

# Introduction

Having spent many weeks in the hospital left an indelible imprint on the way I experience pain, suffering, and loss within the recognized healthcare environment. Surely this fear and anxiety that one feels in this controlled and somewhat clinical building can leave one feeling more vulnerable, fragile, and scared. Just by being outside and with nature, to smell and touch the plants, reduced the depression and dread. I think more positive thoughts, am hopeful, and if I cry I feel the plants understand and do not judge or cringe.

Mariane Wheatley-Miller, personal communication, 2013

**H**OSPITALS AND OTHER HEALTHCARE FACILITIES are some of the most difficult places for people to be. Regardless of the physical setting, they are almost invariably environments where people face a high degree of stress. Patients may be experiencing physical or emotional pain; visitors, in an alien and, for many, a threatening environment, are worried about a loved one or close friend. Healthcare providers, in many cases dealing with life and death on a daily basis, are under an enormous amount of pressure. Their hours are long and their workload is taxing.

Since the mid-1990s there has been an increasing emphasis on a patient-centered approach in healthcare and a growing understanding of the importance of evidence-based design (Cama 2009; Frampton, Gilpin, and Charmel 2003). Hospital interiors have largely changed from the white, clinical settings of decades ago to more colorful—sometimes even hotel-like—environments. Nursing homes, renamed assisted-living facilities, have largely left behind their depressing reputation and are being reborn as warm, homelike settings. The environmental needs of specific patients, such as those with Alzheimer’s disease, are increasingly understood. In short, there has been a revolution in the provision of healthcare and the recognition that the physical environment matters to people’s health and well-being and that the health and well-being of the whole person needs to be addressed rather than just the disease.

Along with these beneficial changes to healthcare buildings, there has been a growing recognition that the whole environment—including outdoor space—matters (fig. 1.1). A significant body of research confirms and sheds new light on what many people have known intuitively: that

connection with nature is beneficial—even vital—for health. Walking in the woods, sitting on a park bench, tending the soil in one’s garden, and even watching the colors and movements of nature from indoors are all passive and active ways to connect with the natural world. They awaken our senses, encourage physical movement and exercise, facilitate social connection, reduce stress and depression, and elicit positive physiological and psychological response. Healthcare facilities—from hospitals to specialized medical settings to assisted-living and retirement communities—are striving to incorporate specially designed outdoor spaces that can support the health and well-being of patients, residents, visitors, and staff (fig. 1.2).

Professional magazines are increasingly mentioning praiseworthy hospitals with healing gardens or views to nature. Excellent books have been published recently that focus specifically on healthcare outdoor space (Rodiek and Schwarz 2006, 2007; Pollock and Marshall 2012). However, it is rare that journals and magazines read by designers review such books or feature articles on healthcare outdoor space. Sadly, excellent books and monographs on healthcare building design often pay scant attention to outdoor spaces. Building plans are depicted with white expanses around them as if they are floating in space.

While the evidence for the importance of access to nature is there—and growing—the actual provision of appropriate outdoor space in healthcare facilities is often less than adequate, with limited “green nature,” unmet needs for privacy and “getting away,” even poor provision of the most basic needs, such as ease of access, comfortable seating, safe walking surfaces, protection from the sun, and so on.



**1.1** The trend toward patient-centered care continues to grow. Healthcare facilities such as the Northeast Georgia Medical Center, in Gainesville, incorporate restorative gardens into the master plans from the beginning of the design process. The Wilheit-Keys Peace Garden offers physical access to nature outside of the building and visual access from inside. Designer: The Fockele Garden Company.  
*Copyright, The Fockele Garden Company*

The goal of this book is to focus critical attention on healthcare outdoor space, to emphasize the importance of evidence-based design, to highlight exemplary case studies, and to present research-based guidelines to inform clients and designers of restorative outdoor spaces. The aim is to address two key groups of readers: the clients and funders of healing spaces and the designers (principally landscape architects) who will translate client needs into an actual environment. If clients and funders understand more about the requirements and goals of a healing garden, they can more easily communicate with the designer. If designers understand more about the research on which to base their decisions, they are more likely to meet the goals of their clients—those who provide the funding and the users who will eventually benefit from the garden (fig. 1.3).

With an audience of two quite different sets of “actors,” it is inevitable that some parts of this book will speak more to

one than the other. For example, some sections of the chapter on planting and maintenance may be basic knowledge for an experienced landscape architect but new and useful information for a client. The detailed design guidelines are principally aimed at the practicing designer and may be of less importance to the client or philanthropic donor. Chapters on horticultural therapy and participatory design may provide new information for many readers. The case studies of exemplary gardens throughout document existing best practices and will, the authors hope, inspire anyone using this book.

The core of the book consists of the general design guidelines presented in chapter 6. These are research-informed recommendations that need to be followed in any kind of healthcare outdoor space, whether it is a courtyard or a roof garden, whether it is at an acute-care hospital or a residential



**1.2** Walking paths and benches for rest—even for stretching out to take a nap—provide a restorative environment for patients, visitors, and staff. The gardens of McKay Dee Hospital, in Ogden, Utah, are also open to the public and are thus an example of “preventive care” through community-centered design.

*Photo by Chris Garcia*



**1.3** Native plantings at Kent Hospital in Warwick, Rhode Island, create a beautiful entrance. Designer: Wellnesscapes.

*Photo courtesy of Thomas Benjamin, Wellnesscapes.com, on behalf of Kent Hospital*

facility for the frail elderly. Beyond these basic guidelines, specific guidelines must also be followed for certain patient groups. These are explained in chapters 7 through 14—gardens for ill children, those with cancer, the mentally ill, Alzheimer’s

patients, the frail elderly, returning veterans, rehabilitation patients, and those in hospice.

Different terms have emerged to refer to outdoor spaces in healthcare, and two different types can be recognized. A healing, therapeutic, or restorative garden (these terms are used interchangeably in this book) is one that users, whether residents or visitors, experience any way they want: to sit, walk, look, listen, talk, meditate, take a nap, explore. Therapeutic benefits are derived from just being *in* the garden. No staff is necessary, except for maintenance. Such a garden might be found at an inpatient acute-care hospital, a residential facility for the frail elderly, a hospice, or an outpatient clinic.

In an enabling garden, by contrast, activities are led by a professional horticultural therapist (HT), occupational therapist (OT), physical therapist (PT), and other allied professionals in collaboration with other clinical staff. The HT might engage recovering stroke victims in weeding, watering, and repotting plants; the PT or OT might help someone with a broken limb by encouraging reaching, grasping, and exercising. Therapeutic benefits are derived from hands-on activities and exercise in the garden (fig. 1.4). Such a garden



**1.4** A veteran transplants seedlings into a larger pot at Gardening Leave in Auchincruive, Scotland.  
*Courtesy of Gardening Leave Limited*



**1.5** Great spangled fritillary on butterfly weed.  
*Photo from [www.henrydomke.com](http://www.henrydomke.com).*

is likely to be found at a rehabilitation hospital, some mental and behavioral health facilities, and some children's hospitals.

For the purposes of this book, "nature" is defined quite broadly, and while largely referring to vegetation, it also refers to wildlife, water, stone, the weather, sky, clouds, wind, and sun. "Access to nature" includes actual passive and

active, indoor and outdoor engagement with nature through any or all of the senses (fig. 1.5).

Indoor contact with nature can include looking out at nature through a window; viewing nature imagery (still and moving pictures); seeing, touching, and smelling indoor vegetation; and hearing nature's sounds through an open window or through sound recordings (birds, water, and the like).



**1.6** The Elizabeth and Nona Evans Restorative Garden at the Cleveland Botanical Garden in Cleveland, Ohio, provides opportunities for passive and active connection with nature. Designer: Dirtworks, PC  
 Courtesy of Dirtworks, PC; photo by Bruce Buck



**1.7** Echinacea flower detail.  
 Photo from [www.henrydomke.com](http://www.henrydomke.com)

Outdoor contact with nature is likely to engage more than one of the senses and can range from passive to active: sitting just outside the entry of a building, taking a stroll, stopping to

look at, touch, or smell plant material, engaging in physical or occupational therapy, gardening, watering plants, taking a brisk walk for exercise, jogging, or engaging in team sports (fig. 1.6).

The word “garden” will be used throughout the book to refer to any designed outdoor space with predominant greenery, even though the term has slightly different meanings in different English-speaking countries. For example, in the United Kingdom it refers to the whole of a defined and designed cultivated space that is predominantly green, whereas in the United States it tends to refer to a planting bed, such as a flower garden (fig. 1.7).

“Healthcare facilities” are defined as places where people receive medical care. These include—but are not limited to— inpatient and outpatient facilities, acute-care general hospitals, rehabilitation hospitals, psychiatric hospitals, children’s hospitals, veteran’s hospitals, specialty hospitals and clinics (cancer, kidney dialysis, mental health, etc.), hospice, residential and outpatient facilities for those with special needs (the frail elderly, Alzheimer’s patients, the mentally ill, battered women).

## References

- Cama, R. 2009. *Evidence-Based Healthcare Design*. Hoboken, NJ: John Wiley and Sons.
- Frampton, S., B. L. Gilpin, and P. A. Charmel, eds. 2003. *Putting Patients First: Designing and Practicing Patient-Centered Care*. San Francisco: Jossey-Bass.
- Pollock, A., and M. Marshall, eds. 2012. *Designing Outdoor Spaces for People with Dementia*. Sydney, Australia: Hammond Press.
- Rodiek, S., and B. Schwarz, eds. 2006. *The Role of the Outdoors in Residential Environments for Aging*. New York: Haworth Press.
- , eds. 2007. *Outdoor Environments for People with Dementia*. New York: Haworth Press.