolutionary preferences of human beings for lush environments and observable, defensible open areas (Kellert and Wilson, 1993). Therapeutic gardens achieve comfort and support clinical objectives by playing on the attributes of plants and gardens that meet needs for special protective and preventative measures.

Benign and supportive conditions. Therapeutic gardens are especially healthful environments providing safe and comfortable settings for people. Environmental irritants and pollutants of all types are minimized in the therapeutic garden to provide a benign garden setting. Potentially hazardous chemicals such as herbicides, fertilizers, and insecticides are avoided. Many therapeutic garden administrators use integrated pest management programs, and most gardens are fundamentally organic. Structures shelter visitors and plants from wind and sun. Materials selected to reduce glare, contrast, and surface friction further sustain the range of potential experiences for people in the garden. The flourishing plants, the moderated climatic extremes, the protected and protective nature of the therapeutic garden produce an aggregate environment offering personal comfort and refuge.

Universal design. Therapeutic gardens

Fig. 2. Raised beds, wall seating, paved paths, muted colors, and plenty of people-plant interactions mark the mature therapeutic landscape of the Rusk Institute for Rehabilitation Medicine in New York City.

are designed for the widest possible range of disabling conditions. Universal design elements encourage access to the experience and to the place by providing accessible settings for plant-dominated experiences. As practical and pleasurable landscapes for people of all ages and all abilities, these gardens commonly stimulate the full range of senses, including memory, hearing, touch, smell, and sometimes taste as alternatives to the visual experience of gardens. Details that interfere with a visitor's ability to engage the landscape are rejected in favor of enabling features such as raised planting areas, suitable hardware and fittings, large-type signs and labeling, lightweight soil mixes, ramped grade changes, and approachable plants. Plants suited to the site that prosper in the regional climate are grown for their qualities of taste, texture, fragrance, sound, or nostalgia and aesthetically or horticulturally based selections for flower, foliage, or form. The therapeutic garden exploits the most complete range of people-plant interactions and experiences for all people possible within its enclosures.

Recognizable placemaking. Therapeutic gardens are frequently simple, unified and easily comprehended places. Harmony between forms, materials and organizational relationships is sought to intensify the recognition of garden patterns and an enhanced sense of the garden experience for all visitors. Colors, materials, details, plants, and garden elements are selected, repeated, and arranged to emphasize the unique identity of the garden as a special place for the people it serves. This quality of place exploits individual similarities in the smaller spaces of the garden and relies on the recognition of each component within the whole, unified, and integrated landscape. Pacemaking, an important strategy in all landscape design efforts, is especially important to the relaxation of 'tension needed to heighten the focus on plant related sensuality, comfort, and independence experienced within the therapeutic garden. An understanding of therapeutic garden design characteristics will assist students and teachers and professionals in creating more effective designs and programs.

Conclusion

Garden landscapes are valued increasingly for the therapeutic benefits they offer. Those garden activities and features most directly influencing the success of clinical and personal improvements effectively use familiarization, accessibility, and programmatic opportunities and physi-

cal design forms to encourage potent people-plant interactions within the landscape. These modifications, often the result of cooperative efforts between landscape architects, horticultural therapists, and horticulturists, are leading to attractive, fictional designs that facilitate horticultural therapy programs and experiences in outdoor, plant-oriented therapeutic settings.

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Fig. 3. Exercise course located in the therapeutic landscape at the Bryn Mawr Rehabilitation Hospital in Bryn Mawr, Pa.