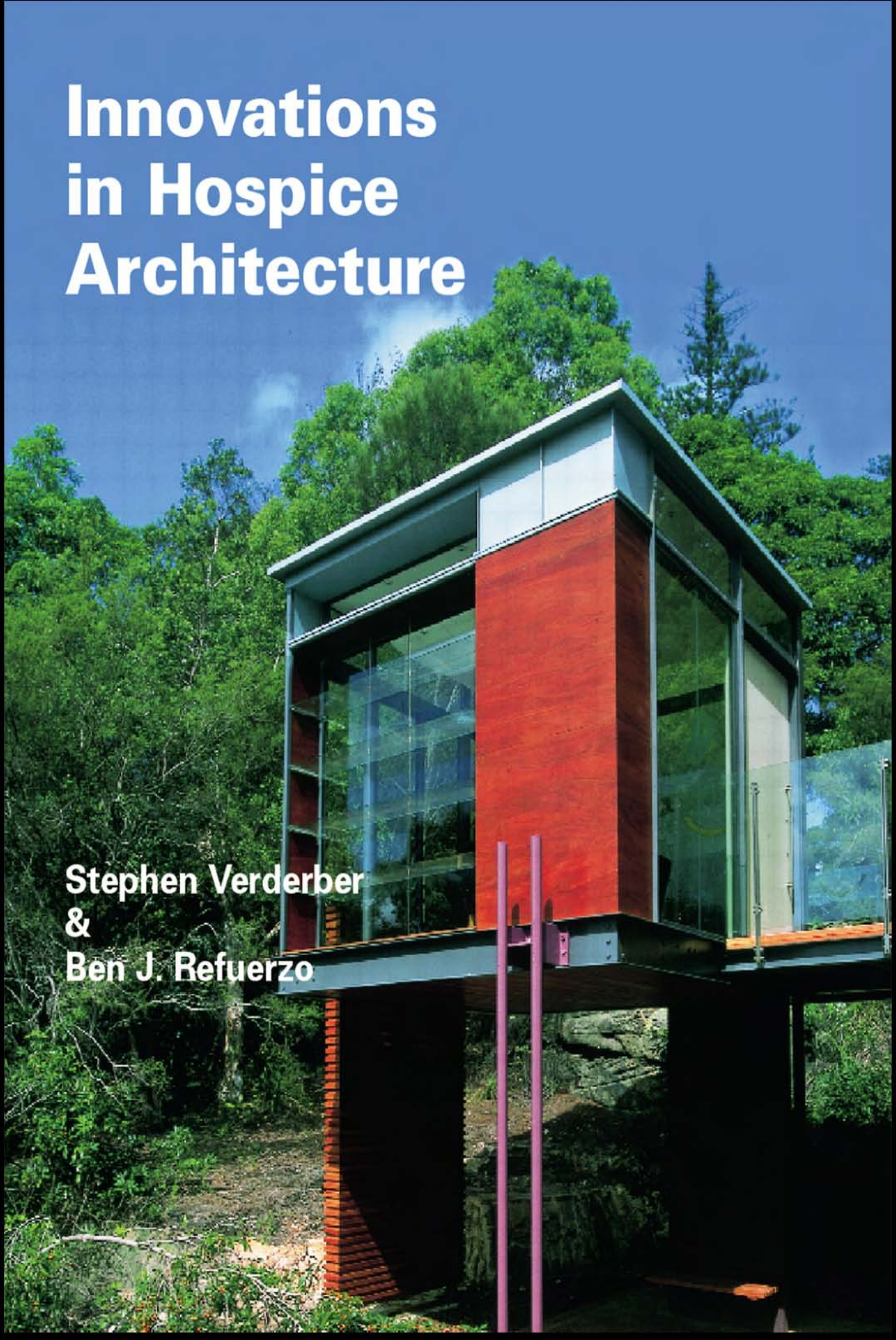
Innovations in Hospice Architecture



Stephen Verderber
&
Ben J. Refuerzo

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Innovations in HOSPICE ARCHITECTURE

Societies around the globe are ageing at an unprecedented rate; a trend that is particularly pronounced in Japan, Russia, Western Europe and the United States. As the need for hospice care grows, so does the need for accompanying architectural literature. *Innovations in Hospice Architecture* summarizes key historical as well as recent developments within this rapidly evolving building type and responds to this need.

The book presents an overview of the historical origins of the contemporary hospice, the diverse variations on the basic premise of hospice care and a series of exemplary case studies from around the world, including Japan, Canada, Europe, Australia, the United States, Great Britain and Taiwan. The case studies are individually presented and comparatively analyzed, and prognostications for the future of hospice architecture are discussed in the concluding section.

Fully illustrated with colour and black and white images alongside the authors' acclaimed line drawings, *Innovations in Hospice Architecture* is a must for anyone involved in the planning, design and construction of hospices around the world.

Stephen Verderber is a Professor at the School of Architecture, and an Adjunct Professor in the Department of Health Systems Management at Tulane University, New Orleans, U.S.A. **Ben Refuerzo** is a Professor in the Department of Architecture at The University of California at Los Angeles, U.S.A. Verderber and Refuerzo are founders of the architectural firm R-2ARCH/Los Angeles and New Orleans, whose work is based on planning and design for specialized building types and user constituencies. Their work has received numerous national design and research awards in the United States.

Innovations in
HOSPICE
ARCHITECTURE

Stephen Verderber and Ben J. Refuerzo

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The very first requirement of a hospice is
that it shall do no harm

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Preface and acknowledgements

The seeds for this book were planted more than two decades ago, in the mind of the first author, upon reading the seminal text *The Hospital: A Social and Architectural History*. This classic work, written by John D. Thompson and Grace Goldin, lives on, and it serves as a guidepost for anyone who aspires to advocate for humanist perspectives in healthcare architecture. The first author's work with the New Age Hospice, Inc. in Houston and its successor institution has been instrumental, since that is where initial firsthand experience with palliative care was first acquired. Its successor, The Houston Hospice, has been a homeport, as has been The Connecticut Hospice, Inc. This book would not have been possible without the grant support provided by the John D. Thompson Institute for Education, Training and Research, Inc. in Branford, Connecticut. Special thanks for the inspirational involvement and guidance provided by Rosemary Johnson-Hurzeler, President and CEO, Eileen Mino, Special Staff Assistant, and the entire staff at The Connecticut Hospice.

Staff and administrators at hospices around the world shared their perspectives, insights, and materials. Dozens of interviews were conducted with caregivers as well as with architects who have designed hospice environments. This book is dedicated to all architects, interior designers, landscape architects, and other allied professionals who have labored so hard and so diligently to translate the hospice philosophy into tangible physical reality through the medium of architecture, interior design, and the medium of the landscape environment. Financial support provided by a Japan Society for the Promotion of Science (JSPS) advanced investigator fellowship in 2002 made it possible for the first author to visit and document a number of in-hospital and freestanding hospices in Japan. This portion of the field research was carried out while in residency in the Department of Architecture at the University of Tokyo. The New Orleans team consisted of the first author, who served as R-2ARCH Partner-in-Charge, and the Project Team of Elizabeth Sullivan, M.Arch., and Jessica Gramcko. The Los Angeles R-2ARCH team consisted of the second author and John G. Davis, Partners-in-Charge, and Gyu Duck Seo, Special Assistant, and the Project Team of Masashi Yamazaki and Jae Won Lee. It is becoming hard to think back to what life was like prior to the Internet and the World Wide Web. As this is, for the most part, an Internet-researched book, many thanks are due to the hospices around the globe who have provided descriptive information about their programs on

their websites and through e-correspondence. The Internet was an indispensable resource, as so little architectural work on hospice has been published in mainstream architectural journals to date. Perhaps this will change.

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NEW ORLEANS
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Introduction

My father (first author's) lived until he was sixty-four. He had been a printer for most of his adult life, having returned from service in the U.S. Marine Corps in 1946. Soon thereafter, he began employment in the small print shop operated by his brother and his brother's father in law on the Near West Side of Chicago, in the shadows of the elevated tracks, known to all Chicagoans as the 'el-tracks'. He toiled long, tedious hours – often in solitude – in noisy, cramped, poorly lit, poorly ventilated conditions. The printing presses roared endlessly, or so it seemed. This is something I would experience at first hand whenever he would bring me with him to 'the shop' beginning from when I was about ten years of age. In order to prepare the press for a print run, he would clean the massive black machine using a strong chemical with a powerful, unforgettable odor. Later I would learn that this foul-smelling solvent was called benzene. This solvent has become the bane of all printers who worked in the printing industry in the 1940s, 1950s, and 1960s because, in retrospect, it has since been linked to various forms of leukaemia, among other diseases. For years he repeated this same routine, tirelessly washing the presses he worked on with this foul chemical. It was an essential step in preparing the press for the next printing run.

While my father labored for much of his career in unhealthy conditions such as this, with relatively little improvement with respect to the environmental quality of his workplaces, he eventually joined the ranks of administration. But by then the damage had been done. In 1982, he was diagnosed with chronic lymphocyte leukemia, a condition he was able to rein in with some relative success, until 1989, when it simply overcame him and he passed away after an intensive, eight-week period in an oncology unit in a community hospital in a Chicago suburb. It seemed his condition had precipitously declined from a slight cold he had contracted over Christmas in 1988, during a holiday visit to New Orleans. His physician was resolute, hopeful from the start of my father's one-way ticket period of hospitalization. He comforted us by saying all the standard clichéd things like 'we will do everything possible', 'he will fight through this', and finally, 'we are conducting trials in this hospital on an experimental drug. Would you wish for him to be included in this treatment protocol?' Meanwhile, my father was gradually getting weaker and weaker as the pain was becoming unbearable. Near the end, he was hallucinating, unable to recognize his family and friends. We were so ignorant, unaware of any alternative. What could the lead

attending physician possibly have been thinking at that point in my father's ordeal? Why didn't anyone at that hospital tell us about the option of palliative care?

Meanwhile, there he lay each day in his bed, dying, yet being treated (speaking as a family member) by the institution as if he was somehow, miraculously, going to recover. I will never forgive the staff for keeping him in that drab, colorless oncology unit, and then gradually moving him down to a room near the far end of the corridor to leave him to wither away until the sad end. He was a man who was loved and appreciated by all who knew him. What the hospital allowed to happen to him was so tragic, inhumane, and mechanical.

Seven years earlier I had first become aware of hospice as an architectural building type. I immediately found it to be a captivating approach to the care of the sick and dying, and yet I had remained emotionally detached from hospice on a personal level, thinking 'It was a viable alternative for others but…' I was unable to reconcile its meaningfulness within the context of my own father's present condition, for I too had been blinded, conditioned by the culture of modern medical technology to accept the view that our family's acceptance of hospice was tantamount to an acceptance of our society's failure to do all we could to help him. I too believed too much in the omnipotence of the healing machine. My immediate family and I had unknowingly succumbed to society's profound denial of the prospect of death, a denial that all families are forced to cope (or not cope) with in such a stressful, emotional period of time. To this day I regret that neither the institution nor I had done more to relieve his pain and the severe discomfort of his final days.

Some years later I found myself in the midst of writing a book on the history of the hospital during the final third of the twentieth century, and the transition to the influence of postmodernism across the healthcare landscape. I had formed an outline of ten chapters, including one specifically devoted to the subject of hospice architecture. My editor said, 'We are simply out of space, can you save the "hospice" chapter for another book?' Unwilling to back down, this is why the present book has been written. Perhaps my editor was right, in retrospect, in prohibiting me from discussing hospice in any great detail, for I soon learned that no single 'token' chapter could manage to provide a subject this rich and varied with the attention and respect it so clearly deserved.

In the intervening fifteen years since my father's painful, institutionalized death, I also learned that there is a time, and there are occasions, when death can be a natural, even beautiful event. In the foreword by C. Murray Parkes to Elisabeth Kubler-Ross's pioneering book *On Death and Dying,* a patient is quoted as saying 'I wish I could tell people how nice it can be to die of cancer'.[1] The reasons for the denial of death in our society have their foundations in our religious, philosophical, and psychological thinking and stem from our predilection for one of two bipolar ways of understanding the human psyche. It could be that Western science's obsessive emphasis on biology, the empiricism of natural science, and human genetics makes the concept of death threatening and alien. The antithesis of this empirical approach is the religious view of the world, in Christian and Muslim religions alike, that, in its extreme form, manifests as blind faith. These two philosophies, one inward and one outward looking, have become mutually exclusive.[2]

A hospice is a place for the care of the terminally ill. Palliative care is therapy that focuses on decreasing pain and suffering by providing patients with medication for relief of their symptoms and with comfort and support. Hospice care, which involves helping ill patients and their families during the last period of life, is an integral part of palliative care. The two terms are deeply intertwined and are used interchangeably in many contexts, and this may be a point of some confusion to the architect. For this reason, throughout this book, although both terms are used, the term *hospice* is employed to describe the physical places where care is received. *Palliative architecture* is defined as that which is expressed through the medium of the hospice milieu.

Most hospice care occurs in the home setting, and is provided by a certified home care program. Palliative care units, or PCUs, are to be found in acute care hospitals. Increasingly, palliative care is provided in freestanding, autonomous inpatient hospices throughout the world. This setting is the central focus of this book although the discussion is equally relevant to inpatient in-hospital PCUs. Palliative care generally consists of physician care, nursing care, personal assistance with activities of daily living, medical social work, music and art therapy, companionship, and psychological and bereavement counseling. Caregivers, widely referred to as the *palliative care team*, consist of psychiatrists, psychologists, physicians, nurses, physical therapists, music and art therapists, occupational therapists, and legal and financial advisors available to advise patients and their families even throughout

the bereavement period. The vast majority of hospice care recipients in industrialized and postindustrialized nations suffer from some form of terminal cancer, and come from all walks of life, all socio-economic groups from the very poor to the very wealthy, and from all racial and all age groups. As mentioned, the hospice movement has rapidly proliferated. The philosophy of hospice care centers on the main goal of providing comfort, respite, and pain management in a time of great emotional and physical stress. Most recipients of hospice care have a prognosis of six months or less of remaining life.

The World Health Organization (WHO) defines palliative care as 'The active total care of patients whose disease is not responsive to curative treatment.'[3] Control of pain, of other symptoms, and of psychological, social, and spiritual problems, is paramount. The goal of palliative care is the achievement of the best quality of life for patients and their families'.[4] In a companion publication, the WHO declares 'In all countries palliative care, including symptom control and pain relief, will be important for years to come … nothing would (will) have more immediate effect on quality of life and relief from suffering, not only for cancer patients but for their families, than implementing the knowledge accumulated in the field of palliative care.'[5] Accordingly, the WHO has assigned this type of care – particularly pain relief – the highest of priorities alongside strategies for prevention, diagnosis, and cure of the eight most common cancers worldwide.[6]

It is not easy to die. In the past, dying was a human act whose meaning and rituals were clear. Our ancestors lived and died to the rhythms of nature. Death usually occurred in the home. As death drew near, the dying person acknowledged their faults, forgave those whom they had offended, gave advice, received spiritual assistance, disposed of their goods and valuables, and then bid farewell.[7] Each individual's death was experienced by the community at large and was integrated into its culture, norms, values, and consciousness.[8] Today, in industrialized and postindustrialized nations the situation is drastically different,[9] and in developing societies, mortality rates remain high, life expectancy is short, and most deaths result from infection. As a society becomes more industrialized, mortality declines, deaths from infection decline precipitously, and mortality due to heart disease and cancer soars.[10] Although cancer is often regarded as a problem unique to the developed world, even now more than half of all cancer deaths occur among the three-quarters of the world's people who reside in the developing nations. This figure is likely to increase as a result of increased exposure to tobacco addiction, the aging of many societies, and the effects of globalization.[11] Concomitantly, these changes have resulted in more deaths occurring outside of the home, a weakened and less traditional family structure, and the advent of medical technologies whose net effect is to prolong and transform the process of dying outside of the home.[12] In much of the world death – often medicalized, controlled, and hidden from view – too often comes without tenderness, comfort, or serenity.[13]

Palliative architecture: fear and ethics

In a hegemonistic, postindustrial society death is often viewed as an inappropriate, unacceptable phenomenon. For the terminally ill, the process of dying remains profoundly inhibited, as the patient is often presented with care options that render it impossible to engage with the metaphysical levels of human experience. Conflicts between moral and technical concerns render end-of-life care decisions highly problematic when the physician's interest is the illness, not the dying person.[14] Architects are, similarly, by reason of deeply ingrained biases in their training and professional outlook, disinclined to confront death in the course of their professional careers. Death is never discussed in the academy, where the act of making a building is universally presented as a singularly life-affirming act, one of sheer hope, optimism, even joy. Architects are trained to envision that which does not yet exist in physical terms, e.g. a new home for a young, growing family, or a new school. Death and dying create a profound dilemma in this respect, requiring the architect to reverse this process of visualization. Whereas one's predilection is to create something new where nothing existed before, when confronted with designing for death and dying, the architect is called upon to envision for those who will soon vanish. On the surface, it is not difficult to see why neither the physician nor the architect are inclined to accept death, since the loss of a patient, as with the destruction of an 'important' building, lies beyond the limits of professional reasonableness.

Although, it is illogical to expect architects to design as if they could simply work in reverse anticipatorily from the moment of death, it is just as paradoxical and naïve to expect that architects

should never have to confront death in the course of their work. All clients die, eventually, after all. Just as all patients eventually die. Although for the architect, the building 'lives on' metaphorically. This rather self-aggrandizing assumption drives the architect's ego more than most architects would be willing to admit openly. The physician, however, cannot as easily practice medicine from the perspective of providing life-sustaining care as a means to death per se, retaining some physical remnant or record of the patient's life, as if the corpse were frozen in time and space as some physical body not unlike a building. In this (perhaps grisly) scenario the physician would keep a specimen collection of former patients. For the architect, having a scale model and photographs of a work at least allows for an acceptable method of archiving a lifetime's achievements. For the physician, the fact remains that death remains the penultimate symbol of failure.

Furthermore, for the architect practicing in a hyper-accelerated, consumer-driven culture, death poses a dual dilemma: dying people are those who neither produce nor consume. They are 'hidden clients', often rejected and abandoned or castigated as *in*valids, i.e. in-*valid*. They exist in the shadows, lest they intrude on our so-called act of optimism. The dying are often viewed as clandestine beings.[15] In this view, the moribund presumably have no social status and for that reason no dignity. Palliative architecture holds the power to re-validate the invalid as a human being. It can redefine an explicit role for architecture and for healthcare in providing essential aid in support of medical, emotional, and spiritual care. Vitruvius declared a meaningful work of architecture as that which provides commodity, firmness, and delight, and presumably implied this to be the case for *all* living persons. [16]

Palliative architecture is compassionate. Its aim is to relieve unnecessary pain, stress, and discomfort. Beyond physical surroundings, hospice signifies a philosophy. The majority of palliative care typically takes place in the home. The architect must responsibly design home environments as well as inpatient hospice environments that are universal – as a means of reinforcing personal independence, autonomy, and dignity and to relieve unnecessary suffering.[17] Architects, working in unison with hospice care providers, need to be cognizant of the three core dimensions which, taken together, constitute a language of palliation: the role of science (body, illness, medicine), the role of the person (emotional well-being, reconciliation, spirituality), and the role of the built environment (commodity, firmness, delight). Palliative architecture rejects the machine for healing, and rejects pure rationalism. Just as nurses have been leading supporters of palliative care, in large part because they spend so much time with the patient and family, so too, non-hospital architects – anti-hospitalists – in many instances, produce the most innovative palliative architecture. Only recently has palliative architecture begun to come into its own, and this is likely due to the profession's uneasiness with the topic of death and dying.

Western medical tradition has been based on the principles of *sanare infirmos* (to restore health) and *sedare dolorem* (to relieve pain). The first dictum seeks biological perfection of the body and is inconsistent with care whose goal is to ease the process of dying, whereas the second emphasizes the sacredness of life, and therefore, in the strictest sense, implicitly accepts death only after all other options have been exhausted. In a pluralist, fragmented society where events unfold at unprecedented rates, these principles further muddle matters pertaining to the authority of the physician in shaping life-death decisions. The first principle compels health providers to seek a cure at any cost, despite the treatment-related pain and suffering this may incur. The second principle presents an alternative, arguably more ethical position that can accomplish the most benefit with the least harm.[18] Palliative care and palliative architecture are not authoritarian. Neither attempts to reach decisions from abstract, rigid principles (as occurred in the case of the first author's father). Both, however, seek the meaningful involvement of the patient and the family on a case-by-case basis, and – perhaps most importantly – viable alternatives to excessive institutionalization, thereby empowering both patient and family. The role of architecture in this equation is the focus of this book.

From the epochal events of 9/11 to the inability of a mother in Ethiopia to obtain life-saving immunizations for her infant, complex global issues loom larger than ever before. The world's population of 6.1 billion increases by nearly 9,000 persons each hour.[19] Viewed from this perspective, dismissal or avoidance of death and dying on the part of the architect is premature, even potentially catastrophic.[20] This penetrates the heart of what it means to be a part of a 'community'.[21] Membership in a community is characterized by communication, mutuality, and the ethical ideals of fidelity, gratitude, reciprocity, justice, and love.[22] Palliative architecture cannot exist in a vacuum. It must be highly

visible and tangible. It should express mutual cooperation and the acceptance of mutual responsibility. Ira Byock, a physician, reaffirms this position, citing philosophical discussions of an 'equality of opportunity' as the cornerstone of justice in a civil society.[23]

Discussions of the ethics of palliative care tend to focus on the provision of shelter from the elements ('we will keep you warm and dry'), assistance in personal hygiene and sustenance ('we will keep you clean and fed'), companionship ('we will be with you'), and the control of pain ('we will do whatever we can to lessen your discomfort'). Implicit in this manifesto of sorts is the view that every member of a community of caring is responsible for the well-being of the others. Architecture (with a capital A), however, is only obliquely addressed in these provisos. The danger in not thinking beyond 'shelter' per se is that commodity and firmness may be emphasized in a hospice setting, while delight may be inadvertently expunged from this equation due to budget constraints, lack of leadership, lack of vision, and so on. Unfortunately, it was this quality of delight that eventually had become so conspicuously lacking in the modern hospital and in the modern nursing home.[24] Writing on the excessive institutionalization of the modern nursing home in the 1970s, sociologist J. Howard called for the total re-humanization of healthcare institutions, and, in so doing, indirectly indicted the state of healthcare architecture at the time for its inhumanity.[25]

As a society, what we build is a direct reflection of who we are. In light of the fundamental importance of social mutual responsibility, many people in fact prefer, if given the choice, to make arrangements for their own future in ways that are more covenantal than contractual.[26] What are the implications of this for architecture? Architecturally covenantal values and principles must first be in place in order for compassionate architecture to be created. The terminally ill remain cognizant of their surroundings in the final days, even hours, of life.[27] The hospice is a stage for patients to engage in reviewing their life, reconciling, bringing closure to relationships, and exploring the existential and spiritual aspects of their life.[28] It is important to be comfortable in sharing with others, to achieve satisfactory closure, to tell one's story, and to contribute to the community covenant in these ways. In reality, few of us actually have a say in where we will die, whether death is to occur in or outside our home, or outside of our own neighborhood. This covenant must therefore consist of a tacit understanding that a caring place will be there for all of us if and when needed. This amounts to a proxy, whereby one must make assumptions about the future care one will receive without knowing the specifics of that care or where it will be administrated to us.

At the very least, it is hoped this book will be of some value to those working in this subject area. The discipline of architecture, and the enterprise of architectural research in particular, remains unusually weak and tentative.[29] Moreover, it is counterproductive for architecture to remain isolated from the broad range of disciplines concerned with death and dying.[30] Specialists in palliative medicine and architects need to work together on issues of mutual importance. This theme is reprised in the concluding chapter.[31] Palliative architecture is about life assuring every individual the right to die with dignity, in a dignified setting. The *kairos* – that moment of grace that allows us to love others, to be serene and to prepare to die peacefully with the help of forces that are beyond those that are solely pragmatic – needs to be honoured.[32]

In Chapter 1, the historical roots of the contemporary hospice movement are traced, i.e. the medieval hospital, the almshouse, the poorhouse of Europe, the guest house and the waystation for the sick and dying in the midst of pilgrimages. The International Style modernist hospital and, later, the megahospital, and postmodernism are discussed in relation to contemporary attitudes toward death and dying. The contemporary hospice movement – viewed here not as a modern movement, in an architectural sense, but as a postmodern movement – is discussed. The work of Dame Cicely Saunders, founder of the first contemporary hospice, St Christopher's in London, is discussed. The spread of the movement from England to an international movement is traced.

Chapter 2 is a discussion of the timeless therapeutic effects of nature and the natural environment in relation to the terminally ill. The importance of residential imagery and formal vocabularies, technology appropriate to the hospice milieu, the therapeutics of person-nature transactions, and restorative gardens are discussed. These design principles are discussed as having reaffirmative powers, enabling one to establish one's place within the larger scheme of things. Examples of nature as a key component of palliative architecture are presented, citing hospices in many countries.

In Chapter 3, some recent trends are discussed that have important ramifications for architecture. These include the global

HIV/AIDS crisis and its implications for hospice care and facilities in sub-Saharan Africa. The growing number of children's hospices is traced from their contemporary origins in the U.K. Complementary alternative settings, such as the recent Maggie's Centres project in the U.K., are looked at in relation to the mainstream hospice movement. The importance of art therapy and of viewing architecture itself as a therapeutic modality are discussed. The chapter concludes with a discussion of hospice form in cross-cultural perspective.

In Chapter 4, a compendium of planning and design principles for hospices is presented, accompanied by diagrammatic representations of baseline concepts. This information is applied to a case study developed by the authors for a hospice proposed for the island of Maui in Hawaii. This chapter concludes with prognostications for the future of hospice architecture within the framework of the future of palliative care.

In Chapter 5, a compendium of eighteen international case studies is presented: Sweden, Canada, the U.K., Taiwan, Japan, the U.S., Australia, and the Netherlands. A typology is delineated: hospices in medical center campus contexts; hospices in autonomous community-based settings; hospices expressing adaptive use strategies; and children's hospices. The case studies include plans, photographs, and narratives describing design intentions and their salient features.

Part 1

A history of hospice

CHAPTER 1

[illegible]

> The old idea of one hospital to satisfy all needs is a thing of the past … we need a series of institutions … in the terminal situation, the family is as necessary as any other form of care. But we exclude families from intensive care units … we'll need [care settings] where humanity won't have to overcome the technical apparatus.
>
> John D. Thompson (1975)[1]

Medical technologies of the twenty-first century dazzle our imagination. They shield us, or so it seems, against deformity, disease, even death. A patient can be kept alive for years even if their brain has ceased to function. Such a patient is light years removed from the dying patient in a medieval monastic ward hospital. The more cures we discover, the worse death appears as an option. Western culture, in particular, remains, for the most part, unable to be reconciled with death or its inevitability. We tend to blame death on some failure of medical science. In institutions where the dying were once housed in the not so distant past, avoidance was the norm: so much so that people would cross a road in order to walk on the far side, altogether avoiding the place for death as if it were a leper colony. Even within the contemporary hospital milieu, this denial reigns. Hospitals around the world continue to hide their dying patients away from their activity centers, relegating them to rooms at the far end of long, bleak corridors. The culture of denial is highly choreographed.[2]

From the earliest Neolithic settlements in Mesopotamia, as long ago as 50,000 years, cave dwellers set aside 'nests' reserved for the care of their sick and dying. Neolithic cave paintings attest to the need to grieve the dead and for their proper burial. For centuries, scholars considered death and dying off limits, as if to do otherwise would acknowledge Satan. Death was associated with the devil, witchcraft, and darkness. By the fourteenth century the Catholic Church had outlawed all exorcisms and forms of witchcraft on pain of being burned at the stake. This form of death was a means of ensuring that the condemned would be consigned to an eternity in Hell. In the painting *The Triumph of Death* (c. 1562), by Pieter Brueghel the Elder (c. 1520–69), the 'fumes' ultimately overcome all (Fig. 1.1). By contrast, in ancient Egypt the dead were provided with all the accoutrements they would need for a comfortable afterlife. In Egyptian culture the afterlife was considered far better than life on earth.

1.1 *The Triumph of Death* (1562) portrays the timelessness of the struggle between life and death

By the eighteenth century, gradual developments in religious and medical protocols had transformed Western traditions surrounding death, dying, and grieving. For centuries, Christian tradition preordained the primary role of family members, with their responsibility for nursing their dying relative and gathering around the deathbed to seek reconciliation. After the person's death, a church funeral, a parish burial, and a period of public mourning aided in tempering the inevitable pangs of loss and grief. Hospitals and commercial undertakers, by contrast, are much more recent innovations of the nineteenth and twentieth centuries.[3]

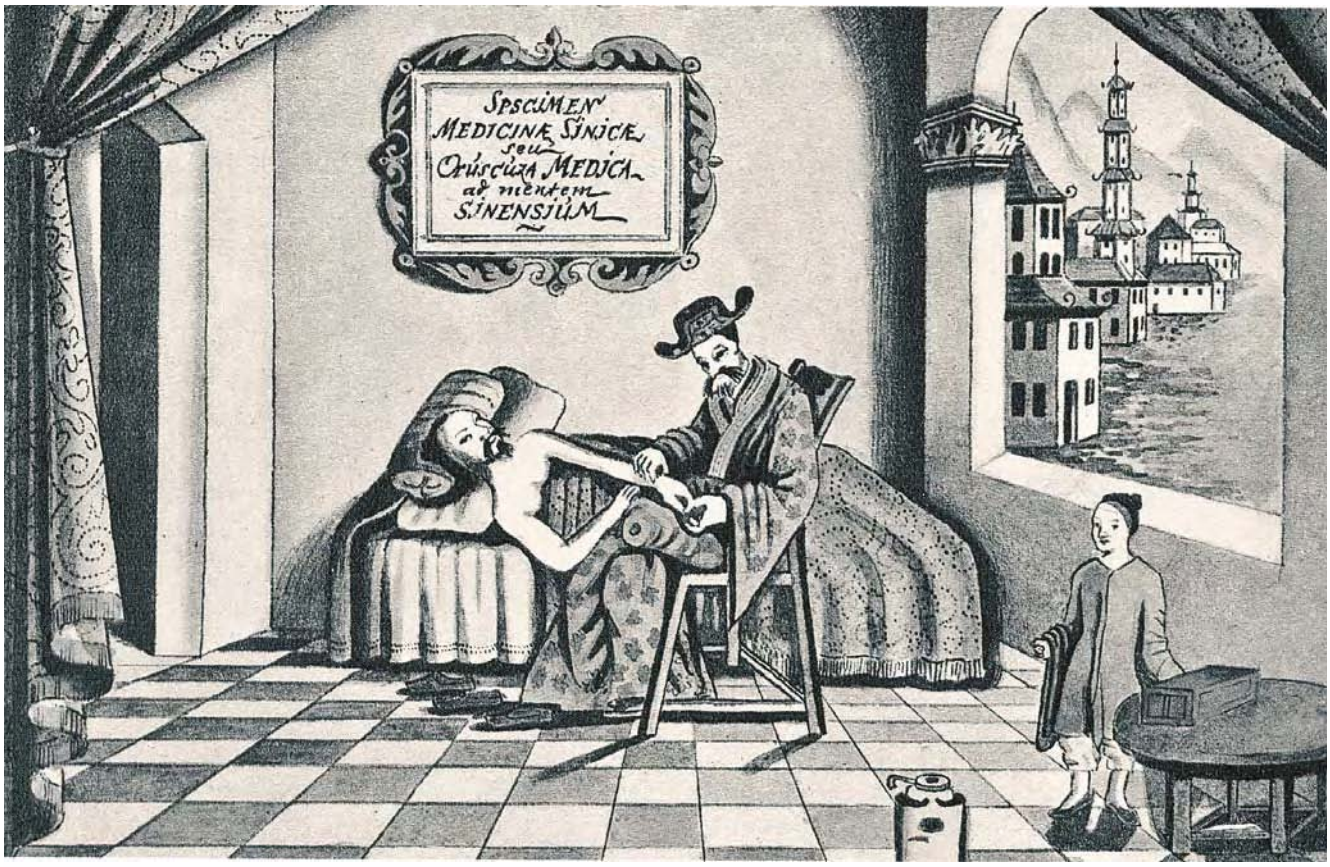
The word *hospice* stems from the Latin word 'hospitum', meaning guesthouse. Its earliest uses describe places of shelter – waystations – for sick and weary travelers returning from religious pilgrimages and other lengthily, arduous journeys throughout Europe and lands beyond. Hospice quarters were available at many of the monastic hospitals operated by various religious orders during the Middle Ages. Provisions often consisted of private rooms, for those who could afford to pay or barter in return for shelter and respite, or those simply too sick and infirm to travel any farther. In a seventeenth-century Batavia painting, part of a collection on Chinese medicine, a Chinese doctor is depicted taking the pulse of a terminally ill man (Fig. 1.2). Gradually, evolving religious doctrine increasingly separated grief from public ritual. The act of mourning shifted more and more to the private realm, becoming the primary responsibility of the family. Christian tradition had held that the dead must await Judgment Day before being transported into Heaven (or elsewhere). Nineteenth-century popular sentiment, by contrast, favored the image of the dying being immediately rapt into Heaven; the belief was that as other family members died, they would immediately rejoin their beloved deceased. The family was, as a consequence, obliged to tend to the memory of its dead, to erect marked graves, to visit cemeteries for moments of recollection and meditation, and to vigilantly preserve and enhance the belief that the family would one day be reunited in Heaven.[4]

A hospice for the dying was opened in Lyon, France, in 1842, by Mme Jeanne Garnier, but the use of the term 'hospice' was applied in this case as but one interpretation of a general French term. Our Lady's Hospice at Harold's Cross, Dublin, was opened in 1879 by the Irish Sisters of Charity, and in all likelihood represents, according to Grace Goldin, the first use of the term in the

modern sense in the English language. It was not a hospital, by any means, for in their description:

> No one comes here expecting to be cured, nor is it a home for incurables, as the patients do not look forward to spending years in the place. It is simply a 'hospice' where those are received who have very soon to die, and who know not where to lay their weary heads.[5]

At the same time, religious sentiment was evolving in rapidly urbanizing industrial societies, as more and more people were now living in new surroundings, remote from the village of their birth. Families emigrated from their homeland to new nations, from rural communities to cities, migrating from enclave to enclave within the Industrial Age city and, decades later, to its burgeoning suburbs. No longer was the immediate community able to be either held responsible for or even directly knowledgeable of its deceased members. Notable exceptions to this were



1.2 A Chinese doctor taking the pulse of a sick man in the man's home. Home has been the preferred setting for dying for most of recorded civilization

local community leaders, religious clergy, and politicians. As a consequence, the local undertaker, and a new building type, the funeral home, i.e. a home-like building, and its main room, the parlor, appeared on the scene. In the homes of families of means, the main parlor was where the body was placed for public viewing prior to burial. The funeral parlor would supplant the former centrality of the family and the family residence as the place where death, dying, grieving, and reconciliation occurred. The funeral 'home' sought to replicate as closely as possible the ambiance, dignity, and status once occupied by the family home. The undertaker would henceforth function as the 'manager' of death by offering families a menu of prepackaged rituals from which to choose. For persons without family or those families without means, almshouses for the aged had been established, predating the Industrial Age city by more than 300 years. These residences would evolve over time into an autonomous building type of their own. The residents, referred to as pensioners, lived independently for as long as possible. Many almshouses operated in the U.K. and elsewhere in Europe by the end of the nineteenth century. Some decades later, in the aftermath of the Second World War, the almshouse would succumb to the International Style modernist nursing 'home'.

The conditions at Harold's Cross in the 1880s were in stark contrast to the conditions of the typical hospital at the time, as hospitals continued to be described as 'cold and impersonal'. This hospice, perhaps the first non-profit hospice in the contemporary sense, was supported from donations, and even minuscule sums donated by the poor, who might hope to reside there 'before the earth receives them'.[6] Twelve years after the founding of Harold's Cross, in 1891, Trinity Hospice was founded in London. Trinity is the oldest full-fledged hospice in England. The first appeal letter by Colonel William Hoare appeared in *The Times* of London on Christmas Day in that year. Having raised the 2,000 pounds needed, this successful appeal enabled the Anglican Order of St James's Servants of the Poor to open a hospice, which became known as the Free Home for the Dying, at 80 and 82 The Chase, Clapham, in London. Royalty supported Trinity Hospice from its beginnings: Queen Alexandra became the hospice's first patron while still Princess of Wales. Two beds were named in her honor in 1902, and she saw to it that thereafter this hospice would receive funding from collections on Alexandra Day each year.

On the death of the Queen in 1926, the Duchess of York took on the role of patron, which, as Queen Mother, she occupied until her death in 2002. Trinity grew in stature if not in physical size in the intervening decades: in 2000, it operated three wards for inpatient care, housing a total of thirty beds. St Michael's is the largest of the wards, with thirteen beds, and is situated on the ground floor. All the bedrooms look onto a beautiful restorative garden, to which there is direct access for the patient. St Margaret's Ward is on the second level in one of the Georgian buildings. It houses seven beds and rooms overlooking gardens, trees, and the lawns of the adjoining Clapham Common. A mechanical lift was installed some decades ago to provide for physical access. Here, most patients share semi-private rooms, each with three beds, although some single rooms are available. There is a dayroom on each ward for patients' and visitors' use, as well as a small private consultation room. Elizabeth Clark Ward has ten beds and is located upstairs in another of the Georgian buildings. Its configuration is nearly identical to that of St Margaret's Ward.[7]

By the time St Joseph's Hospice, shown here in a photo taken in 1907, was founded in London, in 1905, hospice, as a specialized building type, was becoming somewhat known in London society (Fig. 1.3). In 1900 a Jesuit priest had implored the Irish Sisters of Charity to come to London to care for the sick and poor in the East End. Five of them responded, who:

> Went down daily into the cellar-like compartments of the destitute … there was no mistaking the heartfelt relief and gratitude of the bedridden … as they felt their face and limbs being sponged, their hair cleansed of lice, fragrant night attire put on them, their pallet given an aspect of tidy wholesomeness, with the odd flower to add its quota of happiness.[8]

Trinity Hospice and St Joseph's Hospice would function as two important precursors to St Christopher's Hospice (see below). Another important precursor was St Luke's Home for the Dying Poor, founded in 1893 by Dr Howard Barrett. Unbelievably, this hospice had been in the planning for twenty-seven years. Three qualifications had to be met for admittance to St Luke's: the applicant must be poor; from London; and in the final stages of a terminal illness. In some cases, children were admitted, 'Whose

1.3 St Joseph's Hospice, London, U.K. This was among the earliest institutions to provide care for the dying in London, and has since served as an architectural precursor to the contemporary hospice movement

presence softens and gladdens the lives of the others…' The ambiance of St Luke's was, in Dr Barrett's words, far from depressing compared to the alternatives at the time:

> I know there are hundreds and hundreds more hidden away in the dreary streets and purlieus of London just in the same plight as those we have here … therefore it is delightful to think that here, at any rate, are thirty-five (a pitiable number I admit) whom we have, in a sense, rescued …[9]

This institution was later renamed 'St Luke's Hospital for Advanced Cases', and later, following relocation, 'St Luke's, Bayswater'. Regardless, one constant held, as the 'deathbed' image was always assiduously eschewed. In 1977, when Bayswater Hospital was modernized it was rechristened 'Hereford Lodge', but in the early 1980s this structure was demolished to make way for luxury housing, with the proceeds applied to the construction of a new St Mary's Hospital, its successor parent institution. In the twelve-bed wards of St Luke's, Bayswater, there was an unspoken policy of, and, it was hoped on the part of staff, an undetected rotation of patients toward the main door, with the sickest of the sick grouped nearest to the nursing station at the front entrance. Just before death, a patient would be whisked off to a private room so that neither those patients who were relocated nor these remaining in the open ward would perceive exactly what was transpiring. To a large extent, this policy was a natural by-product of the ward configuration's architectural openness.

To St Luke's, Bayswater, in 1948 came a young almoner (social worker), Cicely Saunders, who would later found St Christopher's Hospice (Fig. 1.4). She was twenty-nine years old, having recently left, after three years of study, the nursing school founded at St Thomas's by Florence Nightingale, for a wartime degree from Oxford in 1944, but, according to Grace Goldin, Saunders was urged by Norman Barrett to submerge her restlessness with social work to pursue the study of medicine. 'It's the doctors who desert the dying,' he said. If she herself were not a doctor, no doctor would listen to her. So she entered St Thomas's medical school in London, graduating at age thirty-nine. During her post graduate research at St Joseph's Hospice she developed the concept for the future St Christopher's Hospice.[10]

As mentioned, in the period 1900–45, the geriatric open wards of hospitals were frequently used as repositories for the aged and infirm, and for persons suffering from inoperable cancer. These patients were often housed in back-wards, far from the hub of life and from the higher status wards whose patients and carers were accorded significantly more attention within the institution's hierarchy. However, an inherent dichotomy persisted: the practice of institutionalizing the aged had been a logical outgrowth dating from late nineteenth-century public health advances in urban sanitation conditions. These improvements had the effect of transforming the hospital into the preferred care

1.4 St Christopher's Hospice, London, U.K., was an amalgam of modernist and postmodernist architectural ideologies. Its outward appearance was a byproduct of NHS criteria and the need to reject the institutionality of the modern machine hospital

setting over any private, home-nursing care, or so-called 'death houses,' as physicians and others still referred derogatorily to hospices. In so doing, more could be cured, or so it was presumed, at least if one were deemed curable. To a large extent this did occur, although with an ironic twist. By 1949, fifty percent of all deaths in the U.S. occurred in hospitals; by 1995, this statistic had risen to eighty percent.

Once in the post-WWII acute care hospital, the dying person confronted the culture of modern, advanced, biotechnical medicine. It was a culture deeply biased toward experimentation, invention, and the war against all disease. This culture eventually became the scientific equivalent of an unshakable, quasi-religious doctrine of faith and devotion:

> In this culture to not get better – to decline, to die – is to fail … popular culture inevitably isolates the sick, the dying, and the grieving ... At one extreme stands the growing euthanasia movement, which advocates using modem medical knowledge to allow suffering persons to request their own death. At the other extreme is the unceasing popular search for a personal attitude of fulfillment and serenity ... the hospice movement stands between these two poles … [employing] the techniques of modern medicine to relieve pain, help breathing, stabilize the bowels, and manage the symptoms of the dying. It uses the formidable armamentarium of modern medicine to make it possible for most patients to die as conscious as possible and without serious pain. Hospice care also ends the isolation of patients by helping them and their families and caregivers accept the idea of death as a natural process, as a stage of life itself.[11]

Not coincidentally, by the late twentieth century the nursing home proliferated as a freestanding building type in its own right in most industrialized nations. In the post-1945 era thousands of modernist community hospitals, tertiary care medical centers, and nursing homes were constructed throughout the world. This warehousing of the infirm would, unfortunately, persist, only now in a new place. In addition to the largest, most convoluted, ugliest hospitals – megahospitals – the aged and those with terminal illness were now warehoused in quarters that themselves looked and felt more and more like mini-megahospitals – machines for occupation until death. In the hospital, and later, in the long-term care institution, little amenity was provided for the dying, as physical space, increasingly sparse in an era of unprecedented expansionism and accelerating construction costs, had to be spent meeting more and more building code and regulatory agency requirements. From the perspective of the terminally ill, scant progress would be made to rectify this dysfunctional condition until the advent of the freestanding, institutionally autonomous inpatient hospice. The culture of denial continued unabated, because to seek end-of-life palliative care, whether in one's own home, a nursing home, or in a hospital, was to let one's shadowy secret out, thereby acknowledging the triumph of death.

Postmodernism and the hospice movement: 1965–2005

By the 1960s an alternative philosophy had emerged, although it remained in the shadows, marginalized, kept apart from the mainstream of modern medical science and the mainstream of modern architecture. Dying patients would no longer be guaranteed the ignominious fate of living out their remaining days in the isolation of a hospital oncology unit, or simply sent home to fend for themselves. Instead, contemporary programs were created whereby one could enter into a circle of friends, relatives, and professionals and talk openly about death and dying, if and when one so desired. This circle would work to make the patient's remaining days as peaceful, meaningful, and fulfilled as possible. Palliative care emerged as an alternative to the isolation of the institutionalized dying by employing teams composed of physicians, nurses, social workers, therapists, and clergy, and they in turn encouraged family and friends to share in the caregiving process. By the 1960s, the megahospitals built in industrialized countries had become muscle-bound, i.e. functionally obsolescent as the result of one unimaginative addition after another, and critics blasted the federal healthcare bureaucracy for the overbuilding of these massive 'cities unto themselves'. Many had been built, with considerable funds spent not on quality architecture but on exotic new diagnostic and imaging equipment, new specialty units, immense car parks, and an obsession with keeping up with the Joneses. Bigger was better, and the more beds, the better. By the 1980s, through a

curious mixture of internal and external determinants – the public's rejection of modernism, the effects of rampant expansionism, the competitive, obsessive race to adopt high technology, and an extremely powerful medical profession – an imperfect healthcare system had been given full expression in the machine for healing.[12]

These determinants, together, set the stage for the contemporary hospice movement. In Cicely Saunders' interactions in 1948 with David Tasma, a dying patient, Tasma and Saunders, then a medical social worker, often discussed his isolation, his pain, and what decent path he might take toward death. In these conversations Saunders and Tasma imagined a *house* where people could find relief from pain, where they could meet with encouragement for self-awareness and socialization, and where the setting would be uplifting, not depressing. When Tasma died, he left Saunders 500 pounds so that one day he might be, in his words, 'a window in your Home'.[13]

Subsequently, and drawing upon her experience at St Joseph's Hospice in East London, in 1967 Saunders opened her own institution, St Christopher's Hospice, in suburban London. Her work in the U.K. found reinforcement in parallel contemporary work by Elisabeth Kubler-Ross in the U.S., and a small handful of physicians and nurses elsewhere in the U.K. and throughout Europe. Kubler-Ross's seminal 1969 book, *On Death and Dying*, was a call for a thorough redefinition of societal attitudes toward dying and death.[14] A new discourse on terminal end-of-life care was emerging and this discourse fostered new concepts of dignity and meaning in death. It saw dying as marked by achievement and resolution, versus failure. It replaced passive negativity with proactive optimism about what could be achieved. Most importantly, it rejected the medical profession's standard cliché 'There is nothing more we can do.' In 1974, a Yale University group (later to become The Connecticut Hospice) began a home care hospice program in New Haven. Then, in 1976, the National Cancer Institute and the Kaiser Foundation jointly sponsored three residential hospices as demonstration projects, in Branford, Connecticut; Boonton, New Jersey; and Tucson, Arizona. By 2005 the movement had taken a quantum leap, with more than 2,600 U.S. hospices registered with the National Hospice Organization.[15]

The seeds of the contemporary hospice movement, however, had been planted in the early 1950s, when, in Western Europe, systems of socialized medicine were being developed:

> Specialization was advancing rapidly; new treatments were proliferating; and there was an increasing emphasis upon cure and rehabilitation. Modern scientific medicine, organized along bureaucratic channels, was getting into its stride. Death in the hospital, rather than at home, was becoming more common and the dying patient was seen increasingly as a failure … a death-denying culture was in evidence in which the fact of human mortality was regarded increasingly as a private, rather distasteful matter – even a taboo. No sooner had this new medical and social zeitgeist become established than there was a separation from it. In England, this was expressed as a concern about [the] neglect of the dying within the healthcare system … these were questions which health planners and policy makers at the time were largely unwilling to answer.[16]

In the late 1950s, social workers, psychologists, psychiatrists, and physicians conducted the first research on terminal care. Cicely Saunders, who passed away in 2004, published her first paper on the care of the dying in 1958, and in her life authored or co-authored nearly sixty publications.[17] A major dimension in her work was the concept of 'total pain'. This concept argued for embracing the social, emotional, and spiritual dimensions of suffering, and, as recounted by David Clark, became a core tenet in the aftermath of one of her patients telling her 'all of me is wrong'.[18]

Many early contemporary hospices in the U.K. were established in donated former private residences, such as Tarner House, which opened in Brighton in 1973. At Tarner House, residents were allowed to wear their own clothes and to bring their own possessions, including favorite furniture, such as a rocking chair. Without the formidable presence of the megahospital's life-extending apparatus, such as respirators and dialysis machines, there was now space for these important comforts from home. Relatively few architectural retrofit measures were required, as these places were not licenced as medical facilities. After basic building code requirements for food preparation and life safety egress standards had been met, little else was necessary. The main spaces were for beds (often converted bedrooms) and for social exchange and counseling (living and dining rooms, parlors, terraces). And, of course, this was a further extension of the intent at Trinity Hospice and St Joseph's hospice decades earlier.

As mentioned, St Christopher's Hospice was the first contemporary hospice in the U.K. However, it is somewhat ironic that architecturally, by and large, it was modernist in its outward appearance (Fig. 1.4). This, for better or worse, was nearly entirely due to the need to comply with National Health Service (NHS) standards for medical facilities funded under its aegis. By 1977 the U.K. had more than thirty inpatient hospices, while the U.S. had only two.[19] However, journal articles on hospice and palliative care were beginning to appear in the mainstream hospital literature, including discussion of the pros and cons of an in-house palliative care unit (PCU) versus building a freestanding yet hospital-affiliated facility.[20] In the late 1970s the U.S. Joint Commission on the Accreditation of Hospitals conducted a survey of all U.S. hospice programs. They identified more than 800 home-based programs in various stages of development, with 440 functioning at that time. Most programs (fifty-one percent) had only begun to offer services in January 1980. Typically, although hospice care was by now rapidly proliferating, the average caseload was only sixteen.[21] The movement, by 1980 characterized in the popular media as a rediscovery of a long-lost form of care, had clearly caught the attention of the mainstream medical establishment.[22]

The first autonomous U.S. hospice, The Connecticut Hospice, in New Haven (1972–74) was built to house forty beds but later expanded to fifty-two beds. The architect, Lo-Li Chan, introduced many innovations, including a grieving room. Part of the hospice was housed in a former convent residence for nuns. The Connecticut Hospice received very favorable reviews in the U.S. popular media, including a review by Paul Goldberger, the architecture critic of the *New York Times*.[23] In 1976, Lo-Li Chan authored the first article on hospice architecture in a U.S. mainstream architectural publication. This article, appearing in the *AIA Journal,* described his work in Connecticut and he outlined a number of fundamental design concepts, serving as a point of reference for architects for the next fifteen years. Planned transitional amenities – alcoves and vestibules – areas for people to pause and reflect, to retreat to temporarily, now merited architectural expression. These features, together with the call for a profoundly human-scaled composition, set in nature, without question, and in quasi-theatrical terms, set the hospice totally apart from the typical acute care hospital of the time. In the latter, funds were seldom if ever budgeted for the 'burden factor' spaces, i.e. the *in-between* spaces, the transitional spaces so essential to palliative architecture.[24] Chan began a tradition, insofar as other architects have, since, authored articles extolling the virtues of their own hospice projects, such as Gregory J. Scott's piece on his firm's Essa Flory Hospice of Lancaster County (2001).[25] The following year, J.A. Hackney authored the first article appearing in a British journal on a newly built post-WWII hospice, citing many of the same attributes championed by Lo-Li Chan.[26]

By 1985, five models of hospice care existed in the U.S., a typology based nearly entirely on the British model: 1. The freestanding autonomous hospice, exemplified by The Connecticut Hospice and the Hillhaven Hospice, Tucson: 2. The freestanding hospice with a hospital affiliation, such as the Riverside Hospice in Boonton, New Jersey: 3. The specialized PCU within an acute care or long-term care facility: 4. Roving hospice care teams for patients in scatterbed configurations within these two types of institutions, such as at St Luke's Hospital in New York: and 5. Programs providing exclusively at-home care, such as the first phase of the Hospice of Marin (California) and the Hospice of Orlando (Florida). Also, in 1980, the first post-occupancy evaluation of an autonomous hospice was reported in the research literature.[27]

In 1986, Deborah Allen Carey published a book-length architectural discussion of hospice architecture in English, titled *Hospice Inpatient Environments: Compendium and Guidelines*.[28] Prior to this, in 1982, a report was authored (by the first author of the present text) titled *Environment-Behavior Design Factors in the Architecture of Hospice*.[29] Hospice, in the eyes of many, did not yet conjure a specific 'type' of architecture: it remained essentially perceived as a philosophy more than anything. Sandol Stoddard called it a *caring community*.[30] Not until 1976 did the U.S. House of Representatives articulate its own definition of hospice.[31] In 1980, a report was presented at a conference at St Christopher's Hospice in London on the status of U.S. hospice programs, with scant reference made to any specific architectural requirements.[32]

In the U.S., by 1985, the Joint Commission for the Accreditation of Hospital (now Healthcare) Organizations had developed its own guidelines, although hospices were not subject to inspection for compliance until July of that year. Hospitals and nursing homes had long been subject to performance compliance.

Now, a set of parallel regulations would apply to hospices. As part of its attempt to develop standards, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) conducted a study generally based on the aforementioned architectural typology: how many programs had inpatient units consisting of, for example, scatterbeds in other units; architecturally distinct units within hospitals or skilled nursing facilities (defined as those units with a dedicated hospice care-only nurses' station); programs with a handful of designated beds in a ward or a med/surgical unit 'decorated' for hospice use, e.g. with multi-colored bedsheets, window treatments, residential couches, lounge chairs, tables, artwork (especially that depicting nature, and the like), or freestanding units. In Phase II of this study, 720 operational programs were identified, although fifty-six percent of these provided at-home care only. Thirty-six percent provided both at-home care and inpatient care, with only seven percent providing inpatient care only. A spring 1983 sample of 375 hospice programs in the U.S. offering inpatient care showed the scatterbed model to be predominant. Programs employing other models were of one of four types: mixed oncology and hospice patients in a renovated combined unit; a separate hospice 'zone' within an oncology unit; a hospice zone within a traditional med/surgical unit; and the architecturally autonomous unit. The JCAHO noted at the time that architectural autonomous units were a 'severe minority, representing perhaps one hundred hospice programs of a total now well over 1,000.[33]

Carey referred to the spaces described by Li-Lo Chan as transition spaces, not rooms in the traditional sense. Rather, they were 'analogous to airlocks in caissons'. Transitional spaces would allow staff and visitors to adjust, for instance, when passing from a patient room to the publicness of a corridor. Thus, architects had legitimized the need to express a gradient of privacy as a fluid relationship between walls and openings that allow for personal freedom of choice. Second, this concept of transitionalization, of accommodating prospect-refuge behavioral predilections, was to also be culturally reinterpretable. Japanese patients, for instance, temper their use of such spaces according to their preferred patterns of behaviour. This early research stressed the importance of intimate human scale. The hospice was now to the hospital what the home had previously been to the hospital for many decades. Hence, a set of architectural attributes – palliates – had been identified. It was no coincidence that in the 1948 film *Mr. Blandings Builds His Dream House*, Mrs Blandings (Myrna Loy) instructed her interior designer to avoid painting any room white, saying 'Please don't make anything white because it looks so cold and institutional, like a hospital.' Based on the combination of this empirical research in the 1980s together with the construction of the first wave of architecturally freestanding hospices, further innovations were to be anticipated in the future. This would be achieved through the incorporation of symbolic aspects of the home, such as the hearth, and multi-functionality (that is, rooms that serve several purposes, such as a chapel that doubles as a meditation room or private space). Materials and finishes of the home, such as carpeting, wallpaper, domestic furnishings, and religious and secular symbols of change and transition, were now called for.[34]

By 1996, there were 2,531 operational or planned hospice programs in the U.S. and the National Hospice Organization estimated that 340,000 patients had been cared for in 1994, representing a twenty-four percent increase from only the previous year. By 1996, the U.S. Department of Veterans' Affairs (DVA) operated fifty-six inpatient PCUs, housing 374 beds nationally. Also, in the same year, one out of every seven deaths from all causes, and one out of every three cancer and HIV/AIDS deaths in the U.S., were tended to by hospice programs. A case could now be made for the claim that the freestanding autonomous hospice, due to its basic antihospitalist philosophy, was the first genuinely postmodern *healthcare* building type of the late twentieth century.[35] This claim could be based upon the architect's rediscovery and reinterpretation of historical precedents. By contrast, it remains highly ironic that NHS regulations, by and large, had dictated the modernist exterior of St Christopher's Hospice, a program with clearly postmodernist overtones from a philosophy of care standpoint.[36]

By 2000, the generic megahospital had been under attack for nearly twenty-five years.[37] Hospitals were noisy and disruptive for all patients at all times of the day and night.[38] By this time radically different paradigms and new alternatives were well underway as hospitals were under enormous pressure to downsize and reconfigure the mix of services.[39] Although this point is often misunderstood, the hospice movement, fundamentally, was (and remains) utopian. Nonetheless, it simultaneously provided a pragmatic alternative to a persistent vacuum of care in an imperfect healthcare landscape.[40] St Christopher's, and later hospices, would provide postmodern amenities not to be found in a hospital, such as

1.5 The Strasburk Hospice, Prague, Czech Republic, founded in a donated former residence on the edge of a large psychiatric hospital dating from the late nineteenth century. It is located in a suburb of Prague

grieving rooms, informal transitional spaces, rooms for spiritual contemplation and respite, and restorative gardens. Overnight accommodations for families would be available, and rooms for counseling and therapeutic activities would be provided, e.g. water therapy, art therapy, music therapy, patient-family centered libraries, and opportunities for communing with nature.

Architecturally, an aesthetic had evolved not at all like the assertive modernism of the megahospital (see p. 74). Despite the humanist amenities to be found in hospices, and the unobtrusive political stance of most hospice programs, in more than one instance in the U.S., neighbors were afraid to allow a hospice to open nearby, particularly if intended for HIV/AIDS victims, in their local community.[41] Noteworthy examples from this period include the San Diego Hospice (1977), the Axlagarden Hospice in Sweden (1993), the Strasburk Hospice (1996) in Prague, the first hospice in the Czech Republic, created from a 150-year old former farmhouse dwelling with a new wing added (Fig. 1.5), and the adaptive reuse of a former auto repair garage into the second generation Maitri AIDS Hospice (1997). In each example, anti-monumental buildings were created – buildings blending snugly, and at their best, profoundly, into their surroundings.

Regardless, as recently as 1996, controversy surrounded whether a hospice should stand out significantly from its context:

> Ordinariness is … the hallmark of successful hospice design. A home for the dying is not the place for avant-garde experimentation, but, rather, familiarity and unobtrusiveness. It helps people feel that they're a part of the neighborhood and the neighborhood feels that the people there are living the same lives that they are.[42]

Skepticism persisted in many quarters, as more than a modicum of this backlash was attributable to the negative criticism given all healthcare architecture as the result of the architectural failings of the megahospital. Writing in 2000 on the North London Hospice (see p. 143) Naomi Stungo wrote, in the journal *RIBA Interiors*:

> Let's face it, by the time you end up in a hospice, architecture and design are likely to be the last things on your mind. Far more important are the nursing care, pain relief and general attention available and, because none of these come cheap, hospices (like hospitals) tend to be design-free zones. That's just the way things are: the reality of healthcare funding means it's usually an either/or situation – either healthcare or design – which is a terrible choice to have to make, since endless research shows that both affect patients.[43]

Specific, notable innovations in hospice architecture were introduced in the period from 1995 to the present. Exemplars included the Hospice Hawaii, in Kailua (1995), the Gilchrist Center for Hospice Care (1996) in Baltimore, the aforementioned Maitri AIDS Hospice (1997) in San Francisco, the Sun Health Hospice near Phoenix, Arizona (1997), the AHI Hospice (1999) in Aichi Prefecture, Japan, Bear House (2001), in New South Wales, Australia, and the George Mark Children's Hospice (2003), near San Francisco – see p. 172. These examples are postmodern insofar as each expressed an affinity with home, and the hotel-retreat as precursors. In fact, this imagery was so pervasive it was even captured in a U.S. Postal Service stamp called 'Hospice Care' in 1999. In it, a home-like building is depicted at the end of a winding path. Even if many hospice directors still did not know how to describe their ideal hospice in architectural terms, they were in virtual unanimity in their rejection of the megahospital's absence of person-nature amenities. This, in turn, if unknowingly on their part, had a major determining effect on the architecture. This point is discussed at greater length in the following chapter.

A global movement

The British hospice movement foreshadowed developments in the U.S. and other advanced industrialized nations, notably in

1.6 The Kuria Foundation Hospice, Amsterdam, the Netherlands, is an exemplary mid-rise urban hospice, blending seamlessly into the fabric of its neighborhood

Scandinavia, Canada, Australia, and Japan. By the 1970s, in several countries, interest heightened regarding the nature of death and bereavement and in how the dying should be cared for. In France and the U.S. thanatology emerged as an area of study. In the clinical setting, ideas about the importance of multidisciplinary teamwork in the care of the dying were also developing.[44] It was recognized that new, innovative ways to organize and deliver care were needed.[45] By the late 1990s, the international hospice movement was reviewed in book length discourses, notably by Cicely Saunders and R. Kastenbaum.[46] Throughout Europe, interest was growing, although in the Communist nations enormous difficulties were faced and, in Poland, in 1981, the year martial law was imposed, a quasi-secret society to promote hospice was founded. By 1985, about 100 hospices operated in the U.K., complemented by home support services and the first hospital-based palliative care teams. Belgium saw the opening of its first PCU in 1985. The Kuria Foundation Hospice in Amsterdam (1987) fit contextually, as did many European urban hospices, in their streetscape contexts (Fig. 1.6). In Germany, progress was slow, as only three PCUs existed by 1990. By contrast, in the U.S. in that year, only ten years after the founding of The Connecticut Hospice, there were already 516 hospital-based PCUs and freestanding hospices. The sharing of knowledge between countries was facilitated by leading advocates, and through site visits to St Christopher's, and later, The Connecticut Hospice, to observe and learn at first hand.[47]

By 1986, in the U.S. it was feared hospice care was on the verge of being compromised out of existence by federal and third party reimbursement pressures. A loss of identity was feared, despite National Hospice Study findings celebrating the financial benefits of palliative care.[48] A comprehensive public health-based system was established in Spain, although in Sweden the practice of medically advanced home-based care continued to be an impediment to the establishment of freestanding hospices. In Russia, approximately twenty hospices existed by 2005. These were funded mainly through local district councils and private support. Collateral organizations were created to disseminate

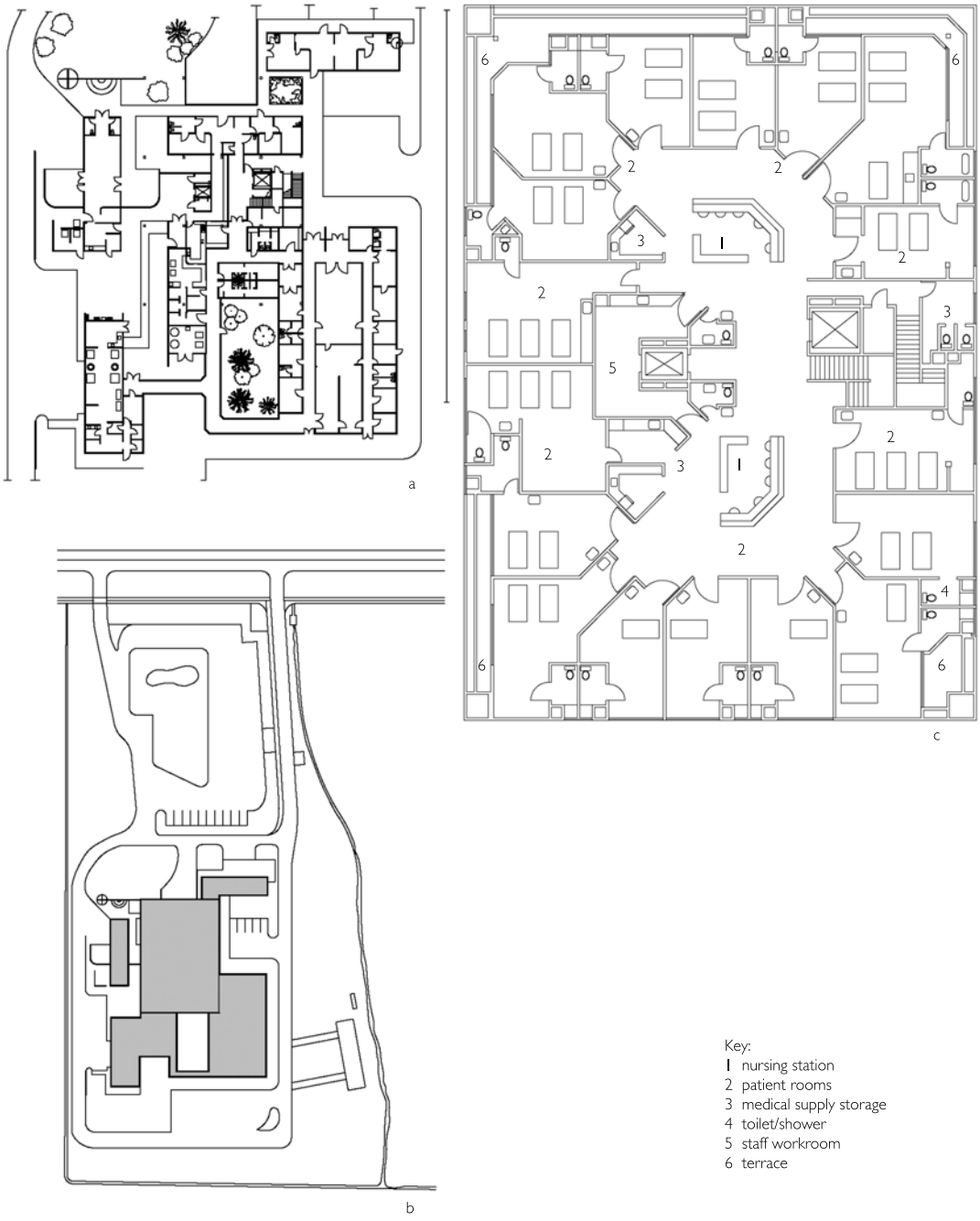
1.7 The NTT Hospital PCU is housed on one floor of this medical center. The medical center itself dwarfs its surrounding neighborhood. This PCU, as are the majority in Japan, is housed as a functionally autonomous unit within a large medical center

information, including the European Association for Palliative Care, founded in Milan in 1988 by forty-two members from nine countries (ten years later it had almost 9,000 members from more than fifty countries).[49] The International Association for Hospice and Palliative Care website contained a listing of all its members globally.[50] These events signaled the maturation of the European movement.

The hospice movement in Japan expanded rapidly in the 1990s. In 1992, there were twenty-one PCUs, all in hospitals. By 2000, there were eighty hospital-based PCUs and eleven freestanding hospices in a nation of 127 million.[51] As was the case with most Japanese PCUs, the NTT Hospital PCU is located within a large urban medical center in Tokyo (Fig. 1.7). The Peace House Hospice, the first *juutaku-teki* (home-like) freestanding hospice, opened in 1993, housing twenty beds in a mix of private and semi-private rooms.[52] The hospital-based PCU, however, dominated the landscape.[53] The freestanding hospices were characterized by their use of natural wood, lightweight sliding doors (in lieu of awkward Western-style side-hinged doors), elaborately designed ceilings, and meticulous lighting, fountains set in traditional Japanese gardens, and shoji screens for privacy. Hospices in Japan were not required by code or custom to have compartmentalized bathrooms. Instead, a draw curtain may be pulled while in use. In the West, this innovation remained impermissible due to the combined effect of existing building codes and hygienic customs.

In 1998, the Li Ka Shing Foundation established China's first hospice at the Shantou University Medical Center. The establishment of nineteen additional hospital-based PCUs was underway in China by 2005.[54] In Canada, two noteworthy hospices were the eighteen-bed Maison Victor-Gadbois Hospice, in Quebec, and the Canuck Place Children's Hospice in Vancouver (see p. 163). In the U.S., the DVA embarked on the construction of more than twenty-five new hospices on the grounds of, or near to, existing DVA medical centers.[55] In Australia, there was a comprehensive guidebook to hospice facilities, with information nearly as detailed as that for an acute care facility.[56] In South America, a notable freestanding hospice was the forty-bed Clinica Familia Hospice (1997), in Santiago, Chile (Fig. 1.8), located in the grounds of a Catholic-run medical center. The patient rooms were divided into two units, each controlled by a central nursing station, so that the station had maximum visual contact with all rooms. Each room, housing from one to three patients, had a bathroom. The ground level housed educational and administrative functions, dining area, chapel, and the home care program (Fig. 1.9a–c). The exterior was striking for its horizontality, flat roof, and overall resemblance to the high period International Style buildings of Le Corbusier in the 1920s, notably the Villa Savoye.[57] The Clinica Familia and St Christopher's in London both shared an outwardly modernist architectural vocabulary. This, as in the case of St Christopher's, was mostly a result of bureaucratic policies within the larger institutional context in

1.8 The Clinica Familia Hospice and Center for Palliative Care, Santiago, Chile, is located on the grounds of a medical center campus. The roof's deep overhangs provide shade for the inpatient bedrooms on the second level



1.9 At the Clinica Familia Hospice, the first-level plan includes a landscaped courtyard (a); the building is composed of five elements (b); these are situated around the patient housing realm (c). Note the mixture of one, two, and three bedrooms for inpatients

which it operated. Similarly, in Jerusalem, the fourteen-bed Ina and Jack Kay Hospice (1987), established on the grounds of the Hadassah Medical Center campus, was the first architecturally autonomous, hospital-affiliated hospice in Israel. In this case, in lieu of a new building, the hospice was given a discarded older building on the medical center's grounds: as of 2005 this structure had undergone two renovations and a total replacement was in planning.[58]

Special needs hospices

The appearance of the AIDS epidemic in the early 1980s resulted in the expansion of the international hospice movement. Prior to this, most patients were dying of cancer. Now, hospices in many countries were called upon to assist significant numbers of young people, especially young homosexuals. In the 1980s, a number of exemplary non-medical HIV/AIDS hospices

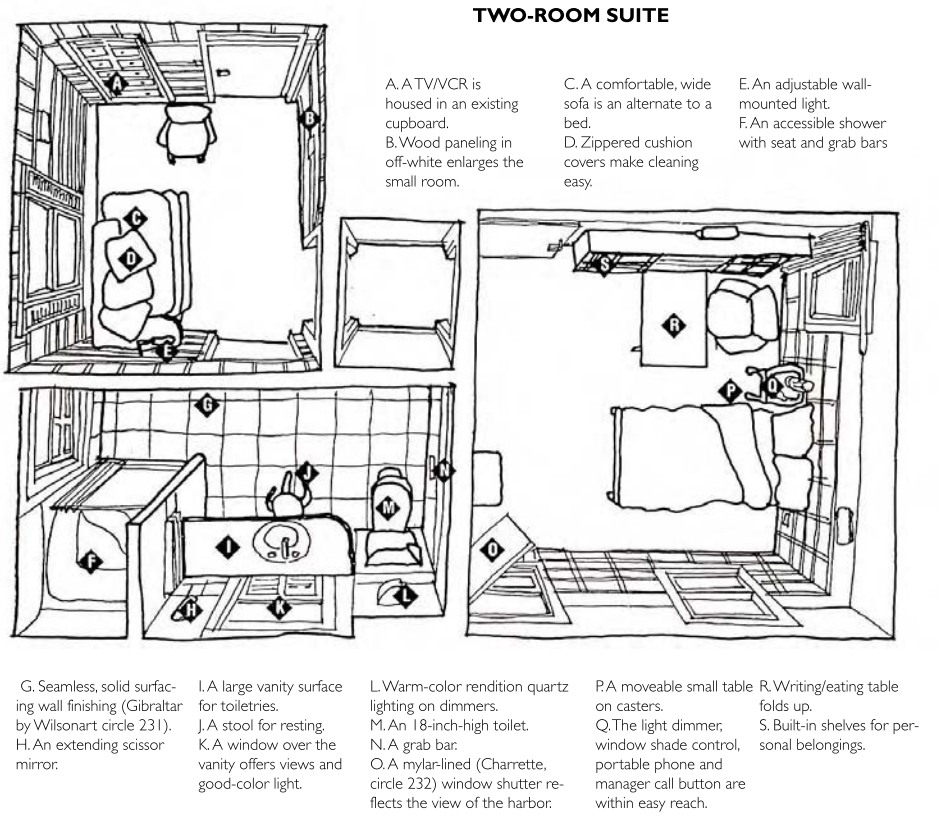
were established. These were frequently referred to as shelters or simply as respite 'houses'. A small number of medically based HIV/AIDS hospices were built during this period. The public panic resulted in fear, avoidance, and irrational, at times hostile, overreactions to persons with HIV/AIDS. Stigma was the norm, and in the early years, 1981–85, people were afraid of contracting the AIDS syndrome from no more than having been in direct contact with the blood of an infected individual. It was no different from what has occurred throughout history whenever a new epidemic appeared. Twentieth-century precursors included the tuberculosis and polio 'scares' of the 1940s and 1950s.

Until the point was reached where public discourse came to accept the crisis for what it was, this unfortunate atmosphere persisted. At first, existing mainstream hospices were the only option. For this reason special needs AIDS residences were established in cities around the world. Most of these remain in operation at this writing. The majority were not licensed as medically based hospices, and typically were housed in adapted private residences. In the U.S., representative examples of adaptive use hospice-shelters included the Zen Hospice in San Francisco (1983), predecessor to the Maitri AIDS Hospice (see p. 146), and Lazarus House in New Orleans (1985). Atlanta's Jerusalem House adapted a former private residence and constructed a new dormitory wing to the rear (see p. 153).

The first AIDS hospice in the U.K., the Lancaster Road AIDS Hospice in London, opened in 1988.[59] Critics immediately derided it as too monumental in scale.[60] By 1990, articles were appearing in architectural and interior design journals.[61] Interior designers were exploring how design could create a more supportive setting.[62] Case studies were reported, including one on Boston's Hospice at Mission Hill.[63] A patient-visitor lounge in the AIDS ward at St Vincent's Hospital in New York City was a pro bono collaborative project of interior designers and product suppliers.[64] Similarly, the creation of a residence for children with AIDS in Washington, D.C., was the subject of a glossy feature article.[65] Even *Metropolis* and other national 'high design' publications ran cover stories,[66] although these design profession journals arrived somewhat late on the scene. The need to respond had become indisputably urgent, but was now also trendy. Meanwhile, federal funds in the U.K. and in other industrialized nations were virtually nonexistent in the first decade of the epidemic.[67] The U.S. was already falling behind the curve by this time in providing for its own homeless population, and now a new subgroup appeared, homeless persons with AIDS.[68] Housing officials in Canada and elsewhere were confronted with the NIMBY (not in my backyard) syndrome time and again when attempting to provide housing for AIDS victims.[69] In report after report, the crisis was only expected to worsen.[70]

However, the architecture of these new places for persons living and dying with AIDS was Spartan, far from commodious in comparison to the higher architectural quality of most mainstream hospices at the time. Typically, these places had no gardens, lawns, or courtyards due to the hand-me-down buildings that were provided, combined with the lack of funding. A case in point: the NUVA/Easler House (1991) in Gloucester, Massachusetts, consisted of extremely modest spaces carved out of a former flop house (Fig. 1.10).[71] In more socially progressive communities, an outpouring of philanthropic support led to the construction of a handful of non-medical and quasi-medical hospices in the U.S., such as the Christopher House in Austin, Texas. Christopher House was initially built as a fifteen-bed freestanding AIDS hospice, on a small site in an industrial zone. This decision was entirely attributable to NIMBY factors. Some years later it evolved into a general care hospice. In the intervening years HIV/AIDS would spread to people of every circumstance, every income level, to infants as well as adults, thereby providing impetus to an expansion of programs. As the public discourse matured, and with advances on the treatment front, HIV-positive patients receiving palliative care in hospital-based PCUs and in hospices were no longer by practice either isolated from or, in effect, quarantined from other patients in the same care setting.

By 2005, the AIDS crisis had reached the level of a pandemic in Africa. The sub-Saharan hospice movement began in 1979 with the establishment of the first program, Island House, in Harare, Zimbabwe. This and other programs that followed in South Africa, Kenya, and Uganda were modeled on principles of palliative care in the U.K. and focused on the provision of home care versus specialized inpatient facilities. With the advent of the AIDS pandemic, many hospices were forced to modify their programs to meet the needs of the ever-increasing number of AIDS inpatients in their communities. In addition, these hospices had begun to take on community development activities, including expanding services for AIDS



1.10 Annotated perspective of the NUVA/Easler House, Gloucester, Massachusetts. This residence was adapted from a former boarding house

orphans, particularly in bereavement and in aftercare planning, prevention education, and with respect to new programs to dispel bizarre myths surrounding the disease.[72]

Prior to the formal African hospice movement, herbalists and traditional healers gave care to the dying. An ill person would be moved to *musasa* on the outskirts of the village. The traditional healer would direct a care team led by elderly female villagers. By 1997, Island Hospice had established seventeen regional clinics. In Nairobi, Kenya, the Nairobi Hospice opened in 1990 in a temporary inpatient facility built on the grounds of the Kenyatta National Hospital. It was the second inpatient hospice to open in sub-Saharan Africa, a modest one-level structure built of gray masonry block walls and a blue corrugated roof. A replacement faculty, to be constructed on a one-acre site provided by the national government, was in planning in late 2004.[73]

By 2005, international awareness of the situation in Africa had increased somewhat. A fledgling U.S.-based nonprofit organization called Architecture for Humanity organized an international design competition in 2002 for the design of a mobile AIDS clinic for rapid deployment in communities in sub-Saharan Africa. The winners and finalists were subsequently published, receiving widespread attention in the international design community.[74] Planning efforts were underway by 2005 to build prototypes for rapid deployment to operate alongside existing hospices and hospitals in the region. Meanwhile, the demand for AIDS hospices and general care hospices continued to increase in developed nations. In the U.S. demand for hospice was on the rise among persons in underrepresented and underinsured minority groups, and among aged persons incarcerated in penal institutions. The U.S., the nation with the highest per capita prison population in the world, was confronted with aging prison populations. In-house prison hospices were started in a number of states. As states coped with the escalating costs of prisons, burgeoning prison populations, and the growing number of aged inmates, the problem of access to hospice care worsened.[75] A small but growing body of health policy research appeared on this subject, although no published architectural research exists on this topic at this writing.[76]

Children's hospices

Pediatric palliative care is a relatively recent concept worldwide. It embraces a philosophy that attends to the social, psychological, physical, and spiritual needs of the child and the family. Hospice care for children expanded rapidly in the U.K., with more

than twenty inpatient residential facilities by 2000, and several more in the planning stages. The Helen House, in Oxford (1982), was the first pediatric-only hospice built in the U.K. It was established to provide palliative and respite care for families with a life-limited child. The Acorns Organization was founded to provide community-based support for families. In addition to needing medical care, many children have complex physical, sensory, or cognitive needs. Outcome was dependent on many factors, including the child's age, seriousness of the illness, the degree to which activities of daily living could be performed independently, and physiological status. In 1988, the Acorns Children's Hospice Trust established its first dedicated adolescent unit at Acorns. Walsall, in Birmingham. One limitation in the U.K has been funding, as children's hospices in 2003 received less than five percent of their income from government sources compared to thirty-two percent for adult hospices. One outcome was new commercial ventures into profit-generating enterprises as a means of taking in much-needed income.[77]

In the 1990s, notable children's hospices built in the U.K included Claire House Children's Hospice in the Wirral, Hope House Children's Hospice in Shropshire, Rainbows Children's Hospice in Leicestershire, Naomi House in Winchester, and the Demelza House Children's Hospice in North Devon. The architecture of pediatric hospices in North America, as with adult hospices, had been modeled on the U.K. precedent. Two notable examples were the first Canadian inpatient facility, Canuck Place (1995) in Vancouver, and the first U.S. inpatient facility, the George Mark Children's House Hospice (2003), near San Francisco (see p. 172).[78] Considerable attention and resources, as would be expected, were devoted to transitional spaces and indoor and outdoor play activity areas. In a number of cases innovative fiber optic and multimedia sensory stimulation rooms were created. By the late 1990s, quarters for children's own pets were to be found in most pediatric hospices, or on the grounds outdoors if space allowed. The provision of space for children to interact with their pets and with in-residence pets, e.g. the 'hospice dog', cat, or cockatiel, was found to be of therapeutic value.[79] Finally, an important dimension, more so than for adult hospices, was the provision of sleeping quarters for families. Overnight accommodations were, as a rule, provided for families, who often traveled from hundreds of miles away.

The for-profit debate

Architecture cannot exist without sponsorship. Buildings are not planned, designed, or constructed in a vacuum. In and of itself, this shapes what is or is not built, and its quality. In the U.S., and in most other developed countries, healthcare costs are increasing quickly and bills for services are simply overwhelming a larger and larger percentage of the population. The healthcare field is mostly administrated by businesses, whose avowed aim is to cut their own costs and increase profits. One well-known intentional violation that agencies routinely commit is the understaffing of their facilities, combined with the deliberate overcrowding of facilities. In the for-profit sector of the hospice industry in the U.S., staff are increasingly being urged to admit more patients in order to max-out their average monthly census data. The law specifies only minimum staffing levels, which must be maintained, but agencies often look the other way and assign fewer staff while admitting too many patients. When overcrowding occurs, the core philosophy of palliative care is severely violated.

Understaffing in hospitals in the 1990s had become a well-known tactic to increase the bottom line as inpatient care deteriorated. It was reasoned that understaffing results in fewer expenditures. Similarly, it was reasoned that making a minimal investment in architecture would result in fewer expenditures. The combined effect can be corrosive. By 2005, it had become apparent that some hospice care providers in the for-profit sector in the U.S. were actively engaged in the act of cutting both the quality and quantity of architecture and staff. On the care side, hospice administrators are under increasing pressure to assign more cases to their staff than can reasonably be managed as a means to maximize profit. Fewer staff hired translated into smaller payrolls. On the architectural side, cutbacks in the size of patient rooms, overcrowded, small, dysfunctional dayrooms, few spaces for informal social and consultative transactions, and bare-bones finishes, building materials, and furnishings were the most telltale signs. Regardless, hospice had become big-time mainstream business. Joyce Marcel wrote:

> Since my father's death in Florida a few weeks ago, I've realized that it's much easier to die in America than it is to live. While millions of Americans do without any health insurance at all, and seniors cut their necessary daily medication in half

> to stretch the bill, and some wait until a simple problem has grown serious enough to require emergency room attention because doctors' fees are too high, dying – like running a prison – has become an American growth industry. Specifically, we have developed a booming for-profit hospice industry … Florida actually has competing for-profit hospice companies, if you can imagine such a thing. The concept of making money on dying people may sound slightly ghoulish … who's paying for all these people? The answer: we all are. Medicare pays for 80 percent of hospice care, private insurance 12 percent, and Medicaid 5 percent. Since (the company) accepts (these) as 100 percent of coverage for its services, 'there are no out of pocket expenses to patient and/or their loved ones'… (the company) says in its handbook.[80]

The corporation referred to, VITAS, had rapidly grown to become the largest U.S. provider of hospice care. Founded in 1978 by a minister and a nurse, it provided services in eight states as of 2004. VITAS employed 5,700 professionals who cared for more than 7,900 patients daily, primarily in patients' homes but also in the company's seventeen inpatient hospices, as well as in hospitals, nursing homes, and assisted living facilities. In 2003, VITAS was bought out by Roto-Rooter, Inc. (the largest pipe and drain cleaning company in the U.S.) for $406 million.

In an empirical investigation on the quality of hospice care as a function of ownership status, it was found that the number of for-profit hospices in the U.S. increased nearly fourfold in the ten-year period 1994–2004, more than six times the growth of nonprofit hospices. Based on the 1998 National Home and Hospice Care Survey, the services received by 2,080 patients cared for by 422 hospices nationwide were examined. By 2005, approximately seventy-eight percent of American hospices were nonprofit and seventeen percent were for-profit.[81] Concerns were raised regarding the potentially corrosive effects of the growing influence of the for-profit hospice chains.[82] It was found that patients of for-profit hospices received a significantly narrower range of services than patients of nonprofit hospices. The authors cautioned that as the industry developed a substantial for-profit presence, it was critical for clinicians and other healthcare professionals to be alert to the potential adverse impact of for-profit pressures on the care their patients received.[83]

Increasingly, and especially since 2000, the federal Medicare program tightened eligibility criteria. A growing concern arose among nonprofit hospices that the revised rules discouraged some from seeking needed services until it was almost too late. Hospices in the U.S. were facing demands for reimbursement from Medicare when, believe it or not, patients didn't die on time. Consequently, physicians were being placed in the difficult position of having to predict precisely how long the patient was to live, and then justify that prognostication to the government – or face fraud charges.[84]

By comparison, the burgeoning hospice care industry, already a $2 billion per year industry in the U.S. by 2005, was in its infancy compared to the mature status attained by the nursing home industry in the U.S. It had been said that other than the nuclear power industry, no industry was more regulated than the nursing home industry. Despite onerous state and federal regulations, nursing facilities had often failed to provide adequate pain management, or to provide support to their dying patients.[85] It was found, in another national study, that one-third of hospice patients' relatives said the hospice provided inadequate emotional support, while more than half of families whose loved one had died in a nursing home or a hospital made the same assertion.[86] A new debate had emerged: should nursing homes also operate hospices?[87] Since Congress added the hospice benefit to Medicare in 1982, controversy surrounded the limitation restricting eligibility solely to those deemed by a physician to have six months or less to live.[88]

Constancy and change

To architects, Dame Cicely Saunders's and other pioneers' use of the term 'modern' to describe the contemporary hospice movement remained curious, even paradoxical. This is because the term had denoted something in the realm of art and architecture quite apart from the healthcare milieu. While it is true the term 'postmodern' is seldom used in the health sciences to describe new treatments or advancements, it is inaccurate to use 'modern' to describe architectural manifestations of the hospice movement in the late twentieth century. Hospice emerged in the late 1960s as a postmodernist movement in architecture. In this respect, Saunders's biographer and others inadvertently obfuscated matters for the architect and architectural historian in employing the term 'modern', as its usage in this context positions palliative care

as a parallel movement alongside modern high tech medicine. In point of fact, the former rejected the latter.

The generic urban megahospital had reached its apotheosis at precisely that point in time when the hospice emerged as a legitimate alternative. Its failure to respond humanely to death and dying fueled the legitimization of the autonomous hospice. Therefore, the hospice movement, at least from the perspective of architecture, is not a modernist movement at all but is, rather, a postmodern expression. Its prevailing zeitgeist remained ingrained in humanist and historicist sensibilities. This sensibility had manifested in a radically different care environment, in dramatic opposition to the acute care institution. This reaction occurred if for no other reason than because proponents of death with dignity at the end of life viewed their efforts as antihospitalist in nature. This rejection of the hospital and all it stood for at the time therefore had arisen out of necessity.

This relationship between the postmodern underpinnings of hospice care and the buildings that give life to this philosophy remains a curious mixture of constancy and change. The Connecticut Hospice's growth and evolution was a case in point, as it has been at the heart of the American and international hospice movements since its inception. The Connecticut Hospice relocated in 2001 from the 1974 building designed by Li Lo Chan to a new location one mile down the road. This campus, located in Homeport Cove, was initially created in 1982. When the parent corporation made the decision to vacate the campus, and its headquarters building, the hospice began its due diligence process. Once the decision was made to retain and adapt the existing building, the transformation

1.11 At the Connecticut Hospice, Branford, Connecticut, spaces are provided for social interaction, including a library (shown)

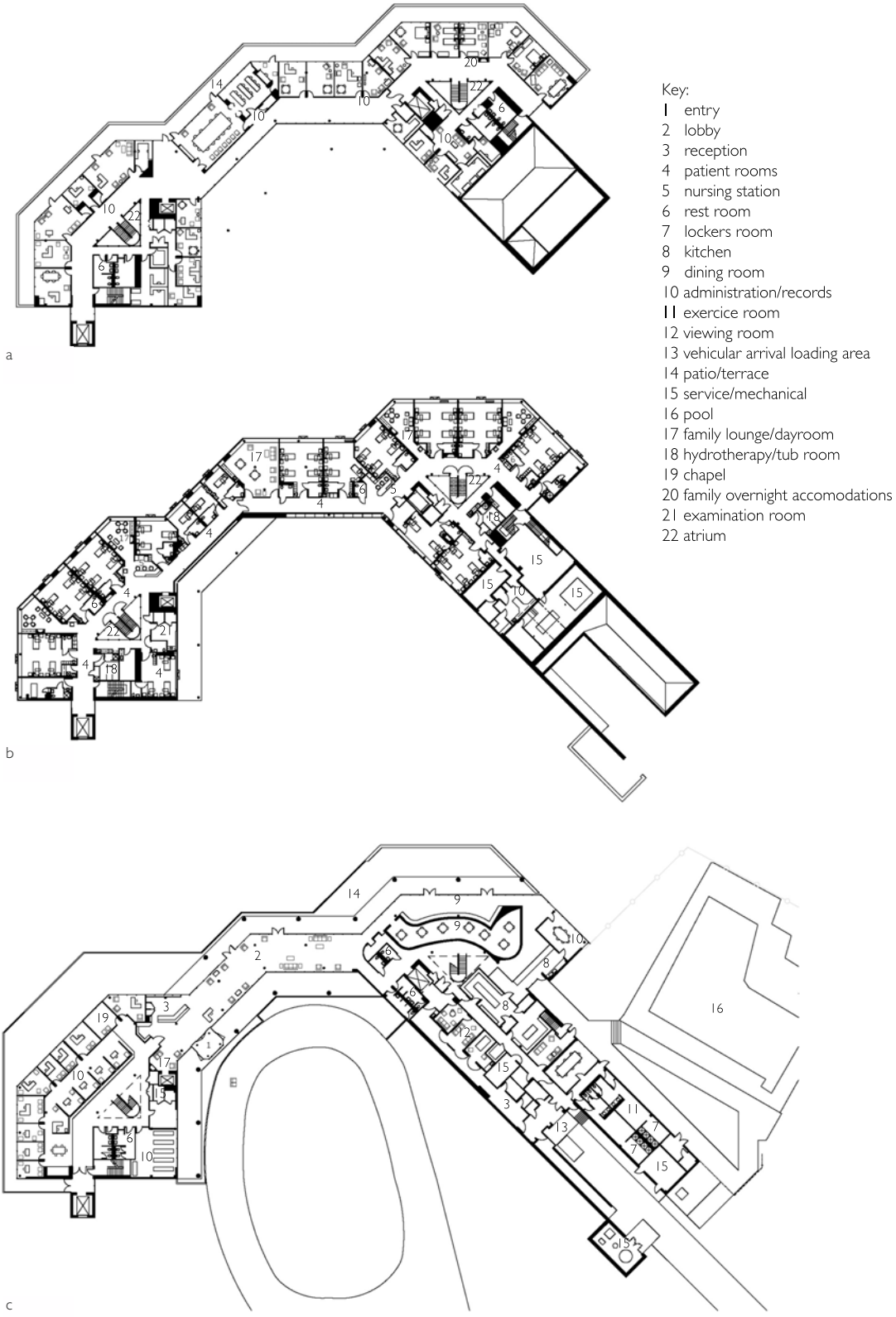
1.12 Pediatric hospice care is increasing in availability in many parts of the world. This young child is in residence at the Connecticut Hospice

1.13 Renowned folk singer Peter Yarrow conveys a sign of affection to his mother during a benefit concert for the Connecticut Hospice in 2004. This hospice, the first in the U.S., sponsors numerous concerts and community fundraising events throughout the year

began. The building was transformed into a fifty-bed facility, and was designed by Perkins/Eastman Architects of New York. The site is dramatic and serene: person-nature amenities abounded. This adaptive use hospice was situated directly on the shoreline, and the paths throughout the landscaped grounds allowed for ample opportunities for respite for patients, families, and staff (see p. 34). The views are of the ocean and an adjacent island. Owned by the hospice, and known for decades as 'Lovers Island', it is connected to the hospice's beachfront by a walkable sandbar, at low tide. Along the shore, members of the hospice community and others made frequent use of a gazebo and an outdoor pool. A broad range of activities occurred, drawing patients, families, volunteers, and staff together to share in activities ranging from the celebration of important events in the lives of patients (Fig. 1.11), events that consistently drew relatives closer together (Fig. 1.12), and various art therapy activities, including exhibitions of patients' artwork, musical concerts, and theatrical events (Fig. 1.13).[89]

This three-level building, constructed of steel, precast concrete panels, and tempered glass window wall, is linear in configuration, sited to take maximum advantage of the adjacent beachfront lawns and residences that border Homeport Cove. The parti, in effect, simultaneously unfolded into itself to embrace its interior, and unfolded outward (Fig. 1.14a–c). The interior rooms were spacious, transmitting abundant natural daylight through the large windows. The atmosphere is open and inviting; this transparency begins in the main reception lobby, where the full height glass window walls afford full views out to a terrace overlooking the ocean. The first level houses the visitor entrance and reception area; a patient ambulance entrance is located at the far end of this floor Program staff offices, conference rooms, consultation rooms, a small chapel, and the main dining room and kitchen are on this floor. Patients arrive at the hospice via private auto or ambulance, at a dedicated entrance and are transported either along a full height glass-walled corridor on the first level which overlooks the ocean, or are transported via an elevator located at the entrance directly to the second level, the patient housing floor. There, fifty patient beds are arrayed linearly from end to end, in a series of semi private (four-bed) suites in a generally single-loaded circulation configuration. Each suite has its own bath/shower room. Four dayrooms were provided, one at each jog in the building's footprint. A pair of full height glass-walled atria were carved out of the floor template: this facilitated the transmission of daylight into the lower floors and contributed to the atmosphere of openness, allowing for person-nature transactions or simply a place for informal social interaction. Additional administrative and home hospice program support functions were located on the third level. On the ocean side, a terrace spanned the full length of the third level, with four apartments, a dayroom, and a dining area available for overnight use by families.

Today, hospice services are available in nearly every type of community setting. Of the five basic types of care available, the in-hospital PCU, the home, the nursing institution with dedicated beds for palliative care, the medical center-affiliated freestanding hospice, and the non-hospital-affiliated autonomous hospice, it is impossible to make a claim that any one setting is 'better' than any other, although hospital-based PCUs remain the most institutional setting.[90] A common thread across this typology is the emphasis on community – so-called 'in/valid' individual need not remain isolated from the meaningful places and people in their life. Such accepting places can be found in historic urban neighborhoods, in suburban communities, and in rural settings. Nevertheless, the vast majority of hospice care is likely to continue to take place in the privacy of their home. As discussed in the following chapters, personal choice and control, and meaningful involvement with nature, will endure as qualities of therapeutic and palliative importance.



1.14 The Connecticut Hospice is located on an oceanside site. On the first level, the arrival and reception areas afford full views to the Atlantic (a). Many rooms on the second and third levels are accessed via a single-loaded corridor (b). The midsection, in plan, tapers, with clusters of direct care and support spaces at either end. Inpatient bedrooms access a full-length exterior terrace on the third level (c)

On dying, nature, and the machine

CHAPTER 2

A flotilla of water lilies,
Cream, pale pink, pale yellow,
Rides the unruffled round pond,
Where a duck and drake cruise
in harmony. Below, shoals in gold,
in black, in black-and-gold livery
saunter through the sun-warmed water.

Jazzy ragged robin burns
Bright pink at the water's edge;
A single clump the mower spared.
In a miniature wildflower meadow
Oxeyes wane gently at the sun.

Birds get on with their lives,
Squabbling under bushes,
Singing quietly in the trees,
foraging with swooping flights.
Bees are busy in the blossom.

Small and golden-haired, a child
runs the paths, raps the lawns' walls.
Her happy shouts echo from,
behind which, in cool rooms
and quiet, the nearly-
dead get on with dying.

The Garden, Trinity Hospice, Clapham Common.
Ray Stebbing, 1999
Reprinted by permission
of the Westminster's Writers Group

The therapeutic functions of nature in the healthcare milieu had been well established in Ancient Greece by the fifth century BC. On a given day in an Asklepeion, the patient's regimen might have consisted of horseback riding, sun therapy, quiet reading, or a walk in the woods.[1] Florence Nightingale, in her pioneering work during the Crimean War (1855–58), rediscovered the intrinsic amenity of nature, and specifically sunlight and fresh air, as healing agents. From the time of the fall of ancient Greece up to Nightingale, fresh air and daylight had been dismissed, by and large, with regards to the hospitalized dying patient. During the Middle Ages, sunlight was considered to symbolize spiritual

2.1 *Musée de l'Assistance Publique*, Hotel Dieu, Paris. During the Middle Ages, the sick and dying were often housed two or more per bed, as depicted in this painting

salvation, yet to have scant hygienic value. Later, during the Renaissance, the palace hospitals of the sixteenth to eighteenth centuries were designed nearly exclusively on considerations of outward appearance. Due to prevailing attitudes, it would have been a difficult challenge, indeed heretical, to take a dying patient outdoors on a sunny afternoon. There was, in effect, for the dying, no tangible relationship between the indoor and the outdoor realm. This condition was depicted in an interesting scene of a nursing ward at the Hotel Dieu in Paris, from *Livre de la Vie active*, by Jean Henry, painted in 1482 (Fig. 2.1). Until Nightingale, hospital planners, architects, or administrators who sought to establish an explicit, tangible relationship between the indoor realm and the outdoor realm were subjected to ridicule by their peers. This is a major reason why the hospital, up until the twentieth century, was considered the option of last resort for the wealthy, dying patient. Massive, dark, damp public hospitals such as the Hotel Dieu were considered vile and unacceptable to anyone who could pay for a better care setting elsewhere, and staying at home to die was a far more attractive option. The wealthy had always opted to remain at home to die, for this if for no other reason.

From Nightingale onward, nature was engaged in a continuous battle for survival. As discussed in the previous chapter, high tech megahospitals had evolved by the 1960s into inwardly focused 'cities'. The triumph of the healing machine over the therapeutics of nature signaled the dawn of an unmitigated belief in advanced medical science. Being able to smell the fresh air through one's window became impossible in a hermetically sealed building envelope, the belief persisting that natural ventilation was a contaminating influence on patient health.

Neither was the content of the view through the window accorded much weight in this equation: patient rooms often looked out onto barren light wells, their presence no more than evidence of the need to minimally satisfy building code requirements. Courtyards, gardens, and trees had become expendable on the assumption that the more strategic policy was to fully utilize the medical center's site in order to justify the rising land costs.

Prior to this wave of expansion in the 1970s, as nineteenth- and early twentieth-century 'obsolescent' hospitals and their grounds were being destroyed in their hundreds, their courtyards, gardens, and mature trees disappeared. This obliteration of nature, in retrospect, signaled the triumph of the megahospital. No competitively-minded medical center was exempt from these industry-wide pressures. Hospitals were under enormous pressure, for the purpose of garnering prestige, status, patient referrals, federal funding, and donor support, among other things, to keep up with the Joneses amid an upward spiral. The great inpatient bed race personified the era. Surely, in this climate, it could not have been too difficult a trade-off to opt to obliterate nature in order to have the latest diagnostic imaging equipment, and, after all, all this new equipment needed to be housed *somewhere*.

The dialectical tension between the hospital as machine for healing, nature, and the experience of death and dying had come to the forefront by 1980. The tug-of-war between nature and advanced medical technology had resulted in a highly distended relationship.[2] This is not to say that a given courtyard, garden, tract of mature trees, or expanse of lawn was seen as an enemy of progress in its own right. The disappearance of these amenities from the grounds of many hospitals during this era was because there was no longer room to expand anywhere else. The superordinate architectural infrastructure, which housed these machines, had, quite simply, acquired an insatiable appetite.[3] The interstitial hospitals built during this period were prime culprits, immense and hulking, with their massive floor templates, affording few, if any, real opportunities to transact with nature.[4] Meanwhile, by the late 1970s, critics were attacking hospitals for their oppressiveness.[5] Lord Taylor did so in the U.K., as did architects who opposed their monumentality.[6] An undercurrent of discontent had emerged.[7] As this was occurring, hospice advocates called for a reappraisal of nature:

> Early on, we all thought of hospice as a place that would be an alternative to the medical center with its cold architecture and emphasis on procedures. Visions of vine-covered sanctuaries in wooded settings where patients would be surrounded by nature, have good home cooked meals and where their families could stay as long as they pleased, filled our heads.[8]

This statement in 1984 by Charles Flood suggested a new vision just as the megahospital had reached its apotheosis.[9] These institutions had been planned and built to provide care at any cost, and to work against the inevitability of death.[10] Because architecture influences us in direct and in indirect ways, something as minor as a small portable reading light that can be turned on and off without assistance from a nurse can have a measurable positive impact on the well-being of the terminally ill patient.[11] It is these amenities, therefore, that have an instrumental influence on well-being. The following three architectural principles express, in metaphorical and in instrumental terms, the significance of nature in the hospice experience as an antidote to the experience of dying in a high tech hospital.

Residentialism

As discussed previously, hospice care was historically provided in the home. The reconstitution and downsizing of hospitals, the construction of alternative care settings, and the unprecedented degree of interest in home-like healthcare settings occurred simultaneously. Residentialism signified, in the minds of progressively minded architects at least, a new stage for exploring nature as a postmodernist expression in healthcare architecture.[12] Freestanding rural hospices such as the Axlagarden Hospice (1998) in Sweden express this dualism of architectural autonomy and a strong relationship with nature (Fig. 2.2). This hospice sits atop a hill in a serene, wooded setting. A full-length outdoor terrace allows multiple options for being outdoors. The patients' rooms open directly onto this element. The size and massing is appropriately scaled, providing options to move to and from the outdoors with relative ease.

This hospice, with its small number of beds in comparison to a hospital, is far more informal, or perforated, in its layout. Clustered building configurations with serialized perforations,

2.2 The Axlagarden Hospice, Umea, is one of a growing number of residential hospices in Sweden. Its wooded site affords views of the landscape, and its horizontality contributes to human scale

such at the AngelsGrace Hospice in Wisconsin (see p. 55) allow for the expression of individual patient rooms, as each is proportionally set back from its adjoining rooms. This allows for the deployment of spaces, not around a core containing massive staff work zones and diagnostic departments, but around a courtyard, as in the case of the St Andrew's Hospice in the U.K. (Fig. 2.3). Here, the facility gives way to a large open space adorned with walking paths, rocks, plantings, and multiple opportunities for respite.

Hospices are, by and large, free from the hospital's encumbrance of having to house a large amount of medical equipment for diagnosis and treatment functions. A hospice need not wrap itself around its own tectonic armamentarium. Instead, the emphasis on human contact is a universal characteristic of palliative care. Instead of spaces devoted to high tech diagnostic and testing machinery, hospices can be planned and designed nearly entirely for human inhabitation and social interaction, rather than as storerooms, with settings such as dayrooms, patient bedrooms, overnight accommodations for family members, alcoves, courtyards, and the like. The miniaturization of the machines that must still be housed within a hospice, combined with wireless

2.3 The courtyard of the St Andrew's Hospice, Airdrie, Scotland, contains paths, a variety of species of vegetation, and lighting so that it can be used at night

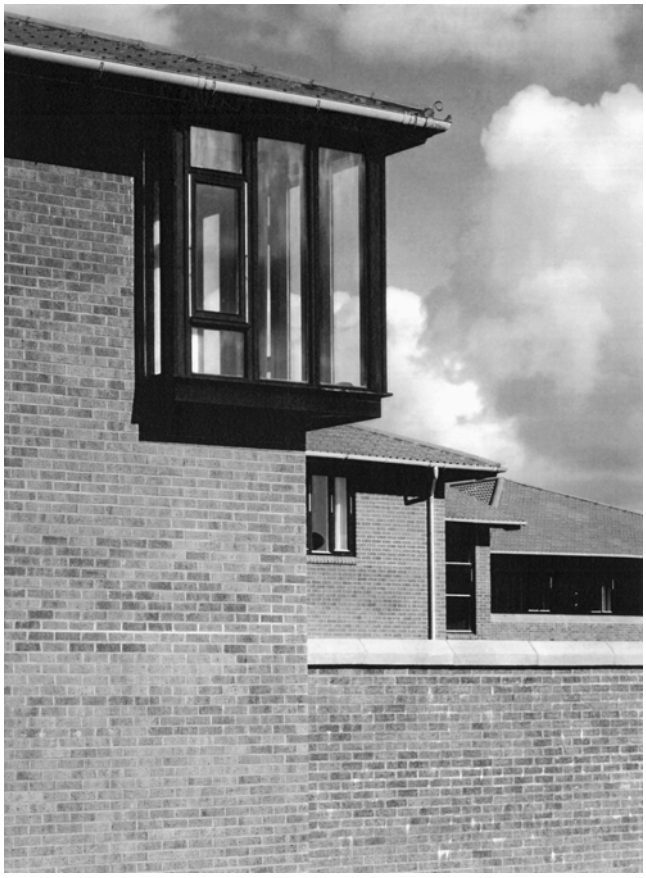
communications technology, has had a positive impact. This has allowed for equipment to be hidden out of sight in relatively small spaces until needed. This freedom from high technology per se makes it possible to more freely express creativity in terms of site planning and design principles. Additionally, principles of environmental sustainability and energy efficient hospice design using recycled building materials, siting concepts, and natural heating and cooling strategies offer promise because the well-being of persons, including those in their final days, depends on the health of the earth. The restreaming of building materials and their by-products, including steel, rubber, paper, wood, fabric, bricks, and stonework, deserves study across the full spectrum of healthcare architecture building types, hospice notwithstanding.

Person-nature transactions

The relationship between nature and the management of the patient's pain is a critical facet of palliative care, and the hospice setting can function as an adjunctive palliate in this respect. Cicely Saunders emphasized the importance of creating an atmosphere in which those who were free of pain and its symptoms could become free to search for meaning in their own way.[13] R.M. Sovich argues for a hospice environment that allows for the search for personal meaning:

> A terminally ill businessman, death imminent, confided to his grown children that he looked forward to the time each day when the sun came into his room. The sun traveled on a path beginning at the foot of his bed, gradually reaching his chest, warming him from toe to chest each afternoon. Throughout his life he had been consumed by his business, holding little regard for feelings and experience. His comment revealed a side of him his children had never before been permitted to see. Had the room a northern exposure, the direct sunlight would not have made an impression on this man and his family … It is these connections to natural phenomena … that become significant to us, such as the patterns of shadows made by clouds as they move across the interior of a room, reflections of the sun over rippling water … [these] link us to the world beyond our room.[14]

The perforated compositional massing of the St Andrew's Hospice allows for a variegated series of forms and setbacks, including a window in a prominent corner location overlooking the aforementioned central courtyard (Fig. 2.4). Similarly, the courtyard at the Essa Flory Hospice in Pennsylvania allows for contact with a natural landscape comprised of rocks, a running stream, and various level changes (Fig. 2.5). The roof silhouette modulates in height and in pitch, and a pathway encircles this



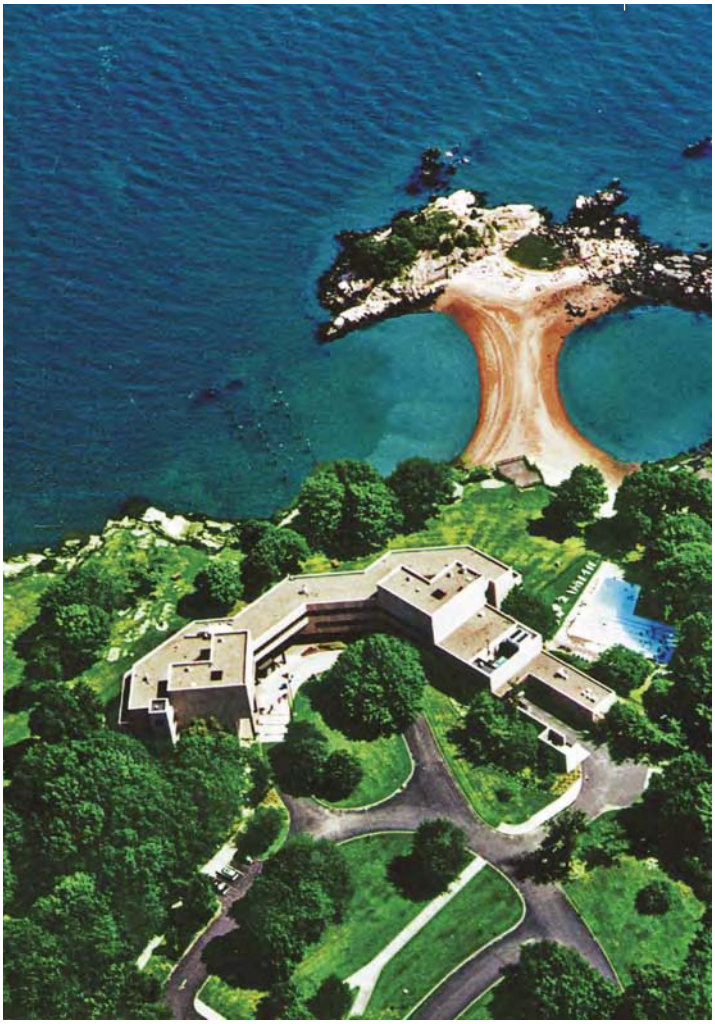
2.4 Compositional elements are staggered in elevation to create a residentialist scale at St Andrew's Hospice. In so doing, interesting views from within can be established

2.5 The natural landscape of the restorative garden at the Essa Flory Hospice Center, Lancaster, Pennsylvania, allows for respite and contemplation amid winding paths and semi-private seating areas

space. The patient is exposed to the rhythms of nature from dawn to dusk. The windows are operable and invite patient use. Terraces and balconies are proportioned and placed to allow for the patient's bed to be taken outdoors with relative ease.

The grounds of the Connecticut Hospice allow for walking, contact with the ocean, the beach, and wooded trails (Figs 2.6 and 2.7). A stream runs parallel to the main path leading to the AHI Hospice in Aichi Prefecture, Japan. The sight of fish and the rushing sound of water is soothing, evoking the imagery of a quiet mountain brook. The fish in the stream symbolize the never-ending flow of life (Fig. 2.8). Transparency and opaqueness both have their place in hospice. We remember the time of day when certain events in our lives transpire, a feeling of happiness or fear when entering a room, the intensity of its illumination, the degree of light and shadow, the silhouette of a person against a window. The patterns of shadows constantly change in the etched curved glass in the chapel at the North London Hospice (Fig. 2.9). At the Maitri AIDS Hospice in San Francisco everyone is involved in the care of the indoor plants (Fig. 2.10). Individual patients, from time

2.6 The tranquil atmosphere of the oceanside exterior terrace at the Connecticut Hospice frequently draws patients and their loved ones. This photo is taken from the indoor reception area. Note the names inscribed on the plate glass windows



2.7 The Connecticut Hospice is situated adjacent to a small island it also owns. The island is accessible on foot at low tide each day, as shown here

2.8 Water is life giving and life sustaining, and an important aspect of Zen spirituality. At the AHI Hospice, Aichi Prefecture, Japan, the sight and sounds of water are discernible along the arrival path to the main entry. The pond appears to flow into the building

2.9 The poetics and therapeutic properties of natural light are of prime importance in the design of meditative and adjoining reading spaces. At the North London Hospice, U.K., the use of horizontally banded obscured glass affords privacy and yet allows light to be transmitted within

2.10 Inpatients and volunteers care for the indoor plants at the Maitri AIDS Hospice, San Francisco. The interior spaces and the second-level courtyards are filled with plantings

to time, may adopt one or more plants, and with respect to the well-groomed courtyards at Maitri, even take over the care of all the planting during their time at hospice. The sight and sounds of birds bathing in the fountain at the Sakuramachi Hospice in Tokyo is soothing and reassuring. A single, large coniferous tree in the skylit atrium of the Peace House Hospice in Japan symbolizes the inherent spirituality in nature.

Architecture and the restorative garden

> If you would be happy for a week, take a wife;
> if you would be happy for a month, kill your pig:
> but if you would be happy all your life, plant a garden.
> Chinese Proverb[15]

Healing gardens are an age-old therapeutic intervention designed for the restoration of the body, mind, and spirit. From the monastery courtyards and cloistered gardens of the Middle Ages, to the centuries-old Buddhist and Shinto shrines of Japan, to today's application of the concept by healthcare providers and by private homeowners, the tradition of the healing garden demonstrates the value of establishing a transactional connection to nature. Humans first cultivated plants in a garden in Persia in 3,000 BC. as a means of recovering the beauty and pleasure of lost paradise. The first gardens were magical, religious places. Through the centuries the garden came to symbolize the highest of human aspirations. Gardens were designed for display, relaxation, solitude, public events, and spiritual uses. Their content and form responded to the dictates of climate, topography, economic conditions, and the degree of social order that prevailed. Restorative gardens are for the healthy as much as the sick, and for all ages. For the healthy, such gardens encourage sociability, promote relaxation and contemplation for the solitary visitor, and establish a sense of community among those who live in quarters surrounding a hospice garden. For the sick of body or troubled of spirit, a garden can relax and soothe, as has been proven from antiquity to the present. In the book *Restorative Gardens: The Healing Landscape*, the history of the European healing garden is traced:

> Gardens adjoining institutions for the care of the poor, sick, and infirm may well have been commonplace in the thousands of charitable Christian foundations that flourished from the tenth through the fourteenth centuries … hospitals and monasteries nursed the sick, but the multiple meanings of hospital and hospice confound any attempt to make a precise identification of the Western restorative garden … the monastic hospice served three different clients … wherever a little wealth appeared during the Middle Ages, whether in a town, a manor, a church, or a monastery, walls rose in response to the pressing need for security. Because walls were everywhere, many hospitals enclosed gardens and yards with walls and lines of buildings … but it is doubtful if the gardens of charitable hospitals could draw upon any religious energy as powerful as the religious faith that animated the monastic cloister.[16]

The monastic hospice usually had a garden.[17] It was not until the eighteenth century that a text would illuminate the cultural union between horticulture and medicine better than the treatise on hospital design written by German theorist Christian Cay Lorenz Hirschfeld (1741–92). He called for places with open spaces and spaces devoted to nature, although few hospitals in Europe would be built with such spaciousness in mind. Most were situated in filthy, overcrowded sites in dense urban centers, and this in turn led to filthy, overcrowded interior spaces. Fresh air and sunlight were at a minimum in nearly all institutions designed in the pavilion style during this period and up to the end of the nineteenth century. Through the aforementioned contributions of Florence Nightingale, nature would receive great emphasis, in turn leading to the inclusion of sun terraces in TB sanitariums, rehabilitation hospitals, and acute care hospitals during the period from the 1860s until WWII, such as at the Peter Bent Brigham Hospital in Boston,[18] and at the Crippled Children's Hospital in Milwaukee.[19]

During the 1940s a field emerged that became known as horticultural therapy. This consisted of the active involvement with plant materials and gardening within an integrated clinical program.[20] By the 1970s in the U.S. the development of milieu therapy and horticultural therapy offered new ways of integrating gardens into many different clinical settings, from rehabilitation hospitals to those offering palliative care.[21] Outdoor gardens,

greenhouses, and indoor plantings were the three most prevalent types of settings where this occurred. Unfortunately, as previously mentioned, the scarcity of unbuilt land in urban contexts, coupled with soaring land values, often reduced these amenities to miniscule, residential parcels. As previously discussed, this was too often the case until the appearance of research reaffirming the therapeutics of nature in the healing experience.[22] Empirical studies pointed to the value of meaningful views of nature in relation to well-being in hospital settings.[23] Stephen and Rachael Kaplan, both environmental psychologists, articulated a theory of requisite person-nature affordances found in restorative environments. Their perspective regards nature as a stress-relieving modality and considers that the pressures of a hyper-accelerated culture forces humans into prolonged periods of 'directed attention' – the kind of attention that requires considerable concentration and effort that, ultimately, can be physically and mentally exhausting, even overwhelming.[24] Nature – a wilderness experience, a walk in the park, gardening – readily satisfies the patient's craving for a restorative experience.[25] This requires a 'getting away from' phenomenon, e.g. an architectural or outdoor setting removed from routine demands on the attention.

In the view of the Kaplans, person-nature transactions provide coherence, legibility, complexity, and mystery.[26] Gardening can be a highly restorative activity.[27] A hospice garden can have a positive impact on the terminally ill, on multiple levels:

> When a patient sees a garden, what occurs to the physical level to allow enhanced well being and perhaps faster recovery from illness? What bodily events chart the restorative effect? With these questions we move into the realm of psychophysiology and neuropsychoimmunology … research steers us toward somewhat deeper reaches of human response, beyond those of conscious or learned control. The rapidity of response to nature and its mobilization of so many psychological responses suggest that the parasympathetic nervous system – that is, the component … thought not to be under conscious control – must also be involved in the calming effects experienced …'[28]

In times of stress or perceived danger, our endocrine systems accelerate into overdrive, stimulating the heart muscle and central nervous system.[29] Research on the function of the mind illustrates how brain cells and their synapses respond to immediate inputs but are modulated by previously selected evolutionary patterns of response.[30] This 'neural Darwinism' is critical in examining human evolutionary responses to nature and its effect on the brain, and on the neuroendrocrine and central nervous systems in relation to the stresses of terminal illness.[31]

Fortunately, in the 1990s, attitudes began to change on the therapeutics of nature in the mainstream healthcare milieu. These concepts were no longer considered radical. Recently, medical centers have elevated nature to a priority status in their facility planning and design activities. An example was the healing garden built at the Mount Zion Clinical Cancer Center at the University of California – San Francisco.[32] This case study illustrates what in-hospital PCUs can do to reintroduce nature into the heart of their campuses.

In addition to the effects of advanced disease and the side effects of treatment, the terminally ill patient often experiences anxiety, stress, restlessness, and difficulty sleeping. In hospice, the aim is to provide a relaxed, calm environment, to provide aromatherapy, massage, and reflexology therapy. A restorative garden functions as a therapeutic complement to these other modes of therapy. At the Trinity Hospice in London, housed in eight elegant Georgian buildings, the south side of the hospice overlooks 200 acres of Clapham Common while high walls to the rear enclose a private garden of nearly two acres. Before 1980, lawns and some flowerbeds had been maintained but it was not until 1983 that the entire site was redesigned to a deliberate plan.[33]

At the regional Hospice of Western Connecticut, the Healing Hearts Children's Bereavement Center was established to address the particular needs of young people. A restorative garden was created in 1995, conceived as an uplifting place, a place for children to congregate. A shallow rock fountain and a waterfall were installed, various species of wildflowers were planted, birdhouses with feeders were erected, and weaving paths were cut through the tall grasses of the meadow. Memorial bricks are placed around the circular fountain.[34]

The Hospice at the Texas Medical Center stands in opposition to the severity of the nearby concrete, steel, and glass of Houston's high-rise hospital edifices. Houston's humid semi-tropical climate during the summer months causes people to remain indoors. However, the garden at the hospice is shaded, tranquil, and replete with sensory stimulation.[35] Neither buildings nor

2.11 Landscape architecture is integral with effective and supportive hospice architecture. At the Houston Hospice, Texas, the exterior restorative landscape includes a metaphorical river, actually composed of small stones, with stepping-stones that allow people to traverse a 'rushing river'

landscape dominate. The lawns are in the English Estate tradition. A gazebo, fountain, pathway network, bridge, and trellis are provided. Benches are at key rest places or exterior view corridors. Not consciously designed as garden rooms, the garden is nonetheless a series of interconnected yet discrete pockets. Four zones define this space – an open lawn, a formal garden, a chapel, and a children's garden.[36] The children's garden is informal. It is a place where children and adults can express themselves in relative seclusion. Long and narrow, stretching most of the length of the rear edge of the site, it is at once removed from yet close to the main garden. Its design suggests mystery and complexity. In place of primary colors or climbing structures, it features a path maze, a 'chalkboard' masonry wall, child-sized sculptures, and a miniature bridge traversing a faux rock stream, with stepping stones to test the skill at crossing this fictitious body of water (Fig. 2.11).[37]

Summary

The hospice experience, with its philosophical grounding in the therapeutics inherent in nature, expresses fundamental human aspirations. A hospice garden is a place of enduring, and endearing, amenity, and can function as an extension of the architectural setting. To build a garden that is seamlessly integrated with a hospice is not so much an event as a way of life, requiring a continued commitment. Hospice gardens have been of great cognitive and therapeutic value in times of war and civil unrest, and in times of peace. Culture, race, politics, and the patient or family's socio-economic status need not restrict this human predilection for involvement with nature. The terminally ill can draw solace, strength, and meaning from nature, and the architecture of hospice can express this in both metaphorical and instrumental ways.

Part 2

Designing hospice

CHAPTER 3

Recent trends

The populations of many countries around the globe are expected to become older and grayer. Statistical estimates vary, but it is clear that more people will be living longer lives. The trend toward more aged, grayer societies will be pervasive in many countries, and this will have a myriad ramifications for persons with terminal illnesses.[1] The aim of the following discussion is to bring to light five recent trends that are likely to have a bearing on hospice architecture in the coming years. These five trends center on the current state of the HIV/AIDS pandemic in Africa; the rise of alternative architectural healthcare settings closely allied to hospice; a growing appreciation of art and architecture as therapeutic modalities in the death and dying experience; the growing importance of acts of remembrance and their expression in the architectural environment; and the insights that can be gained in the cross-cultural examination of hospice architectural form as a manifestation of culture. These trends are considered against this backdrop of societal aging, as it is expected that the number of persons aged sixty-five and older globally will triple to almost two billion by 2050, representing twenty-one percent of the world's population.[2]

Vast inequalities, unfortunately, at present persist in the quality of life between older citizens in advanced industrial nations and their counterparts in poorer, less developed nations. The latter countries, for better or worse, are where these demographic changes are expected to be most pronounced. This will test governments' ability to provide healthcare, retirement benefits, and adequate housing, including housing for the terminally ill. The sixty-five and older population in the U.S. alone had increased from 131 million persons in 1950 to 420 million persons by 2000.[3] Because global aging is occurring at a rate never before witnessed in history, government, and the private philanthropic sector, will together be forced to cope with the challenges that lie ahead.[4] While this, indeed, might be seen by some as a sobering scenario, how well societies cope will be measured by whether they see this glass as 'half empty' or 'half full'. This discussion begins with the current status of the HIV/AIDS crisis in Africa, and its implications for palliative architecture.

Specialized HIV/AIDS hospices in Africa

The global HIV/AIDS pandemic shows no signs of being eradicated in Africa or elsewhere in the world.[5] The number of new HIV infections in 2003 in Africa alone totaled five million, amounting to 14,000 people each day – the highest number ever. One in five adults in sub-Saharan Africa was infected with the human immunodeficiency virus. The number of infected people in some African countries is staggeringly high, the virus having attacked nearly thirty-nine percent of adults in Botswana and Swaziland. Worldwide, thirty-eight million people were infected at the end of 2003, of whom 2.1–2.9 million were children. In the U.S., 40,000 new infections occur annually, with a disproportionate share of victims among African Americans, who comprise thirteen percent of the nation's overall population but account for half of all new cases.[6] Infection rates are also on the rise in China, India,

3.1 The construction of hospices on the African continent cannot meet the burgeoning demand for palliative care at this time. The Island House Hospice, Harare, Zimbabwe, was the first to open in sub-Saharan Africa

Indonesia and Russia, and in the Pacific Rim region. In Asia, with sixty percent of the world's population, 7.4 million people had been infected with HIV/AIDS by the end of 2003.[7]

In Africa, there is an acute shortage of residential hospices. The relatively few in operation are often frequently overwhelmed with patients. Two African hospices are noteworthy from an architectural perspective. The first, Island Hospice in Zimbabwe, provides palliative inpatient and home-based care (Fig. 3.1). The Nairobi Hospice (meaning 'home' in Kiswahili), in Kenya, located on the edge of the city, houses sixty orphans of HIV/AIDS victims.[8] In 2001, there were 730,000 HIV/AIDS orphans in Kenya. This figure has since risen, and Kenya has the fifth highest number of persons infected in the world, although at this writing only eleven residential hospices are in operation in the entire country.[9]

In sub-Saharan Africa, overall, HIV/AIDS had infected 26.6 million persons by 2004. In a number of sub-Saharan countries HIV/AIDS hospice 'safe houses' have been established as a means to provide specialized housing and care for the victims of the epidemic, and dormitory-type facilities have been built as a means to provide housing for the thousands of orphans left behind monthly by the deceased. Rural clinics are being developed as quickly as possible by international humanitarian assistance agencies, but their supply clearly lags behind the level of care needed.[10] Many of the residential hospices are classified as congregate housing facilities and therefore are not licensed or classified on the African continent as medically based palliative care facilities.[11] Unquestionably, many more hospices and related housing resources are urgently needed in order to provide shelter for the more than twelve million children who have been orphaned in Africa. This number is equivalent to the entire child population in the U.K. By 2010, the number of African HIV/AIDS orphans is expected to rise to 43 million.[12]

Interestingly, because the majority of HIV/AIDS residential hospices in Africa do not see themselves as medical facilities in the traditional sense compared to their counterparts in other regions of the world, it is hard to make statistical comparisons, architectural or otherwise. They tend to define themselves first and foremost as group residences, or multiple-occupancy homes providing 24/7 support and extended care including counseling, nutritional support, and bereavement services. However, a number of urban medical centers operate more traditionally defined in-hospital PCU programs across Africa, and these provide care for patients only. The number of beds range from as few as four or five to as many as fifty on a single site. Hence, the term 'hospice', as it denotes care for the terminally ill, as well as housing for those orphaned, is here defined more broadly compared to its definition elsewhere. This broadened definition reflects the gravity of the crisis and its deleterious effects on family and social structures. In Africa, as elsewhere, unfortunately, a major issue in the establishment of new hospices, whether medically-based or congregate housing-based, remains the NIMBY (not in my backyard) syndrome.

Complementary care settings

In the U.K., a new type of complementary care setting had emerged by the end of the century. These places shared numerous affinities, architectural and otherwise, with inpatient residential hospices, and their missions overlapped to a significant extent. These centers provide a combination of education, counseling, and care. They are being established as autonomous buildings in the grounds of large district and regional medical centers. Some provide a mix of inpatient and outpatient treatment; others provide only outpatient counseling. These places, as has been the case with most residential hospices, symbolize the rejection of the impersonality and immense scale of the modernist acute care hospital and medical center. Therefore, as in the case of residential hospices, these complementary care centers are, philosophically and architecturally, anti-hospitalist in their rejection of the hospital oncology unit. By contrast, these centers focus instead on patient awareness, education, and self-empowerment as a means of overcoming disease.

Two complementary care centers recently built in the U.K. are noteworthy expressions of this trend. The first, the Marie Curie Cancer Care Centre in Bradford (1998–2001), designed by Allen Tod Architecture Ltd, was built to replace the client organization's existing, rather dated accommodations with updated and expanded facilities for inpatient and outpatient care, and to provide quarters for new education programs. The client, from the outset, called for a residentialist environment, one that was inviting and supportive. Patient care areas housed on the ground level characterize the parti. Internal circulation paths provide

wayfinding amenity through open social spaces, which overlook courtyards, a garden, and a pond. Outdoor spaces afford respite, and the residential imagery and materiality is effective (Fig. 3.2). Two buildings are linked on a sloping site. The first level houses staff support spaces. Adjacent is a two-level building which houses administration and education programs on the level above. Roof 'lanterns' provide visual articulation, natural ventilation, and daylight. A prayer room is situated between the two buildings and is a single contrasting, copper-clad volume accessed from the main path (Fig. 3.3). The silhouette is framed by plantings between bedrooms, also providing privacy. An open lawn provides enclosure to the garden while affording views to the city beyond. A walled garden contains raised planting beds used for active and passive horticultural therapy. Prince Charles officially opened the center in September 2001.

Elsewhere in the U.K., the Maggie's Centres initiative was established in 1995 to provide an alternative to mainstream, conservative approaches to cancer care and education. Maggie Keswick Jencks had died of breast cancer. She had been shocked by the inhumane treatment and sterility of the hospitals where she had been treated. Her outrage led her to write a manifesto. Subsequently, her husband, the noted architectural critic and historian Charles Jencks, in memory of his late wife, created a foundation whose principal aim was to donate the architectural fees of noted architects to design life-affirming environments, thereby providing hope for their inhabitants.[13] Rather than proposing a completely radical alternative, Maggie's Centres were intended from the outset to (at least from a service standpoint) complement mainstream NHS mainstream treatment protocols. Self-sufficient and architecturally autonomous, they are easily identifiable and within the direct view from the nearby motherships they reject.[14] Keswick Jencks called for nothing less than the complete reinvention of the modern hospital.[15]

The earliest Maggie's Centres projects were renovations of existing in-hospital oncology units. In 2003, the Maggie's Centre, Dundee, Scotland (2000–03) opened, designed by Frank Gehry. On the western, landscaped edge of Dundee City, overlooking the Tay Estuary, this freestanding building evolved from the inside out, establishing a personal bond with its occupants and, in turn, between them and the rolling, open landscape site (Figs 3.4 and 3.5). This building is designed for day-patients who are undergoing concurrent cancer treatment at the adjacent Ninewells Hospital, or other nearby hospitals. It is composed of four principal, interwoven spaces: an arrival area and main lounge, a kitchen, an informal sitting area, and a library. In the tower, the library rises to take full advantage of the magnificent view of the surrounding water and the hills, with a staircase winding around the periphery of this inner volume. In the words of Studio International:

> The use of plentiful natural timber, for the roof and structures, internally exposed, here provides an elegant construction, echoing the communal areas below. Where Gehry shows himself to be a supreme master of his art is in retaining the centrifugal force of this building's volume, the spaces opening out like petals from a central stem. The building straddles a natural promontory. But the point of arrival is both sheltered and private – no windows overlook the small car parking area, and so the combination of white-rendered walls and dynamic, sculpted sheet-metal roof flows beautifully … [it] seems to compress its elements, a series of sharply pointed gables, in stark contrast to the seductive flow that faces the arriving visitor. Gehry says he was thinking of a Vermeer painting, a woman portrayed in a silken shawl, when he conceived the roof. One is perhaps also reminded of the Italian author Giuseppe di Lampedusa's soothing image, in *The Leopard*, of the angel of death who stooped over Don Fabrizio, her beautiful face revealed momentarily beneath the shawl as she collected him; it is to such serenities that Gehry's memorable masterwork corresponds. It seems nothing short of miraculous that Gehry, from Venice Beach some 6,000 miles westward, concocted this secret and perfect platform of human aspirations and release.[16]

The exterior and the floor plan contain many of Gehry's signature elements, such as collaged, curvilinear volumes, undulating wall and ceiling planes, and the generous use of layered transparency (Figs 3.6a–b). The indeterminacy between walls, ceilings, and floors is evoked throughout the interior spaces. Its scale is residentialist, not unlike that of a rural farm cottage, and serves as both a visual and functional antidote to the nearby hospital. All the Maggie's Centres completed at this writing were characterized by open, inviting 'readable' entries, informal sitting areas,

and libraries, from where the entire layout is discernible to the visitor. A country-style kitchen is visible, with its island stove for use by all patients and care providers. The sitting areas are bathed in natural daylight and full views open outward to the landscape. The scale is domestic, and the design intent was to make users feel more buoyant and optimistic.[17] Gehry's Maggie's Centre provided innovative design: versatile and expandable spaces, an open arrangement with few 'closed cells', and no corridors, signs, or clinical overtones. In these respects it expressed, architecturally, principles extremely similar to those expressed in progressively designed residential hospices.[18]

Art/architecture as therapy

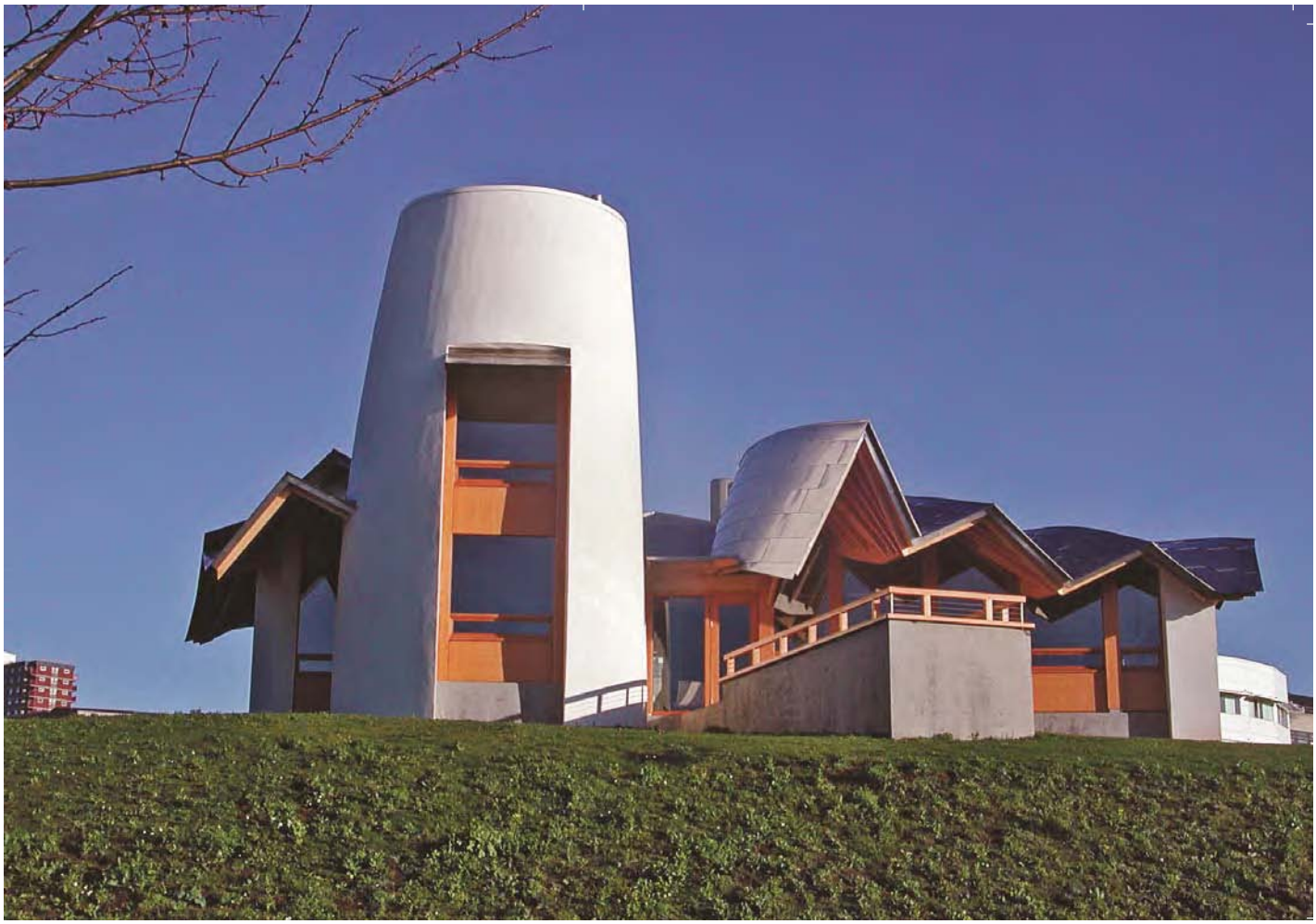
Art, and art therapy, complement and complete the architectural environment of hospice. Western attitudes toward death and dying are centered on fear and denial. The art therapist Bruce Miller believes that this denial of that which is mystical, and not readily subject to rationalization, has created this dilemma. The part of the psyche most affronted by death is the ego. The ego is shaped by the reality principle, which is also the place where our fears dwell. Any comprehension of death, therefore, is instinctive, intuitively based, as we can have no conscious, absolute knowledge of what it is like to die. Scientific reason and consciousness therefore cannot contribute much to any genuine understanding of death. If reason cannot illuminate the myriad questions posed by death, and yet reason is considered the only valid inroad to any insight or 'answers,' subsequent dark crevasses, or vortexes are created, and these are assiduously avoided.[19] Reason and intellectual thought are not the only ways of understanding death. Miller cites Jung's interpretation of timeless symbols ingrained in humans from earliest times, as these are eternally alive, and endure at the core of the human psyche.[20] In this view, the spiritual aspects in art unlock its therapeutics. The metaphors developed by ancient cultures to describe the world and the human journey through it were derived from immediate surroundings: birds, flowers, trees, and the celestial bodies seen in the sky. The Egyptians believed that death was like 'passing through a field of reeds'. With the advent of technology, people began to use the language of objects they had made and the processes that they had instigated to understand their existence.[21]

The conceptualization of art as the exclusive province of individual genius originated with Kant as a corollary to his theory of art-as-transcendence – beyond that which is rational.[22] It has since that time been considered a representation of the subconscious fused with the conscious dimensions of our existence. This dualism was at the core of modernism in the twentieth century. Kandinsky stated that every work of art is 'a child of its age, and in many cases the mother of our emotions'.[23] This view informs architecture as well, although a work of architecture also calls for a considerable amount of rational and technical expertise.[24] The Bauhaus was a confederation of artists and architects; the former included Kandinsky, the latter the architects Hannes Meyer and Walter Gropius.[25] By the 1970s, modernism would be reduced to a style by virtue of being representative of something other than itself – not the primordial or the spiritual, but of pure functionality.[26] For the purposes of this discussion, it is accepted that 'good' hospice architecture itself can at once restore, stimulate, and palliate on sublime and on immediate, instrumental levels of human experience, not unlike art. Accordingly, an inclusive aesthetic vocabulary calls for spaces to invite the display of meaningful works of art, for spaces for art therapy to take place, and for the spaces themselves to be artful. When this symbiosis occurs, the hospice environment is able to transcend the mundane world of everyday existence to truly function as an expression of art as therapy/architecture as therapy.

The field of art therapy developed as a result of the need to find alternatives to verbal forms of communication. Art therapy has become invaluable in working with the elderly and the terminally ill.[27] Art therapists strive to enable the patient and family member to self-actualize and illuminate their inner emotions. This process can help them realize that different periods of life require different life goals, and what is appropriate for one period of life may be completely inappropriate in another. The art therapist in a hospice therefore helps the patients to confront and cope with their inner fears and anxieties, and to embrace the inevitability of death. The art therapy program at The Connecticut Hospice is a case in point, where creativity is viewed as a fundamental life force. Music, with its inherent power to trigger emotion and its almost universal appeal, is a particularly poignant experience, providing a distraction from fear, anger or boredom, and relaxation

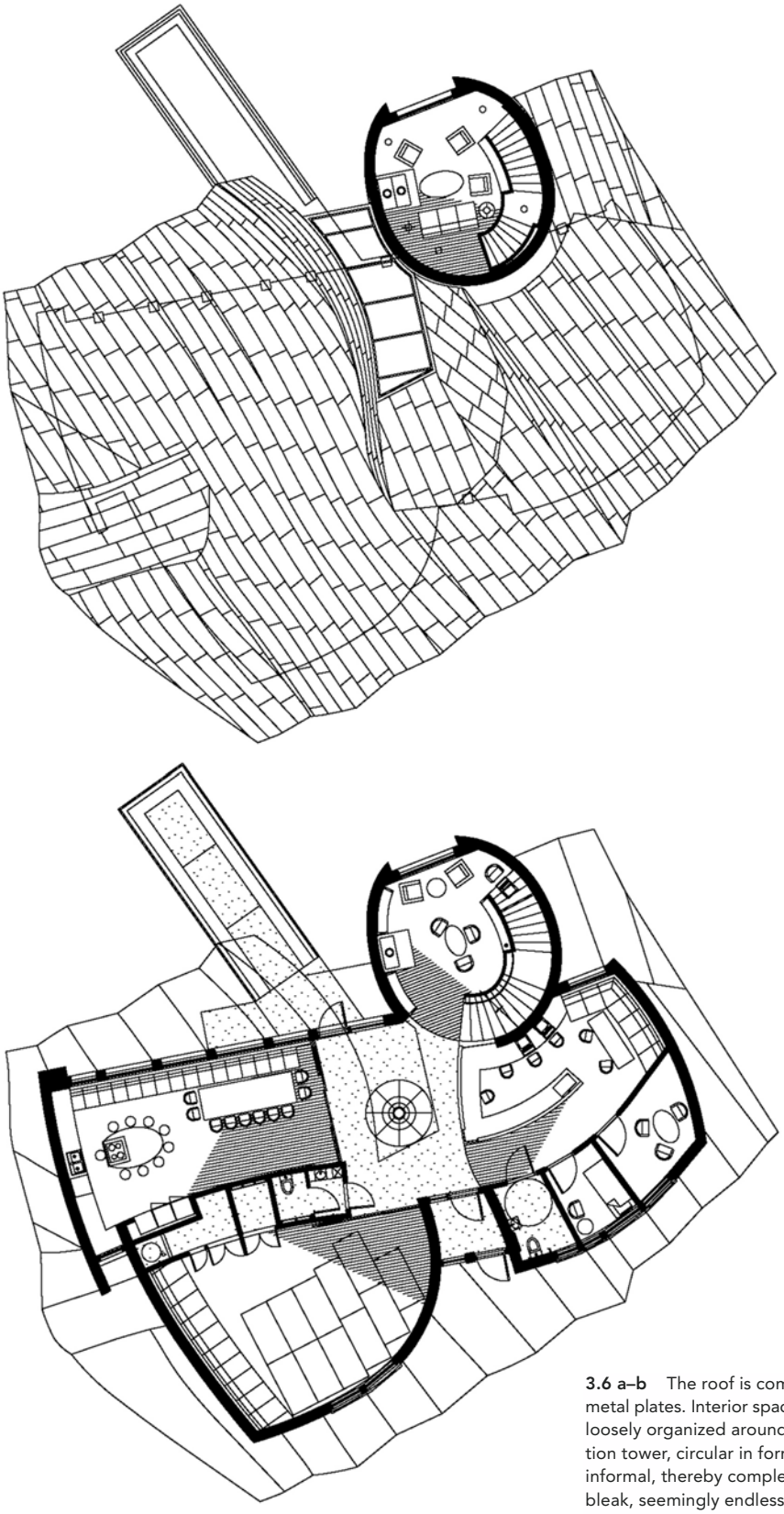
3.2 Restorative landscapes include paths, seating, gardens, and close proximity to the main hospice, such as at the Marie Curie Cancer Care Centre, Bradford, U.K.

3.3 Meditation and worship functions within a hospice provide an opportunity to design an inviting, memorable experience. The chapel at the Marie Curie Cancer Care Centre has a soaring ceiling, ribbon-like stained-glass windows, and natural wood flooring and wall surfaces

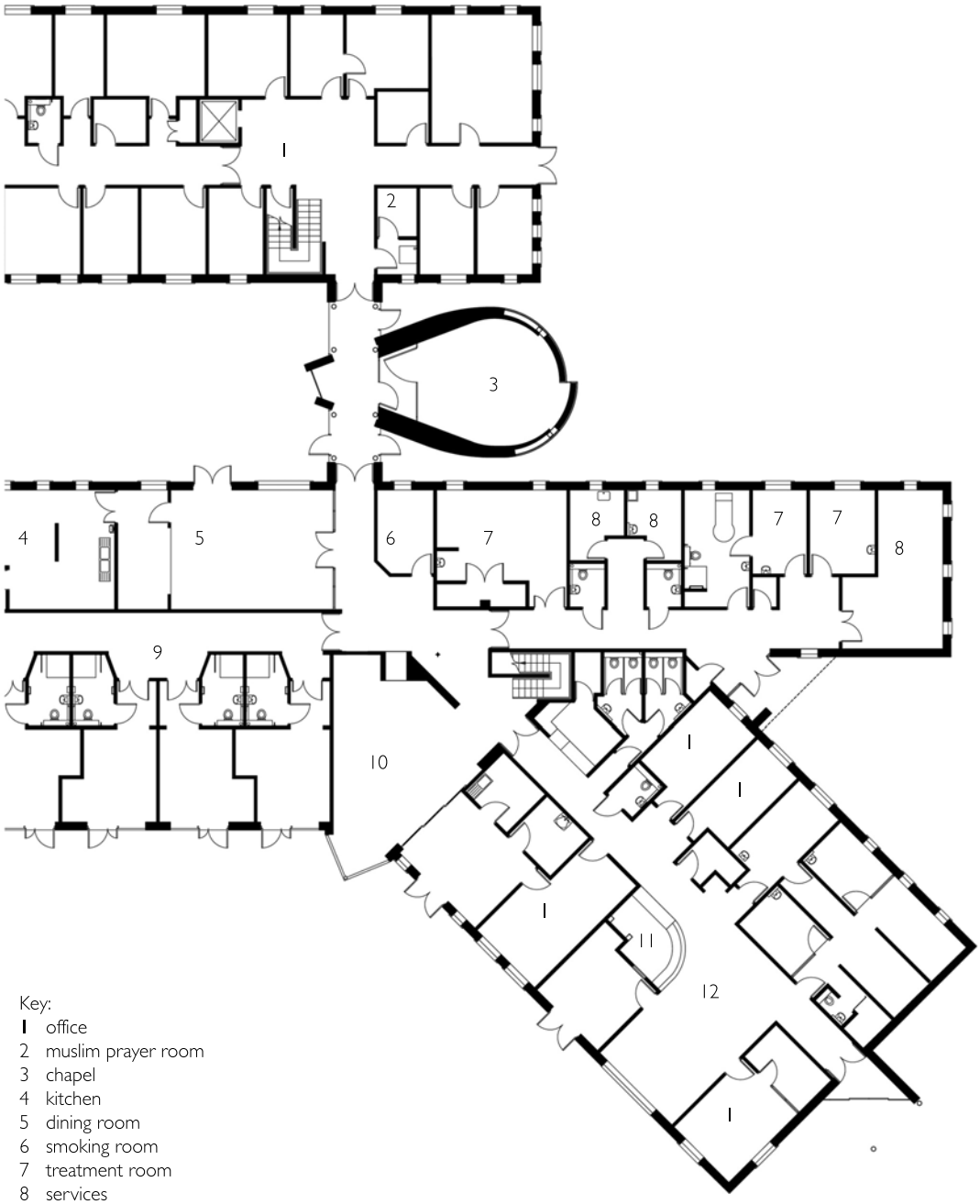


3.4 Four Maggie's Centres have been built in the U.K. to date. The Maggie's Centre in Dundee, Scotland, designed by Frank Gehry, expresses an intriguing, human-scaled composition and a perforated, unfolded roofscape, set against the rolling landscape

3.5 Gehry's quasi-country cottage conveys warmth in its imagery and rejects, by comparison, the uninviting scale and monolithic institutionality of the nearby medical center with which it is affiliated



3.6 a–b The roof is composed of a series of folded metal plates. Interior spaces are deployed as five elements, loosely organized around a 'torso', and a vertical circulation tower, circular in form. The circulation is purposefully informal, thereby completely rejecting the often rigid, bleak, seemingly endless corridors of hospitals



Key:
1 office
2 muslim prayer room
3 chapel
4 kitchen
5 dining room
6 smoking room
7 treatment room
8 services
9 bedroom
10 lounge
11 reception
12 waiting room

3.7 The chapel at the Marie Curie Cancer Care Centre is given expression in plan as a fluid form. The chapel and an adjacent courtyard are bisected by a glass-enclosed walkway, with doors opening to the courtyard and to the site environs

from physical symptoms. Art therapy is a language, providing a sense of control and choice at a time when few other aspects of life are presenting choice.[28]

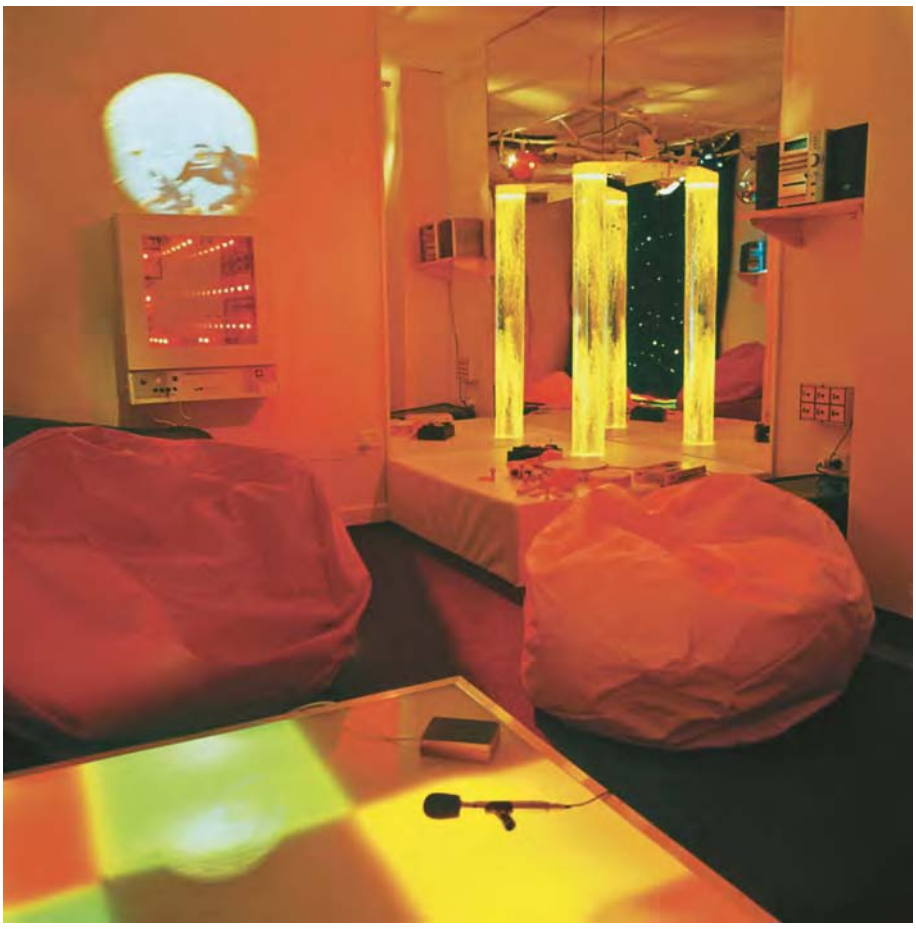
Most autonomous hospices and allied care settings have designated space for art therapy activities and the work that is produced. At the Marie Curie Centre, the inpatient rooms provide direct access to a terrace where one can walk out or take a wheelchair or the patient's bed. The art therapy activity rooms also open onto this courtyard (Fig. 3.7). By contrast, hospital-based PCUs often lack enough space for art therapy activities with the terminally ill. Art therapists in these situations may be forced to conduct workshops in hallways and in various residual spaces.[29] Pictorial collage has been found to be particularly effective as it encourages the engagement of cathartic issues and difficult past experiences.[30] Since the Middle Ages, musical performance has also been found to be an important aspect of engaging the dying in this process of therapeutic reconciliation.[31] Children's hospices are apropos for these modes of artistic expression, and many have incorporated full size wall murals, such as those painted on the walls throughout the Hospice of the Central Coast, Monterey, California (Fig. 3.8).

3.8 Spaces supportive of the needs of children are an essential aspect of the hospice environment. Here, at the Hospice of the Central Coast, Monterey, California, a wall mural depicts nature, including animals and bird species. Note the small play structure (right)

Guided imagery is used as a vehicle for the patient to self-visualize, and an aid in training nursing staff to engage the terminally ill on deeper emotional levels. A recent innovation is the sensory immersion room. This space can be used for art therapy activities as well as this type of mental imagery session, with a single patient alone, or in a small group setting. The activity room at the Bear Cottage Children's Hospice in Australia provides comfortable furniture, music-soundscape therapy, surrogate landscape imagery, and fiber optic immersion technology (Fig. 3.9).

Two types of artwork are prevalent in hospices, fixed and non-fixed works of art. Either type may be produced by local professional artists or by patients and family members. This work is displayed on permanent loan in hallways, patient bedrooms, entry foyers, chapels, and dayrooms, as sculpture suspended from ceilings or placed in outdoor settings.[32] An outdoor bronze sculpture at The Connecticut Hospice depicts a patient seated in a wheelchair with a nurse at their side holding an eternal torch in an expression of the centrality of the nurse in the palliative care experience, dating back to the work of Florence Nightingale with dying soldiers in the nineteenth century. This sculpture is sited prominently near the water's edge, visible to visitors and inpatients.

In recent years, some hospice programs have been successful in establishing permanent art collections, with works ranging from highly abstract art to representational art. Non-fixed artwork is that which may be extemporaneously produced by an artist in residence, a benefactor-artist, or within the hospice in the course of art therapy. Some hospices in the U.K. operate small shops to sell this work as a means of generating income.[33] In the U.K, the Marie Curie Cancer Centre staff worked with the Yorkshire Craft Centre in Bradford to enrich their new building with artworks expressive of nature. A series of fabric hangings of leaf-like forms were suspended from the 'lantern'. The Houston Hospice amassed a significant collection of wall tapestries for permanent display. Numerous large textile canvases adorn the hallways (Fig. 3.10). One measure of success in the fusing of art and architecture as a single medium of expression in a hospice is when it becomes impossible to distinguish the therapeutics of one from the other.



3.9 Nature and interactive media immersion environments provide the hospice inpatient with an interactive, therapeutic experience. At the Bear Cottage Children's Hospice, Manly, New South Wales, Australia, patients as well as their friends are invited to engage in a variety of activities whose purpose is to stimulate the senses and ameliorate stress. Note the zones of activity-immersion

3.10 At the Houston Hospice, Texas, wall tapestries adorn the inpatient residential unit. This tapestry is a patterned quilt, depicting flowers. Textile artworks, together with the floor carpet, absorb the excessive noise generated throughout the normal course of a day, particularly within and near to the nurses' station

Expressions of remembrance

Acts of remembrance, and memorials, are intertwined with art in the hospice milieu. The vast majority of not-for profit hospices require donations in order to survive. Monetary donations are generally of two types, either restricted or unrestricted. Fixed-feature expressions of remembrance are integral to the building or the grounds, e.g. a sum earmarked for a specific room of a hospice, named as a memorial to a deceased family member. Other examples include fountains, dayrooms, window seats and alcoves, outdoor benches such as at the Marie Curie Centre, a nurses' station, a library, such as at the North London Hospice, a built-in wall aquarium, an atrium, a roof terrace, a fireplace, a hydrotherapy pool, an inscribed brick along an outdoor path, or an outdoor sculpture. Visitors to the Christopher House Hospice in Austin, Texas, upon arrival, view a large-scale artwork

3.11 At Christopher House, Austin, Texas, remembrances resonate, adding continuity to the hospice experience. This illustration is a detail of a wall mural, composed of casts of the hands of former patients, at the main entry

composed of over one hundred ceramic hand casts created by former patients (Fig. 3.11). A donated stained-glass mural adorns its prayer room (see p. 75).

Non-fixed expressions of remembrance include any furnishings, plants, and other moveable, portable artifacts not attached or assigned a permanent display location on the site or within the building. Examples include the plants in the courtyard of the Maitri AIDS Hospice (see p. 146), furnishings and equipment, such as in the aforementioned sensory immersion room at the Bear Cottage Children's Hospice, musical instruments, paintings, and tapestries. The stained-glass windows on loan to the Strasburk Hospice in Prague are displayed in front of the permanent obscured glass windows in its chapel. Outdoor items include benches, play equipment, a basketball goal, shelter for pets such as a doghouse, and temporary art installations. This practice, however, varies greatly, depending on local cultural tradition. In Japan, for instance, public hospitals with inpatient PCUs are prohibited by law from accepting any privately donated fixed or non-fixed gift from any individual or group benefactor. Named memorials for an individual or family are very rare, as a result, as this would run counter to the dominant culture of social cohesiveness.[34]

Hospice form and culture

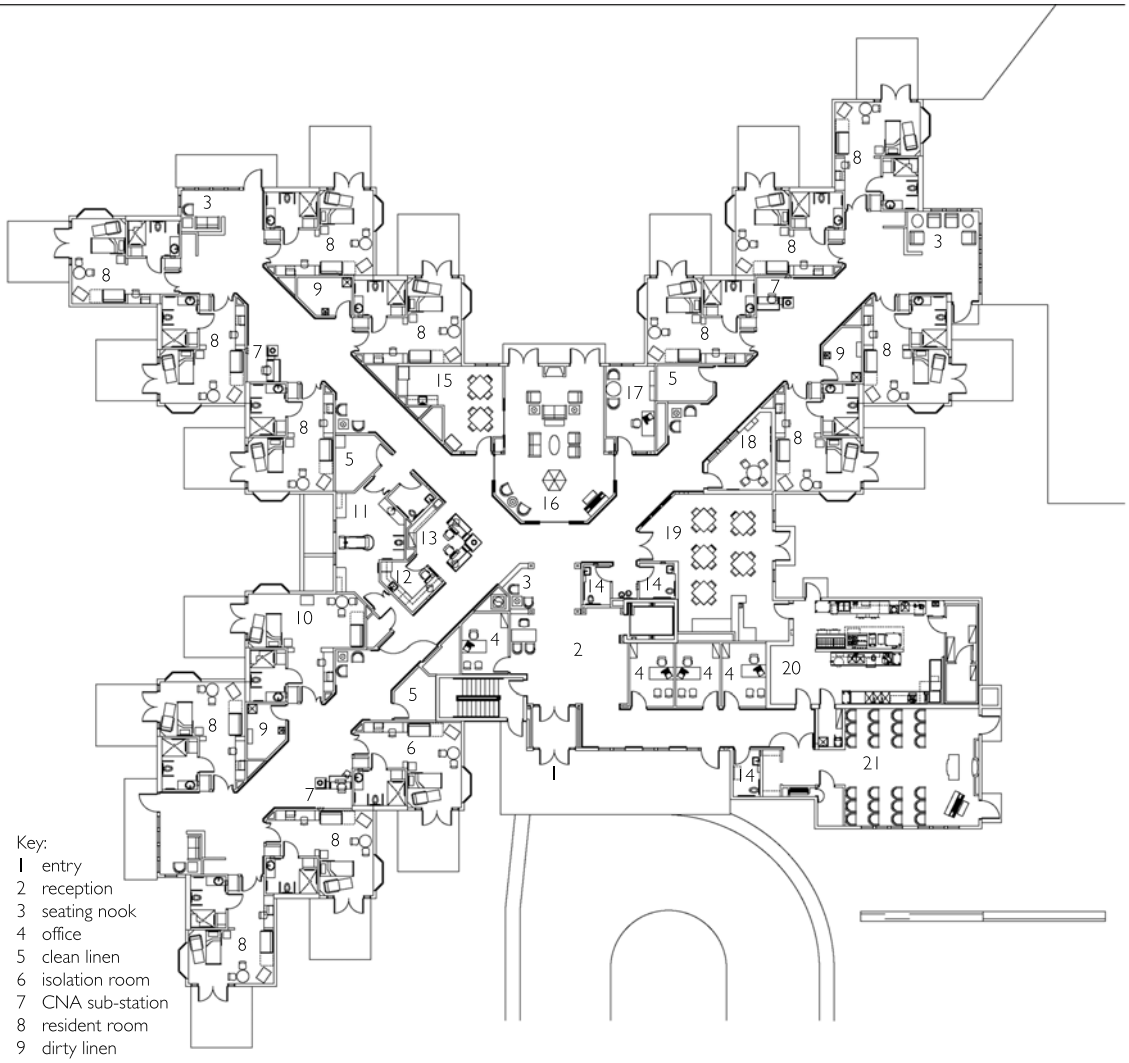
It is interesting to examine this building type from a cross-cultural perspective because housing constitutes the core of a hospice, and it is here that cultural differences are most apparent. Hospices around the world strive to emulate the experience and overall ambiance of home. Housing, as a building type, has long been fertile ground for the study of the influence of culture in the making of architecture.[35] The inpatient bedroom functions as center stage, together with the spaces directly adjacent to the bedroom. It is particularly illuminating to compare American and Japanese hospices in this respect. Inpatient bedrooms in many recently built U.S. hospices in the for-profit sector (a fast growing market segment at this writing) increasingly reflect consumer-driven market forces. The all-private room hospice has become dominant. In the not-for-profit sector, semi-private rooms are still culturally acceptable to some extent. It is not atypical for the American hospice bedroom to feel more containerized compared to its Japanese counterpart. In Japan, by contrast, suites (formerly referred to as wards) of up to four beds remain the norm in many places, although a number of all-private room hospices have been built. The in-hospital PCU typically contains semi-private rooms or suites of up to four beds, although in freestanding units all-private room hospices are becoming the norm.

In the U.S., the AngelsGrace Hospice in Oconomowoc, Wisconsin, designed by Engberg Andersen Design Partnership in Milwaukee (2004), is a case in point. It is a fifteen-bed hospice configured as three residential wings, each housing five private inpatient bedrooms. It is owned and operated by ProHealth Care, a for-profit corporation that also operates a large nearby medical center. Adjoining spaces include a Great Room, library, chapel, children's activity room, indoor aviary, spa room, spaces for art throughout the building, and therapeutic gardens and paths outdoors. In plan, the bedrooms are situated along three pedestrian streets radiating from a central nurses' station. Satellite workstations are situated along these arteries together with seating alcoves and dayrooms. The Great Room is at the center of the plan, with the chapel to the right of the main entrance (Fig. 3.12).

The Japanese inpatient bedroom is much less commoditized and self-contained, and is, as a result, more spatially flexible. The bath/shower room is smaller and more transparent compared to its bulky, obtrusive American counterpart (see Chapter 5). In addition, the Japanese architect and interior designer are allowed more freedom (by building code and by tradition) to use natural materials and finishes, including wood flooring, ceiling treatments, and color palettes. In Japan, high population densities, high land values, and a sheer lack of land have a profound influence on architectural invention. Despite these determinants, the Japanese hospice remains rooted in traditional concepts of domesticity. Nature continues to be inventively incorporated in the patient housing realm. Even hospitals with PCUs in dense urban neighborhoods have transformed their roofscapes into restorative gardens, such as at the Sakuramachi Hospice in Tokyo (see p. 117). Ample anecdotal evidence suggest the Japanese lead the world in the landscaping of the roofs of their urban healthcare facilities.

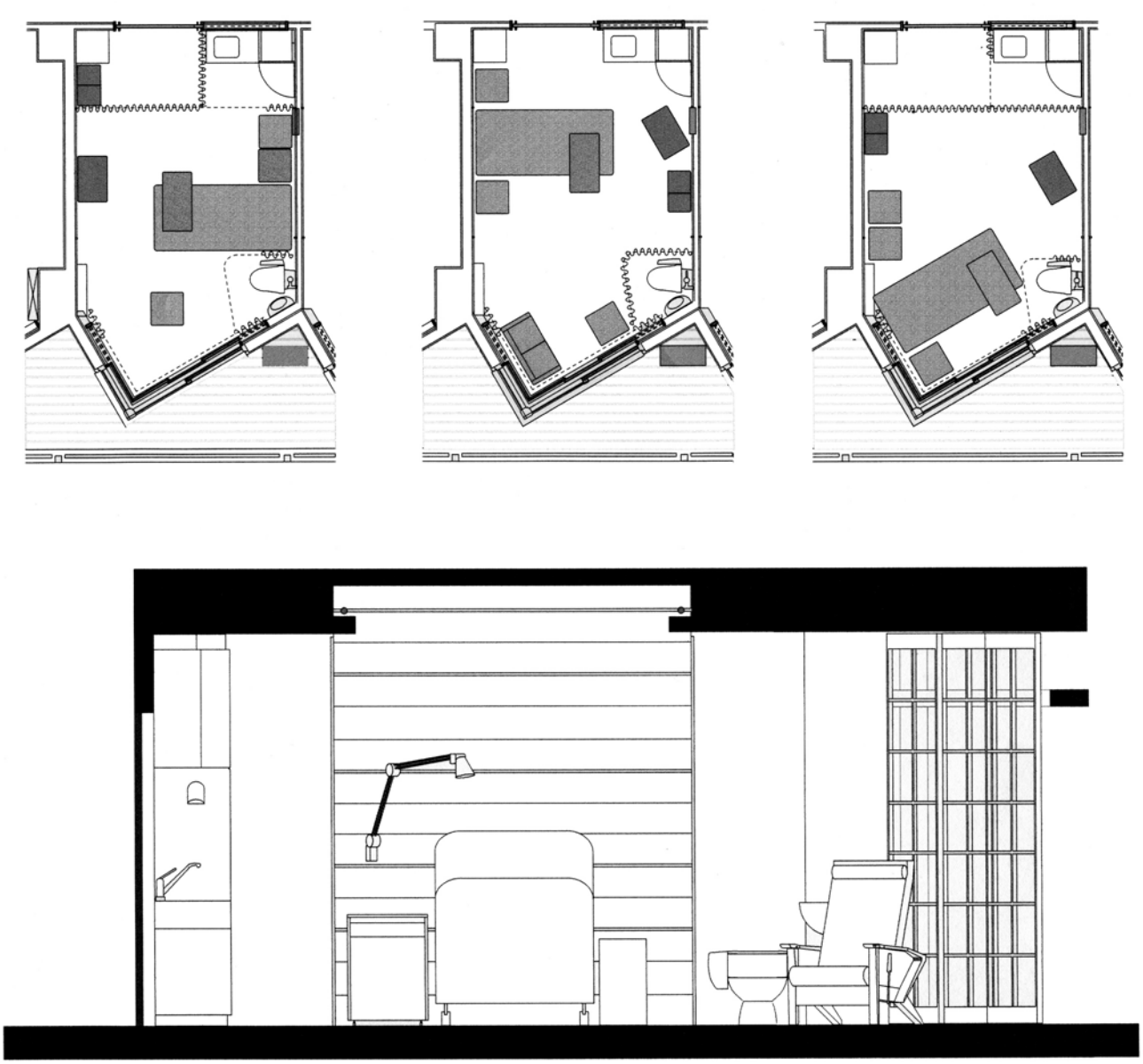
The AHI Hospice in Aichi Prefecture, Japan (see p. 102), a non-profit freestanding facility set in a rural region, was built as a non-profit hospice next door to its parent medical center. The patient bedrooms are spacious, allowing the bed and furnishings to be spatially repositioned in any of three different ways. It is noteworthy that no separate 'bathroom' exists – hygienic functions are integrated into the bedroom with the sink positioned unobtrusively along an interior wall and the commode situated along the perimeter (Fig. 3.13a and Fig. 3.13b). This is possible because the commode and sink are traditionally 'celebrated' as amenities in the home. Architectural features and elements borrowed from Edo and early-Meiji period Japanese wooden dwellings are meaningfully transposed and adapted. These amenities include sliding shoji privacy screens with rice paper inset panels, corridor-to-room and within-room sliding doors on tracks (remarkably easy to operate compared to the bulky Western doors typical in healthcare institutions), horizontality and a corresponding emphasis on the external landscape as an extension of interior space, and tatami mats that can be rearranged based on patient and family preferences. In fact, the bedrooms in most freestanding Japanese hospices are designed and proportioned based on the dimensions of the tatami floor mat.

Since 2000, for-profit hospices in the U.S., and an allied healthcare building type, the assisted living care facility for the aged, have become less distinguishable from one another architecturally. Architectural firms, which previously specialized in assisted living facilities, are now also designing hospices.[36] Beyond this, the architect commissioned to design a hospice for a for-profit client is under unprecedented pressure to walk a tightrope



Key:
1 entry
2 reception
3 seating nook
4 office
5 clean linen
6 isolation room
7 CNA sub-station
8 resident room
9 dirty linen
10 pediatric room
11 spa
12 medication room
13 charting
14 toilet
15 family room
16 great room
17 library
18 kids room
19 dining
20 kitchen
21 chapel

3.12 In plan, the AngelsGrace Hospice, Oconomowoc, Wisconsin, is a clustered, all-private room concept dominated by a bi-axial circulation pattern, with the main activity room at the center, on axis with the main entry. The chapel in this case is located to the lower right



3.13a–b Each inpatient bedroom at the AHI Hospice, Aichi Prefecture, Japan, was conceptualized as a flexible, adaptable space, inviting personalization on the part of the patients and their family members. Note the reconfigurable window screens and interior room partitions

between so-called 'extravagance' and bare bones 'utilitarianism' as cost consciousness threatens to reduce hospice 'chain architecture' to the state of the assisted living industry, or worse, hotel chain architecture. Granted, there have been a few exceptions to this trend in the for-profit sector, although it appears to be through no small matter of chance that commodious, generously appointed, and appropriately proportioned patient housing realms in hospices tend to be commissioned by non-profit clients.

Summary

In a world with increasing numbers of aged persons, new diseases appear as others are controlled, and the demand for high quality hospice architecture is increasing. Hospice has become more accepted due to shifting demographics, increased education on the subject of death and dying, and an increase in self-empowerment on the part of the terminally ill and their families. Current practices, standards, and the future possibilities of hospice, in both the for-profit and the non-profit sectors, are ripe for critical inquiry and debate. In advanced developed nations, as more providers enter the arena of for-profit palliative and hospice-based care, the architecture of hospice may by default become generic and standardized. An excessive layer of governmental policies and straightjacket-like building codes may have the same debilitating effect as was witnessed some forty years ago in the nursing home industry and in relation to what is about to occur in the assisted living industry. The next chapter challenges these potentially adverse trends by placing the spotlight on architectural design excellence.

CHAPTER 4

Designing for palliative care

Established principles and standards have evolved for the planning and design of in-hospital palliative care units (PCUs) and freestanding hospices. Although most developed nations have building codes, which apply to hospice facilities, some regions and locales do not. In large part due to these differences, it remains very difficult to comparatively assess hospice caregiver intentions in direct relation to the actual degree of functional support (or non-support) provided by a hospice's architectural environment. In hospice inpatient architecture, important determinants in the translation of intention into built form are: a. local cultural and demographic factors; b. local attitudes toward death and dying; c. the identification of any limitations of an existing building under consideration for conversion into a hospice; d. building codes; e. licensing protocols; f. the level of support of hospice care on the part of the local medical establishment; g. whether the hospice is non-profit or a for-profit enterprise; and h. fundraising and budget considerations.[1] The hospice movement continues to evolve on an international scale, and providers everywhere must be prepared to confront these issues squarely. The four types of hospice architectural settings described in the preceding chapter are referenced in the following discussion – medical campus-based hospices, autonomous hospices in freestanding buildings, hospices adapted from different prior use(s), and autonomous pediatric hospices in freestanding buildings.

The compendium of planning and design principles presented below represents an attempt to give architectural expression to the functional, aesthetic, symbolic, and spiritual dimensions of designing for the terminally ill. Death and dying involve a series of highly nuanced stages and thresholds for everyone who is near to the dying individual. Architects and allied designers are well advised to first immerse themselves in the inner profundities of the hospice experience, and these principles of palliative architecture, in order to fully appreciate and comprehend the commitment, compassion, mutual support, and warmth as well as the stark realities of hospice. As discussed in the previous chapters, palliative care has gained momentum around the world because it is a reaction against fear, isolation, and the 'cure at any cost' syndrome. To hospice advocates, palliative care is the terminally ill patient's most viable recourse in a society that often isolates patients from families in a time of crisis.

This information, however, is not to be seen as prescriptive, as, in this sense, it extends the work of Christopher Alexander's seminal pattern language work of nearly thirty years ago.[2] No magic formulas, therefore, are to be found in this compendium for determining the optimal number of beds, as if one might simply look up some statistic in a manual.[3] Suffice to say, small PCUs in acute care or specialty hospitals may have as few as four beds, and up to thirty or more in a single unit. Freestanding hospices range in bed capacity from small (8–12 beds) to moderate (12–24 beds) to large, with some housing forty or more beds for inpatient care. Observations such as these may be gleaned from the study of the continuing fluidity of the state of the art as new hospice programs are created around the world. The efforts of some governments, such as that of Australia, to standardize palliative care setting minimum deign standards, have been noteworthy, and such efforts are indeed praiseworthy.[4] Similarly, hundreds of interviews and correspondences over the course of the past three years with architects who have designed hospices have greatly influenced the information presented below.[5]

Some care providers have gone beyond conventional practice, having taken the admirable step of conducting design competitions, such as for the Balloch Children's Hospice in Scotland.[6] This said, these principles are not to be viewed as static or didactic in any way. They are meant to be broadly interpreted for use by designers, care providers, home health organizations, government agencies, fundraisers, community advocates, elected officials, public policy specialists, and patients and their families. Sixty-six planning, architectural planning, and design principles are presented below, in seven sections: 1. Site and context; 2. Arrival spaces; 3. Residential milieu/common spaces; 4. Residential milieu/private spaces; 5. Transitional spaces; 6. Connections with nature; and 7. Administration and the total environment. These concepts emphasize multisensory stimulation, the palliative functions of water, solace, peace, warmth, emotional support and comfort, empowerment, awareness of one's relationship with the earth and sky, opportunities for respite as well as for social interaction, and for spiritual renewal and reconciliation. It is hoped that others will be inspired to elaborate upon and extend this compendium. This chapter concludes with a case study designed by the authors of the proposed replacement hospice for Hospice Hawaii. Following this, speculative prognostications for the future are presented as five trends likely to have a strong influence on palliative care in the coming decades.

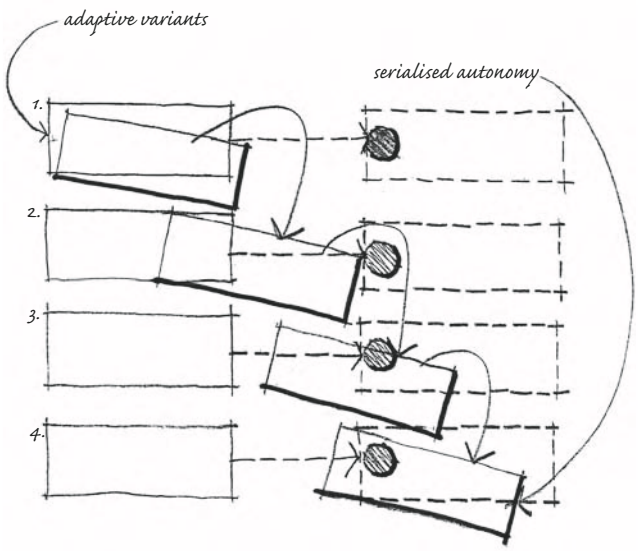
1 Site and context

Community and neighborhood support

Hospice and allied palliative care services exist in nearly every site context, rural, suburban, or urban. By definition, hospices in rural contexts have the most visibility, architecturally, as stand-alone care environments. Land and construction costs tend to be lower, allowing for a more expansive design, and outdoor spaces and the natural environment can be more readily incorporated. Hospices located in established residential areas in cities have somewhat less autonomy, yet often are well known and accepted within their immediate neighborhoods. Establishing hospices in neighborhoods, especially among single-family dwellings, often requires building code and zoning variances. Notify prospective neighbors beforehand, to avoid a backlash. Effective communication is essential from the outset. This can be highly problematic. Staff, patients, and families at the hospice need to know that the surrounding residential neighborhood supports its presence. When selecting a site, it is equally important to consider access to medical, commercial, recreational, and related resources.

Hospices in commercial settings

An urban commercial setting presents several challenges, yet holds unique advantages. A hospice can co-exist with commercial establishments with very few conflicts with the neighbors. When located in a mixed-use area, very few variances may be required. A problem is that because land values are at a premium, it is difficult to purchase enough land to develop outdoor play spaces or gardens, and it is generally a challenge in these contents to locate patient rooms on the ground floor. Transportation options are likely to be more extensive in these settings, however, although this of course varies greatly from city to city. The noise generated by this type of setting can be problematic. Sleep difficulties may arise due to noise-induced stress, and may have an unsettling effect on well-being.



4.1 Serialization of autonomous movement

Adaptive use strategies

Adaptive use has been at the center of hospice care since the Middle Ages, when monastic open-plan wards in hospitals were converted to the care of the sick and dying. Later, as discussed in Chapter 1, these cavernous quarters were gradually subdivided into small 'living' compartments. Many hospices have adapted an older structure for some part of their operations and built a new addition connected to an historic main building (Figure 4.1). The Houston Hospice converted a donated 1927 private residence and its grounds for use for its administration, volunteer, and outreach programs. Similarly, the Jerusalem House for AIDS in Atlanta adapted a donated residence for its hospice, as did the hospice at the Hadassah Medical Center in Jerusalem. The Maitri AIDS hospice in San Francisco adapted a former auto repair garage for reincarnation as its hospice. It is housed entirely on the second level, with only the main entrance staircase and an elevator accessible from the storefront street level. A massive auto ramp leading to the second floor was demolished to make way for these elements. At Maitri, an inner courtyard was carved out of the volume to transmit daylight.

Edge sites on medical center campuses

A hospice program may opt to build a 'freestanding' facility on land provided by its parent institution, such as a stand-alone hospital, hospital network, or home health network. The challenge is to design a hospice to be anti-hospitalist in its overall appearance and ambiance. However, make creative use of the existing infrastructure: parking areas, utilities, dietary and laundry, landscaping. The support provided via an umbilical link with the mothership can be critical to a hospice program's success, and can be used to architectural advantage – fewer medical support spaces for storage are required on site, thus freeing funds for investment in patient care spaces, and in spiritual, social, transitional, and outdoor amenities. A note of caution: pressure to inhibit architectural autonomy may be great, and the ability to create a residential image, the building's height, and its composition may be compromised in these site contexts.

Cultural diversity and the hospice environment

In future years the populations of hospices in urban and suburban areas will become ethnically, racially, and economically more diverse. Hospices located in diverse communities should embrace the multiplicity of cultural traditions of their occupants. Tolerance and diversity will create a more comforting atmosphere for all. The size of patient rooms and overnight accommodations for family members should take such cross-cultural traditions into consideration. Many cultures value re-centering the family around the sick and dying. Provide adequate parking space on site or nearby in anticipation of many friends and family members spending time in the patient's room and within the family support areas of the hospice. Whenever possible, staffing patterns should also reflect to the extent possible the ethnic and language backgrounds of patients and families. Communication is essential. Introductory CD/DVD recordings explaining the hospice, including a walkthrough on the hospice's Internet home page, will help to reduce fear and anxiety.

Control of unwanted sounds

By and large, a hospice is a quiet place. It is imperative to buffer unwanted sounds filtering into the hospice environment from excessive street traffic, nearby commercial establishments, or industrial activity. Barking guard dogs, alarms, and horns are also sources of stress. Particularly upon first arriving at hospice, the patient is under an undue amount of stress, already experiencing difficulty in sleeping and relaxing, and suffering from irritableness. Highly commercial and industrial neighborhoods are problematic for this reason. Install sound soak-systems, thickened walls, double insulation, and locate sleeping areas strategically. Landscaping, walls, and setbacks, and the orientation of windows, doors, porches, terraces, and gardens should double function in their amenity of use and as sound buffering devices. The gardens at St Joseph's Hospice in London and at the Houston Hospice achieve this needed acoustical separation from the din of everyday life in dense urban settings.

Decentralized clusters of parking

The proper location and design of parking areas is critical to the success of the hospice. Too few spaces on site in too close proximity to the building can be a source of stress in patients and families. Parking configurations worthy of study include multiple smaller clusters, adjacent perimeter parking for the staff and volunteers, or underground parking. Do not locate parking adjacent to the views from patients' windows, dayrooms, meditative spaces, and living rooms. Similarly, incorporate buffers such as lattice fences, walls, shrubs, berms, and trees to screen autos from direct view from gardens and quiet outdoor spaces. Culs-de-sac and circular drives are effective where land availability permits. Access drives should lead directly to the main entrance, and service drives to retrieve trash and biohazardous medical supplies should buffer from view the public arrival sequence, and should not be located disruptively from the standpoint of the hospice's neighbors. Provide walkways, a staff-only parking area, and space for a transport mini-van.

Security and well-being

Hospice patients and their families experience emotional and other traumas, and are in need of safety, security, and refuge. Lockable doors, secure windows, safe places for the storage of personal items, and an overall sense of personal safety is essential if peace of mind and body are to be attained. This is particularly important in urban hospices. The threat of theft or any disruption of one's personal space fundamentally undermines the hospice philosophy. To this end, buffer zones between the street, the main entry, and the private areas reinforce visual privacy. These could include a window that attempts surveillance of the street, and electronic card access or wireless controlled door access hardware on all external staff and visitor public entrances, similar to that of a hotel. At the George Mark Children's Hospice (see p. 172) the administration offices are adjacent to the front door and all who enter are greeted, while potential intruders are simultaneously screened. This zone of arrival is buffered from the private realms of the hospice.

Environmental sustainability and site selection

The earth's natural resources are being depleted at an astonishingly alarming, ever-accelerating rate, and the financial day-to-day realties of establishing and operating a hospice often require making the most of minimal funds and facilities. In the coming years hospices will need to be established in otherwise castoff spaces, abandoned greyfield hospital sites, donated private residences, and in brownfield industrial facilities. The donated building may be run down, but in a take it or leave it scenario this strategy may make more sense than building a new hospice on a greenfield site. In the U.S., the LEED (Leadership Through Energy Efficient Environmental Design) certification process is a program operated by the U.S. Green Building Council. Buildings are submitted for recognition by this national program and three levels of certification are made: silver, gold, and platinum. Categories on which a building is assessed include its site planning, orientation, daylighting techniques, shading systems, materiality, and composition. To date no hospices in the U.S. have received LEED certification. Passive and active solar techniques for environmental control can reduce the life cycle costs of operating mechanical HVAC systems. Precipitously rising air conditioning and heating bills can undermine even the most precise annual operations budget.

Climate and hospice

Four basic site variants should be considered in terms of their influence on healthcare architecture. In hot, humid regions, employ linear building configurations, enhanced cross-ventilation, transoms, ceiling fans and high windows to vent air, and pitched roofs to drain rainwater. In hot, dry regions employ more compact building massing, courtyards, thickened walls with few windows, basements and underground spaces insulated by the earth, and flat roofs with overhangs. In moderate regions, employ pitched roofs to drain rainwater and carry snow loads, with linear and centralized building massing, operable windows, and overhangs. In cold regions, employ north-south exposures tempered to balance heat gain/heat loss ratios, pitched roofs, operable windows, and heavy insulation systems. In addition, employ energy efficient landscaping and building materials. In hot, humid regions employ screening to shield the hospice from direct sunlight with deciduous trees in relative proximity (especially to the south) and trellising. In hot, dry regions employ trees and trellised walkways, patios, and courtyards, operable windows and roof vents, and appropriate materials. In moderate regions plant deciduous trees to the south and coniferous trees to the north, and use windbreaks to shield the hospice from harsh winds. Similarly, in cold regions, employ windbreaks and vegetation while not impeding solar gain.

Involving occupants in the planning and design process

First and foremost, work to empower all constituencies who will use the hospice environment. This includes the physicians, nurses, administrators, nursing staff assistants, dietary specialists, bereavement counselors, social workers, psychologists, chaplains and other clergy, volunteers, IT specialists, buildings and grounds staff, and others. These persons are what are increasingly referred to as the primary user constituencies – those who inhabit the setting on a daily basis. Secondary user constituencies may include any off-site administrators, community advocates, financial advisors and consultants, and the home care hospice program staff. Representatives from key constituencies should be established at the earliest date following board approval to proceed with the planning process for a new or renovated palliative care facility. This committee, pursuant to any directives provided by the board, may have a voice in site selection: the number of beds, the scope of services provided on site, the environmental amenities, equipment, parking, landscape design, interior design, architectural design, and the construction budget.

2 Arrival spaces

Architectural identity

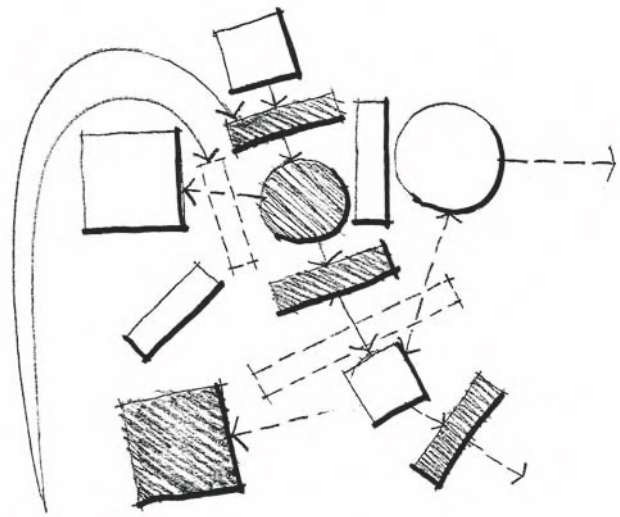
The exterior of a hospice should express its ideals. The connection to community via a building's façade and entry can evoke positive reactions and elevate the self-esteem of staff, volunteers, and patients. The conveyance, in symbolic terms, of safety, protection, and support affirms the philosophy that the hospice strives to capture the essence of home. However, hospice can express more than home per se. Forms can be tectonically adventurous, innovative, and evocative, and emerging structural and material technologies can be explored without having to reject traditional imagery and materials, such as gabled roofs, or the use of resonant natural materials such as natural wood, e.g. stained exterior wood siding and trim. In hospice, the ubiquitously accepted imagery of a single-family residence is subject to being critically collaged, crossed, and layered with a more adventurous, innovative aesthetic vocabulary and palette of materials.

Protected arrival

For the patient, arrival at the front door of the hospice is where critical first impressions are created. A covered canopy at the main entrance allows the patient to be dropped off without being subjected to inclement weather, or having to walk from a remote parking area. Where space permits, the canopy should allow for one or two vehicles to stop and disembark its occupants in a dignified manner. This element, together with a covered walkway, is a viable extension of the building envelope into the landscape, symbolizing outreach.

Serialized entry sequence

The covered canopy over the drive at the front door should lead to a reception foyer and living room. To one side, ideally, is the reception and administration section, functioning as the hub of hospice operations. The entry foyer should be welcoming, not threatening. Clear signage at the entry, and a sign-in register book should be situated near the reception desk, as this welcoming station also serves as the prime screening and control point for potential intruders. It is a symbolic gateway to the hospice. A waiting area adjoining this area is a transitional space for visitors to gather prior to an appointment, or when the signal is given to proceed to a patient's room. Directional signage systems in hospitals are often notoriously confusing, overbearing, and indecipherable. In a hospice, employ as few directional signs of any type as is necessary, no overhead signs, and only signs and room ID information for the promotion of wayfinding. The volunteers' office, if in close proximity, can allow for this. For the patient it is most important to know that assistance is nearby whenever needed (Fig. 4.2).



develop 'in-between' transitions between functional components

4.2 Zones of transition between functional components

Universal design in palliative care

Innovative design solutions should support the needs of terminally ill individuals with physical limitations. In the U.S., an historic, adapted building converted to hospice is not suitable by law for patient housing unless it is retrofitted for persons who are physically challenged, and this applies to staff, patients, and their families. This typically results in the construction of new wings for inpatient palliative care, for instance the Houston Hospice and the Strasburk Hospice in Prague. A universally designed environment enables, rather than 'disables', persons of all ages. Universal design must be anticipatory, not reactive. Any hospice categorized by local jurisdictional law as a medical care facility must comply with regulations concerning door width, fixtures, hardware, ramps, handrails, signage, door design, fire-rated materials, separation and screen requirements, and so on. Despite laws to ensure minimum compliance, in developing countries and poor regions, a disproportionate number of architecturally dysfunctional settings persist.

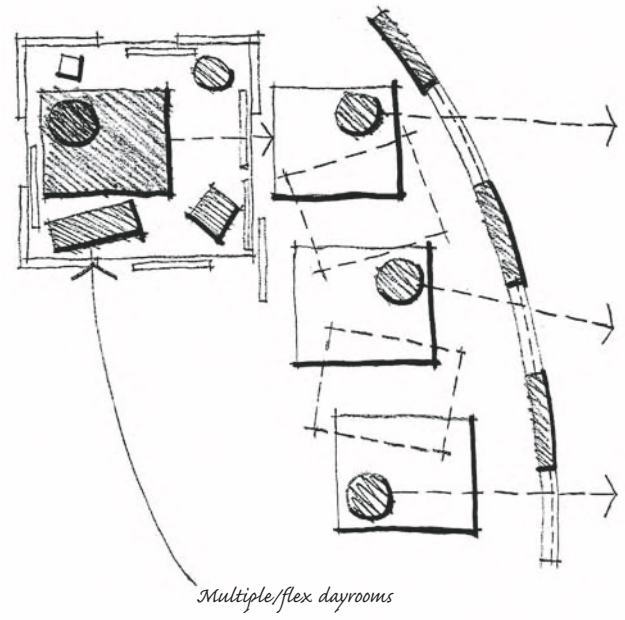
Expressions of remembrance

Philanthropy continues to have an instrumental role in the growth and evolution of the international hospice movement. Gifts from individuals, families, foundations, state and federal government, have all helped to further the mission of providing quality end of life care for the terminally ill. In many cases this type of support is essential in the daily operation of a hospice. These gifts often manifest in the form of remembrance of a loved one. This relationship is intensely interrelated, as the physical environment is the canvas upon which the language of human expression is rendered: the dedication of in-hospital PCU in the name of a family or individual, the donation of artwork, the commissioning of a specific work of art, a stained-glass window, furnishings, a nature immersion room, a library, a garden, a gift for the construction of an entire building, provide a variety of facilities, in highly public as well as the most private places. Every renovation, new addition, or new building should be conceived and designed with this in mind. In this way, potential donors can become involved, ensuring a meaningful fit between donor, setting, and mode of expression. Expressions of remembrance should be dignified and of enduring significance.

3 Residential milieu/common spaces

Living rooms

The population of a hospice is constantly in flux in terms of the age, ethnicity, socioeconomic background, and gender of its patients. Correspondingly, the number of family members and friends in the hospice or in-hospital PCU fluctuates. The living room is often located near to the front door but not within full view of the entry and reception area. It may be off to one side either as a completely separate room, or in a configuration where the reception area transitions into a 'great room'. These rooms are often visually dominated by a large hearth or a large area of windows opening onto a terrace. The furnishings in this room are often more formal than elsewhere, and may include items such as sofas, side tables with reading lamps, and bookshelves. At the George Mark Children's Hospice, this space adjoins a brightly daylit semicircular solarium room with built-in window seating.



4.3 Flexible spatial vocabularies

Dayrooms

The dayroom in most hospices is actually a multipurpose room. It may be used as a dining room, a place to celebrate a birthday, or a holiday. It provides a place to experience contact with others, and should be adaptable to accommodate a wide range of uses. Furniture should be moveable and perhaps have dual uses. A large closet can be provided in this room, or storage units can double as furniture or partitions. These can be either no wall separation whatsoever, or the inclusion of low walls, room-to-room windows, or Dutch doors to create zones and yet maintain visual connections with the adjacent hallway circulation zone. Some hospices provide a large TV in this room. Create multiple zones by means of movable wall partitions (Fig. 4.3).

Activity rooms for young children

A special room or pair of interconnected rooms should be designated exclusively for use by young children. Some hospices provide play objects in support of such activities as dramatic and fantasy play, quiet games, pantomime games, blocks, puppets, reading, toys, art activities, snack time, and individual physical therapy sessions. Provide a TV/DVD unit and a stereo. Select furnishings that are flexible and durable. A rich, varied assortment of furnishings, materials, and ceiling heights and shapes allow for many possibilities. Cover one wall with a fantastic mural. Incorporate smooth flooring and lightweight furnishings. Walls, dividers, and partitions should be moveable. These add texture, as do carpet or a playful floor surface, bookshelves, and stimulating colors. Provide a child-only bathroom adjacent to the young child's activity room. Commodes, sinks, mirrors, and switches at child height give the child a sense of mastery. Provide a skylight or window, interesting colors, and artwork.

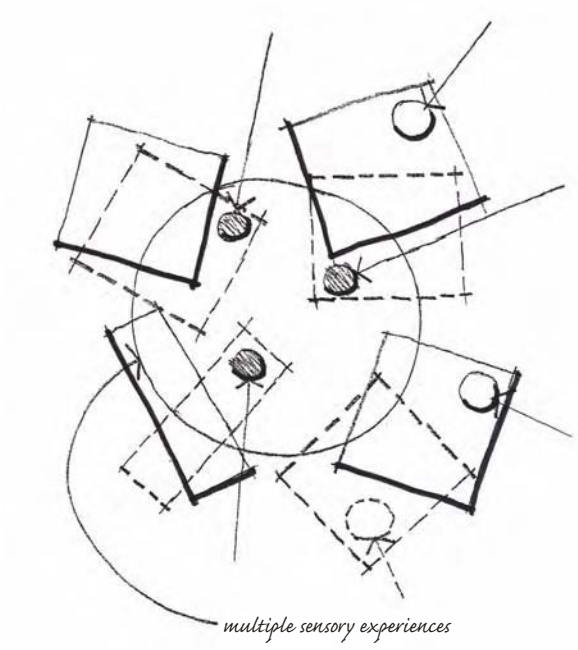
Activity rooms for adolescents and young adults

At the George Mark Children's Hospice, the teens' activity room is equipped with a stereo system, electric piano, a drum set, and various other instruments. The message is clear: create sounds. Music therapists encourage this activity as a means of blowing off steam, releasing stress, and being able to spend time alone with friends away from the influence of adults. Incorporate absorptive

wall and ceiling materials, and one or more windows. Provide soothing colors, artwork, perhaps a mural, a number of chairs, a sofa, and a small table.

Multisensory rooms

In children's hospice settings a multisensory room is a popular place for the child to experience light, sounds, colors, smells, and simulated environmental experiences (Fig. 4.4). There is a great need to relax and unwind. Fiber optic lighting systems, including the popular snoezelin machine, are able to simulate evocative, engaging immersion landscapes, and are often combined with sophisticated surround sound music systems. The music of Georgia Kelly and Dusan Bogdanovic has been mentioned as having a therapeutic effect on patients' moods. The floor plane is usually covered with carpet and soft, comfortable furniture, including pillows. Provide some conventional chairs and allow adequate space for patients in wheelchairs. This room may be combined with the *Nature Immersion Module* (see p. 51).



4.4 Virtual and actual immersion landscapes

Art as therapy

The work of artists and art therapists has activated many an otherwise bland physical setting in hospital PCUs and in freestanding hospices around the world. The palliative and therapeutic functions of art cannot be overstated. Many philanthropic foundations have realized this fact, donating funds specifically for art therapy activity rooms and art procurement programs. An original painting, sculpture, tapestry, collage, stained-glass window, hand-painted mural, lithograph, or environmental sculpture can lift the human spirit. Tapestries line the walls of the Houston Hospice, providing sound absorption as well as visual interest. Colorful murals adorn the walls of the patient rooms at the George Mark Children's Hospice. Buddhist religious portraits are on the walls of the Maitri AIDS Hospice. A painting or print next to the patient's bedroom door can aid in wayfinding. The art therapy room should be near patients' rooms and provide access to the outdoors, and should accommodate wheelchairs. The patient bedroom should be large enough for individual art therapy sessions at bedside.

Palliative colors

The color of walls, ceilings, furnishings, floor surfaces, and carpeting should be carefully coordinated with the needs of the terminally ill patient the first and foremost consideration. Architects, interior designers, and environmental psychologists have conducted research on color in relation to human health and well-being. However, no research studies to date have been published on color in relation to palliative care environments. Generally, prior research conducted in nursing home and long-term care settings suggests warm palettes for public spaces to encourage social interaction. Cool palettes are suggested for semi-private and private spaces. Pinks, mauves, and taupe are effective in reducing anxiety among nursing home residents. Above all, avoid yellow and dull, bland hues in the hospice setting. Red has been found to have an agitating influence on patients, including young children. Use color to personalize patient room entrances.

4.5 The Essa Flory Hospice Center's informal kitchen and dining areas promote informal social interaction, day or night, for use by patients and families

Dining

The dining experience is an important opportunity for social interaction and exchange. The eating areas should therefore be sufficiently flexible to accommodate various situational needs. It is important to create flexible spaces and to allow for communal or individual dining. Although the sharing of meals is among the oldest of human rituals, it is also important to provide semi-private spaces for those who may wish to have some privacy while, at the same time, not eating alone. Indoor and outdoor options should be provided. Tables and chairs that can be moved about easily encourage options. Alcoves and views out from these spaces allow for connections with nature. The dining room may at times be used for other functions, such as places for reading, or just hanging out. Design places for eating that have the ambiance of home.

Central kitchen and dining space

The design and layout of a kitchen will be most supportive if it gives the patient and the patient's family options to prepare food independently. Understandably, in larger settings this is not feasible, as in hospices whose food services are provided by an adjacent 'mothership' hospital, prepared 'off-site' and transported into the hospice. Provide direct visual and proxemic access between the kitchen and the dining room, as well as direct access for deliveries and the removal of trash. Supplies need to be received without intruding upon the ambiance of adjacent common living areas. At the Maitri AIDS Hospice the dining room and kitchen are visually a part of the main arrival and living space.

Informal kitchen and dining options

The kitchen should be designed as multiple zones, including a food prep station or island where a sandwich can be prepared outside of regular meal times. Provide an intermediate counter or alcove, between the commercial grade kitchen and the dining room, where coffee, snacks, juice, or fruit are available. Another option is to provide a complete residential grade kitchen vestibule, next to the main kitchen, for non-staff use. Because there is no necessity to enter the main kitchen, the vestibule can be used when the main kitchen is closed, providing an informal communal food preparation area. Some visitors will wish to have a meal alone with their loved one, sometimes at an unconventional hour of the day or night. The intermediate kitchen configuration at the Essa Flory Hospice in Lancaster, Pennsylvania, includes a small island counter area, sink, refrigerator, oven, and microwave (Fig. 4.5).

Resource library

A vital part of a hospice is a resource library. This room can function as the media center, with computers with Internet access, and a place for the storage of books and magazines. The reading room may be used for social functions from time to time. It should be in a prominent place in the hospice, but not at the center. Create small built-in reading alcoves with a combination of built-in seating, such as at the North London Hospice (see p. 143), and a table for laying out larger materials. Do not locate this room next to the activity room for children and adolescents. The resource library can overlook a quiet garden, and a door may afford access to the outdoors. Primarily it is a semi-private place where one can spend time reading, studying, and relaxing. In larger hospices, and in children's hospice, a portion, or an entirely separate room, can be devoted to young children.

Places for pets

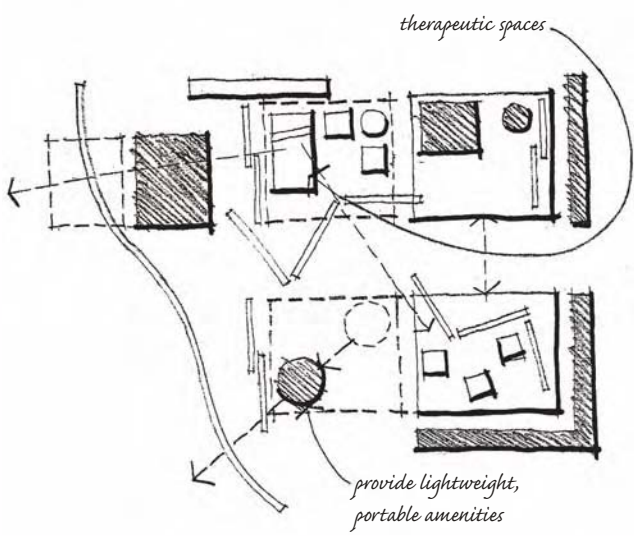
Pets have proven time and again to be meaningful companions to the terminally ill. The loss of control and dignity associated with dying can be greatly lessened if one is able have sustained contact with a dog or a pet cockatiel, for instance, or to experience the soothing effects of an aquarium. The hospice should provide spaces for pets to be housed in a manner that is unobtrusive, hygienic, and yet close in proximity to patients. The George Mark Children's Hospice (p. 172) built a dog kennel and a stable for a horse. Pets are a source of joy, a reminder of the sounds and rhythms of life. They impact powerfully on some of the things embedded within the emotional realm of suffering. Undemanding, unwavering attention goes a long way to breaking the spell of being isolated in a room. Provide places on the grounds for patients to be with pets outdoors.

4.6 At the Sakuramachi Medical Center Hospice, Tokyo, Japan, the plumbing fixtures are relocatable. Partitions within the room are flexible, able to be positioned by patients and their families according to their preference

4 Residential milieu/private spaces

The palliative bedroom

The inpatient's bedroom is perhaps the most important room in a hospice. Everything centers on the bedroom for a myriad reasons. It is where the patient is brought upon arriving at hospice, providing the most potent first impression, and it functions as the stage for the care to be received from the medical and nursing staff. This room should not have the appearance of a hospital room. It should look and feel residential in every possible respect. Patients may or may not be fully cognizant of their surroundings but during daylight hours they may be aware of the window and its view and the amount of light in the room. Private bedrooms should be 20–25 percent larger in size than the typical hospital room. This is because the bedroom serves as a social space, later as a grieving space. Provide wall mounted sconces and ceiling recessed fixtures, and one or two ceiling recessed fluorescent fixtures. Provide interesting ceilings with recesses, barrel vaults, and indirect lighting, such as at the Sakuramachi Hospice in Tokyo (Fig. 4.6). Behind the bed, provide a concealed box or wood panel to house the medical gasses and oxygen connections.



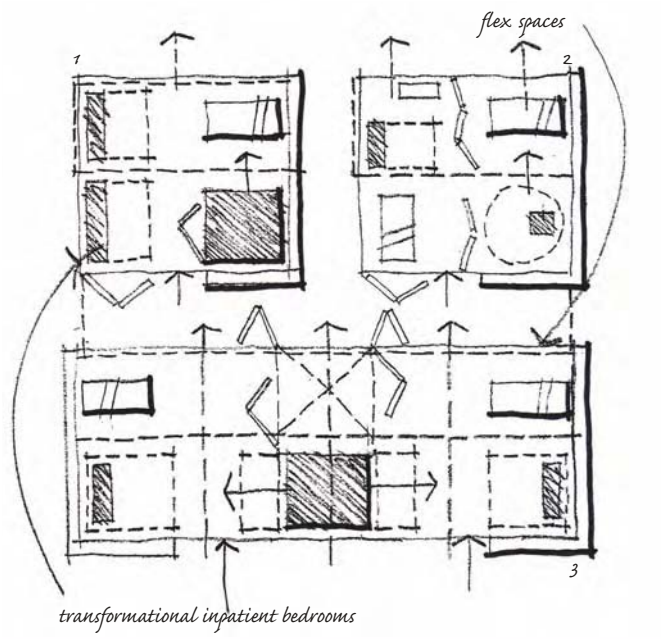
4.7 Redeployable amenities

Personalization

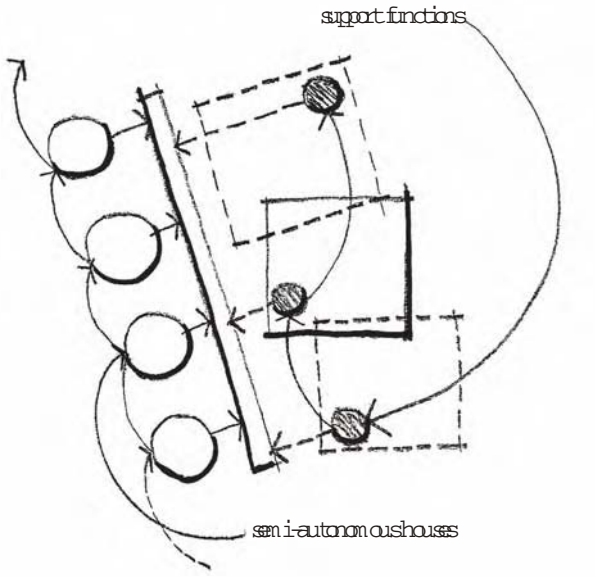
Provide ample space for a wheelchair within the room or in a corner alcove. A large built-in closet with shelving on one side, drawers, and a wardrobe closet should be easily accessible and large enough for family members' personal belongings. Allow space for the patient and the family to bring in a special chair, rug, photos, and mementos. This will help to familiarize the patient, and ease the transition from home to hospice, or from hospital to hospice. A moveable partition can provide visual separation, defining two zones within the bedroom. These zones can be collapsed into one by simply folding or sliding a panel element into a wall cavity or recess. The Japanese *shoji* screen is an effective device as it is lightweight, transmits light, and can introduce additional color and pattern into the space. This screen can be used to divide the room into a sleeping side for the patient, and another for family member(s), and should be no higher than 2 meters or more than a few centimeters in thickness (Fig. 4.7).

Transprogrammatic bedrooms

In some situations it is acceptable for as many as four terminally ill patients to share a single bedroom. This arrangement is acceptable practice in hundreds of in-hospital PCUs around the world. The amount of personal space provided for each patient will vary as a function of cultural, socio-economic, or even political determinants. The walls of the space for sleeping need not be permanent and static. The room itself can be contractible, expandable, or able to be reconfigured to respond to the needs of patients and their families. At present, bedrooms with all-fixed wall planes impose too many restrictions. The conventional inner wall of the patient's room, facing the corridor, and the adjoining circulation space, should be viewed as an interdependent system. Two options exist, the first being moveable partition screen walls on tracks. Another strategy is to provide a retractable wall, converting a large room into two smaller spaces. New products on the market, including bathroom fixtures that are re-deployable, should be explored (Fig. 4.8).



4.8 Transformable interior spaces



4.9 Privacy and autonomy

Articulated residence

At the LaGrange Hospice (see p. 131) patients' rooms are configured as individual small-scale, semi-autonomous 'houses.' These residences each contain a small number of patient bedrooms clustered around a dayroom, connected to support spaces by a corridor. From the exterior they appear as single-family dwellings in a village streetscape. Although, considerable land is a prerequisite, this goal is attainable even in an extremely constricted setting. A former warehouse in an industrial district, for instance, chosen for transformation into a hospice, can be conceptualized as a village through metaphor whereby patient room 'houses' and support spaces are articulated within a larger streetscape by means of color, materials, skylights, recesses, ceiling shifts, textures, forms, and their spatial disposition (Fig. 4.9).

Lightness/darkness continuum

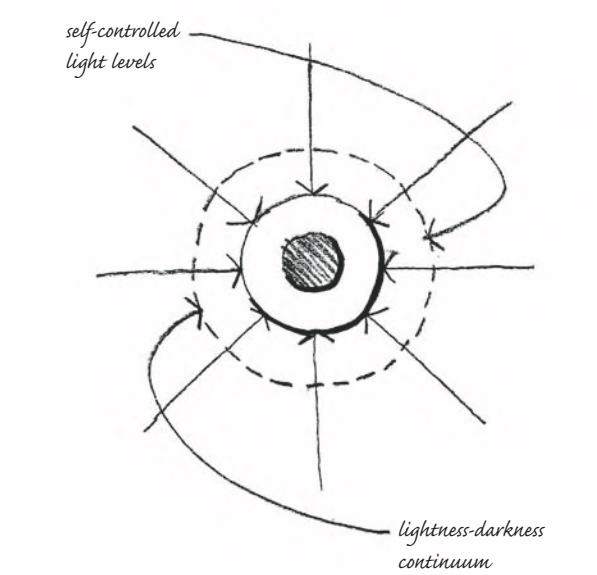
Natural daylight is life affirming, a source of sustenance, and of therapeutic value. After all, it is essential to all life forms. However, too many architects who have designed hospices have gone overboard in their assumptions in this respect. Their assumption of 'the more the better' is not always correct. In conversations with many nurses it was learned that patients often seek out natural daylight upon entering the hospice and that this behavior is encouraged. But as the patient's condition diminishes, whether precipitously or gradually, many tend to begin the process of shutting down, and in so doing crave darkened spaces. When the patient is near death, the curtains are frequently drawn twenty-four hours per day. The lightness/darkness continuum, or syndrome, is not to be construed as an argument against windows and natural daylight. Rather, this is a call for window treatments – curtains, shutters, horizontal wood blinds – readily redeployable to fully darken the bedroom as the patient's condition and preferences change (Fig. 4.10).

Private bathrooms

It was striking to observe, in hospice after hospice, an attractive residential bedroom directly adjacent to a harshly lit, wholly institutional-looking bathroom. The question arises: Are Western attitudes the result of indifference, benign neglect, or simply a lack of funds for improving the status quo? Why is so much effort put into the bedroom while so little is put into making the bathroom more residential? The Japanese have found a way to avoid this syndrome by eliminating the separate bathroom entirely. At the AHI Hospice in Japan (see p. 102) the commode and sink are adjacent to the bed, with the commode separated only by a moveable privacy curtain hanging from a ceiling track. This allows patients to transfer to and from the commode independently, as their condition permits. Bathrooms in hospice settings should be attractively designed to accommodate persons with a wide range of physical abilities, in a residential ambiance.

Semi-private bathrooms

In many palliative care settings, usually in-hospital PCU settings, up to six patients share a single bathroom. When individual bathrooms are not an option, consider connecting two patient bedrooms to a common bathroom. Each door leading into the space should have a locking mechanism for privacy. Due to building configuration or budgetary restraints, or both, some hospices resort to communal bathrooms. Provide space for each patient's personal items, be it a shelf, drawer, or small cabinet. Provide an alcove with its own (easily) sliding pocket door for commodes, one



4.10 Lightness/darkness life continuum

for the alcove housing the sink(s), and one for shower stall/tub units. Design decisions center on the percentage of perimeter wall devoted to windows and doors, if a balcony or patio will adjoin the room, nursing protocols, and cultural norms. Include artwork, painted murals, interesting wall treatments, and natural light.

Overnight accommodations for families

Many families travel a considerable distance from their home to the hospice. This requires a considerable expenditure of time, effort, and resources. The hospice may care for patients from an entire region, as in the case of Bear Cottage in New South Wales, Australia (see p. 167). In recent years the global hospice movement has expanded into urban, suburban, exurban, and rural settings around the world. Hospices in each of these physical settings provide overnight accommodations for families, most often in the form of convertible furnishings within the patient bedroom, which open into beds. This is a key amenity within the patient bedroom, as discussed earlier. However, this may not be enough. In cases where families travel distances too far to return home each night, provide two or three apartments. These accommodations may be shared, as in a dormitory, or autonomous, as in a hotel. Whether semi-private or private, the intent is to provide a place as near as possible to the patient.

Nurses' stations

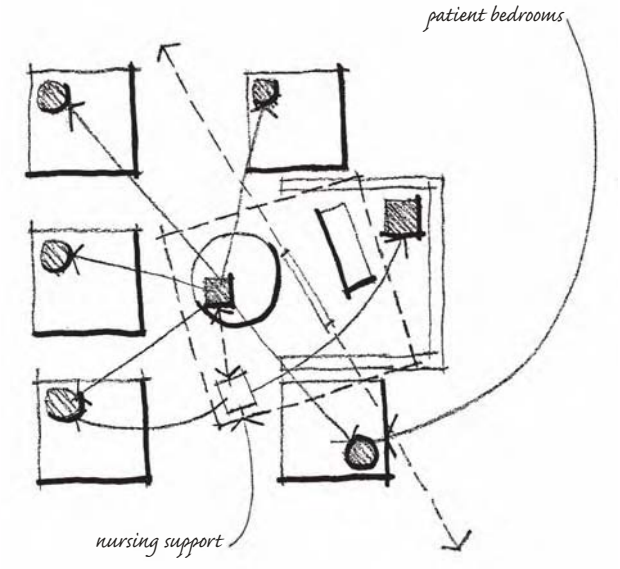
Not unlike in a hospital, the location of the nurses' station should allow for direct access to patients from a central point of observation and control. It is used by physicians, nurses, nursing assistants, volunteers, and those who bring supplies to and from it. It need not at all resemble a hospital nurses' station, however.

4.11 Medications should be kept in close proximity to patients although out of direct view. This dispensary unit at the Houston Hospice is located in a room adjacent to the nurses' station

In fact, explore deinstitutionalized designs to the maximum extent without sacrificing functionality. The Sunrise assisted living centers in the U.S successfully adapted *Planetree Unit* concepts. In so doing the traditional, pronounced line of demarcation between patient and caregiver became blurred. Provide an alcove for the staging of the medication dispensary unit, e.g. the PIXIS automated pharmaceutical dispensary system, such as at the Houston Hospice (Fig. 4.11) and an additional alcove for food service carts so they do not block adjacent circulation arteries. Bathe the space with natural daylight transmitted from a skylight or clerestory and incorporate incandescent light fixtures (Fig. 4.12).

Spa/hydrotherapy rooms

Many types of bathing, spa, and hydrotherapy rooms exist in hospices. This reflects the diverse range of attitudes regarding traditional personal hygiene needs in relation to the therapeutic benefits of water. At the Balloch Children's Hospice a large hydrotherapy room with expansive windows and views is located at the end of a patient housing wing, and bathrooms are across the hall from the patients' rooms. By contrast, at the Houston Hospice, a little-used tub is hidden away in a windowless room at the far end of the unit. The whirlpool at Bear Cottage in Australia (see p. 167) is surrounded by natural wood decking and affords full height views to the outdoors. Alternatively, the patient may simply opt to be dry-bathed at bedside. A variety of tubs, spas units, and large therapy pools are available for use, with the choice depending as much on purely hygienic issues as on philosophical attitudes with respect to water in pain management, such as at the AHI Hospice in Japan (Fig. 4.13).



4.12 Nursing support in the residential domain

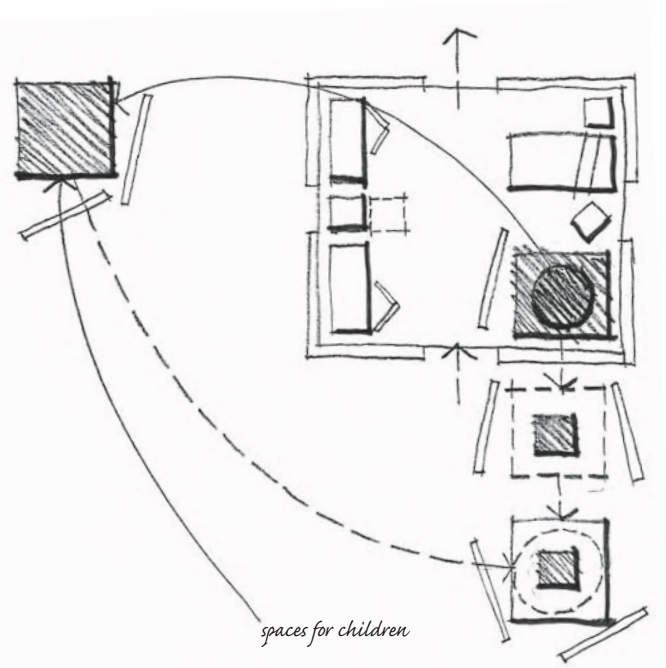
Places for young visitors

Autonomous community-based hospices are quiet compared to the typical in-hospital PCU setting. However, it is important to provide support for persons of all ages, including young children who visit. Social activity and interaction has its time and place, regardless of age restrictions. Provide space within the bedroom for a child to read a book or just hang out, but also, near to the patient bedrooms, provide a quiet activity area for a few young children to hang out, with perhaps a door leading to an outdoor area. Acoustics, physical hazards, boundaries, shade, scale, materials, and ease of supervision can be built into the setting to minimize admonishments such as 'don't touch that …', 'get off of …', or 'stay away from ...' Safe, intimate activity spaces for kids should be provided within the patient housing realm and in places where adults gather (Fig. 4.14).

Storage spaces

Although most patients arrive at a hospice with relatively few individual belongings of significant size, space is needed for those items that are brought in, such as a favorite chair, an area rug, clothing, and personal mementos. In addition, family members' belongings require closet space in order to accommodate overnight stays. Storage spaces must therefore be flexible in order to serve dual purposes, in part because the number of family members who spend time with a given patient varies

4.13 The hydrotherapy room at the AHI Hospice, Japan, has a commode, tiled surfaces, and diffused natural light



4.14 Meaningful places for children

somewhat from patient to patient. Therefore, provide closets, chests of drawers, and shelving in the patient's bedroom. To best utilize limited space, storage systems should serve dual purposes.

Age appropriateness

This subject has three core implications in the hospice setting. First, very few hospices exist which specialize in palliative care for children and young adults. These settings, for obvious reasons, should be attuned to their needs with respect to the size of the bed, furnishings, colors, artwork, floor surfaces, lighting fixtures, bathrooms and tubs, and play/playful objects placed in the room. Second, since most hospices are generalist in their patient populations it is necessary to provide an environment that can be tailored to the needs of a patient of any age. If construction funds are limited the hospice may provide a dedicated number of rooms for pediatric patients and only these will be equipped with the aforementioned amenities. Third, family members of many

ages often share the same spaces regardless of whether the hospice is for terminally ill children only.

Laundry and housekeeping functions

In hospices affiliated with a local hospital or hospital network, or located in-hospital or on the same campus, central services will likely provide all laundry services. This has obvious advantages in terms of construction and renovation costs. Laundry functions require at least one dedicated room in hospices without a hospital affiliation. Housekeeping staff direct these services. Clean linens are required on a daily basis, and family members should have a room where they can wash their own clothes. For these purposes the location of the laundry room warrants careful consideration. It is preferable for it to be near to or within the residential milieu so that trips back and forth are not too lengthy. Ideally, in a multi-level hospice, a satellite laundry room should be provided on each floor.

4.15 A light-filled interior walkway links two wings at the Willowbrook Hospice, St Helen's, U.K. Note the access ramp and the view to the adjoining courtyard

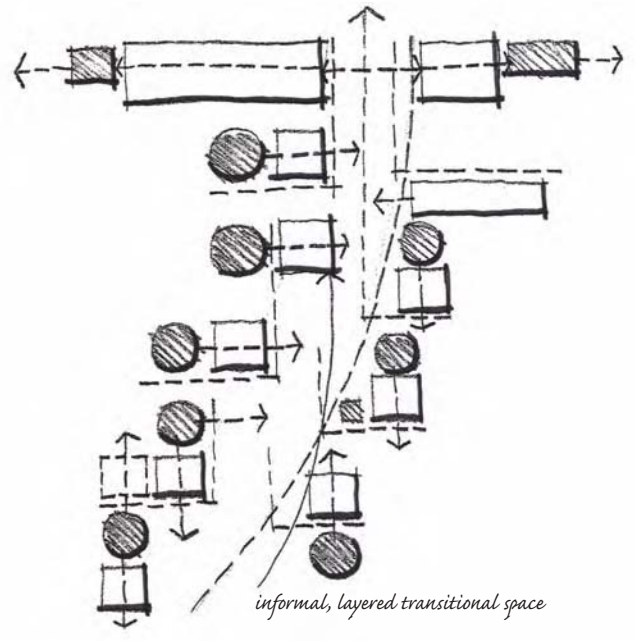
5 Transitional spaces

Variety of circulation paths

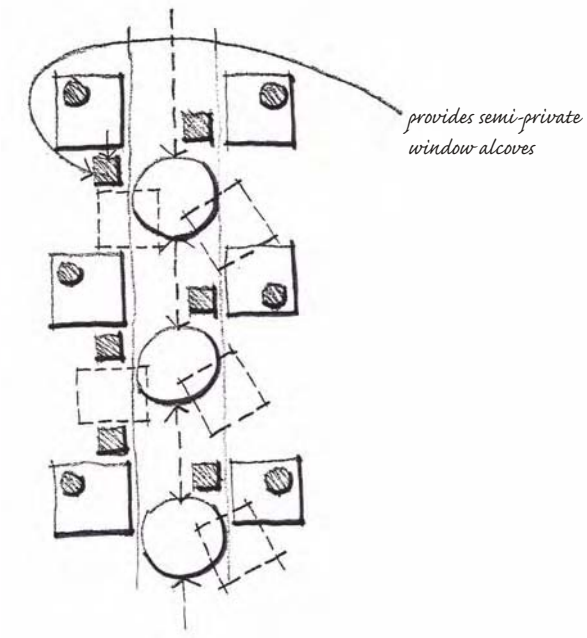
The feeling of home, a private residence, cannot be created if long, monotonous corridors must be traversed to arrive at the patient's bedroom. This contradicts the philosophy of hospice care. Such conditions speak to the calculated institutionalism of the modern megahospital. Avoid long, dreary corridors. The Willowbrook Hospice in St Helen's, U.K., avoids undifferentiated rooms opening mindlessly onto double-loaded corridors (Fig. 4.15). In turn, create short corridors and paths. This is achievable through the clustering of patient bedrooms and support spaces, combined with the use of window seats, alcoves, periodic breaks, transitions, views to the outdoors, and reinforcement vis-à-vis ceiling and floor changes in materials, color, and pattern.

Articulated entry/bedrooms

The entry to the patient's bedroom need not be a source of anxiety. The area immediately around the door, on the corridor side,



4.16 Transitional space



4.17 Respite within the interior realm

should allow for the placement of artwork unique to that particular room, together with a seat or chair, a 'porch light', personal mementos if wanted, or a plant brought in by a friend or loved one. Personalization markers such as these set the patient's room apart from all others. When multiplied by the total number of patient rooms, the effect can be visually transformative compared to the conditions typically encountered in many hospices. Corridors can be much more than mindless, undifferentiated rows of doors. Recessed, staggered entrances along a double-loaded corridor or a courtyard yield significantly greater privacy as compared with doors that open directly onto one another (Fig. 4.16).

Window seats

Provide semi-private, autonomous places to retreat to for a short period without leaving the building, especially during inclement weather. As the family experiences a difficult time, personal space is difficult to obtain. Provide opportunities for retreat and regeneration. Locate these strategically as nodes or pockets along circulation paths or at the ends of halls, or between patient rooms, so that people can be alone, consult with staff, or simply spend quiet time with others (Fig. 4.17).

Meditation and prayer

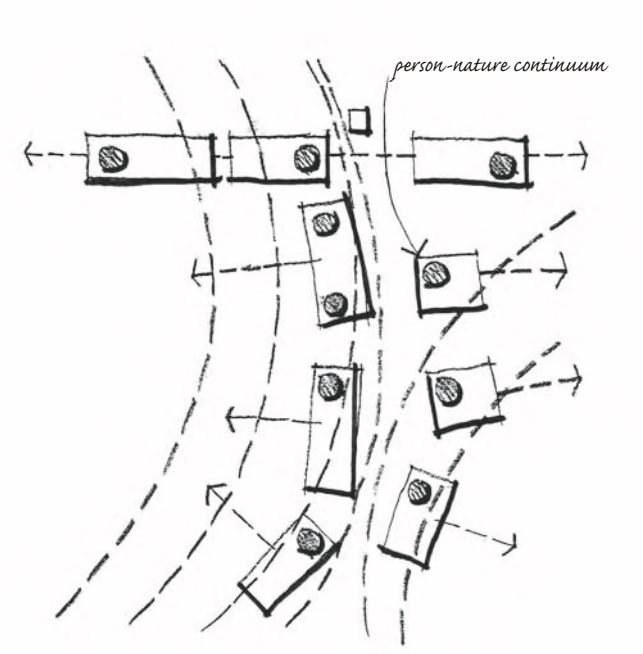
Patients, family, friends, and staff all need rest, solace, and reflection. It is desirable at these times to be alone, away from high activity areas and from socialization. However, few such spaces typically exist in hospitals; people cannot easily obtain refuge while still being in the building. The exceptions to this have been chapels and meditation rooms. Non-denominational, meditative spaces,

4.18 The spiral-patterned stained glass in the chapel at Christopher House, Austin, Texas, is memorable for its detail and colors

whether indoors or outdoors, should be accessible to the terminally ill patient. Moreover, the staff will benefit from having the option to retreat, if only momentarily. Therefore, provide a chapel or meditation room for patients and their loved ones to sit in silence. It should be small enough to afford intimacy and security, and include a stained-glass window, such as in the meditation room at Christopher House Hospice in Texas (Fig. 4.18). An indoor-outdoor continuum is desirable, with visual (if not physical) access to a courtyard or quiet garden, such as at the North London Hospice.

Grieving rooms

The medical profession has only grudgingly accepted the view that a patient's death does not symbolize utter failure. In hospitals the corpse is still whisked away without a word immediately following death. Loved ones are instructed to wait in the corridor during this most emotional time. The reality of loss is still incomprehensible, and it is all the more difficult for loved ones to comprehend when visual contact and touching is forbidden. Bereavement begins before the moment of death. Hospitals generally do not provide acceptable spaces where the family and friends may grieve. It is unnatural to postpone this process to the wake and funeral, which may be as long as seventy-two hours away. Even if not within the patient's bedroom, provide a space for the deceased to be viewed immediately following death. This room should be of sufficient size to allow for family and loved ones to congregate for a morning, afternoon, or evening prior to transporting the deceased. If possible, provide an adjacent outdoor space.



4.19 Person-nature transactions

6 Connections with nature

Nature-architecture continuum

A symbiosis between building and landscape empowers patients and families, and promotes privacy and autonomy. Some caregivers believe trees and other types of vegetation should screen a hospice. This attitude, understandably, is expressed most often in urban hospices. Landscaping, as discussed above, functions as a buffering element. On the other hand, landscaping that obscures the hospice from public view can make it appear threatening and uninviting. A single continuum between the interior and exterior realms is highly desirable. Transparency – the use of structural and nonstructural glass – allows for a virtually seamless relationship. Think outside-to-inside, and vice versa (Fig. 4.19).

Windows, doors, and views

A significant amount of empirical research conducted in hospital settings points to the therapeutic importance of a meaningful view from the patient's bedroom. A full view of the ground plane, the layer of vegetation, and sky permits one to take in salient information about weather conditions and time of day, and provides invaluable orientation. In a hospice it is preferred that patients rooms overlook natural settings, as previously discussed. A door with full height glass can provide considerably more view and daylight compared to a window alone. Avoid windows overlooking

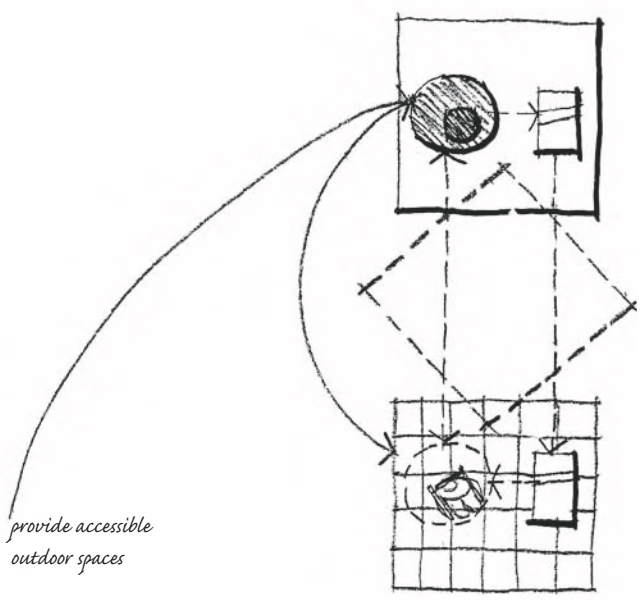
nearby brick walls and devoid of interesting view content. However, when such a situation exists, overcome the sensory deprivation this imposes: create wall murals depicting scenes of nature, be it a seascape, mountain range, or similar, as was done at the Christopher House Hospice in Austin, Texas. There, naturescapes were painted on a dreary wall next to the inpatient rooms.

Fresh air

Houses are almost always equipped with windows that open. Hospitals are almost always equipped with windows that do not. Which setting allows for greater control on the part of the patient? Fresh air ameliorates the indoor air toxicity caused by the materiality of fixed features, and the ill effects of cleaning chemicals. If a hospice is to be residentialist in its structure, appearance and ambiance, the patient should be allowed to smell fresh air from the outdoors. A door to the patio outside of the room allows for this activity to occur. So do operable windows and layered screen walls. Empower patients in this respect: give them the option to smell a freshly cut lawn, feel a morning breeze, or hear the sounds of the city.

Balconies and patios

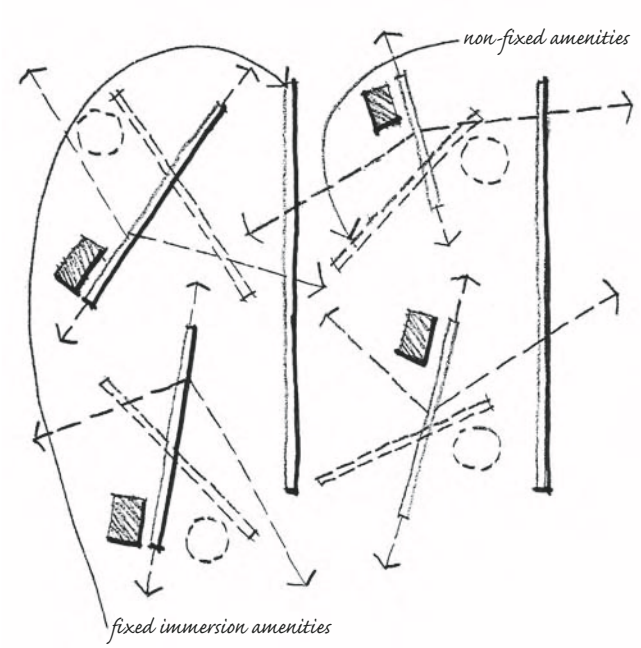
A spouse, child, or significant other may opt to remain with the patient during his or her entire time in hospice. The family member needs a place to obtain a break outdoors without being forced to go to a public part of the hospice. A window seat in an alcove at the end of a hallway, a quiet patio outdoors, or a small balcony will afford a space for people to recharge without feeling in the way. Similarly, patients should have the option to make use of such spaces to the extent they are able. Provide doors from the bedroom to allow for direct access to one or more outdoor rooms or to a path leading to a garden or fountain. These spaces also give patients and others the chance to supervise children playing outdoors. Their positioning can be staggered to create additional privacy. Their size must be sufficient to accommodate the patient's bed, wheelchair, access by staff, and a seating area. Safety is of utmost importance (Fig. 4.20).



4.20 Accessibility to the outdoors

Nature immersion module

Person-nature transactions are timeless and deep-rooted in humans. We crave meaningful, sustainable contact with the outdoors, which possesses rejuvenating and restorative powers. In a nature immersion room surrogate representations are created. It is a special effects module, not a conventional room per se, feasible because holography systems will soon be an affordable amenity in the palliative care experience. A seascape can be recreated with the swirling sound of the wind, the smell of fresh ocean air, the sounds of seagulls, the soothing flow of a waterfall, the simulation of daylight passing through clouds, and the hues of the ocean. Moments later, one can be transported to a rain forest, with the sounds of birds and of walking along a trail with the leaves rustling beneath one's feet, the smell of vegetation and fauna, and sunlight filtering through the trees from above. Vibrating abstract colors may undulate along the walls of the room. Explore the snoezelen (meaning 'to comfort' in Swedish)



4.21 Portability/adaptability

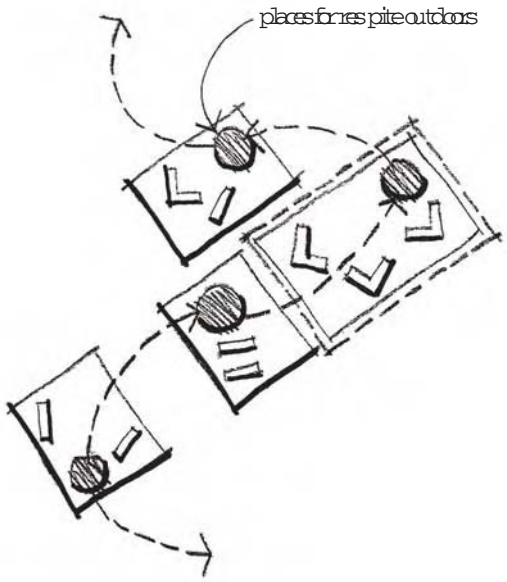
machine and innovations in soundscape technologies. Provide smooth planar surfaces. This room can be particularly effective during dreary periods in the winter months (Fig. 4.21).

Outdoor places for meditation

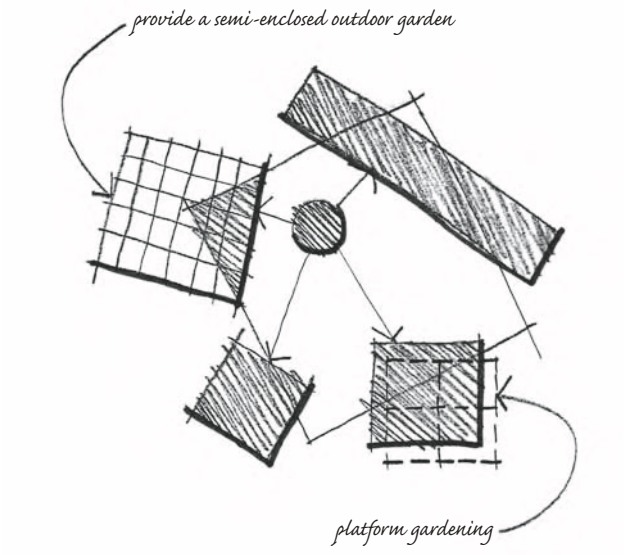
These spaces are adjunctive elements to the interior realm and should therefore be carefully considered during the site planning and design process. Create intimate places for respite. This is particularly important in large hospices. Arbors, sitting alcoves, running water from a fountain or pond, and surrounding seating allows patients and families the opportunity to remain near while gaining some temporal distance – perspective – from life within. They can function as informal places for bereavement counseling, or as places to be alone for a few minutes. Create places worth venturing to explore. Provide shade and benches, tables, and chairs. Siblings will at times simply wish to sit and watch their parent or loved one quietly, converse with one another, or simply be outdoors on a beautiful day. Shade trees, gazebos, and trellises afford protection from the elements (Fig. 4.22).

Gardens and gardening

Provide a garden for use by patients, staff, and families. Tranquil, passive gardens in many hospices have flowerbeds and a rich mix of plant species indigenous to the region. Active gardening yields a sense of self-accomplishment and pride. Explore the use of a raised platform gardening system as a means for the patient to be able to actually engage in the act of caring for plants outdoors from bed or a wheelchair, with or without assistance. Similarly, a greenhouse on the grounds can support this same activity indoors. The platform should be approximately 1.5–2 meters square. Patients and families may also prefer to water the plants themselves; a hose and faucet should be easily accessible. Prominently display flowers and plants grown in the hospice garden (Fig. 4.23).



4.22 Respite in the exterior realm



4.23 Gardening

Water as a therapeutic modality

The sounds of a fountain, the sight of fish moving about in a pond, the reflection of water in sunlight – these moments hold profound meaning for the patient. A shallow pond running the length of the arrival walkway to the AHI Hospice in Aichi Prefecture, Japan (see p. 102), in which it is possible to see the fish, establishes the importance of nature as expressive of the rhythm of life in the hospice experience, and makes a strong impression on the visitor on the first encounter. Provide opportunities to be near to water. Comfortable seating and adequate space for the patient's bed should be provided near to these amenities. At the Houston Hospice, St Joseph's Hospice, St Christopher's Hospice, and many others, this activity occurs with some regularity when weather permits, in celebration of anniversaries, grandchildren's birthdays, and holidays.

Semi-private courtyards

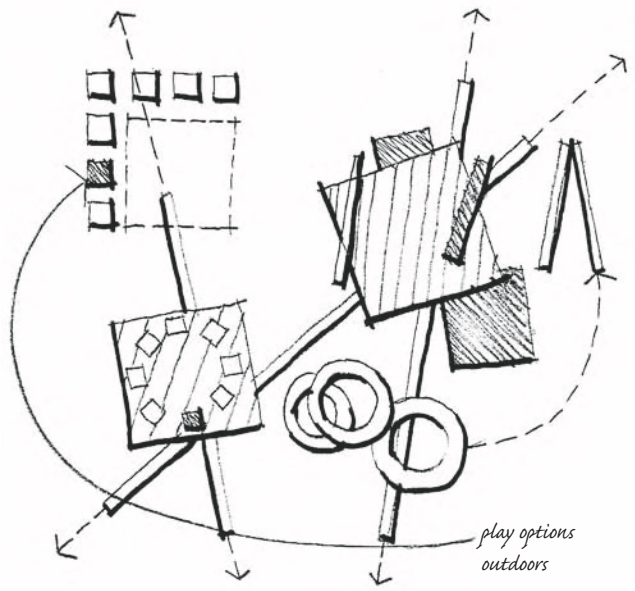
Intimately-scaled courtyards promote social interaction, and, when adjoining the inpatient's bedroom, or small grouping of 2–4 rooms, can draw families together outdoors to share common experiences in support of their adjustment to the hospice. Provide every patient and family access to a courtyard adjacent to the patient's room, as, for example, at Hospice LaGrange (see p. 131). These spaces can be located within or autonomous from the aforementioned 'outdoor room' as the latter spaces denote a more public level of social interaction, and do not by definition support private, informal conversation. Provide a private door to facilitate direct access to the patient's room. Use low partition walls and landscaping to screen this space from direct public view.

Outdoor play for children

An outdoor area reserved for use by young children who visit the hospice is an integral and indispensable part of the total experience, particularly in pediatric-only hospices. Children need to engage in imaginative play, no matter how well or sick they are. Inflexible materials deny the delight and therapeutic value of creating on one's own. Children need to feel they are effective agents of change through a sustainable level of interaction with the outdoors. They need to be able to move objects and parts; tidy, inflexible play spaces have little to stimulate a child's imagination. Several points are worthy of mention: this space must be visible from the indoors for ease of supervision, accommodate a range of ages and physical and cognitive abilities, and incorporate a range of surfaces, elevations with ramp access, shade, perhaps a wagon, play tools, and a table and chairs for art activities. This space may contain intriguing elements of play risk and stimulation. Select materials and finishes that are able to withstand rigorous use (Fig. 4.24).

Variety of ground textures

Provide a multiplicity of ground plane textures. Grass, sand, soil, pavers, and pebbles are effective for use by children but each has its drawbacks. Materials can be used to create illusion, e.g. water without water, a footbridge over an imaginary 'riverbed'



4.24 Play places

composed of a smooth small stones fixed in place. A hospice must decide which surfaces are best suited to their philosophy of care in relation to the amount of outdoor space available and the cost constraints. However, it is desirable to provide a combination of hard and soft surfaces, with full accessibility for beds and wheelchairs. Hospices in urban areas frequently do have enough land to begin with for parking and other needs, so in these cases allow for the widest range of ages to derive the maximum amenity from one or two play elements that make creative use of the ground plane.

Natural materials as therapeutic amenities

Wood is of the earth, a tree grows with time, and its age rings are visible, symbolizing the change of season. A tree experiences life even in the act of being cut and transformed. Wood is timeless, and has maintained a central, enduring place in human consciousness through the millennia. Not by coincidence, wood is a material widely used internationally in the hospice care environment. Wood, as laminate flooring in patient bedrooms, in dayrooms, ceilings, structural systems, decks, balconies, wall surfaces, and so on is preferred by patients for the reasons listed as above. Wood therefore possesses therapeutic value in the palliative care experience. By contrast, it was, in effect, banished for fifty years from the modernist megahospital.

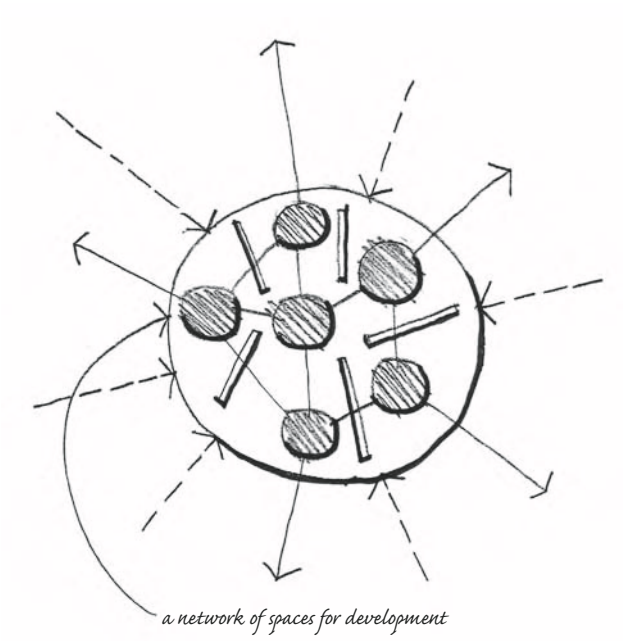
7 Administration/total environment

Administration suite

The success of a hospice rests heavily on how effective the staff is in assisting patients and their families. The work of the nursing staff is often exhausting, unpredictable, frustrating, and stressful. This is a recipe for burnout. Staffing patterns vary, but generally include an administrator, medical director and staff physicians, nursing director and staff nurses and their assistants, counselors, volunteers, pediatric specialists, fiscal and fundraising specialists, community education and home care program staff, and outreach staff. In addition, some hospices have a range of auxiliary service providers including legal advisers, social workers, clergy, and consultants who are at the shelter periodically.

Reception area

The reception area functions as a hub for the administration of the hospice. Direct access to various administrative staff offices, storage, the conference room, and the volunteer program office is of importance. Restrooms dedicated for staff only use should be near to the aforementioned spaces. This area should be adjacent to the central file and clerical room and the office of the hospice administrator. Dutch doors are an effective device in setting these rooms apart from one another without inhibiting communications. Organize staff offices and work zones into clusters, with the majority near the main entrance and others decentralized. This allows auxiliary service providers to come in and out without entering the patient housing domain. Business can be conducted without being obtrusive or interrupting daily life activities in the hospice. Provide options for area rugs, artwork, and a seating area for impromptu meetings.



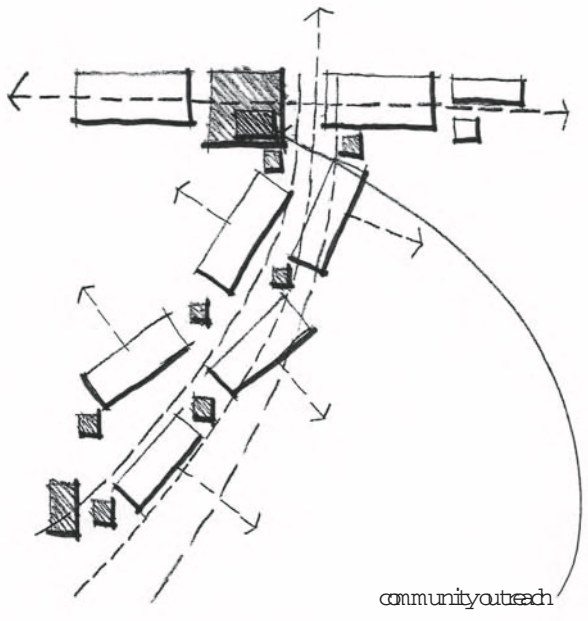
4.25 Bereavement places

Bereavement counseling

The family and friends of the deceased often experience fear, emotionally emptiness, and uncertainty. They may feel that more could have been done on their own part for the deceased. Counseling is a means by which the living can begin to cope with loss. Bereavement counseling may begin six months or more prior to death and continue for as long as one year after the death of a loved one. It is a means of instilling coping strategies, and consists of emotional, spiritual, psychological, legal, and financial counseling. Appropriate spaces are needed and are crucial. The nature of various counseling formats – individual, parent-child, conjoint, family, and group – have implications for room size and amenities. Theses rooms must be appropriately sized so as not to feel impersonal or institutional, encouraging interaction and yet ensuring privacy (Fig. 4.25).

Group session rooms

Many hospices have group session rooms. Confidentiality is a major priority. To ensure privacy and to reduce the chance of disruption, provide a high level of acoustical and visual isolation in a comfortable space with residential furnishings. It is essential that this room is not visible from the main living and patient housing area, nor too distant from the front door. This room may also be used for adolescent and young sibling counseling sessions. In these instances, provide an area for play and for the storage of play objects. Age appropriate seating may also be included in this portion of the room. For example, a low walled-in area padded with mats might be provided in one corner. Partitions can be moved easily and afford visual separation. Retreat alcoves may be provided as quasi-time-out for children who cannot tolerate the intensity of group interaction on a particular day. This allows them to remain in the room as passive participants in the group activity.



4.26 Community outreach

Community outreach and volunteer programs

The offices for outreach and volunteer staff should be located near to the front door of the hospice, but not within the patient housing domain. Outreach staff and volunteers are often the archivists for the hospice and are involved in fundraising activities. At the Houston Hospice these persons are occupied year round with projects and in projects based in the community. Therefore they need space for supplies and for large mail-outs. This open workspace should include a conference table and a smart-wall board, with workstations situated around the table. Near to this room, the outreach and volunteer program coordinators should share a semi-private office or have separate, private offices equipped with a small meeting table with chairs. Provide a storage room adjacent to the open workroom or built-in wall storage bins (Fig. 4.26).

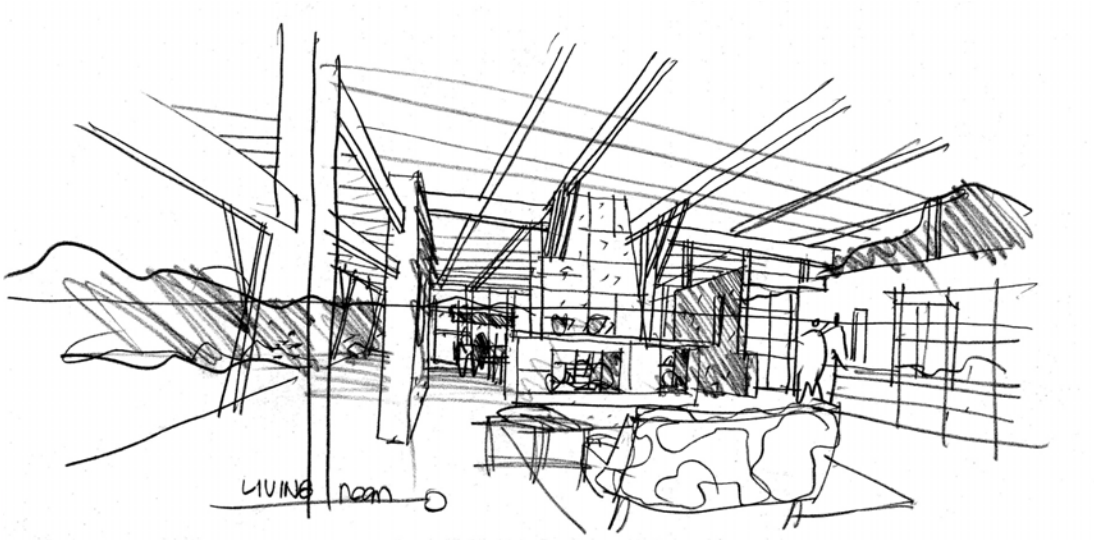
Building and grounds/materials management

Large hospices employ full-time facility and grounds managers. The constantly changing population, and children playing indoors and out eventually take their toll on the physical environment. Maintenance is required on a regular basis and, of course, housekeeping and janitorial rooms are required. Provide a room or small freestanding shed structure to store tools, supplies, pipes, ladders, garden supplies, and related equipment. A workshop room may also be desired. This freestanding structure should be located adjacent to the outdoor spaces most frequented by patients, families, and staff. Provide a small office for the manager and support staff. House supplies purchased in bulk, gifts donated, and items reserved for emergencies should be kept in a central materials management storeroom.

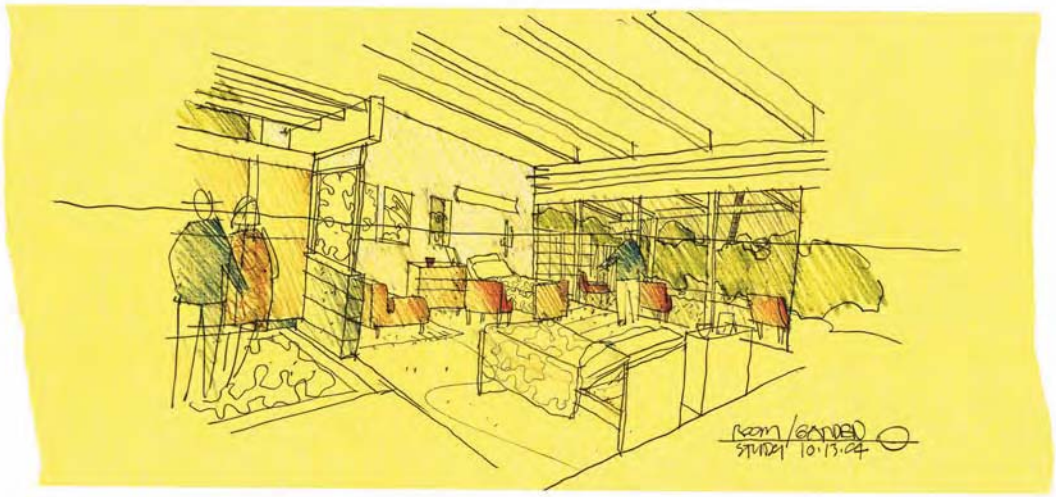
Case study: Hospice Hawaii

The authors' firm R-2ARCH designed a case study hospice to be constructed for Hospice Hawaii, in Maui, on a five-acre wooded site. The site is located on the southern side of the island near the Pali overlook. Hawaiians are known to have an extremely strong attachment to the beauty of their natural environment, and thus required that the hospice enhance this link to this cultural bond. Ubiquitous greenness, water, and the smell of plumeria, called for the design to allow for multisensory stimulation through color, light, views, and simulated environmental experiences. The

4.27 Rendering of the view of the main arrival sequence to Hospice Hawaii, Maui, Hawaii



4.28 Rendering of the main activity/living room at Hospice Hawaii. Note the central placement of the large fireplace



4.29 Rendering of the spatial relationship between the patient room and the adjacent restorative garden

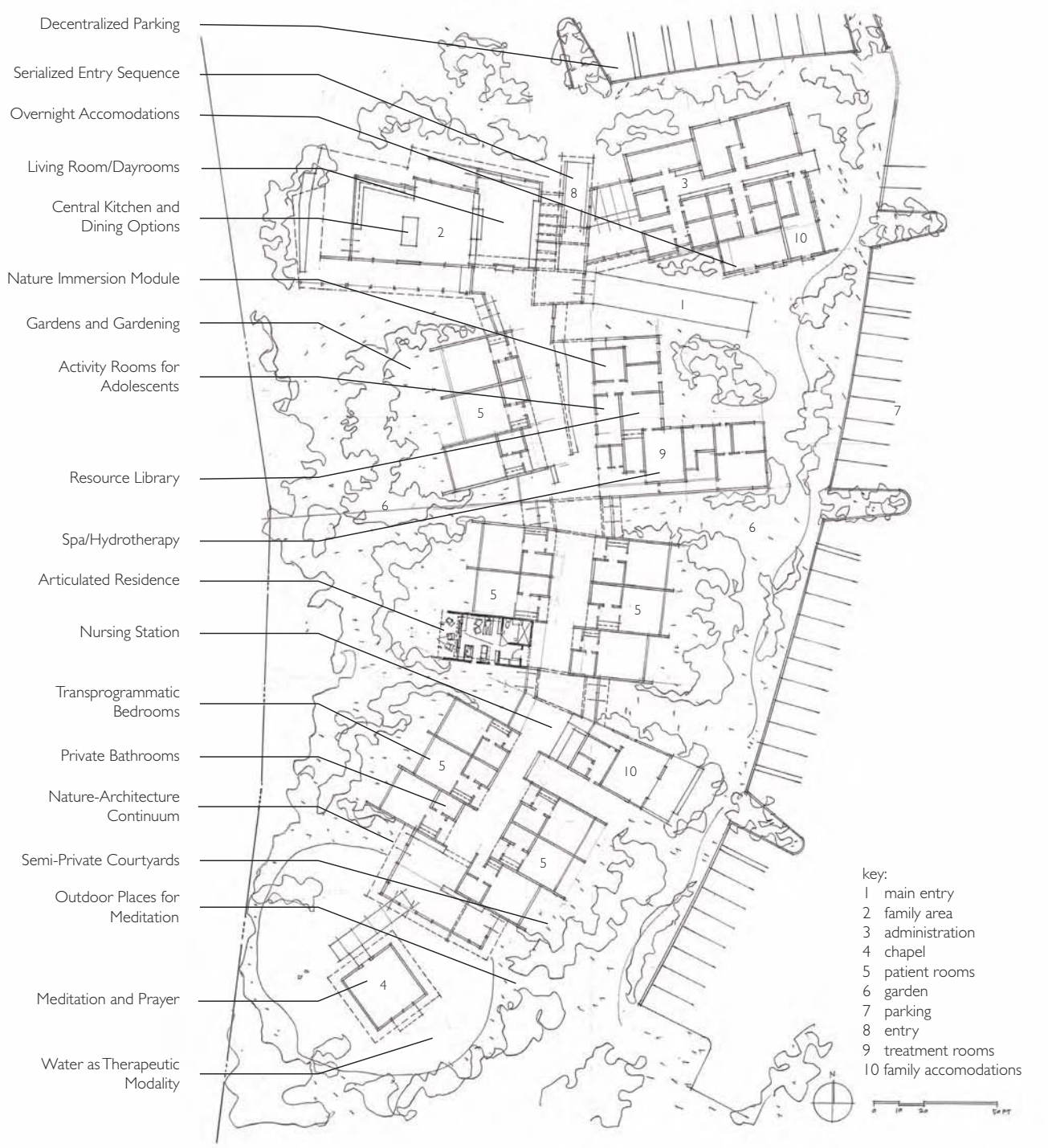
4.30 Rendering of view of the chapel and reflecting pond at Hospice Hawaii

guidelines and this book represent nearly three years of study by the project team. This research has been guided by these principles: warmth, compassion, solace, peace, emotional support, comfort, empowerment, and spirituality. This hospice will provide a full range of services, including community outreach, pre- and post-bereavement counseling, inpatient care, overnight accommodations for families, administrative support, dining areas, housekeeping, art therapy, and individual and group therapy programs. The expression of a critical regionalist design philosophy and formal vocabulary was of high priority. The hospice's architectural vocabulary is embedded in the indigenous vernacular of the Hawaiian Islands. Its low-slung rooflines undulate and at once arc upward, providing shelter and simultaneously embracing the surrounding landscape. Cupolas mark the main and secondary entrances. There is a protected arrival and serialized entry sequence. The roofline permutations reference the corresponding mountains, and the hospice's compositional elements provide the appearance of being decentralized while in reality being closely interconnected with one another. The building is horizontal in its massing and orientation, with architectural elements arrayed in an informal semi-circular configuration (Fig. 4.27). Materials of construction, color palettes, and landscape design concepts are embedded in the immediate site environs and surrounding tropical landscape. In keeping with the dictates of the tropical climate, transoms enhance cross-ventilation and the overhangs shield direct sunlight and glare.

The one-level parti is characterized by a splayed arrival realm articulated as two interconnected wings. There are family spaces for gathering and social interaction, as well as spaces affording a more intimate scale and emotional respite during the patient's final days of life. One wing houses the administration, arrival spaces, reception, and overnight apartment accommodations for families. The other wing houses the main living room, dining areas, kitchen, and transitional linkages to adjacent outdoor spaces. The main living room has a large fireplace, providing a focal point and in many respects anchoring the hospice's residential ambiance (Fig. 4.28). The entry sequence is serialized, and natural daylight is drawn into these spaces through a combination of skylights and clerestories, providing for a carefully orchestrated continuum of indirect light sources to activate these spaces. Views open upward and outward into the immediate landscape. A strong connection between building and landscape is achieved throughout. The various architectural elements are hinged and juxtaposed to create an informal, organic network of interconnected spaces, indoors and out; this concept yields a non-institutional circulation flow and this informality further emphasizes a sense of smallness in scale, versus institutionalism.

Symbolically and functionally, three residences comprise the main trunk of a tree, each housing between six and twelve inpatients. The residential realm for inpatients is designed for flexibility in terms of the number of inpatient beds that can be activated on a given day/night. This is done in large part in response to the local culture. Local traditions are acknowledged and embraced, and this is expressed architecturally, in spaces strongly grounded on the premise that the patient and the immediate, as well as the extended, family are of equivalent importance as occupants. As a result, family members who prefer to be able to be near to their loved one on a twenty-four hour basis can be. Similarly, the needs of children, adolescents, and other relatives are integral to the design success of the inpatient housing realm. In response to the need to be flexible to accommodate families of varying sizes and their preferences, often on short notice, the bedrooms are sized to allow for transformation from, in effect, a private to a semi-private bedroom. Folding walls, hide-away desks, and storage elements on wheels give the administration a broad range of the options needed in order to respond to local cultural imperatives and traditions. In response, the minimum number of inpatient beds that can be activated is fifteen, although this number can be doubled as needs warrant. As rooms are transformed from private to semi-private residences, partitions and furnishings are equally flexible and can be rearranged based on their occupants' preferences (Fig. 4.29). Each bedroom in the private room configuration is provided with a private bath/shower room. In the semi-private (two inpatient beds) configuration, the bath/shower room is able to support the hygienic needs of two inpatients. All inpatients' rooms open directly onto a semi-private restorative garden.

Metaphorically, the administration and arrival areas of Hospice Hawaii symbolize the branches and root system of a tree, whose arms radiate outward to embrace the community beyond. The base and root systems hence consist of the chapel and adjacent outdoor restorative spaces and gardens. The chapel is sited within an enveloping reflecting pond. A dayroom overlooks the chapel, with views to the chapel and a reflecting pond (Fig. 4.30).



4.31 Annotated floor plan of Hospice Hawaii, depicting the manner in which nature is interwoven into the architectural parti as a series of intermediary outdoor rooms

To further reinforce the concept of decentralized residences, parking areas are similarly decentralized, located in close proximity to the residences. A second wing for overnight accommodations for families is situated between the second and third residential realm. Natural daylight, pockets, alcoves, and window seats for informal social interaction characterize the spaces in between the three principal residences, and access points are provided to adjoining gardens and courtyards. In plan, as mentioned, the three residences comprising the midsection of the hospice's parti are, metaphorically, not dissimilar to the trunk of a tree. The floor/site plan is annotated with many of the design concepts discussed above (Fig. 4.31). A seamless continuum is attained between the patient housing realm and the outdoor realm. Specifically, the beds are positioned to take in the maximum therapeutic amenity afforded by the adjacent restorative gardens and the semi-private courtyards. A window wall, with broad overhangs and sliding glass doors, provides light, view, shade, and access to the adjoining patios without compromising personal privacy, in a manner that genuinely connects with the natural environment.

The semi-private courtyards provide a variety of pockets for personal respite, retreat, and consultation. A network of winding paths punctuated with seating, restorative gardens, and shade, and the undulating roof overhangs extending outward from the interior realm further reinforce the high degree of connectivity achieved between building, site, and landscape (Fig. 4.32). On the interior, transitional spaces between the three residences and connections to the outdoors are further articulated by means of

4.32 Rendering of the view of the courtyard and restorative gardens. A high degree of transparency is achieved, establishing a continuum between interior and exterior realms. Broad roof overhangs shield bedrooms from excessive sunlight

4.33 Rendering of the restorative gardens, and the skylights in the residential domain articulating interior spaces along the central circulation spine

4.34 Rendering of the chapel, amid a reflective meditation pond at Hospice Hawaii

the aforementioned cupola skylights and semi-transparent, screened window walls. At night, these elements appear from the exterior as lanterns and also serve to activate corresponding interior spaces in a manner supportive of social interaction in the adjacent semi-public interior spaces. The central nurses' station is situated near to one of these transitional 'beacons' (Fig. 4.33). Symbolically, as mentioned, the chapel and its reflecting pond are the roots and base of this organic hospice-as-tree. These elements provide a mixture of interior, transitional, and outdoor spaces in support of quiet reflection and solace, privacy and connectedness, closure, hope, and renewal, with the chapel appearing as if it itself were afloat, not unlike a water lily on a sunlit afternoon (Fig. 4.34).

The future

The discipline of architecture has to date contributed relatively little to advance the state of the art in palliative care. Critics argue that critical theoretical perspectives in architecture too infrequently coalesce the three data points of past, present, and future. This critique pinpoints one of the main reasons why the disciplinary knowledge base of the field advances at such a slow pace. In order to overcome this limitation, critical discourses are needed which bridge across time and space without focusing on history alone, the present condition, or only on futurist discourses.[7] This said, and with respect to hospice and end-of-life-care, five general prognostications are presented for 2050. These center on universal end-of-life care in a digital world, home – the dwelling – in this landscape, supportive hospice residential care settings in the home milieu and in institutional settings, the centrality of nature, sustainable hospice architecture in a resource-depleted world, and interdisciplinary work to advance the state of the art in palliative architecture.

Hospice and the machine

> *Mainstream healthcare provider organizations will accept the wisdom of providing humane and supportive architectural environments for persons with terminal illness.*

In highly developed nations the blueprint for the future of healthcare will revolve around some version of universal health insurance, although its epicenter will have long been redeployed away from traditional, extremely costly acute care institutions. Four alternative care epicenters will have emerged with clarity: home-as-healthcare setting, neighborhood-based health education centres, community primary care centres and clinics, and community-based specialized care centres, for kidney dialysis treatment, minor surgery, and the like.[8] According to a recent feature article in the *Wall Street Journal*, six major determinants will reshape the U.S. healthcare system in the coming decades: first, the pervasive influence of information technology in a digitized healthcare landscape; second, the recent rise of evidence-based medicine in response to the urgent need to reduce medical errors, which at present occur needlessly in healthcare settings; third, the necessity of establishing an equitable and effective third party reimbursement system for all citizens, whether government-based or co-sponsored in partnership with private industry; fourth, the need to much more effectively manage disease before costly complications arise which require lengthy inpatient stays; fifth, the need to reinvent critical care specialties; and, finally, the importance of patient education.[9]

The downsizing, out-migration, and redeployment of care traditionally dispensed in a hospital will occur at an accelerated pace.[10] This will likely result in the out-migration of PCUs to freestanding hospices. Meanwhile, microstitial hospitals and *hos*/pitals (hotel/boutique treatment centers) will replace many general community hospitals, although these intensive care settings will provide care for only the sickest of the sick. New medical science technologies, economic realities, and a gradual acceptance of death and dying by society will have fueled this transformation. In addition, the Internet will have fostered profound innovations in architecture for healthcare. As societies gradually come to accept the inevitably of death and dying, successor institutions to the hospital will reflect this. Providers around the globe will invest resources in the construction of residentialist freestanding hospices, as the spectrum of home care options will also have been greatly expanded. As this occurs, disparities between wealthy as opposed to poor societies will have increased exponentially. Conflicts will arise as access to quality care for the poor is rationed on an increasingly populated planet. Regardless, hospice care will likely become an even more cost-

effective alternative to hospitalization by 2050 than it is at the time of writing.

The palliative dwelling

Intelligent dwellings will anticipate and provide support for the terminally ill.

In the home, rooms, furnishings, walls, ceilings, lighting, appliances, and ambient qualities will be equipped to anticipatorily 'sense' a dwelling's physical state of well-being. These variables will allow the terminally ill individual an unprecedented degree of control over their residential environment. For example, a blank wall in a bedroom will be transformed into a panoramic forest scene or ocean seascape with the mere push of a button, or a word spoken into a handheld cell phone. The same wall will be slid on tracks over three meters to make the room more spacious, or may lift up or fold into an adjacent surface. Advanced assistive technologies, including robotics, holography, and nanotechnology, offer much promise for palliative care. But can this be achieved without falling once again into the trap of having merely invented a new type of machine?

In Japan, Matsushita's high tech nursing home already uses *teddy robots* to care for its patients, to update health records online, and to keep a watchful eye on patients. In Kourien, a suburb of Osaka, the first nursing home equipped with digitally linked robotic devices is a pilot program and harbinger of what is to come. By 2003, nearly 7,000 robots were working alongside doctors and nurses in Japanese healthcare institutions. These machines are designed to be 'companions' for the patient, real life counterparts that are the result of AI (artificial intelligence) technologies, making it possible for objects to acquire the virtual ability to move and speak autonomously.[11] Sony Corporation's SDR-4X biped personal assistant robot is capable of remembering faces and even sings in harmony. This device, designed to live with people in their homes or in institutional settings, can engage in simple conversations and even distinguish colors.[12]

In the palliative dwelling of tomorrow, the toilet will analyze urine and automatically send the test results to one's physician via the Internet. Air conditioning and heating systems will control air quality to an unprecedented degree. Oven ranges will not burn the skin upon touch, as the appliance will forewarn of an impending accident and automatically shut off before anything happens. In Japan, the Matsushita bathroom module takes infrared photos of the hair and skin, stores the data in its memory, and recommends the best way to appear more attractive that day. Mineral water will be dispensed from the sink faucet in varying degrees of acidity to best suit one's health needs. This, in addition to what will by then be commonplace features in the home such as wireless-operated digital immersion artwork and the aforementioned wall, window, view, and ceiling redeployment. In short, this intelligent, or 'smart dwelling' will be able to anticipatorily support one's health needs.[13] It will function as a prosthetic, empathically 'aware' interventional device. The dark side of nanotechnology, however, will have to be harnessed to avoid adverse health risks. For example, recent research points to *fullerenes,* miniscule machine-like components, when uncontrolled, causing damage to human nerve systems and leading to the eventual breakdown of immune systems.[14] Contamination caused by rampant fullerenes may emerge as a serious environmental threat.[15] These microscopic sensors, if properly applied in our everyday life, will be able to forewarn us of potential malfunctions before they occur.[16]

While the hospice movement has grown, in the U.S. still fewer than twenty-five percent of individuals with terminal illness have access to hospice care. Many elderly approach the end of life in virtual isolation.[17] Home-based hospice programs in rural districts will be among the first to apply new assistive technologies in order to overcome the chronic shortage of nurses, aides, and social workers, long driving distances, inadequate third party reimbursement, and restrictive government regulation. Telecommunications in healthcare will thrive and *telehealth* will function as a bridge, extending the reach of palliative care.[18] Moreover, telehospices will have gained acceptance globally.[19] Telemonitoring and videoconferencing will be effective tools in this regard and the dwelling must be configured to receive this information.[20] Portable devices atop a table or television set will feature a built-in handset and LCD screen for more personal video communication, not unlike a small DVD player or laptop computer.[21] In Japan, the extensive network of broadband and wireless Internet access has made it possible for a significant number of the nation's three million elderly persons in need of daily personal assistance to be on line with their caregivers.[22]

Unfortunately, although this may sound intriguing, success is predicated upon the ability of societies to eradicate the digital divide.[23]

The therapeutics of nature

Inpatient palliative care architecture will express a biosynthesis of nature and health, technology and humanity, in support of the resident's need for choice and control. Architecture for healthcare will increasingly express anthropomorphism.

Inpatient hospices will have been transformed from how they function at present because advanced assistive technologies will have been woven into the palliative care experience. As in the milieu of the dwelling, nanotechnology, holography, robotics, and bionic buildings will flex. A private bedroom will be readily redeployable into a four-bed suite.[24] In the inpatient room, its environmental control and daylight control systems will be fully automated – implanted with memory cards – by then having become intrinsic to 'green' building products and furnishings for the terminally ill. Beds will flex so as to make them safer and much more commodious. For instance, the thousands of accidents occurring each year caused by a patient becoming entrapped by a side rail will have been eradicated.[25] The inpatient hospice room will have been reinvented.[26] Research will provide evidence-based knowledge of the effects of the involuntary relocation of the terminally ill, whether from home to institution, within an institution, or between institutions.[27] The ability to comfort the hospice patient in these flex buildings will be critically important in the hyper-accelerated, far more fragmented society of 2050.[28]

As more and more open space is consumed in the name of 'progress,' it will be increasingly difficult for a hospice to retain or purchase open space for the use of its patients and their caregivers. The planet's forests are being destroyed at an accelerated rate. Water supplies worldwide are being contaminated at historic levels. Animal and aquatic species are fighting for their very survival on the prairies and in the oceans in the face of the ever-present onslaught of human development. Hospice programs seeking to acquire enough land for their garden or courtyard will be forced to build far from urban centers, or build or adapt an aging structure in restrictive, abandoned inner urban brownfield sites. Hospice providers rely on donations to sustain their operations, and philanthropic support will be essential for land acquisition and associated remediation costs. Private trusts will be established for the acquisition of open green space for palliative care in dense urban neighborhoods as well as in rural districts. Government policies will provide grants and taxation subsidies for the acquisition of open space. Policies centered on tax credits will be made available to promote the preservation of existing green space and the donation of green space to a hospice. Innovative zoning laws and deed-restrictions will be necessary in order to create enough open space on the grounds of a hospice, or to acquire a site adjacent to a nature preserve.

As discussed, being able to look out a window or to spend time in a garden can help greatly to reduce the cumulative effects of tension and fatigue during times of great emotional stress.[29] Humans possess a deep-rooted predilection to seek contact with environments affording respite and refuge.[30] The prospect of meaningful contact with real nature, be it of an ocean view, mountain range, or forest, endures.[31] And while surrogate nature immersion will by then function as a panacea to some extent, real, direct involvement can be of immense spiritual value.[32] The architecture of hospice can support these needs by providing areas for art therapy, relaxation therapy, and related spaces.[33] Caring for plants through gardening is of importance.[34] The terminally ill will continue to seek these person-nature transactions; this will need to occur even more in a world of depleted natural resources, a world where, for many persons with terminal illness, surrogate nature immersion palliates may be the only option.[35] This will be possible through holographic technology and advances in sculpted sound systems, bringing an extensive range of therapeutic stimuli to the bedside of the terminally ill.[36] Moreover, because patients may be too weak to seek out nature firsthand without assistance, these palliates will be particularly important in urban hospices bereft of nature. By then, 'real' content will be indistinguishable from virtual content.[37]

Palliative architecture in a resource-depleted world

By 2050, palliative architecture for the terminally ill and environmental sustainability will be expressed within a seamless continuum.

Why is it that hospitals are often rated as among the worst polluters in their communities? They generate excessive amounts of toxic waste, and their physical plants are almost always planned and built without any respect for their 'greenness'. The day will come when all healthcare organizations and their architects will be required to value environmental sustainability.[38] The most pressing challenge will remain excessive resource consumption, with the depletion of oil and natural gas reserves, but by 2050 it may be too late. In recent global environmental outlook studies, the United Nations reports that one of the three pillars of sustainable development, the environment, is 'seriously listing' because of the distortions placed on it by excessive, insensitive human action.[39] The need is urgent to reduce excessive material consumption among the most affluent societies – 'as long as the richest 20% continue to account for 86% of consumption, sustainable development will never be achieved.'[40] Hospice care providers will have to comply with such policies as 'zero waste' in renovation and new construction projects, following the lead taken by the manufacturing sector.[41]

In addition to 'green' policy imperatives, prefabrication and new building materials will provide a myriad of opportunities in the architecture of hospice. Innovations in premanufactured barracks hospitals and related housing for the sick and wounded date from the Crimean War in the 1850s.[42] Since then, various prototypes, including numerous utopian experiments, have been developed, including the automedic clinic in the U.S. and the various modular clinic systems developed in the U.K. and elsewhere. These systems have in general been conceived and designed for rapid deployment to underserved regions around the world.[43] And, as mentioned, by 2050 most traditional 'custom' building practices will have been rendered archaic or will have been outlawed due to the excessive waste materials they generate prior to and during the construction process. This scenario will stand in stark contrast to the present method of building facilities for hospice care. At present, nearly all hospices continue to be constructed traditionally, i.e. one stick, one brick at a time. Each facility is unique, often taking years to build, where, by comparison, a premanufactured hospice facility will be installable in a matter of days or weeks.[44]

Architects who specialize in health in the coming decades will need to join forces with the housing industry to provide cost-effective 'green' alternatives, including portable residential hospices.[45] Innovative U.S. architectural firms are already on the leading edge of this trend.[46] This work holds much potential for its extension into the realm of palliative care.[47] Similarly, sustainable site design principles will have increased in importance in hospice architecture.[48] Case in point: by 2050 architecture for hospice care in the U.S. will likely be required to comply with LEED (or its successor) certification criteria.[49] Additionally, timeless, enduring principles of palliative architecture should be allowed to continue to evolve.[50] Finally, by 2050 revisionist architectural historians will have periodically sought to extol modernism's virtues in the realm of housing, hospice notwithstanding, although its limitations will by then be assiduously weighed against the imperiled status of Mother Nature.[51]

Evidence-based design for the terminally ill

Interdisciplinary research will result in radical breakthroughs in aging and disease management in the health science disciplines, resulting in longer life spans, giving rise to a concomitant call for architectural research and design in support of death and dying.

It is no coincidence that interdisciplinary, evidence-based research initiatives are behind the most intriguing new techniques, treatments, and product innovations. As a society we are witnessing their rapid proliferation on a daily basis in work bridging the social science and health science disciplines. The field of gerontology, and the emerging field of biogerontology, each considered to be interdisciplinary in its own right, are drawing closer in work linking the social, psychological, and physiological aspects of human health. With respect to palliative care and architecture, new coalitions will evolve by 2050 linking these fields with global resource management, biogerontology, palliative medicine and nursing, optical imaging and holography, chaos theorists, spiritualists, nanotechnologists, community health advocates, social scientists, epidemiologists, public health policy specialists, industrial designers, and urban planners. The line between mainstream cancer treatment and mainstream palliative care is already blurring. A recent example is the simultaneous care paradigm being developed in palliative care at the University of California – Davis Medical Center.[52] This said, and the belief in a spiritual life after death being so rooted in the palliative care

movement, we must at some point in time reconcile the degree to which we will control the physical ramifications of aging, degeneration, disease, and even death.[53]

By 2050 a new field will have caused these assumptions to be reappraised. Work in anti-aging, increasingly referred to as agelessness, will have emerged within biogerontology, a discipline whose aim is to advance existing scientific knowledge on the biological and social dimensions of aging. In scientific circles, such as in the cryonics community or in immortality institute forums, the term 'physical immortality' will come to denote invulnerable agelessness, or freedom from the degenerative effects of aging. For the casual observer and nearly every mainstream healthcare professional, this definition accurately, albeit, in oversimplified terms, will describe the ultimate goal of all medical science: the prevention or curing of all disease, disability, and degeneration, thus allowing people to live in perfect health for as long as they desire.[54]

Recent research by Aubrey deGrey, of the Department of Genetics at the University of Cambridge, in the U.K., has sought to better understand the biology of aging.[55] deGrey has also written on the myths surrounding popular conceptions of aging.[56] This researcher is of the view that a cure for cancer is on the horizon, and when this impediment is overcome the opportunities to extend human life will be dramatic.[57] Other work on the biophysiology of agelessness raises the specter of the evolutionary suppression of the human species, as if assuming that human life can be extended indefinitely.[58] Regardless, by 2050 our culture will have become fascinated with the prospect of indefinite life extension, if current avenues of research in human genetics and biogerontology are to provide any hints of what is yet to come.[59] And, if true, the implications for an architecture for the 'ageless' will be equally profound.

By 2050, dysfunctional healthcare facilities in the public and private sectors, and massive government hospitals in particular, will represent easy symbolic targets, not unlike how Middle Eastern terrorists saw the World Trade Center in New York prior to 9/11. With respect to the terminally ill in an era of agelessness, a sustainable relationship, especially in politically unstable times, between hospice architectural settings and the diverse constituencies they will house will be more important than at present. To assume otherwise will result in resentment, mistrust, anger, and, ultimately, hostility.[60] In the U.S., for-profit palliative care organizations will be exposed as prime candidates to be singled out as targets if they underestimate this fact, as one corporation after another by then will have sought (successfully or not) to reduce the scope of care, and set bare-bones construction budgets for hospice in the name of maximizing 'shareholder' value. The rich, of course, will be able to attain agelessness care, while the poor will be left to 'classically age'. And these disparities will differ little from those throughout the history of organized medicine. As for the for-profit healthcare autocracies, particularly those responsible for the poor, decrees will be issued in terms beyond merely of who shall live or die, and who shall be allowed to *de-age* in an era of rationed medicine, as cost, in relation to one's relative 'social currency', will prevail in the era of human agelessness and (God forbid) human cloning. While intriguing, this brave new world may be quite unsettling.[61]

Conclusion

This book's core thesis has been centered on the belief that palliative architecture can enhance the final months, days – even hours – of life. A supportive hospice setting possesses the power to imaginatively capture and express in pragmatic and in spiritual terms the transition to that which may lie beyond life here on earth. Aesthetic experiences, nature, nurturance, respite, reconciliation, closure, and day-to-day functional support are at the center of the hospice equation. Hospice environments undeniably influence us on multiple levels. It cannot be considered acceptable to double the number of beds to twenty-four in a hospice planned, designed, and built to support only twelve inpatient beds. Nor it is acceptable to destroy an attractive courtyard, or to provide the architect and interior designer with a budget so low that the final outcome is preordained, having been subjected to victimization through excessive value engineering. Whether seeking funds to adapt an existing building for use as a hospice, to build anew, or to expand an existing in-hospital palliative care unit, proper preparation, a firm commitment to the task at hand, vision, and the capacity to persevere against the odds will remain prerequisite qualities in the years to come.

Part 3

Case studies

Case studies

CHAPTER 5

The projects

Medical campus contexts

The Ark Center for Palliative Care, Roermond, the Netherlands:
Stan Neuhof of Architectenbureau Humblé Neuhof, Maastricht, the Netherlands

AHI Hospice, Aichi Prefecture, Japan:
Yangi-sa Ijima Architects, Tokyo

St Leonard's Hospice, York, U.K.:
Allen Tod Architecture Ltd., London

Seirei-Mikatagahara Hospital Hospice, Shizuoka Prefecture, Japan:
Architects' Collaborative for Public Facilities, Tokyo

Sakuramachi Hospice, Tokyo, Japan:
Hasegawa Takashi Architects, Tokyo

Gilchrist Center for Hospice Care, Baltimore, Maryland:
Marks, Thomas and Associates, Inc., Baltimore, Maryland

Autonomous community-based

Sun Health Hospice, Phoenix, Arizona:
Taliesin Architects, Scottsdale, Arizona

Hospice LaGrange, LaGrange, Georgia:
Nix Mann/Perkins and Will, Atlanta, Georgia

Hospice of the Central Coast, Monterey, California:
Anshen & Allen Architects, San Francisco

Chu-lin Nursing Home and Hospice, I-Lan, Taiwan, R.O.C.:
Sheng-Yuan Hwang Architects & Planners, Taiwan, R.O.C.

North London Hospice, London:
dsdha, London

Adaptive use strategies

Maitri AIDS Hospice, San Francisco, California:
Kwan Hemni Architecture/Planning, San Francisco, California

Jerusalem House, Atlanta, Georgia:
Surber Barber Choate & Hertlein Architects, Atlanta, Georgia

Houston Hospice (Hospice of the Texas Medical Center):
Graham B. Luhn Architects, Houston, Texas

Children's hospice

Canuck Place Children's Hospice, Vancouver, British Columbia:
Downs/Archambault & Partners Architects/Planners, Vancouver, British Columbia

Bear Cottage Children's Hospice, Manly, New South Wales, Australia:
McConnel Smith & Johnson Architects, Darlinghurst and Sydney, Australia

George Mark Children's Hospice, San Leandro, California:
Remick Associates, Architects/Builders Inc., Oakland, California

Robin House Children's Hospice, Balloch, Scotland:
Gareth Hoskins Architects, Glasgow, Scotland

Introduction

In this chapter, eighteen case studies are presented in relation to a four-part architectural typology, rather than on the basis of geographic location. All but two of these case studies are operated by non-profit hospice organizations. Most are medically based programs; others are, by design, non-medically based. The criteria upon which each case study was chosen for inclusion were as follows: first, the hospice had to have been built within the last decade or be a work in progress; second, its design intent had to possess ramifications for other hospices elsewhere; and third, it had to exhibit design excellence in its own right. Beyond these criteria, each case study engages the philosophy of hospice care in interesting social, technical, and formal terms, or, in a few cases, non-mainstream, radical propositions relative to this building type. As a result, every one of the case studies resonates in some important respect. Diversity and imagination is celebrated. The case studies are presented according to four categories:

- *Medical campus contexts*: These hospices are built on the grounds of existing medical centers. From a medical standpoint, an umbilical link remains with a parent institution. These hospices symbolize a break from the hospital, with the boldest, most spirited examples asserting a spirited architectural freedom.
- *Autonomous community-based*: Architecturally autonomous, freestanding hospices. These hospices may or may not be affiliated with a sponsoring hospital or medical center, or a specialized user constituency such as the aged, or children, or HIV/AIDS patients.
- *Adaptive use strategies*: These hospices were transformed from a radically different use in a prior life. The transformation from a prior use to its new use as a hospice is noteworthy, architecturally.
- *Children's hospices*: These buildings are generally autonomous, freestanding, and community-based. The focus is on the terminally ill child and the family experience. These hospices tend to provide the widest latitude for the architect to explore playful formal vocabularies, and unorthodox, free-flowing spaces and imagery.

It is inevitable that some degree of overlap will occur within any such system of architectural categorization. A few definitions are therefore in order: *social activity spaces* are dayrooms and places where interaction is to be encouraged; *meditative spaces* are chapels and respite spaces where, in isolation, one can acquire solace and spiritual awareness; *administrative spaces* are any offices, file areas, conference rooms, and classrooms for staff and volunteer training, and in some cases, overnight accommodations for staff; the *patient bedroom realm* encompasses the bathroom, sleeping area, furnishing and adjoining spaces for staff access to the patient and for use by the family, all storage zones, the transitional zone mediating between the room and the adjoining corridor, and the relationship between interior and exterior spaces; *exterior amenities* are the spaces adjacent to a patio, terrace, or a garden, pathways, lawns, and fountains.

1 The Ark Center for Palliative Care, Roermond, the Netherlands

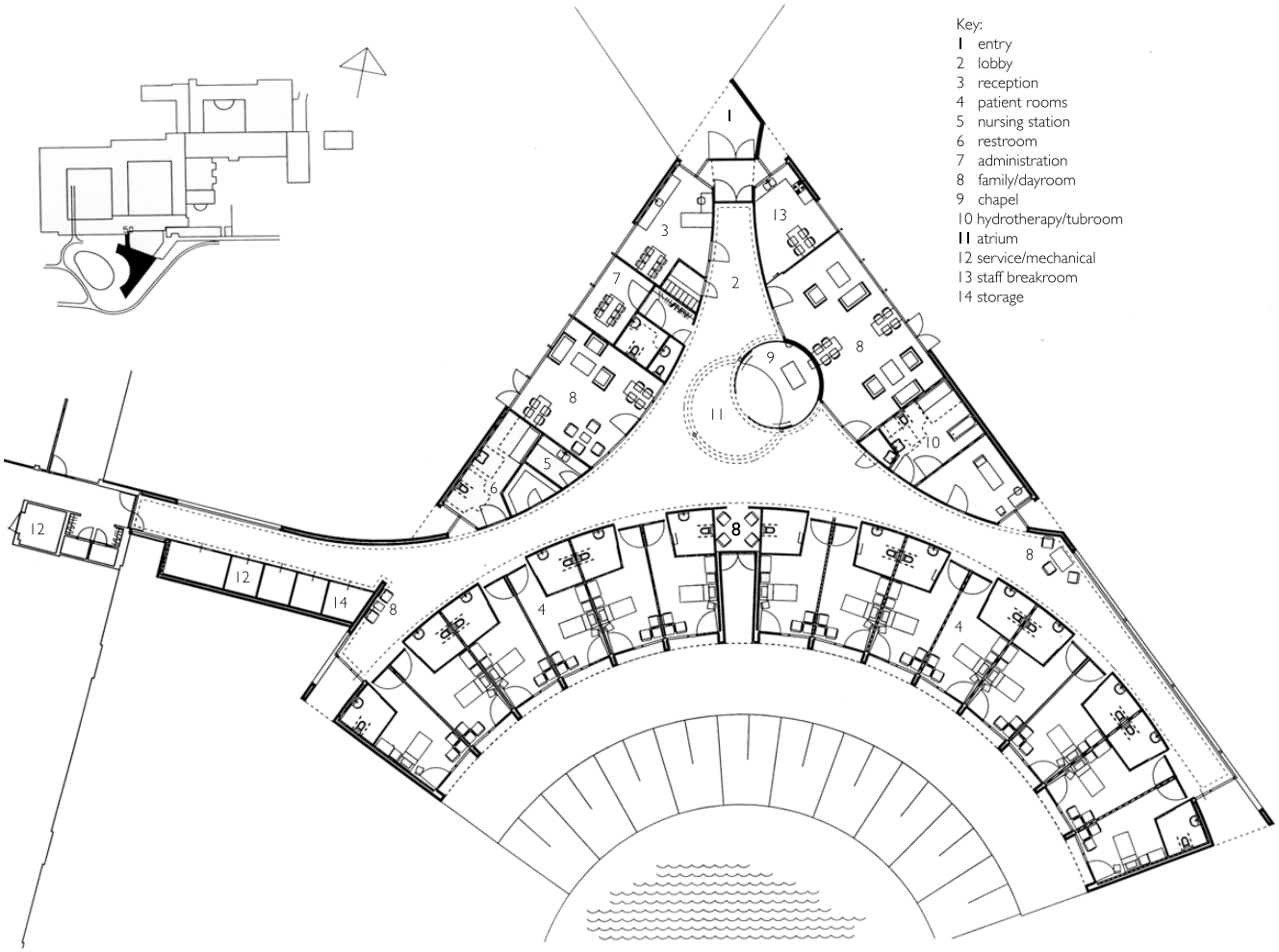
ARCHITECT: Ir. Stan Neuhof of Architectenbureau Humblé Neuhof, Maastricht, The Netherlands
CLIENT: St Camillus Convalescent Care Center
CONSTRUCTION: Natural materials, interior and exterior walls are brick, window frames are made of red cedar, wooden ceilings, paving tile floors, and floors in rooms are wood
COMPLETED: 1999
INPATIENT BEDS:14
SITE/PARKING: 4 acres/25

This hospice weaves a humane scale and ambiance with a minimalist architectural vocabulary. It is located on the grounds of the St Camillus convalescent care facility, situated in a rural, wooded area. It is a one-level pavilion, physically autonomous from the long-term care centre. Architecturally, two form-generative planning concepts were employed; the first was the use of curvilinear planar geometries. The second form-generative concept was the decision to configure the worship space as a cylinder and to place this space at the center of the parti. In the architect's words, 'At birth, one enters into the light of the world from the darkness of the womb, and in death one ultimately passes into a space of deep tranquility and comfort. This, in turn, inspired the shaping of the building as a womb.' The horizontality of the patient housing element is striking (Fig. 5.1.1). Fourteen private inpatient rooms are provided, affording direct access to the outdoors. The inpatients' rooms are oriented to the south, with views overlooking a pond and forest. Private baths were located on the interior side of the room, thereby allowing for maximum daylight to penetrate the room from the outer perimeter. Six inpatient bedrooms were situated on one side of the arrival axis; eight to the other side. Administrative, dietary, and social spaces and a grieving room were housed within two curvilinear elliptical walls opposite the patient housing realm. These rooms also adjoin an outdoor terrace.

The public realm is given formal expression by means of an angular skylight element; this element abruptly penetrates through the roof at the chapel, jolting the eye upward at a pronounced angle (Fig. 5.1.2). The metaphor of the womb is discernible in plan. The building's orientation is derived at the base of its equilateral triangles, with the larger triangle deriving its meaning as an antidote to an orthogonal exterior wall and the curvilinear interior walls. The chapel is set within a circle at the center, with a second triangle engaging the inner walls of the aforementioned 'womb' (Fig. 5.1.3). Together, the three points of this triangulated skylight, as they intersect with this 'circle of life', symbolize the holy trinity. Natural light is transmitted in deliberate increments into this social core. The main space expands, revealing clerestory windows above the worship space (Fig. 5.1.4). With the sole source of light at the core of its skylit roof, the adjoining halls become passive – significantly darker, creating a calming, contemplative, protective atmosphere (Fig. 5.1.5). A crucifix 'floats' above the altar and below the skylight. This space is the hospice's most memorable feature from the exterior as well as the interior (Fig. 5.1.6). It is possible to open the curvilinear, sliding doors within the cylindrical worship space, thus opening up this area for other general social activities. This cylinder, and its adjoining public spaces, is where the majority of social interaction occurs. Transparency is achieved by means of expansive windows, thereby establishing a strong connection between the building and its dramatic natural landscape.

5.1.1 (*opposite top*) The Ark Center for Palliative Care, Roermond, the Netherlands. Elliptical arrangement of inpatient rooms, which overlook a lawn and pond

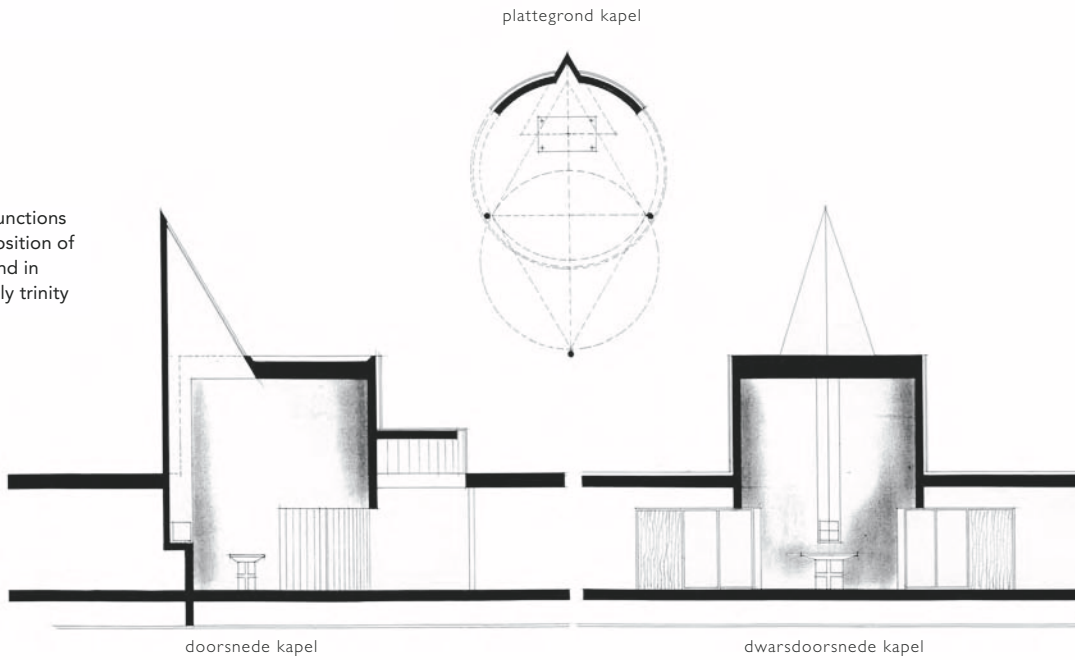
5.1.2 (*opposite bottom*) The angularity of the chapel roof creates a strong silhouette, visible at the main entry to the hospice



5.1.3 The Ark Center is situated at the edge of a medical center campus, which specializes in the care of the aged. The hospice is physically connected at two points to the main hospital

51.4 Light filters into the chapel from a clerestory window and a skylight, illuminating the altar, whose cylindrical form is offset from that of the adjoining atrium cylinder

51.5 The angular roof functions as a landmark. The transposition of space, as shown in plan, and in section, symbolizes the holy trinity



5.1.6 In the chapel, a crucifix appears to float in midair, while the skylight above draws in daylight

2 AHI Hospice, Aichi Prefecture, Japan

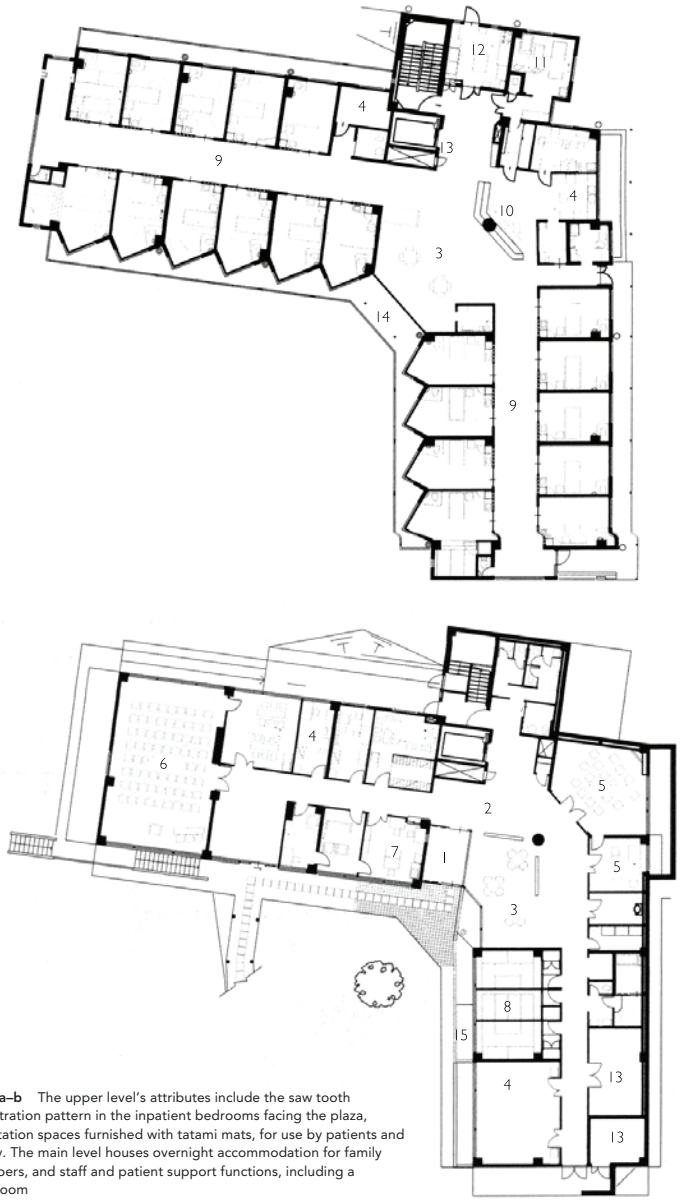
ARCHITECT: Yangi-sa Ijima Architects, Tokyo
CLIENT: Aisen Society Group medical Practice/Aichi International Hospital
CONSTRUCTION: reinforced steel, masonry, laminated wood beams and floors, asphalt roof, composite polymer structural system; two levels
COMPLETED: 1999
INPATIENT BEDS: 20
SITE/PARKING: 3.2 acres/18

The AHI Hospice in Aichi Prefecture is on the campus of a Christian-affiliated hospital in a rural community about one hour's drive from Nagoya. Planning began in 1995, with four small working groups operating in tandem. The hospice is a freestanding facility (Figs 5.2.1 and 5.2.2). The sloping site resulted in a three-level building (Fig. 5.2.3). Visitors arrive at the second (main) level. In traditional Japanese culture, death occurs in quiet, hidden places. The architect's interpretation of death and its antecedent

5.2.1 (*below*) The AHI Hospice, Aichi Prefecture, Japan, conveys a residentialist image through its massing and materiality palette. Set apart from its medical center context, a plaza defines the main arrival sequence

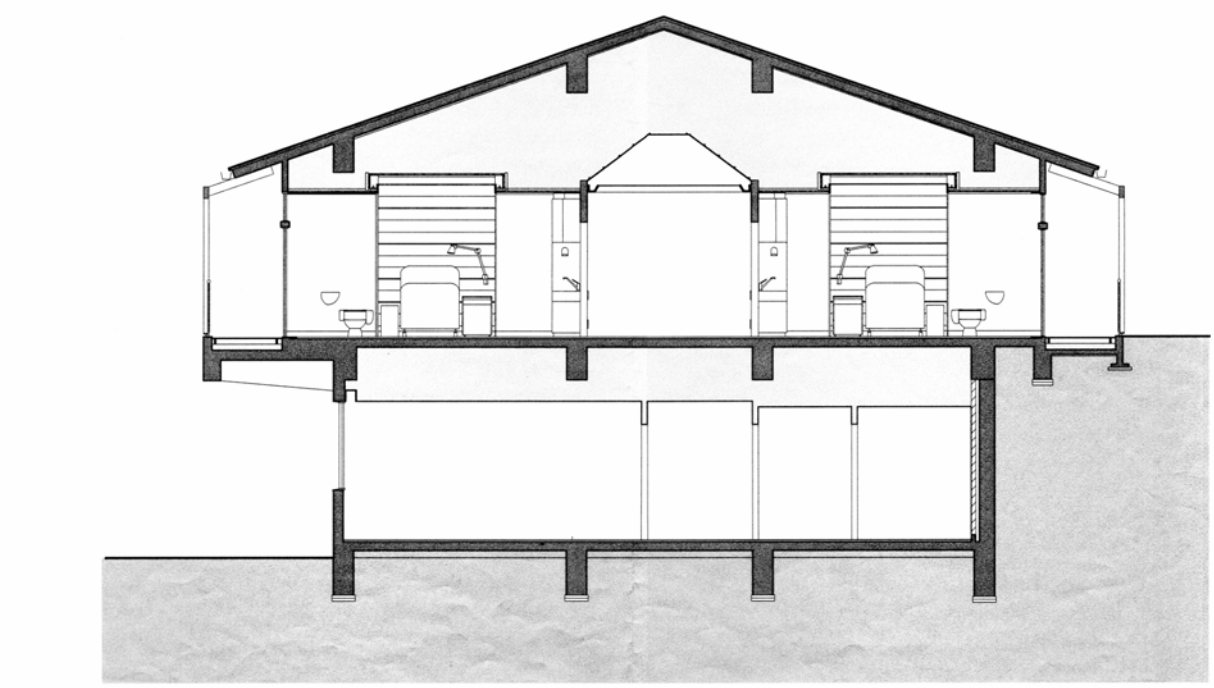
5.2.2 (*opposite top*) The hospice is depicted in the upper right corner of this photo. The site context is semi-rural, located one hour from Nagoya

5.2.3 (*opposite bottom*) The hospice conveys the scale and appearance of a private residence. This is reinforced through the use of wood structural elements and finishes throughout, transparency, terraces and balconies, and connectivity with its site



Key:
1 entry/foyer
2 reception
3 activity/dayroom
4 administration/Support
5 chapel
6 multipurpose
7 consultation
8 family overnight accommodation
9 patient rooms
10 nursing station
11 hydrotherapy
12 staff bathroom
13 mechanical/service
14 terrace
15 pond

5.2.4a–b The upper level's attributes include the saw tooth fenestration pattern in the inpatient bedrooms facing the plaza, meditation spaces furnished with tatami mats, for use by patients and family. The main level houses overnight accommodation for family members, and staff and patient support functions, including a classroom



5.2.5 In section, the hospice is read as a residence, with the outdoor ground level porches on the right side embedded in the site and the left side consisting of cantilevered terraces

phases guided the building's imagery and configuration. The inpatient rooms, arrayed along a double loaded corridor, are on the top level, and each room has a private balcony (Fig. 5.2.4). The building's cantilevered second level affords shade to the spaces below (Fig. 5.2.5). Apartments for three families are provided on the lower level. A large classroom is located on this level. The structural system is wood beams. Natural wood is employed throughout, and on the exterior balconies (Fig. 5.2.6).

The inpatient room is 19.6 square meters in size. The shoji screens are lightweight and may be horizontally moved by the patient (Fig. 5.2.7). The nursing station is centrally located at the apex of two residential wings. Each inpatient room contains multiple zones, and nuanced spatial hierarchies are discernible, specifically, the continuum of indoor to outdoor space, with emphasis on *ma* (the space in between). All who arrive at the main entrance pass by a stream (with goldfish) along the path leading from the parking area. The inpatient rooms are private, and have ample personal space and various options of use, with privacy screens, operable sliding doors, furnishings, lighting, and tatami mats available for meditation or sleeping. There is no separate bath/shower room: the commode is immediately next to the bed, and can be visually concealed from open view via a pull curtain. A hydrotherapy/shower room is provided nearby. This feature, and the lightweight moveable shoji screens, provide convenience, autonomy, and independence. Practicality is favored over traditional distinctions between *seinaru* (sacred) versus *zoku* (profane) space with regard to personal hygiene. Dayrooms provide a stage for social interaction (Fig. 5.2.8).

5.2.6 The terrace decking is of wood, and the exterior doors from inpatients' rooms slide horizontally, as do the doors connecting inpatients' rooms with the corridor

5.2.7 The bedrooms allow for a high degree of personalization on the part of the patients and their families. Additional accommodations for family are provided downstairs. Natural wood finishes are in evidence throughout

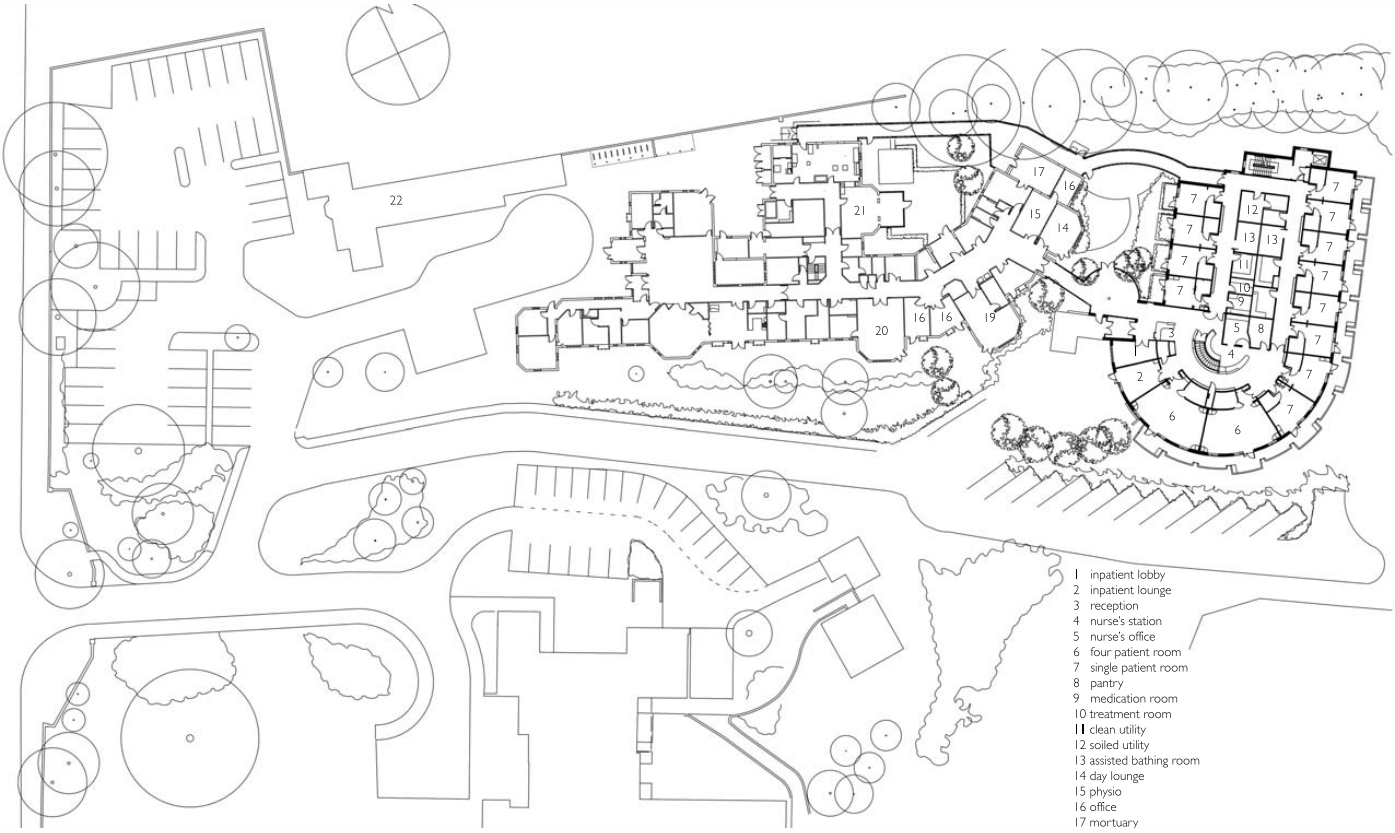
5.2.8 A spacious dayroom on the patient housing floor is used for consultation, art therapy, and social events

3 St Leonard's Hospice, York, U.K.

ARCHITECT: Allen Tod Architecture Ltd, London
CLIENT: St Leonard's Hospice
CONSTRUCTION: Reinforced concrete, masonry, steel, laminated wood beams and flooring systems
COMPLETED: 1999
INPATIENT BEDS: 20
SITE/PARKING: 4.5 acres/40

St Leonard's Hospice was founded in 1985 and built its first premises on land acquired from the adjoining Wilberforce Home for the Blind. Set in a quiet garden and facing open meadowland to the east, the hospice provides palliative care for York and the surrounding district, serving a population of approximately 250,000. The original sixteen-bed facility was expanded. The 1999 building houses twenty patients in twelve private rooms and two four-bed suites, and medical and administrative support functions (Fig. 5.3.1). The original building was refurbished to provide a day care centre. The plan is configured with inpatient bedrooms to the south and southeast off a central corridor with service rooms housed in a wing to the north. A steep pitched roof over the main service area houses extensive storage accommodations. The building is residentially scaled and fits well in relation to its site (Fig. 5.3.2). Medical services are housed on the same level as the

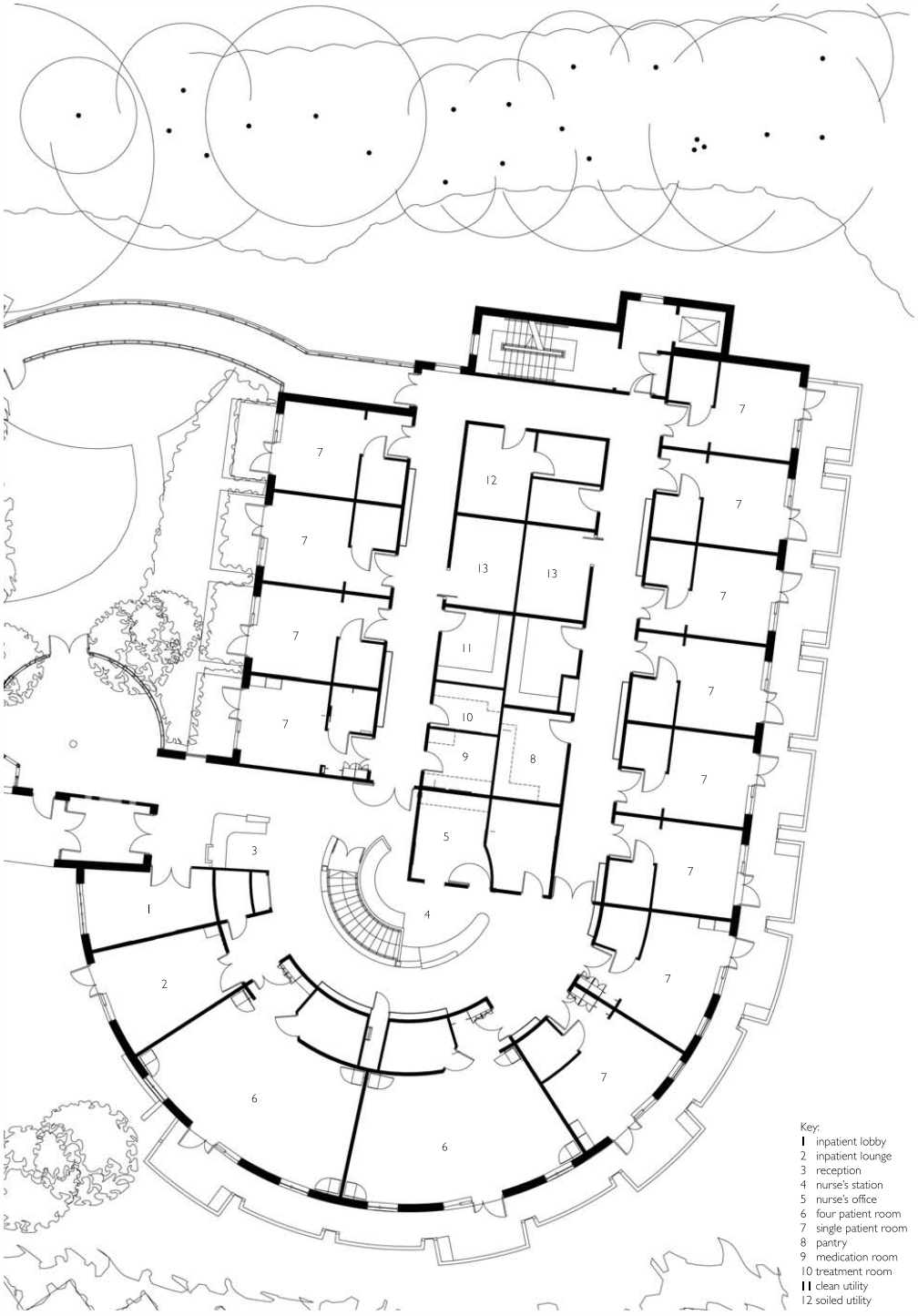
5.3.1 At St Leonard's Hospice, York, U.K., expressive exterior balconies imbue the façade with scale and shadow, and at once provide amenity for occupants. Wall trellises are provided, and it is anticipated that in time vegetation will line the exterior walls



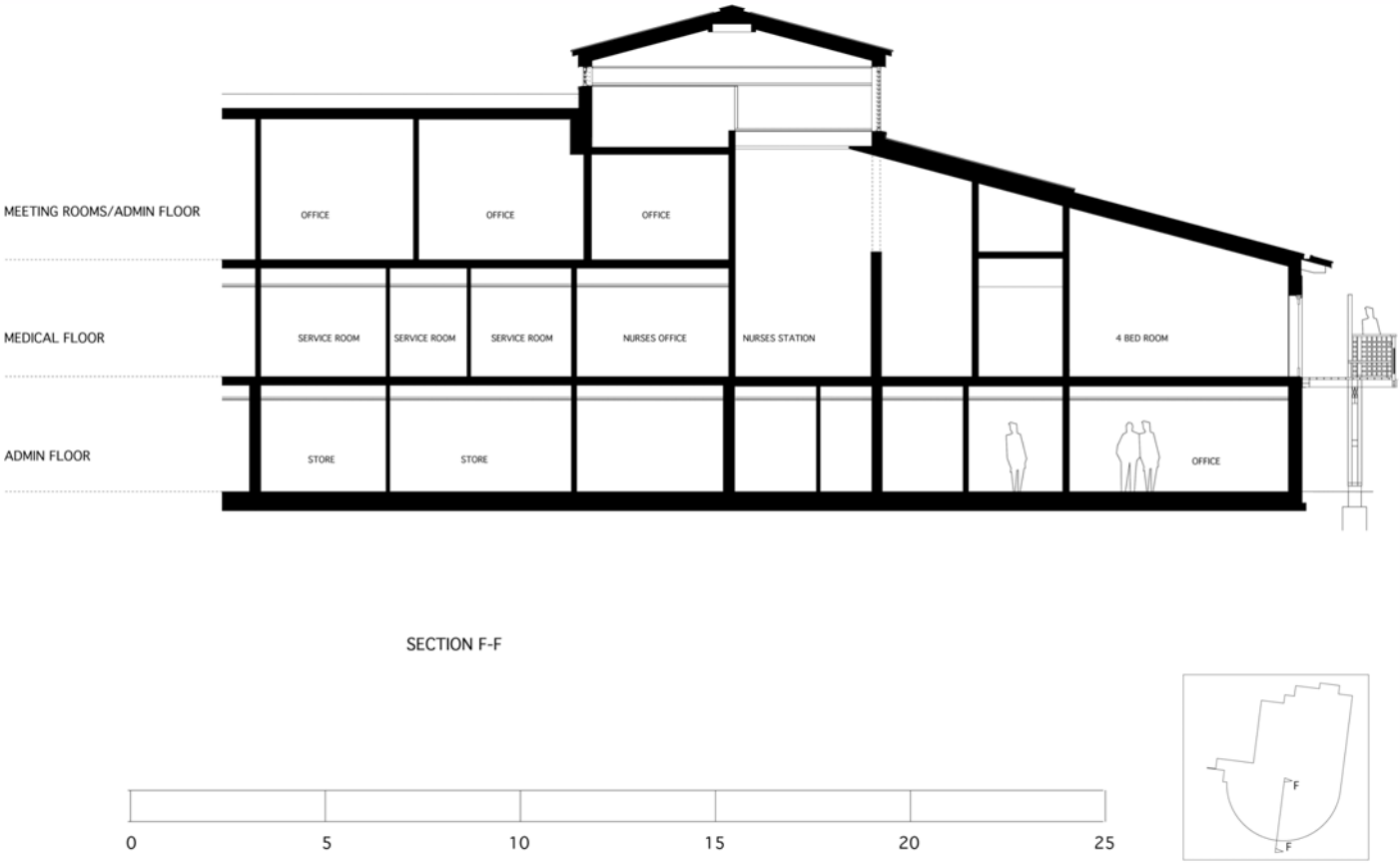
5.3.2 The hospice is located on the southeast edge of a medical center campus, of which it is a part

existing main hospice. The sloping site, falling away to the southeast, allowed the housing of administrative support functions to be situated on the lower level. The comparatively large open span of the upper level plan affords generously proportioned rooms in the inpatient housing milieu (Fig. 5.3.3). The overall height of the building was minimized through the use of a low pitch copper roof rather than the tiles, which exist on the adjoining original building.

The inpatient rooms are, as a result of the site's contours, mainly housed on the first level. This posed a difficult design challenge as a widely accepted hospice ethos encourages direct physical connections with the ground plane and the adjoining landscape. This was overcome through the provision of balconies, using the timber structure as a framework for trellising and plants, which residents and families can care for by, ostensibly, drawing the landscape into the residential realm (Fig. 5.3.4). Four single bedrooms face a central enclosed communal courtyard at the ground level. The two corridors connect the old with the new (Fig. 5.3.5). These enclose the central court, and the public corridor is glazed to afford vision and access while the service corridor is treated as a solid wall, functioning as a visual screen. The main reception area opens onto the central atrium, providing the focal point on the inpatient housing level. Natural daylight is transmitted into the lower level of the building and the atrium houses the central nurses' station (Fig. 5.3.6). The bedrooms radiate from the nurses' station. These spaces receive natural light from above, reinforcing the therapeutics of natural daylight, a concept effectively employed in the original building.



5.3.3 The main entry overlooks a courtyard and restorative garden. A semi-circular nurses' station adjoins the arrival area. Staff support functions are located in a central service core, and patient rooms are a mixture of private rooms and four-bed suites



ST LEONARD'S HOSPICE - SECTION

5.3.6 In section, the relationship between the atrium, skylight, and the nurses' station below is illustrated, as are the sloping ceilings of the inpatient bedrooms

5.3.4 (*opposite top*) A cylindrical skylight at the center, directly above the nurses' station, functions as a strong orienting device both within and from the exterior. The residentialist scale and radiating seam lines of the metal roof provide additional interest

5.3.5 (*opposite bottom*) An angular roof line at the main entry to the hospice establishes identity, and a whitewashed wall extends outward, as if reaching toward the courtyard

4 Seirei-Mikatagahara Hospital Hospice, Shizuoka Prefecture, Japan

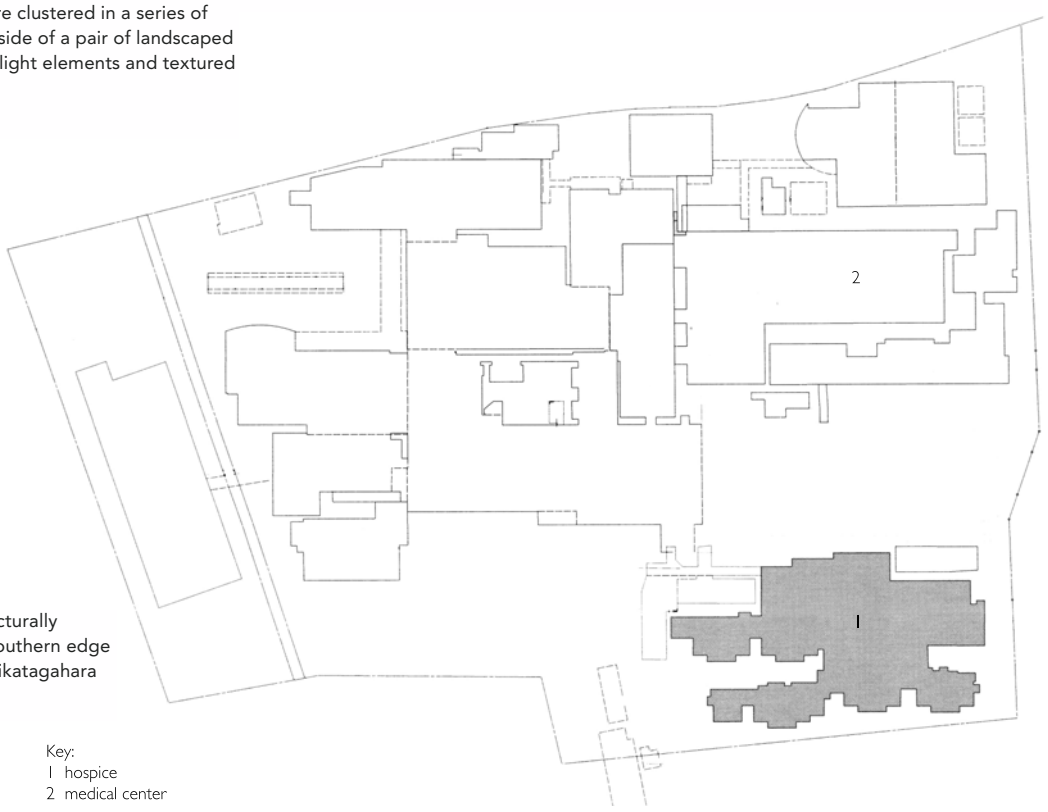
ARCHITECT: Architects' Collaborative for Public Facilities, Tokyo
CLIENT: Seirei-Mikatagahara Hospital, Society for Community Health and Welfare Collaborative, Hamamatsu District, Shizuoka, Japan
CONSTRUCTION: Reinforced concrete, steel frame; two levels
COMPLETED: 1997
INPATIENT BEDS: 27
SITE/PARKING: 2.9 acres/8

This was the first hospice program established in Japan (1981) although this inpatient hospice did not open until 1997. The hospice expresses traditional Japanese architectural principles throughout. It is located at the edge of a teaching hospital and medical center and its outward imagery contrasts with that of the adjacent institutional buildings on the campus (Fig. 5.4.1). The hospice staff called for a freestanding, anti-institutional, 'delicate' design. The twenty-seven inpatient single-occupancy rooms are situated around two central courtyards. The building is on one level with the exception of a staff conference room and administrative offices, which are housed on the second level (Fig. 5.4.2). The hospice is connected to the hospital via a corridor. Sakura (Cherry Blossom) trees line the edge of the site and the majority of patient rooms overlook these trees. The courtyards are landscaped, and outdoor paths connect the various areas of the hospice. A garden is provided (Fig. 5.4.3). The main entrance is minimalist, yet human-scaled and inviting (Fig. 5.4.4).

The nurses' station is located at the center of the patient housing realm and is connected to four clusters of inpatient rooms. Each is equipped with its own *obutsushorishitsu* (clean and soiled

5.4.1 The Seirei-Mikatagahara Hospital Hospice, Shizuoka Prefecture, Japan, is configured as a rural village streetscape, with cascading roofs and staggered residences. This creates a sharp contrast with the adjacent medical center buildings

2 Inpatient bedrooms are clustered in a series of setbacks, deployed on either side of a pair of landscaped courtyards. Note the exterior light elements and textured walkway



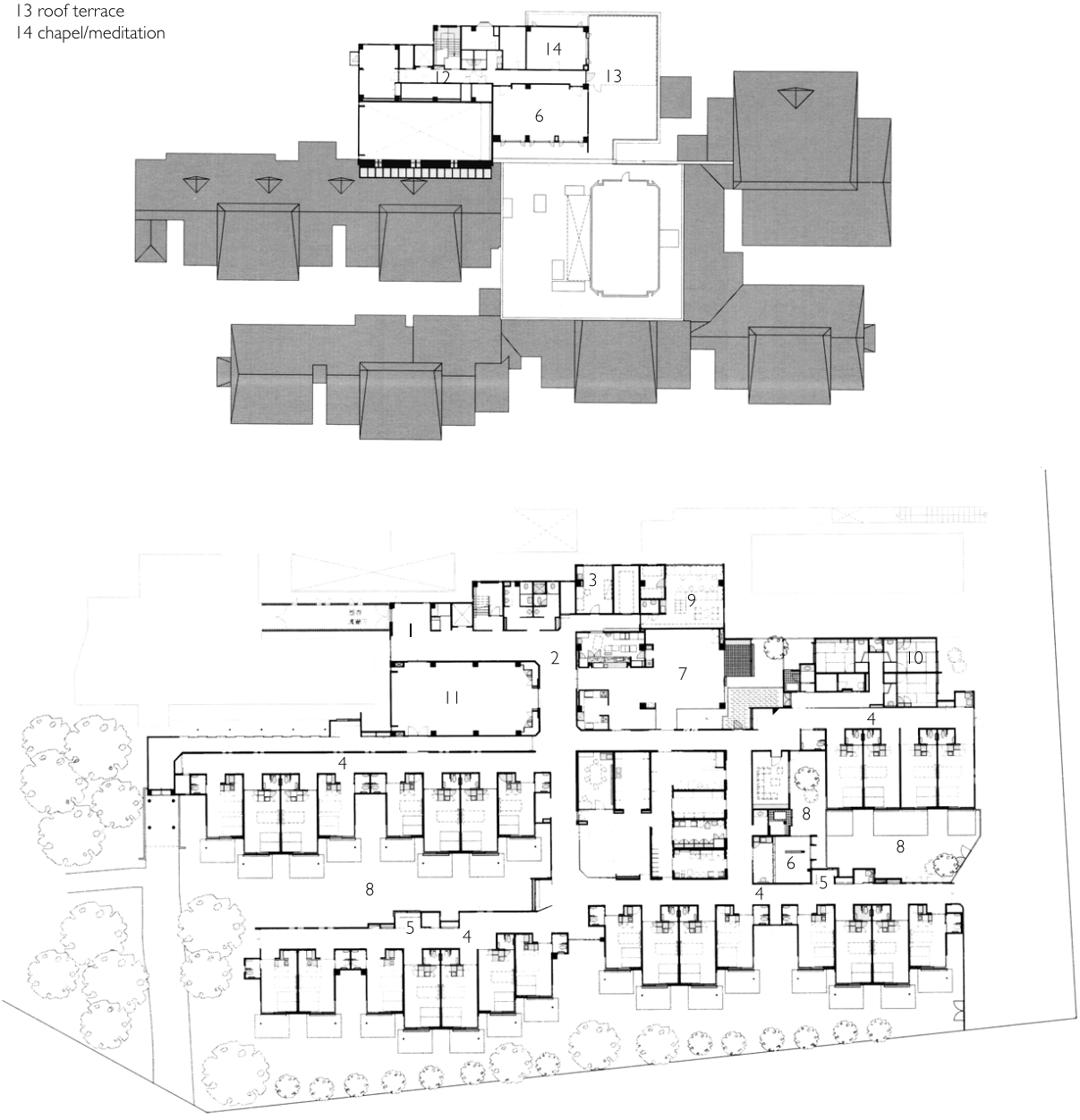
3 The hospice is architecturally autonomous, located at the southern edge of the campus of the Seirei-Mikatagahara Hospital and Medical Center

Key:
1 hospice
2 medical center

5.4.4 A minimalist entry greets visitors. Note the patterned floor surface

utility room). Corridors are single-loaded, thereby allowing for natural daylight transmission and views out to the courtyards. Patient rooms and their entrances are staggered as a means of establishing residential scale; each has access to a private patio (Figs 5.4.5 and 5.4.6). All the doors are sliding. Windows are wood framed, and horizontal sliding shoji screens are provided (Fig. 5.4.7). Tatami beds are provided for use by patients and families; these are placed on wood frames with steel caster wheels with a pull-out drawer beneath. Patients are also provided with Western-style hospital beds. Gas and oxygen outlets are concealed within a wood cabinet located on the headboard wall of each bedroom. Bathrooms are located adjacent to the patient's bed. A small module contains a kitchenette, refrigerator and sink, positioned to provide a visual buffer from the corridor. Patient privacy is of high priority. Overnight accommodations for three families are provided, as is a large social activity room. Corridor handrails are eschewed, considered too institutional in appearance. A chapel doubles as a meeting room and at times is used for medical center functions. The hospice is equipped with heat pumps, a floor-based heating system, and an ozone air purification system. In the inpatient rooms the floors are of bamboo as this material provides high conductivity as a means of distributing heat throughout the room. All lighting is indirect, achieved by means of reflective cove ceiling fixtures, wall sconces, and task ambient fixtures. Semi-private seating alcoves are provided within each of the four residential clusters, for patient and family use. A seamless continuum between interior and exterior is achieved throughout the patient housing realm and related support spaces.

Key:
1 entry/lobby
2 reception
3 administration/support
4 patient Rooms/hydrotherapy alcoves
5 nursing stations
6 activity/dayroom
7 dining/kitchen
8 courtyard
9 staff breakroom
10 family overnight accommodations
11 multipurpose
12 mechancial/support
13 roof terrace
14 chapel/meditation



5.4.5a–b In plan, the autonomy of the inpatients' bedrooms is reinforced, as these are arrayed along a pair of single-loaded circulation spines. One of the spines adjoins the courtyard, while the other does not. On the upper level, a meditation space opens onto a landscaped roof terrace, and an activity/dayroom is also located adjacent to the roof terrace

5.4.6 This elegant, tranquil visual vocabulary is similarly carried into the bedrooms. Note the artwork, shoji screens, articulated ceilings, and subtle, indirect lighting

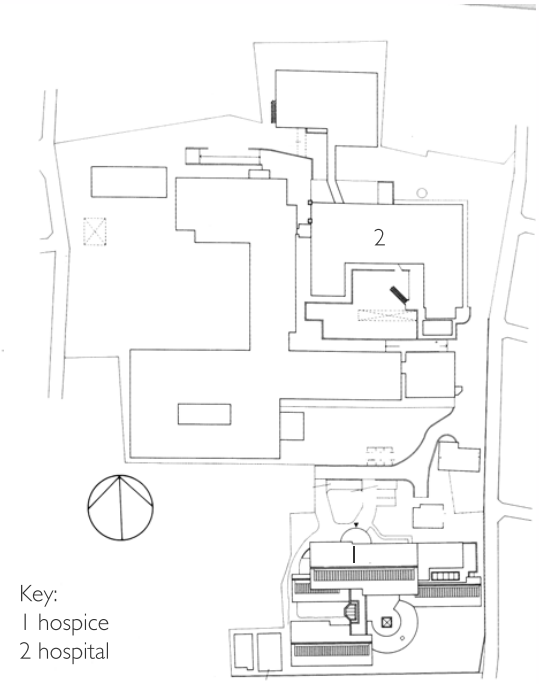
5.4.7 Numerous spatial elements and motifs, together with the use of natural wood, evoke traditional Japanese residential architecture of the Edo Period. This simultaneously rich yet austere vocabulary is expressed as alcoves with seating, and in meditation rooms, functioning as semi-private space for respite. A sliding shoji screen is shown in the foreground

5 Sakuramachi Hospice, Tokyo, Japan

ARCHITECT: Hasegawa Takashi Architects, Tokyo
CLIENT: Sakuramachi Hospital/Order of St. John
CONSTRUCTION: Reinforced concrete, masonry, steel, laminated wood beams and flooring systems and finishes; two levels
COMPLETED: 1994
INPATIENT BEDS: 20
SITE/PARKING: 2.3 acres/6

This hospice program had operated an in-hospital PCU for six years when the board elected to construct an autonomous hospice facility on the grounds of its 276-bed medical center. The site is a secluded corner of an urban medical center (where a former psychiatric institution once stood), and is accessed via a formal driveway and arrival sequence (Fig. 5.5.1). The site is slightly sloped toward an adjoining residential area, and views from the patient housing realm are oriented to this direction (Fig. 5.5.2). To harmonize with the residential neighborhood this twenty-bed hospice was kept to two levels. The architectural vocabulary is contemporary, intimate, yet informal, with many traditional influences, e.g. deep roof eaves, tile roofs, residential scale, and a handcrafted aesthetic vocabulary. A large garden is located on the site in a *ganko* (staggered) configuration. The majority of the seventeen inpatient rooms overlook this garden. The hospice

5.5.1 Sakuramachi Medical Center Hospice, Tokyo. The main approach is a park-like setting

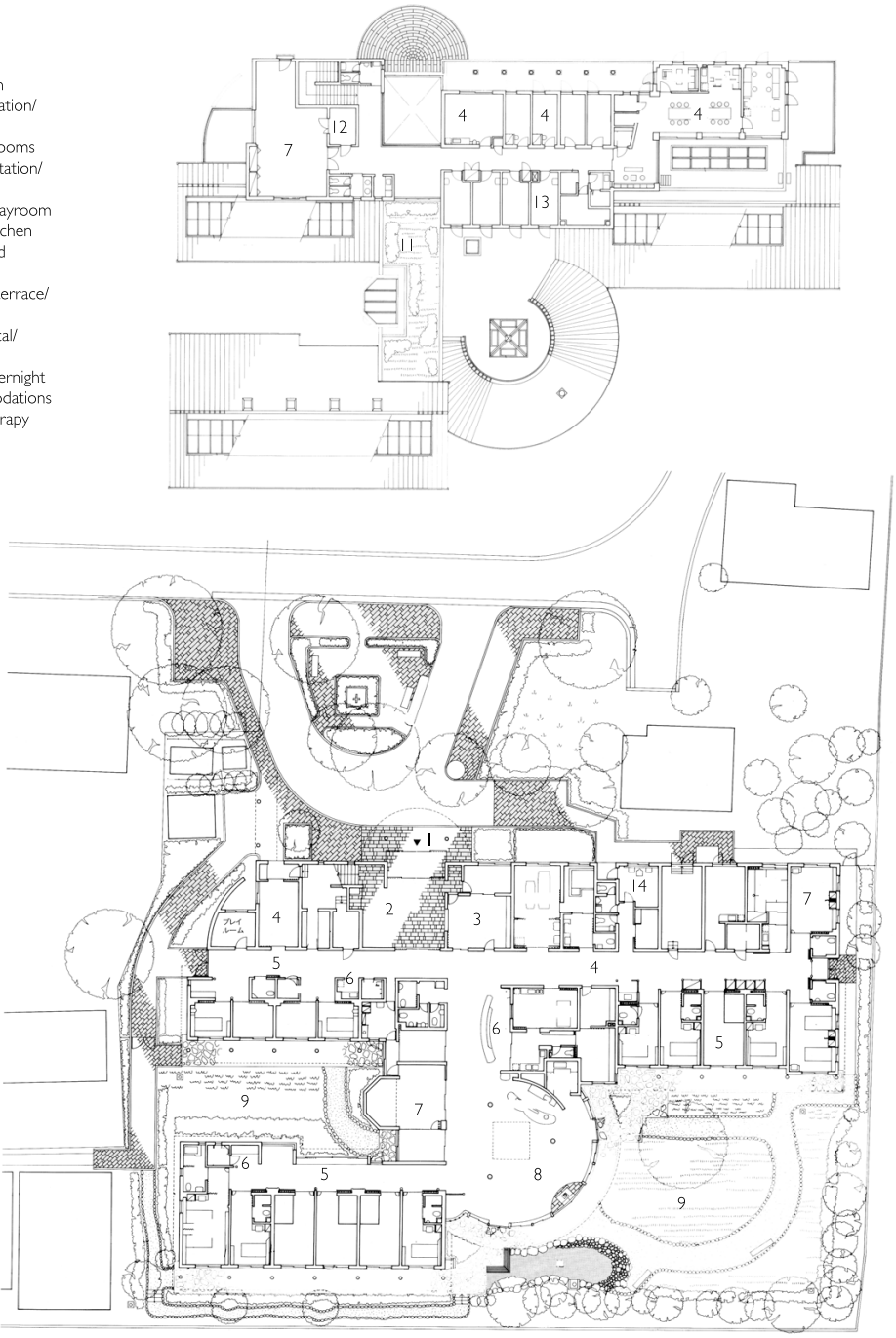


5.5.2 The hospice is located on the edge of a medical center campus

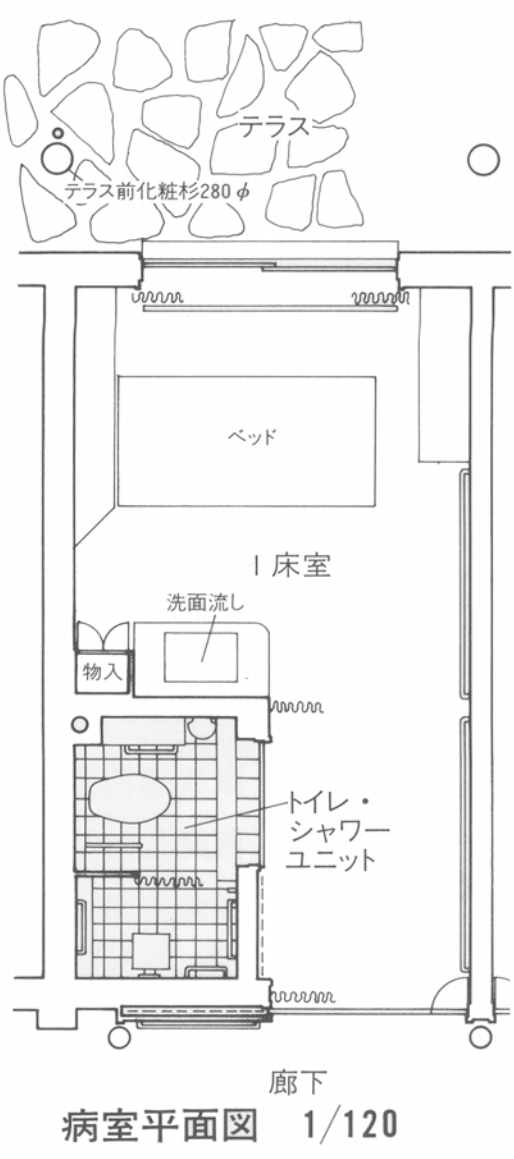
coveys the architectural image of a large single-family residence. The support services area houses a home care program, medical, counseling, volunteer and administrative offices, continuing education classrooms, and a palliative care research unit. In plan, four zones characterize the hospice. The patient rooms are all on the first level, and allow for direct wheelchair and bed access to the outdoors. Three bedrooms are semi-private. Inpatient rooms are housed in three wings, with a dayroom, nursing station, and chapel at the center, and support spaces nearby. The staff decided against a hospital-like 'racetrack' circulation flow, despite the shorter walking distances this would have rendered (Figs 5.5.3a and 5.5.3b).

All inpatient bedrooms open onto a terrace, beneath a deep eave next to the garden. *Tezukuri* (natural materials), principally wood, are used, including wood-covered sloped ceilings in the inpatient rooms. Lighting sources are varied and non-institutional. Oxygen masks and vacuum outlets are hidden behind a wooden door. The furnishings are adaptable for family overnight use. Places for patients' personal mementos and artwork are provided (Figs 5.5.4 and 5.5.5). No *tatami* floor mats are provided, however. Japanese-manufactured prefabricated bathroom modules are employed. A fireplace is provided in the central dayroom, and a small adjacent kitchen is provided for patient and family use. This central dayroom is available for use for special events and can be subdivided into two smaller rooms (Fig. 5.5.6). Natural ventilation and daylighting are incorporated, with special air purification filters. A passive solar heating system heats the floors. The fan unit, which transports the warm air through the heating conduits, is the sole active component in this system. The nurses' station is located at the center of the residential unit, adjacent to a hydrotherapy room (Fig. 5.5.7).

Key:
1 entry
2 lobby
3 reception
4 adminstration/ support
5 patient rooms
6 nursing station/ support
7 activity/dayroom
8 dining/kitchen
9 courtyard
10 garden
11 rooftop terrace/ garden
12 mechanical/ support
13 family overnight accommodations
14 hydrotherapy



5.5.3a–b The ground-level plan features a circular dining room overlooking a courtyard. Patient rooms surround a courtyard while additional patient bedrooms adjoin a garden facing the front (south) façade. A landscaped roof terrace is located on the second level, together with patient and staff support functions



5.5.4 A typical, private patient bedroom, with private bath, sink facing the bed area, horizontally sliding shoji screens, and full height sliding doors opening onto an outdoor patio. The Japanese eschew Western-style hinged doors in healthcare facilities

5.5.5 Typical semi-private inpatient bedroom. Note the pitched ceiling configuration and residential lighting

5.5.6 Dining room and courtyard. Note the exaggerated tiles on the roof and stainless steel roof drains. Mountains are visible in the background

5.5.7 Patterned tile threshold to the hydrotherapy/spa room. Spaces associated with water are given special emphasis in Japanese healthcare architecture

6 Gilchrist Center for Hospice Care, Baltimore, Maryland

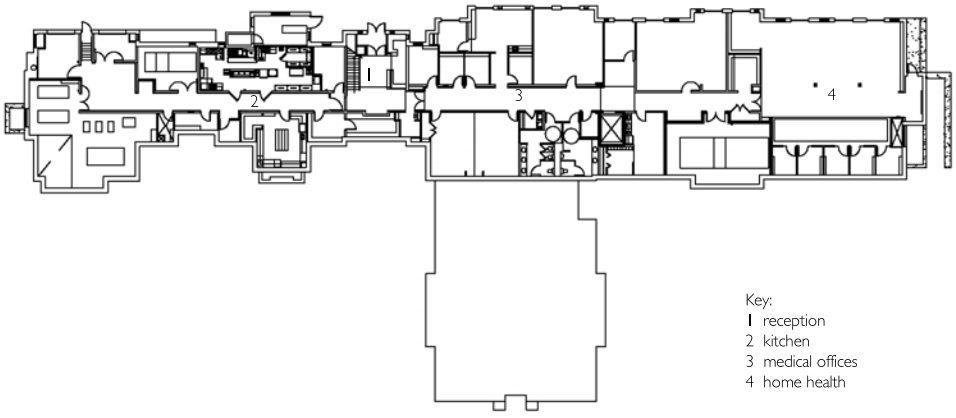
ARCHITECT: Marks, Thomas and Associates, Inc., Baltimore, Maryland.
Faith Nevins, Project Architect
CLIENT: Greater Baltimore Medical Center
CONSTRUCTION: Reinforced concrete, steel, masonry, stone; two levels
COMPLETED: 1996
INPATIENT BEDS: 24
SITE/PARKING: 7 acres/36

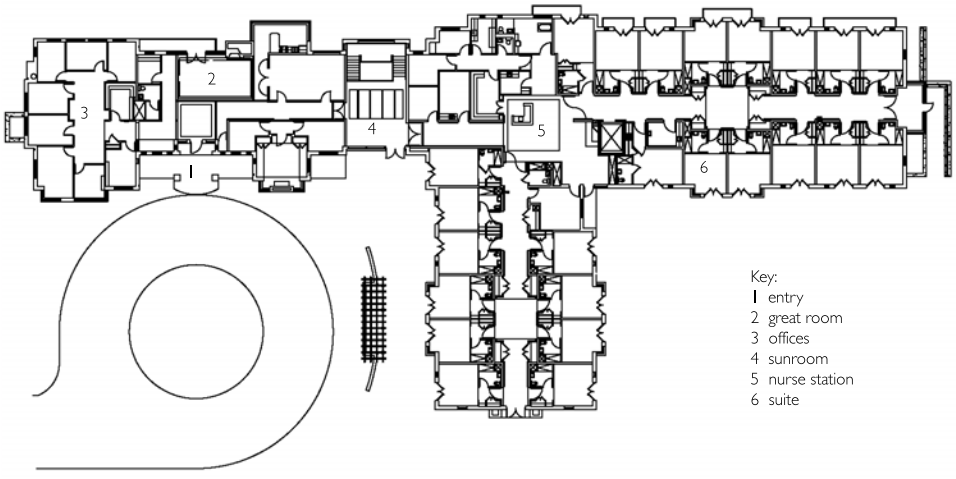
This hospice provides care for twenty-four inpatients in a facility built on the campus of a suburban medical centre. The architects' intent was to combine the ambiance of a gracious stone manor residence with a high level of inpatient and family support. The roof cascades telescopically, creating a residential scale (Fig. 5.6.1). The site is steeply sloped and the hospice hugs the hillside, with the hospital and its adjacent parking area atop the hill. A narrow parti was necessary due to these constraints (Fig. 5.6.2). The main entrance is reached via a circular drive; on this side of the hill (upper side) the hospice appears as a one-level building. The front door is flanked by stone columns and an open-grid canopy (Fig. 5.6.3). A lower level, unseen from this side, houses a reception area, multipurpose room, kitchen, medical offices, a home care program, and support. The patient housing realm is located

5.6.1 Gilchrist Center for Hospice Care, Baltimore, Maryland. Exterior view depicting an exquisitely detailed wood trellis, rusticated masonry, and telescoping roof elements

5.6.2 Site plan showing the rocky, sloping hillside site. This posed site-planning challenges in terms of wheelchair and bed accessibility to outdoors. The adjacent medical center is shown at lower right

5.6.3 (*opposite*) Intricate wood detailing and imagery is incorporated throughout the exterior and interior spaces of the hospice. Benches are located in close proximity to the main entry. The hospice sought to reference an historic Craftsman period local building style popular in the U.S. from 1910–30. This outward-extending canopy features open-air and glass-sheathed sections

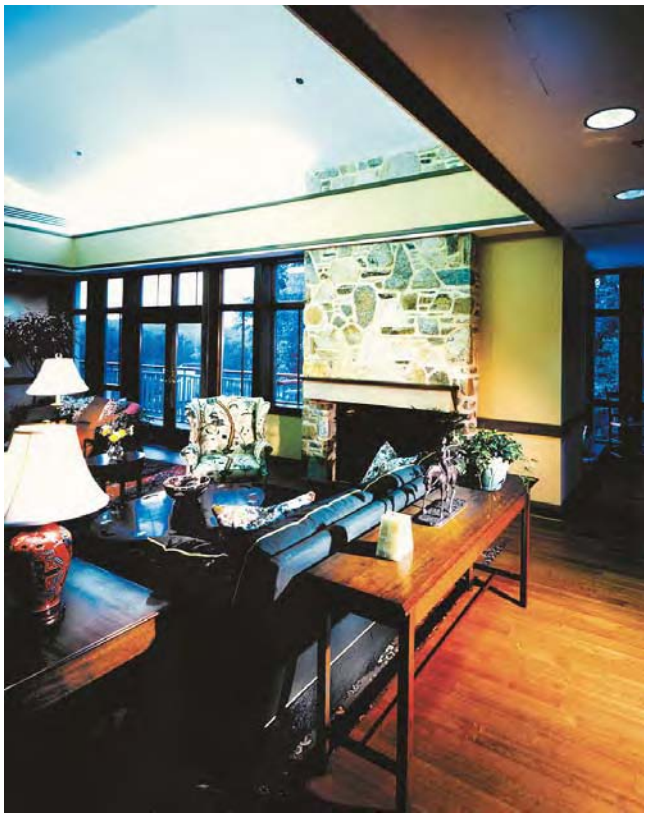




5.6.4a–b Patient bedrooms are single occupancy, with private baths. This is a very pronounced American trend and sets U.S. hospices apart from their counterparts in most other regions of the globe. The lower level houses patient and staff support functions, including a classroom, and the hospice's home health program

on the main level, with rooms situated along a double-loaded corridor, in two wings, with a nurses' station at the center. Bathrooms are located on the corridor side of the bedrooms and the bedroom doors are recessed to afford additional privacy. Eight rooms have private or semi-private balconies, with full height glass doors opening directly to the outdoors.

The arrival-reception area, administrative offices, dayroom, and the main 'living room' express a semi-formal vocabulary (Fig. 5.6.4a). Due to the slope of its site only the rooms to the open side have windows on the lower level (Fig. 5.6.4b). The large living room and its stone fireplace are used for informal gatherings and special events (Fig. 5.6.5). The chapel's vaulted ceiling, natural lighting, and sparse furnishings differ from the attributes of the comparatively formal living room (Fig. 5.6.6). The sloping site, to a large extent, precludes opportunities for patients' use. However, a winding path connects the inpatient bedrooms with one another. Inpatient rooms are provided with a ceiling fan; residential furnishings include side chairs, armoires, and laminated wood floors. Natural light is provided in the double-loaded corridors. Operable windows allow for patient-controlled natural ventilation. The hospice's composition, scale, pitched roofs, open ceiling configurations, stone masonry, French doors, balconies, skylights, fireplaces, natural materials, and elegant furnishings create a residential aesthetic (Fig. 5.6.7). In 1996, the Gilchrist Center received the AIA Honor Design Award, and an award from the National Association of Home Builders.



5.6.5 The main living room is reminiscent of a ski lodge, featuring a stone fireplace, hardwood flooring, exposed beams, views outward to the rolling landscape, and a vaulted ceiling

5.6.6 The vaulted ceiling of the chapel features a stone 'headpiece' set against a wall of windows whose small panes frame views of the exterior environs. Note the recessed cove lighting

5.6.7 Patient bedrooms open directly onto the garden and a winding brick path. As with the majority of U.S. hospices, the doorways of the ground level rooms and the adjoining exterior spaces are large enough to accommodate beds as well as wheelchairs

7 Sun Health Hospice, Phoenix, Arizona

ARCHITECT: Taliesin Architects, Scottsdale, Arizona. Stephen Nemtin, Project Architect
CLIENT: Sun Health Corporation, Phoenix, Arizona
CONSTRUCTION: Reinforced masonry, stucco, glass, steel, canvas canopy in courtyard
COMPLETED: 1997
INPATIENT BEDS: 12
SITE/PARKING: 3.1 acres/24

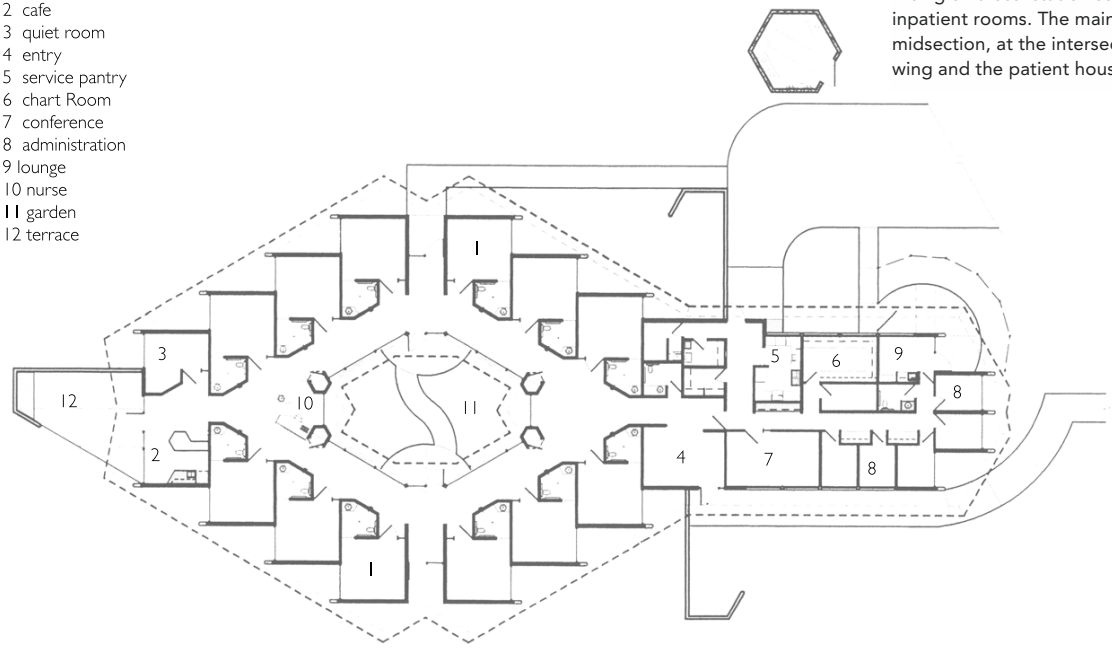
This hospice, located on the campus of an Alzheimer's Care Centre in a suburb of Phoenix, expresses the severe horizontality of its semi-arid desert site, and its materiality. It is exemplary in terms of its critical regionalism. An informal scale is achieved through the building's low-slung silhouette: it functions as a counterpoint to the vast desert sky of the American Southwest (Fig. 5.7.1). The imagery evokes the indigenous residential dwellings of the desert region, through the use of stucco, and compressed roofs with extended eaves. Maximum shading from the intense sunlight is achieved through the orientation, rhythm, and proportioning of the window apertures. This was done in order to conserve energy, and the vertical orientation of the windows simultaneously affords full height views of the ubiquitous desert landscape, with the patient able to see at once the desert floor, the myriad species of fauna, and the blue sky. The colors, specifically, evoke those of the ubiquitous desert floor. Twelve single-bed inpatient rooms are provided, configured as a diamond in plan, each with a private bath/shower room. Each patient room has space to accommodate family members for overnight stays. The bedrooms are entered from the corridor along interior glass-enclosed garden court perimeter corridors.

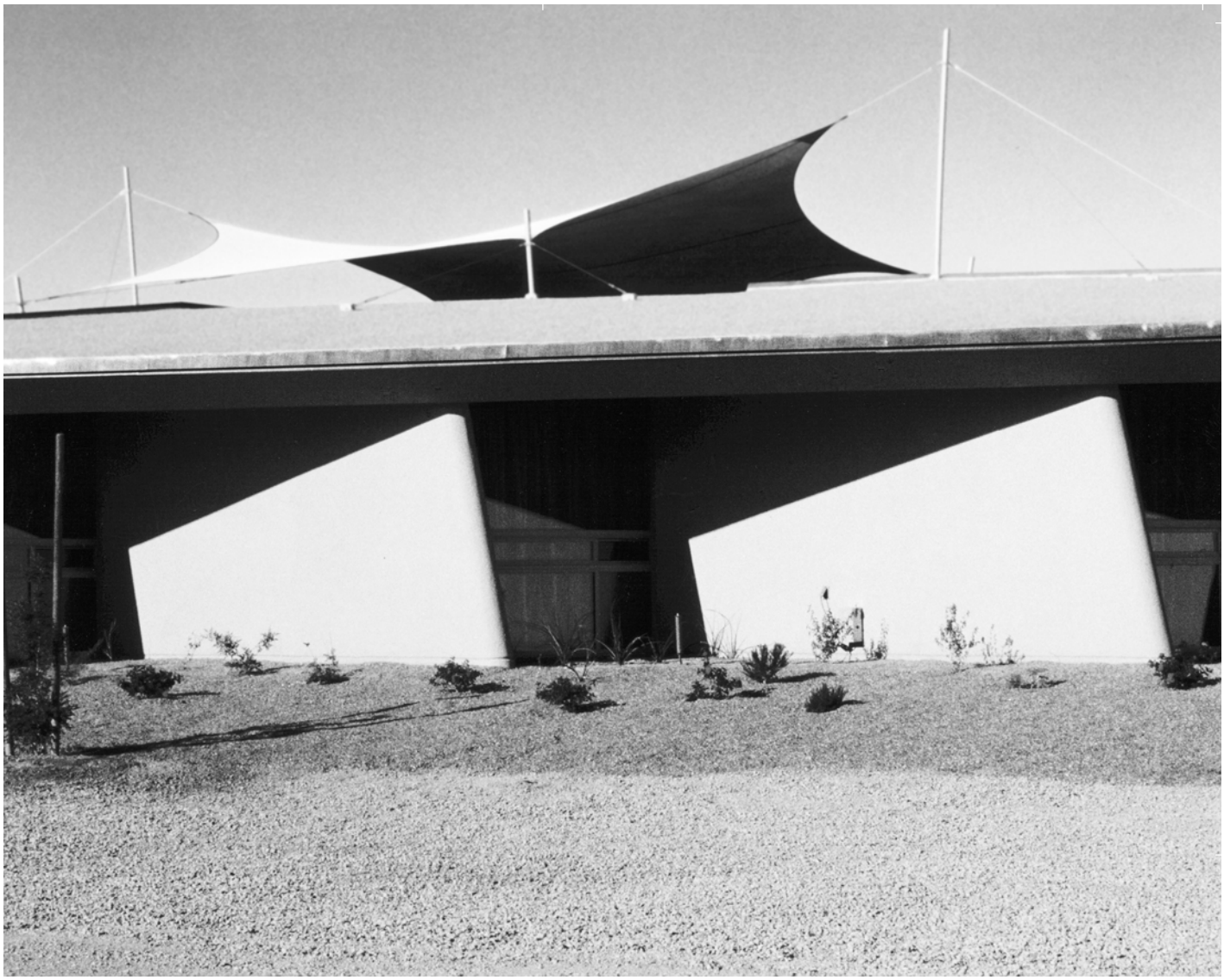
A diamond-shaped garden court, shaded by a tensile fabric canopy, is the symbolic heart of the hospice (Fig. 5.7.2). Its landscaping consists of bamboo and a variety of indigenous plant

5.7.1 Sun Health Hospice, Scottsdale, Arizona, exterior view.
Its desert context gave rise to an inventive expression of the indigenous vernacular traditions of the American Southwest

5.7.2 Triangulated in plan, connected to a support wing, the hospice is dominated by a central courtyard/atrium. All patient bedrooms are private, with private baths situated inboard, adjacent to the single-loaded corridor loop. A single nurses' station serves the twelve inpatient rooms. The main entry is at the midsection, at the intersection of the support wing and the patient housing wing

Key:
1 private suite
2 cafe
3 quiet room
4 entry
5 service pantry
6 chart Room
7 conference
8 administration
9 lounge
10 nurse
11 garden
12 terrace





5.7.3 The color and material palettes of the desert floor were integral to the hospice's architectural vocabulary. This was expressed throughout the façade, as the windows are deeply set inward behind thick masonry piers in an A/B/A/B rhythm. A lightweight tensile fabric structure with steel tension cables sheathes the courtyard/atrium, thereby encouraging patients and others to venture outdoors. The low roof profile responds to the slight amount of annual rainfall in the region as much as to the vastness of the desert landscape

species. Patient rooms open onto this space (Fig. 5.7.3). Full height glass sidelights are provided at the inpatient bedroom threshold, thereby affording the patient a view into the garden court (Fig. 5.7.4). Patient beds can be rolled out into the space. Natural wood finishes are employed throughout, and donated works of art, including a series of aerial photos of the desert landscape, are prominently displayed. The artwork is seen at first as abstract, but upon closer inspection one realizes nature is depicted in the process of self-healing (Fig. 5.7.5). A central nurses' station allows for direct access to each patient's room and transparency characterizes the relationship between this activity center and the fabric-roofed garden court (Fig. 5.7.6). No central dining area is provided: a café and adjoining kitchen are provided for family members and inpatients, free to prepare meals on an informal basis at any hour. A quiet room is provided for solace and privacy. The arrival and reception wing contains administrative and support space, including a conference room, medical offices, bereavement counseling, and a break room with a small garden.

5.7.4 Interior of the courtyard/atrium. A winding path connects two doors to the interior realm. Heightened transparency is achieved between the interior and this outdoor-indoor 'room'. This is reinforced by diffused light from above. Desert fauna, low in scale, are featured

5.7.5 View from a patient bedroom to the central courtyard/atrium, as seen from across the single-loaded corridor. Note the slope of the ceiling, the full height side window, and privacy curtain

5.7.6 A nurses' station, triangular in configuration, with charting counters and sink for handwashing. Two storage supply closets flank an open workspace. A large picture window affords visual surveillance of the courtyard/atrium. Note the full height glass along the corridor

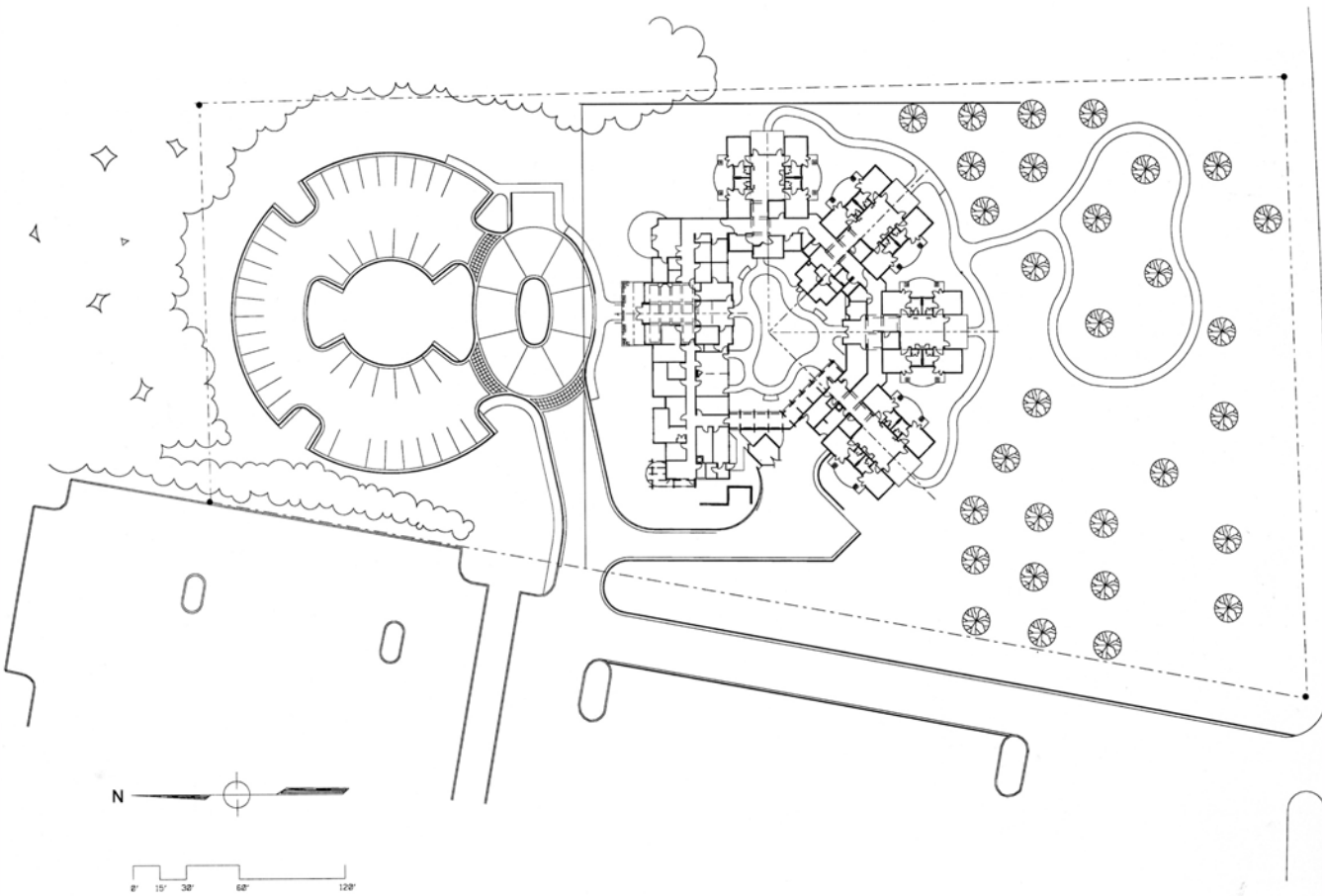
5.8.1 Hospice LaGrange, LaGrange, Georgia, looks like a rural village. This view is looking toward two of the group home residences

8 Hospice LaGrange, LaGrange, Georgia

ARCHITECT: Nix Mann and Perkins and Will, Atlanta, Georgia. Ila Burdette, Project Architect
CLIENT: West Georgia Medical Center
CONSTRUCTION: Reinforced concrete, masonry, wood, steel, laminated wood beams
COMPLETED: 1996
INPATIENT BEDS: 16
SITE/PARKING: 3.8 acres/34

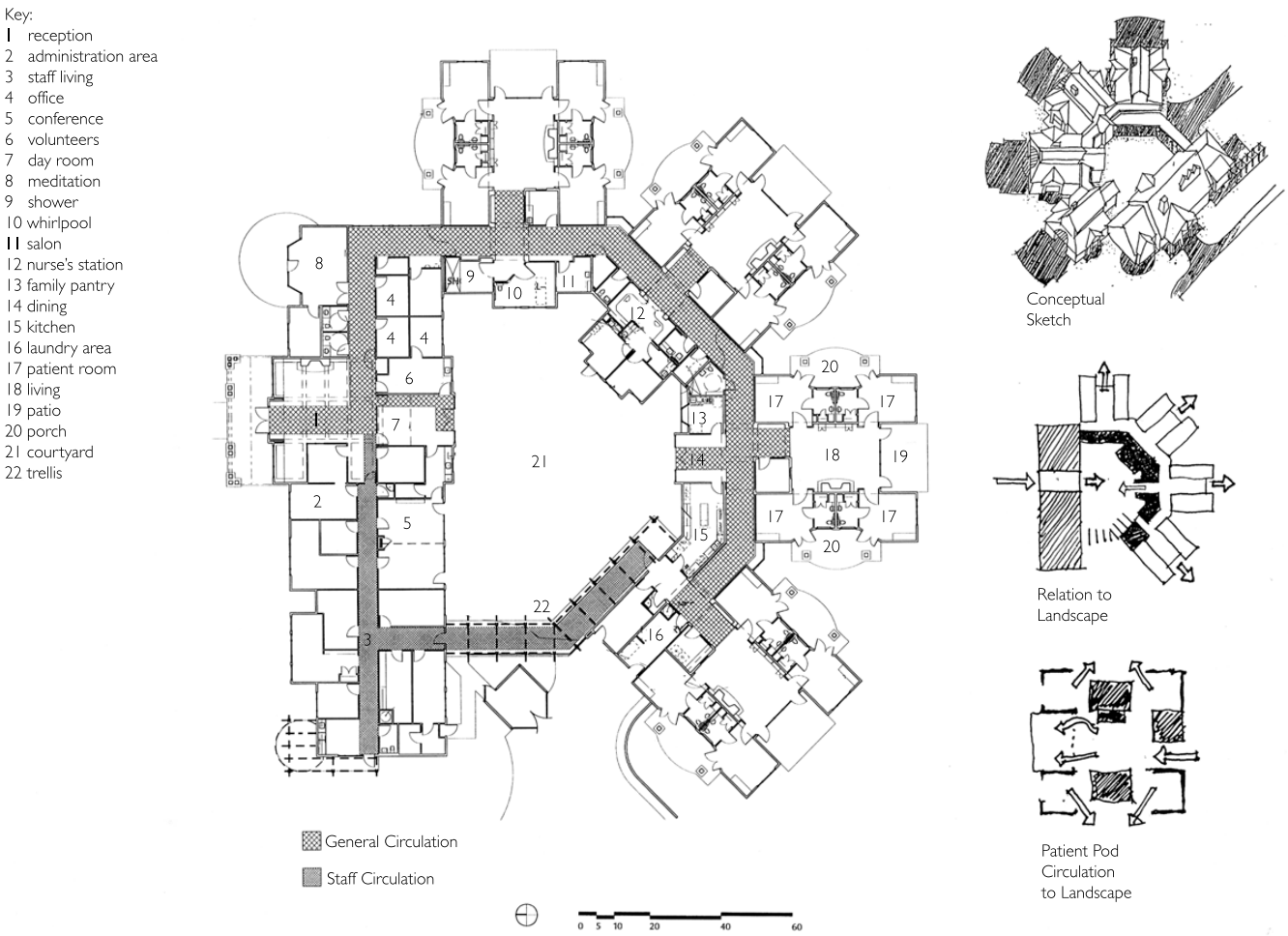
Hospice LaGrange houses a sixteen-bed inpatient hospice and a home care program. It is located on the campus of the West Georgia Medical Center. Its materiality and scale evoke the indigenous frame farmhouse structures of rural West Georgia. Exterior walls are stained cedar shingles, set atop a broken fieldstone base, with white Arts and Crafts period wood trim, and grey asphalt roof shingles. Large fieldstone fireplaces provide the focal point in the reception area and in the four living rooms. Clerestory windows, French doors, and vaulted wood beam ceilings are provided in inpatient rooms, living rooms, and in the main reception area of the administrative wing (Fig. 5.8.1). Upon arrival visitors enter the administrative wing and core social areas of the hospice, leading to a walkway connecting the four residences, which function, architecturally, as autonomous 'farmhouses' (Fig. 5.8.2).

The patient housing consists of four clusters of four beds each, adjoining a living room-dayroom (Fig. 5.8.3). These spaces have fireplaces and semi-enclosed porches quite similar to those of a typical private residence in the American South (Fig. 5.8.4). Each patient room has double doors, thereby providing access for beds to be wheeled outdoors. A trellis, planted with clematis and jasmine, reinforces the exterior spaces between the various buildings. An existing pecan grove is threaded by a wandering trail. Benches, bird feeders, wind chimes, and planting beds are provided. The long, institutional, double-loaded corridors of hospitals and nursing homes were eschewed because the architect's



5.8.2 Four inpatient units clustered around a central courtyard, connected via an enclosed circulation spine. The main arrival area is in the administration and home care program building, shown at the left. A circular drive and parking area adjoin the main entrance

site visits to other hospices revealed that dayrooms at the end of a long hallway often remained unused. In response, circulation paths are enlivened with window seats and visual connections to social activity spaces (Fig. 5.8.5). Inpatient rooms are equipped with a fold-out bed for family members' use, residential furnishings, natural materials and finishes, a sense of spaciousness, incandescent lighting, warm colors, ceiling fans, and independent thermostats. Medical gasses and oxygen outlets are concealed. Cabinets provide shelf space for books, pictures, and personal items (Fig. 5.8.6).



5.8.3 Each residence, in plan, consists of four private inpatient bedrooms configured around a living room and an adjoining porch. Each pair of bedrooms shares a second patio, with direct access to the bedroom. The inboard side of the residences houses patient support, including a kitchen and dining area, hydrotherapy room, dayroom, and laundry. A meditation room is located at the end of the administration building, with a circular outdoor patio with a screen wall. Also shown are three of the architects' conceptual diagrams, depicting the overall parti and circulation

5.8.4 (*above*) The main living room of a typical residence, with its centerpiece stone fireplace, wood mantel, color banding, high-set windows in the walls, vaulted ceiling, and hardwood flooring. Full height glass doors open onto the adjoining exterior patio. Note the absence of a television. Televisions, as is typical in most American hospices, are provided in the bedrooms and dayrooms

5.8.5 (*above right*) One of three window alcoves situated along the outer edge at the 45-degree bends in the enclosed circulation spine. The exterior view is of a typical open-air, covered, semi-private patio adjoining two inpatient bedrooms

5.8.6 Inpatient bedrooms feature a coffered ceiling, ceiling fan, built-in wall storage/shelving, a television and an audio system, plants, bedside table, and artwork. Furnishings open to convert to beds for use by family and others. As is typical in most hospices, no hospital-like beds or headboard gasses are visible. These elements are best concealed in a wall, hidden from view. Also, overhead fluorescent light fixtures are to be eschewed in free-standing hospices

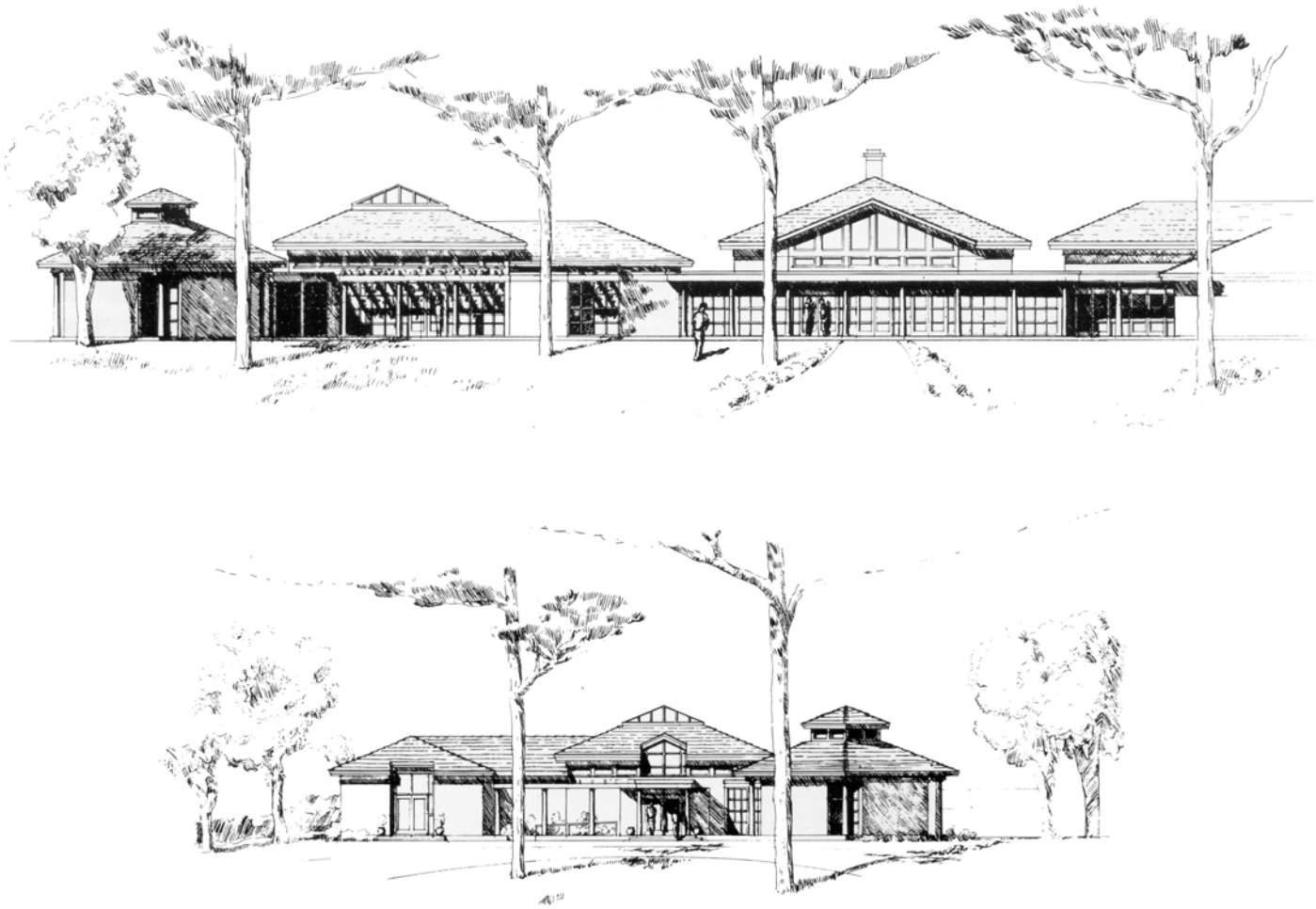
5.9.1 Hospice of the Central Coast, Monterey, California, blends in harmoniously with its wooded site environs

9 Hospice of the Central Coast, Monterey, California

ARCHITECT: Anshen & Allen Architects, San Francisco
CLIENT: Hospice of the Central Coast
CONSTRUCTION: Reinforced concrete, masonry, wood, steel
COMPLETED: 1994
INPATIENT BEDS: 28
SITE/PARKING: 4.4 acres/38

This twenty-eight-bed hospice, located two hours south of San Francisco along the Big Sur coast, opened in 1994. Situated in a tranquil forest setting, this hospice evokes a non-institutional, residential atmosphere. The inpatient bedrooms are configured as two clusters. This configuration affords privacy for patients and their families, operational and staffing efficiencies, and direct connections with adjacent outdoor spaces. The various massing and roof configurations make it appear as a collection of small, interconnected structures (Fig. 5.9.1). Large windows and vaulted ceilings are present throughout, and natural landscaping connects the building with a wooded area. Once again, the dreary institutionalism of long, unbroken hospital corridors is eschewed (Fig. 5.9.2). The parking area is subdivided into three clusters. Within the hospice, transparency is achieved through the use of large expanses of glass and connecting circulation links, which set the programmatic elements apart from one another. Several dayrooms are for use by inpatients and families. One wing contains sixteen beds, a second wing contains twelve beds.

Inpatient bedrooms are set back from one another, and each opens onto a private outdoor patio. The bath/shower room is on the inner corridor side of each inpatient room. Entrances to the inpatient rooms are similarly staggered. The nurses' station is located at the center, with staff support space and a dayroom at the end of the hall. The circulation arteries form a circular, or racetrack, pattern (Fig. 5.9.3). Administrative offices and counseling spaces are situated between the two residential wings and adjacent to the kitchen and dining areas. A meditation room is situated near to the main entrance. Daylight penetrates this space sparingly, and floor mats are provided at the center of the room (Fig. 5.9.4). The living rooms have vaulted ceilings with skylights (Fig. 5.9.5). The inpatient bedrooms have residential furnishings, a fold-out bed for family use, and glass doors opening to the aforementioned patios. The vaulted ceiling allows for a variety of lighting effects (Fig. 5.9.6).



5.9.2a–b The scale is residential, as is the palette of exterior materials

9 Parking and arrival areas lead to the main living room and dining room. These spaces lead to two patient housing wings, with patient and staff support functions situated in between, along a pair of bifurcated, double-loaded circulation spines. One circulation artery is intended for patient and visitor use, the second is primarily for staff use

5.9.4 Meditation room features narrow vertical bands of fenestration and minimalist furnishings

5.9.5 The vaulted ceiling, recessed cove perimeter lighting, and articulated ridge beam of the main living room, which also features large windows, skylights, and artwork

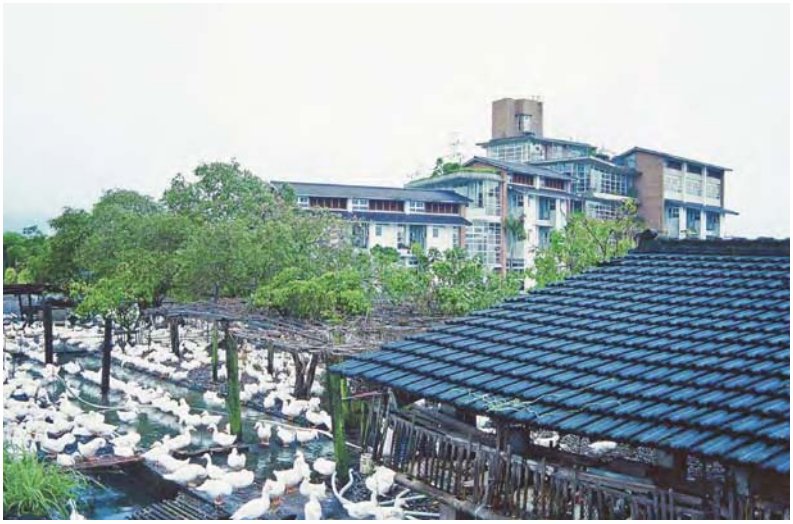
5.9.6 Typical inpatient private bedroom, with bed convertible to sofa, windows with views of the forest, a glass door to the patio, and built-in television opposite the bed

5.10.1 Chu-lin Nursing Home and Hospice, I-lan, Taiwan, exterior view. The facility is set against a backdrop of a mountain range

10 Chu-lin Nursing Home and Hospice, I-Lan, Taiwan, R.O.C.

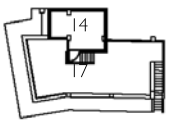
ARCHITECT: Sheng-Yuan Hwang Architects & Planners, Taiwan, R.O.C.
CLIENT: Chu-lin Nursing Center
CONSTRUCTION: Reinforced concrete, masonry, steel, glass window walls; four levels
COMPLETED: 1999
INPATIENT BEDS: 8 (hospice) + 64 long-term care beds
SITE/PARKING: 4.3 acres/35

The Chu-lin Nursing Home and Hospice, winner of an architecture design award in Taiwan in 1999, makes maximum use of its site in a small rural community. It is primarily a long-term care retirement center, but also provides a number of beds on site for inpatient hospice care. Depending on preference, and an individual's health status, patients and families who request hospice care may ask that the patient be relocated to a hospice-only suite. I-Lan is set within a rural farming region, and the local population is aging rapidly. On the road approaching this care center, passing through the rice paddies, one can view small farmhouses set against a backdrop of mountains (Figs 5.10.1 and 5.10.2). This inspired the concept of having the building express the village's progression through time, in the variously stacked and shifted levels of this five-level building. The gabled roofs of numerous duck pens and cisterns are the first structures visible on the approach to the building. The architect references these forms in various gabled roofs and exteriorly exposed ducts and pipe work on the building in reference to these traditional structures. The parti is elongated, with narrow zigzag corridors. The building's zigzag footprint is a reference to the zigzag streets of the village. The corridors widen at the center, yielding social activity space. Patients simultaneously have views of interior spaces and views to the outside (Fig. 5.10.3).

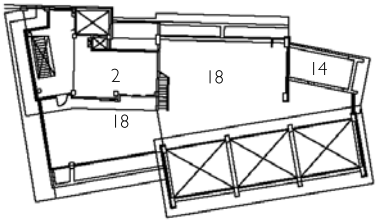


5.10.2 View of a rural agricultural landscape and agrarian building, with Chu-lin Nursing Home and Hospice in the background

Key:
1 entry
2 lobby
3 reception
4 patient rooms
5 nursing station
6 restrooms
7 locker room
8 kitchen
9 dining room
10 admistration/records
11 exercise room
12 examination
13 patio/terrace
14 service/mechanical
15 family lounge/dayroom
16 hydrotherapy/tub room
17 roof terrace
18 activity/circulation



Level 6



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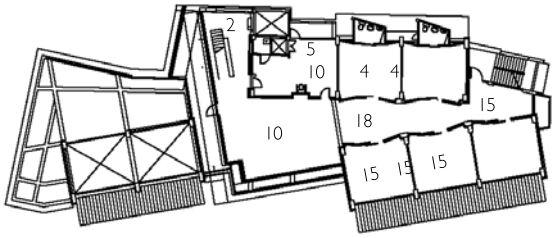

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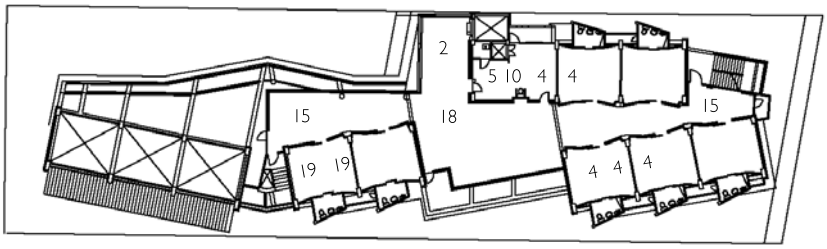
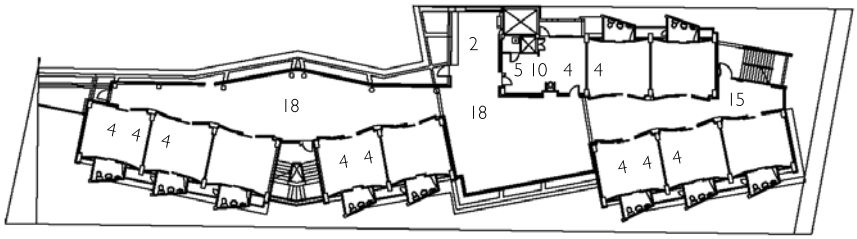
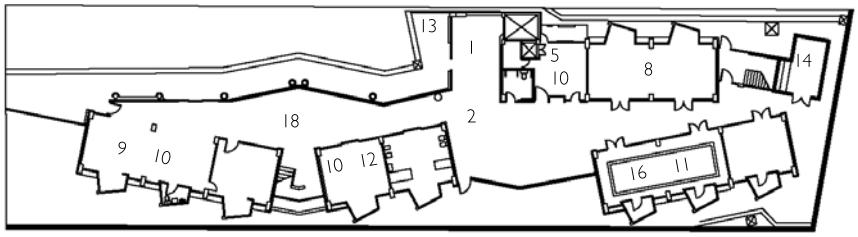


Level 3



Level 2



Level 1

5.10.3a–f Jagged, irregular floor templates evoke the nearby mountain range, and yield spatial juxtapositions throughout the six levels of the facility. The almost seismic-like deployment of rooms is perhaps most clearly discernible with respect to the large, open social activity rooms on each floor, which afford full views outward to the surrounding countryside

5.10.4 View from within a social activity room

The materials of construction are locally available. The floor plates shift and undulate on top of one another, creating shifts in room orientation, scale, shape, and spatial relationships to the adjoining outdoor terraces. On each floor, the dayroom and related social gathering spaces have east- or west-oriented full height glass curtain walls, affording views to the nearby village and the surrounding rural landscape (Fig. 5.10.4). A nurses' station is situated across from the dayroom space at the midsection of each patient housing floor. This space is separated from the adjacent dayroom by a wall and visual and verbal communication occurs via sliding glass windows adjoining the corridor. Staircases are designed to allow for unobstructed views to the exterior (Fig. 5.10.5). Each bedroom consists of three or four beds, a shared bathroom and shower, and a terrace (Fig. 5.10.6).

5.10.5 A staircase is rendered as a semi-transparent element as the result of the elimination of its risers. The views are not impeded by what would otherwise have more of a wall-like appearance

5.10.6 Exterior terraces taper and undulate in accord with the jagged irregularity of the floor templates. They appear as ship decks, replete with vegetation in planters made of concrete. The handrails, however, are redundant, as these spaces are not intended for use by residents

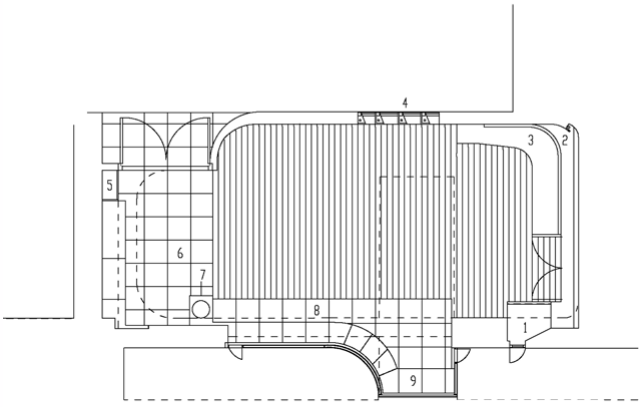
11 North London Hospice, London

ARCHITECT: dsdha, London. Deborah Saunt and David Hills, Project Architects
CLIENT: North London Hospice
CONSTRUCTION: Addition; masonry, wood, steel, etched fenestration
COMPLETED: 2002
INPATIENT BEDS: 15
SITE/PARKING: 2 acres/15

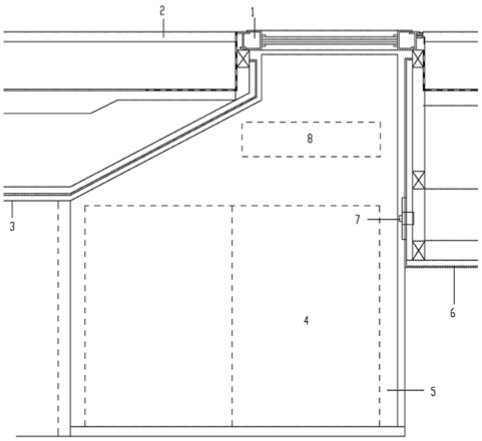
This hospice was initially built in 1985 on a very minimal construction budget in comparison to other hospices of similar size and scope of services. Low-slung and built of red brick with terra cotta tile roofs, it is modest in scale and imagery. The hospice administration wished to renovate the interior, including circulation spaces, the library, and the chapel. The renovation of the hospice's multi-faith chapel was a small project, but it served to reinvigorate the entire hospice. A minimalist, inviting, spiritually uplifting environment was created to encourage use by inpatients and their families. The main architectural intervention on the part of the architects was to create a new opening through to the internal courtyard at the center of the hospice (Fig. 5.11.1). To achieve this, a new glass-sheathed element was cantilevered into the courtyard as a means of drawing daylight deep into the interior space of the chapel and to simultaneously establish a more sustained connection with the outdoors than had existed before. This intervention contrasted effectively with the rest of the hospice, which is generally inwardly focused and dominated by a collection of small rooms. The chapel is inter-denominational, as the hospice is in an ethnically diverse section of London, and thus responds to the need for Muslim patients and families who face toward Mecca while in prayer – the correct direction is indicated by a light, recessed behind a highly nuanced 'fold' in the wall plane, where one plane appears to overlap and fold over another. Narrow, operable, vertically-oriented windows provide natural ventilation. The flooring is of laminated walnut, and tile wraps around the window seating area and throughout the adjoining library space (Fig. 5.11.2a–d).

The chapel's etched glass windows, abstract in composition, fill the volume of the chapel with daylight. Cabinets provide space for books and artifacts of remembrance. The candles placed atop a cabinet, together with the aforementioned folded planes, establish ambiance. Books on world religions are housed

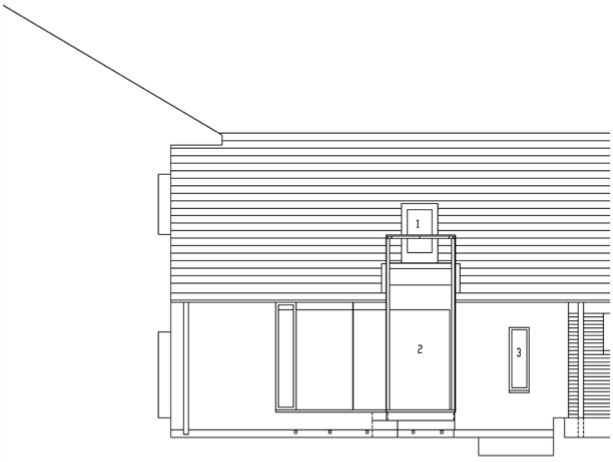
5.11.1 North London Hospice, London, U.K., courtyard. Note the stainless steel 'tree' and sculptural 'planter', and the cubist fenestration element on the building



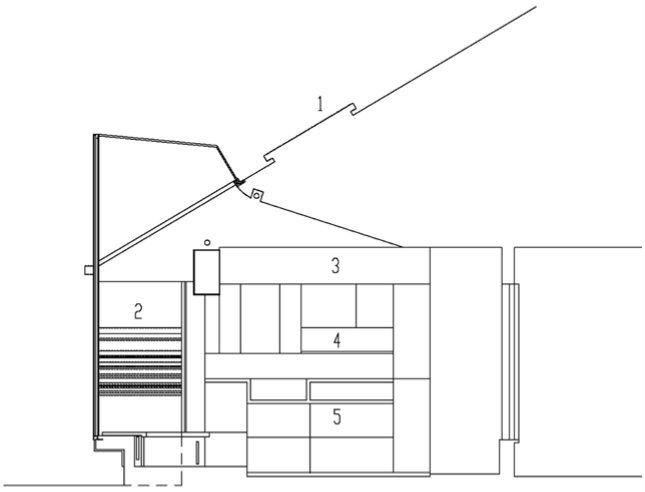
Key:
1 prayer book desk
2 light for Mecca
3 banquette
4 stained glass windows
5 Book of Rememberance
6 library
7 water feature
8 stone step
9 window step



Key:
1 W20 crittal window
2 render, 20mm and new brick wall to match existing
3 scribe, 10mm
4 Book of Prayer
5 walnut veneer on 18mm MDF to form sloped book ledge
6 plaster board, 125mm and skim on stud to line wall out to depth of column
7 MK accent 2 way light switch
8 recessed study light above



Key:
1 access hatch
2 bay window
3 prayer desk window



Key:
1 access hatch
2 bay window
3 existing beam
4 Room of Prayer
5 library

5.11.2a–d Floor plan (a), section (b), elevation (c), and interior section-elevation (d)

5.11.3 Diffused natural daylight in the library and medication room. Note the library reading materials storage wall system and book display shelving

in a library wall within the chapel (Fig. 5.11.3). A system of walnut-veneered cabinets and seating adjoins the window seating, where the winter sun can be felt on one's skin as it wraps around this space, and provides, concurrently, shelving for the library collection and other items on display, a place to rest and meditate, and concealed storage space (Fig. 5.11.4). Exquisitely detailed, the materials and finishes provide a sense of place, richness, and dignity, in a setting where three distinct realms are layered/transposed within one. The glass box, as seen from the outdoor courtyard, functions, additionally, to reactivate the courtyard. This renovation project demonstrates how an existing hospice can be improved though the reaffirmation of some of the most significant spaces within a palliative care environment.

5.11.4 Patient shown sitting next to obscured glass of the library and medication room. It is unusual for these two functions to be fused in this manner in the hospice environment

12 Maitri AIDS Hospice, San Francisco, California

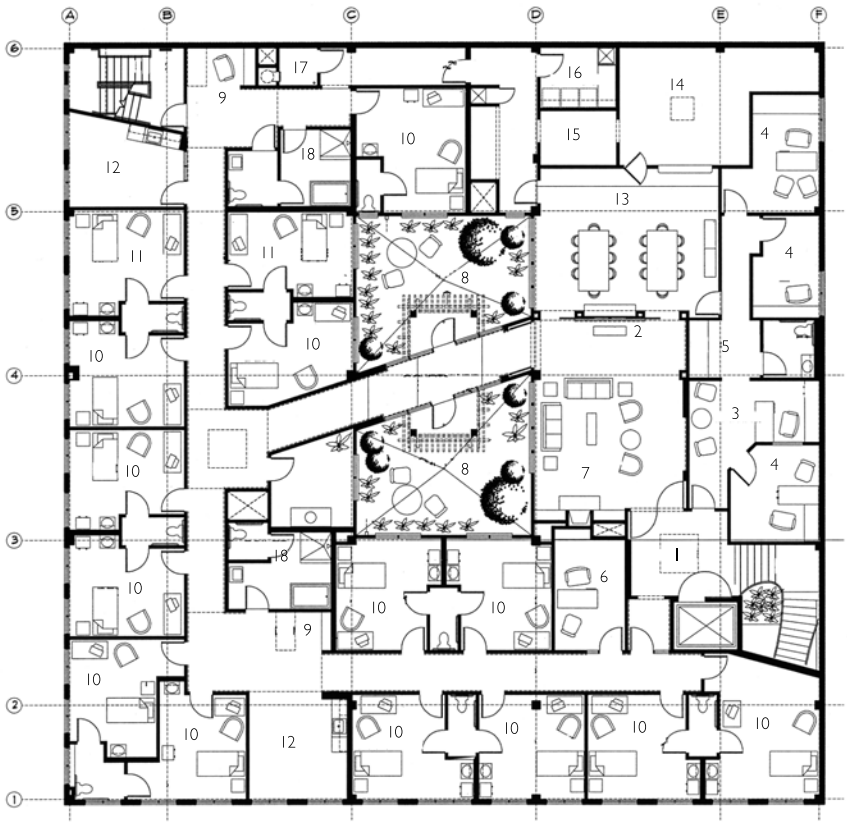
ARCHITECT: Kwan Henmi Architecture/Planning, San Francisco
CLIENT: Private Funding/Federal Housing Opportunities for Persons with AIDS (HOPWA)
CONSTRUCTION: Reinforced concrete, steel, masonry, glazed window walls (courtyard)
COMPLETED: 2000
INPATIENT BEDS: 15
SITE/PARKING: 1.1 acres/on-street parking only

Created exclusively for persons with HIV/AIDS, the Maitri AIDS Hospice represents an adaptive use strategy. Adapted from a former auto repair garage in an urban neighborhood, this industrial structure was transformed into an autonomous fifteen-bed residence. The two-level building includes residential facilities and administration spaces on the second floor and commercial tenant space on the ground floor (Fig. 5.12.1). Its presence is virtually unbeknownst to the casual passerby; save for a red wooden arrival canopy, which projects to form a recessed vestibule with full height glass (Fig. 5.12.2). The founder of the program was a Buddhist monk who died of HIV/AIDS in 1998, and the hospice is a living legacy to his devotion to providing a residential setting in San Francisco with a focus on medical care and emotional and spiritual support. The architects opted not to radically alter the building's exterior façade. The hospice is a square in its plan configuration (Fig. 5.12.3). A stair ascends to the main level, and an elevator was installed. Upon arriving on the main (second) level, a foyer adjoins the main living room and dining area (Fig. 5.12.4). This space has windows overlooking a courtyard carved out of the center of the volume of the former auto repair garage.

A full height glass-enclosed interior corridor bisects the courtyard, thereby creating two 'outdoor rooms' of roughly equivalent size and proportion to either side,. These courtyard patios are filled with plants and flowers, cared for by the residents and volunteers (Fig. 5.12.5). One of the patios contains a fountain. Both patios have seating and a table, and both function as year-round outdoor rooms in the often-temperate San Francisco climate.

5.12.1 The nondescript commercial façade of the Maitri AIDS Hospice, San Francisco, California. Its function is identified only by the word 'Maitri' above the entrance

5.12.2 The founder of this hospice was Buddhist, and his influence is evident throughout, including in the design of the front entry. The bright red color of this traditional wood structure has become a landmark in the neighborhood

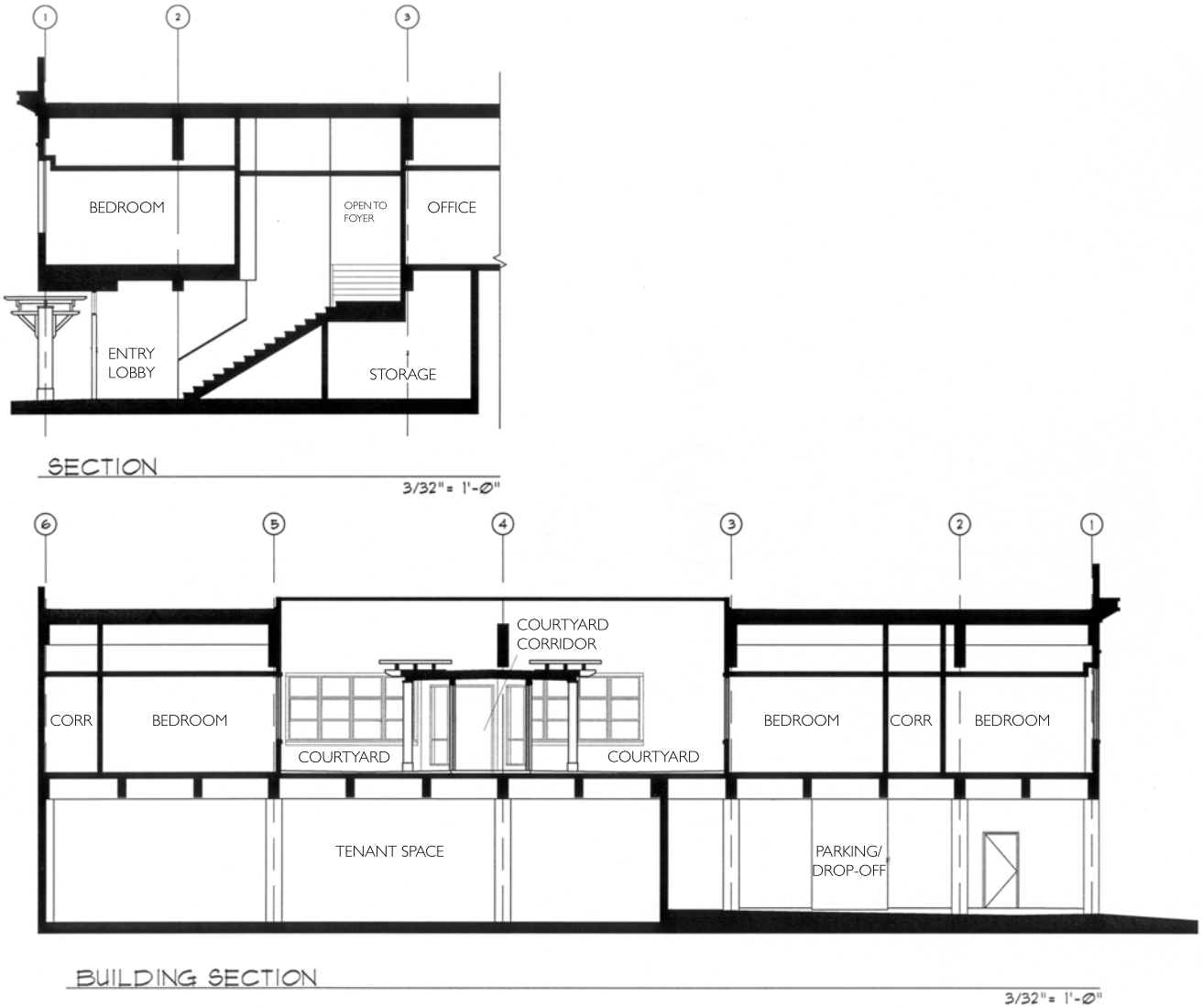


Key:
1 foyer
2 dining (counter)
3 reception
4 administration
5 seating alcove
6 administration (nursing)
7 main living room
8 courtyard
9 staff workstation
10 bedroom
11 bedroom (m/c)
12 dayroom
13 dining room
14 kitchen
15 pantry
16 laundry
17 storage
18 bath/shower

5.12.3 In plan, the main (second) level is a rectangle, with a courtyard carved out from its center. The courtyard is bisected by a diagonal interior corridor/solarium space, which joins the arrival, administration, and public spaces, including the kitchen and dining areas, with the patient housing domain. All inpatient rooms are private, although not all have private baths. Some inpatient bedrooms are located 'inboard'. Note that codes allowed for these five rooms to overlook the courtyard as a solution that complies with minimum window/daylight requirements. The courtyard is open air

5.12.4 A spacious living room overlooks the adjacent courtyard, accessed via glass doors positioned midpoint in the connecting corridor/solarium. The circulation 'connector' is composed of full height glazing. The dining and kitchen area is to the right of the living room, as viewed from this angle

5.12.5 The temperate climate of San Francisco allows for the roofscape courtyard to be used during most of the year. It is a setting for urban gardening techniques, including platform gardening. Patients and volunteers care for the vegetation. Tables are used frequently for meals and social interaction. It is possible to see through to the adjoining courtyard on the other side of the glass corridor/solarium



5.12.6 In section, storage space, and tenant spaces, located on the ground (street) level, are discernible. The roof courtyard is shown in relation to the adjacent patient housing

5.12.7 Typical inpatient bedroom

Glass doors from the corridor provide access to these highly used spaces. In section, the hospice's ceiling heights are discernible and illustrate the proportions of the adapted garage structure (Fig. 5.12.6). Beyond the living area are the dining room and kitchen, which are open in plan. Inpatients are encouraged to prepare meals independently. Administrative offices and counseling rooms are situated nearby. The fifteen private rooms for inpatients are arrayed around the aforementioned courtyard-patios. Five of the fifteen patient rooms look onto these spaces. Patient rooms are furnished with residential furnishings (Fig. 5.12.7). Plants embellish the inpatient bedrooms, and artwork is on display throughout the double-loaded corridor configuration in the patient housing realm and in the social activity spaces, including the living room, dining room, meditation room, and entry foyer. The informality and inviting ambiance of the Maitri AIDS Hospice evokes a powerful sense of a home away from home. It is an inspiring example of how a non-descript commercial building can be transformed through sheer vision and willpower into a state of the art hospice. Funding for the hospice was provided by the U.S. Federal Housing Opportunities for Persons with AIDS (HOPWA).

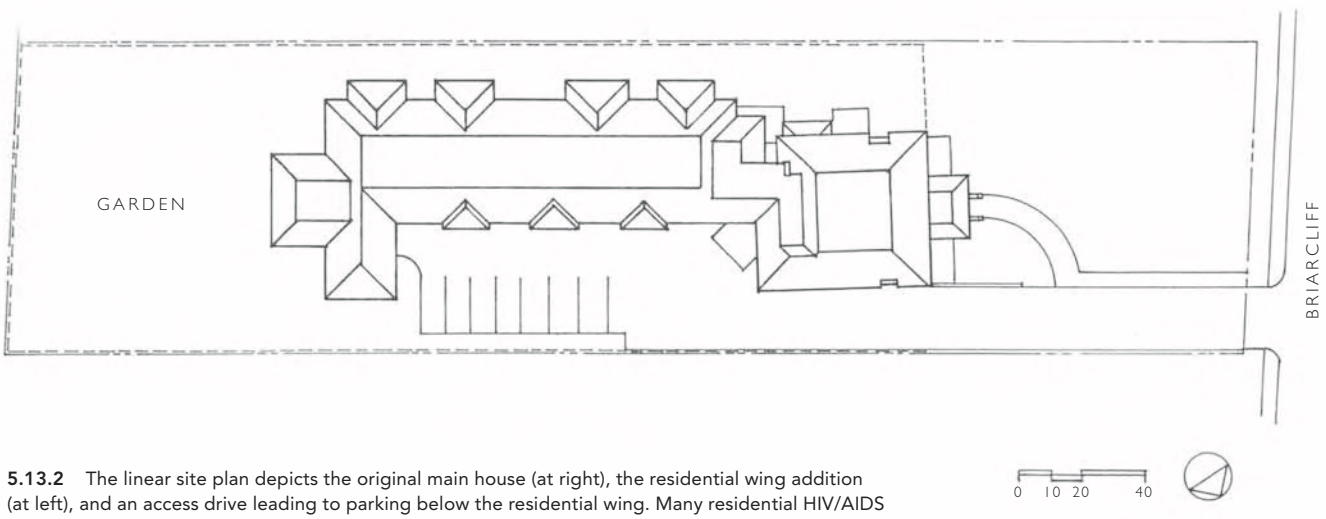
13 Jerusalem House, Atlanta, Georgia

ARCHITECT: Surber Barber Choate & Hertlein Architects, Atlanta, Georgia
CLIENT: Jerusalem House, Inc., Atlanta
CONSTRUCTION: Reinforced concrete, masonry, wood, horizontal aluminum siding
COMPLETED: 1994
INPATIENT BEDS: 23
SITE/PARKING: 4 acres/26

This hospice, established for persons suffering from HIV/AIDS, consists of a part adaptive use, part new construction strategy applied to an adapted single-family residence in the historic Druid Heights neighborhood of Atlanta. A 1,133 square meter wing was added to the rear of the residence (Fig. 5.13.1). In all, Jerusalem House, a 1,765 square meter facility, provides housing for twenty-three homeless persons with late stage HIV/AIDS, and an apartment on site for a resident manager. The three-story addition was designed to blend harmoniously with the character of the original house as well as the surrounding neighborhood and to minimize the visual impact of on-site parking requirements (Fig. 5.13.2). The house and its grounds had fallen into neglect (Figs 5.13.3 and 5.13.4). The first floor of the former residence houses administrative services and sixteen parking spaces are provided beneath the housing wing. The second floor houses the dining room, kitchen, dayroom and living room, and the new wing contains nine private rooms for residents. The third level of the original residence houses five private bedrooms in the former attic space, and the new wing houses nine private rooms (Figs 5.13.5a–c).

Each resident has a private bathroom and storage closet. Each pair of resident rooms in the new wing shares a porch, with views to the surrounding wooded area. In addition to the twenty-three private bedrooms, there are a common kitchen and dining area, living room, laundry room, and recreation room, and the administrative offices are furnished to create an inviting, comforting atmosphere. Many construction materials for the renovation and addition, and the design and construction fees, were donated or provided at reduced costs. Jerusalem House is not a traditional palliative care facility in the traditional sense because it is not licensed for Medicare or Medicaid funding reimbursement from the U.S. government. With respect to codes requirements it is classified as a special use residential occupancy, not unlike the code classification of a shelter for victims of domestic violence in the U.S. Jerusalem House was honored with a Georgia Trust Award for Historic Preservation in 1996, and by the University of Illinois's Design Matters Program in the category of Best Practices in Affordable Housing in 2001.

5.13.1 Jerusalem House, Atlanta, Georgia, exterior view of residential wing

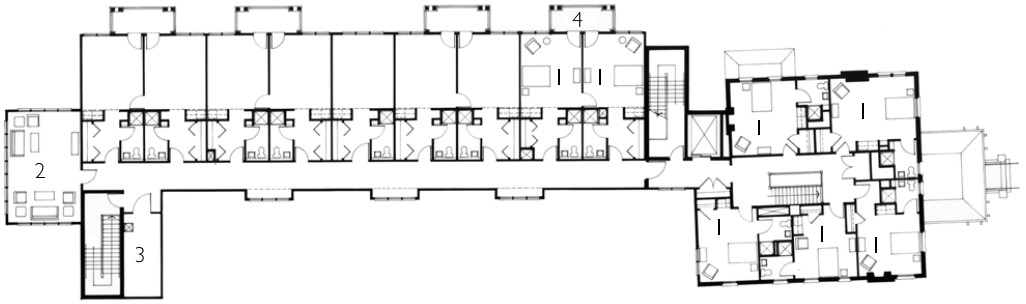


5.13.2 The linear site plan depicts the original main house (at right), the residential wing addition (at left), and an access drive leading to parking below the residential wing. Many residential HIV/AIDS hospices such as Jerusalem House must overcome stiff opposition. This facility was no exception, as it is located in an upscale residential enclave

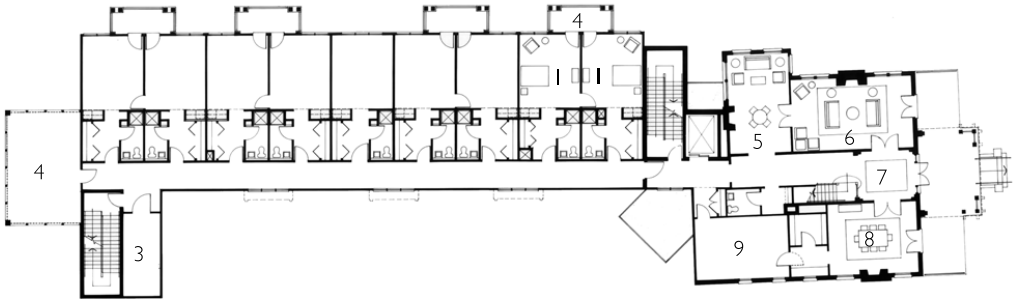
5.13.3 Rear view of exterior, prior to construction, of the residential wing

5.13.4 Jerusalem House, exterior view

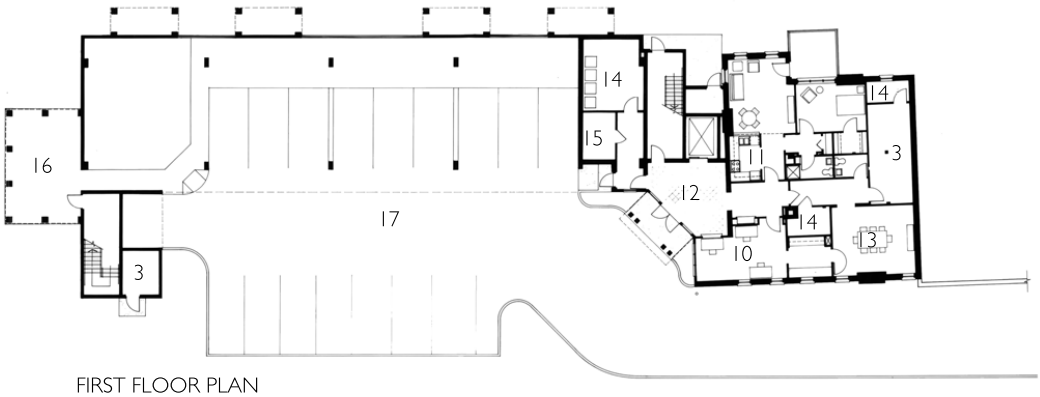
Key:
1 patient room
2 lounge
3 storage
4 porch
5 sunroom
6 living room
7 entry
8 dining room
9 kitchen
10 office
11 manager apartment
12 lobby
13 volunteer Office
14 mechanical
15 laundry
16 terrace
17 parking



THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

5.13.5a–c The parking area at grade provides accommodation for sixteen vehicles. Elevator and stair access is provided at two points: the main entry and the rear of the site. Staff support spaces are housed on this level. The second and third levels are principally devoted to residences and to residential support functions. Semi-private balconies are provided on these levels. A large porch is provided at the rear (left). Few walls in the existing former private residence were removed or relocated (right)

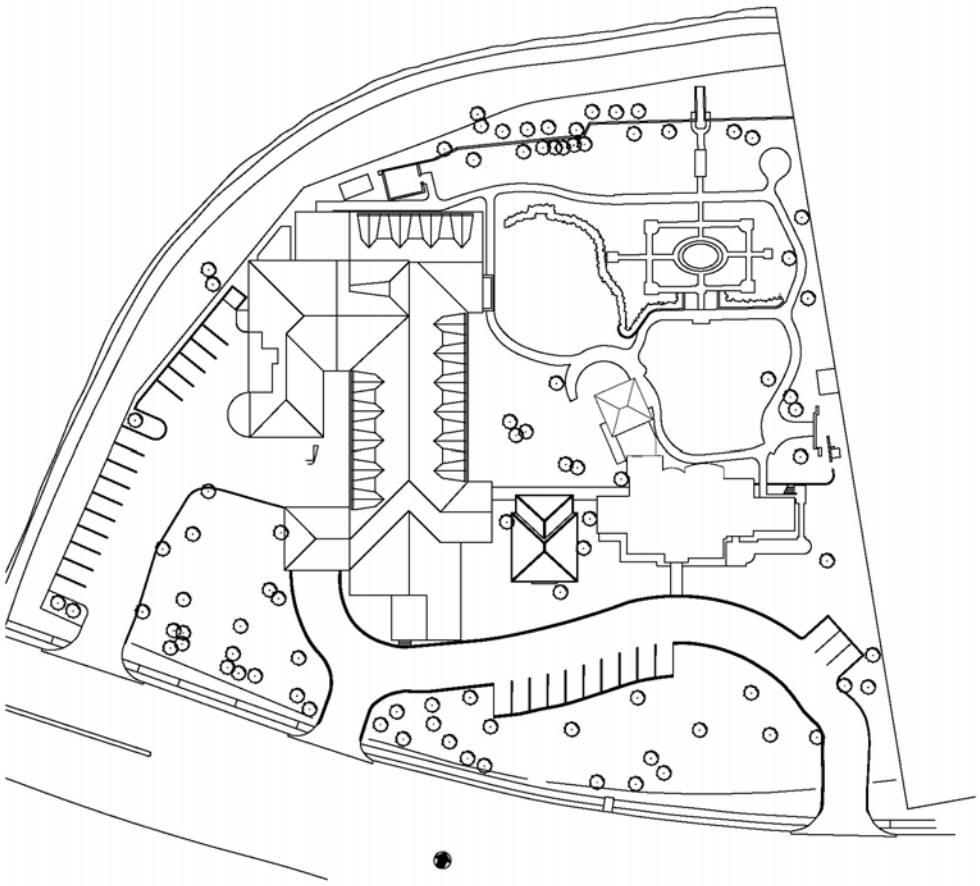
14 Houston Hospice (Hospice of the Texas Medical Center)

ARCHITECT: Graham B. Luhn, Houston, Texas
CLIENT: Hospice of the Texas Medical Center, Inc.
CONSTRUCTION: Reinforced concrete, masonry, laminated wood beams and flooring systems
COMPLETED: 1995
INPATIENT BEDS: 29
SITE/PARKING: 6 acres/40 in underground car park, 20 surface

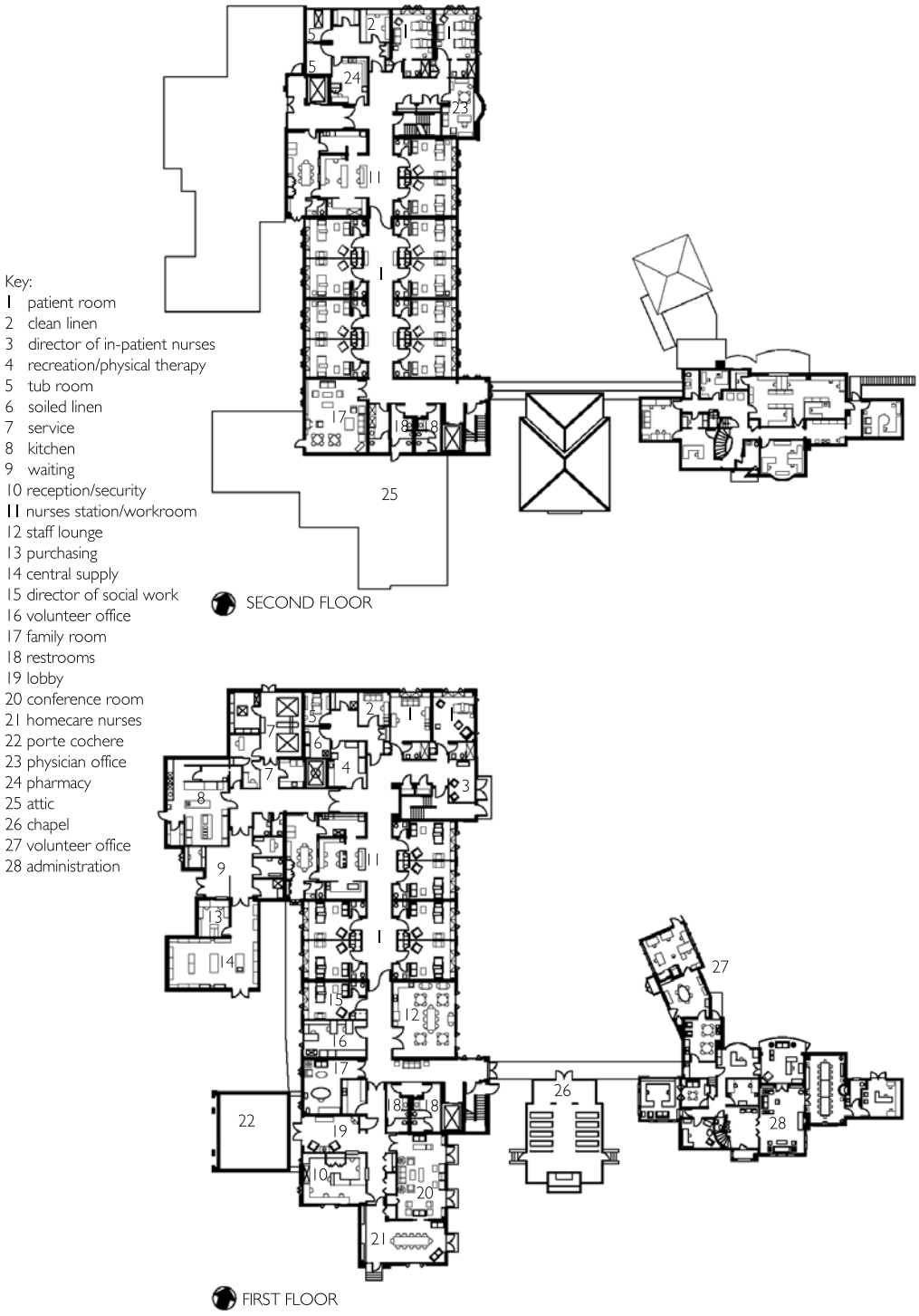
A grassroots community effort to build this hospice evolved over more than a decade. The gardens and residence of a former Mayor of Houston, Oscar Holcomb, were donated for the purpose of establishing the first residential hospice in the Houston area. The house and its landscaped gardens, built in 1927, were adapted for administrative use and a three-level inpatient building was constructed next to the former residence (Fig. 5.14.1). The residence and the inpatient building are connected via a covered open-air colonnade, with the chapel and its adjoining gardens situated at the midpoint, overlooking an extensive network of gardens (Fig. 5.14.2). The chapel is partially obscured from public view behind an undulating masonry wall. A forty-car parking garage is located beneath the patient housing building. A circular access drive is at the front of the former private residence.

The adapted residence houses administrative offices, the volunteer program, and conference rooms on the first and second levels, and unfinished shell space on the third level houses a staff break room and bulk storage space. The first floor of the inpatient wing houses sixteen private rooms, with two rooms at the far end of the floor capable of conversion to semi-private rooms, depending on census needs. The second floor houses thirteen private rooms with, similarly, the two rooms at the far end of the unit capable of use as semi-private rooms (Figs 5.14.3a–b). The nurses' station on each floor is located at the center, with staff conference, break room, and medical support space. Each inpatient floor has two dayrooms, situated at opposite ends, and counseling alcoves for informal social interaction among patients, families, and staff. Donated artwork is exhibited throughout: walls are adorned with tapestries and paintings. The doors to inpatient bedrooms are recessed and the ceilings feature recesses (Fig. 5.14.4). Residential furnishings are present throughout, and the generous size of the inpatient room allows for patients and their families to move items about as they wish. A fold-out bed for use by family members doubles as a window seat. Bookcases flank a large bay window. The color palette is soothing and each room, as is the entire unit, is furnished with carpet as a means to control unwanted sound and to create a home-like atmosphere (Fig. 5.14.5). An armoire for the storage of personal items and built-in storage closet is provided. Each inpatient room has a private bathroom. Bathing can occur bedside (as occurs in many hospice) or in a central bathing room located nearby. The gardens provide patients and families with many options of use (see Chapter 2). A winding path leading to a gazebo and azalea gardens is furnished with numerous benches situated around a fountain (Fig. 5.14.6). The many small pockets of outdoor space encourage respite and quiet contemplation. The gardens received a design award from the Texas Society of Landscape Architects in 1997.

5.14.1 Houston Hospice, Houston, Texas, exterior view. The former private residence is at foreground, a chapel to the left, and the patient housing building in the background



5.14.2 A circular access drive leads to parking at grade and also to a subterranean garage accommodating forty vehicles. The hospice is situated adjacent to a bayou. From time to time, following heavy downpours, the bayou's waters crest. The expansive, multi-faceted garden landscape is shown at upper left



5.14.3a–b First-floor plan, illustrating the three main elements of the hospice: administration building, chapel, and patient care building. A porte-cochère provides protected drop-off of patients at the main entry (lower left). The former residence houses the administration, the meeting rooms, and the volunteers program. A private garden, behind a surrounding garden wall, ensconces the chapel

5.14.4 Seating is provided in recessed pockets along the corridors. Note the artworks that line the corridor, and the modulation of the ceiling, coordinated with the positioning of doorway thresholds

5.14.5 Typical inpatient room, with small-scaled window apertures. Note the bookcases, and the sofa which transforms into a bed

5.14.6 The restorative garden at the Houston Hospice is in fact composed of five distinct yet closely interwoven domains: an imaginary 'river'; a child's playscape with a wooden train and a concrete inscription wall for use by patients, siblings, and others; open lawns and walking paths that can accommodate beds and wheelchairs; a gazebo; and flower gardens. This space has received landscape design awards and is, together with the Connecticut Hospice grounds, among the most innovative American hospice restorative landscapes

5.15.1 Canuck Place Hospice, Vancouver, B.C., Canada, exterior view

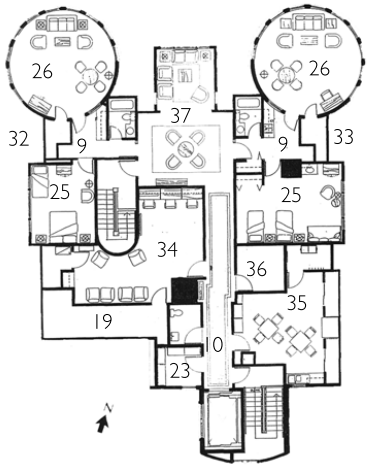
15 Canuck Place Children's Hospice, Vancouver, British Columbia

ARCHITECT: Downs/Archambault & Partners Architects/Planners, Vancouver, British Columbia
CLIENT: Canuck Place Children's Hospice
CONSTRUCTION: Masonry, steel, fieldstone, laminated wood flooring and finishes
COMPLETED: 1995
INPATIENT BEDS: 8
SITE/PARKING: 2 acres/12

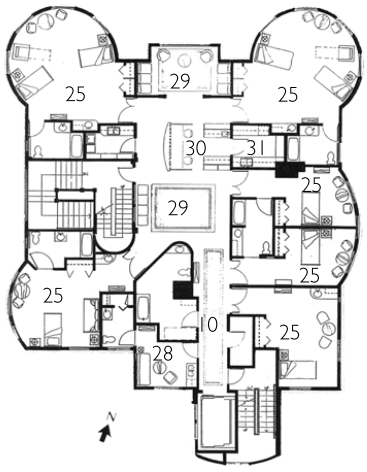
Canuck Place was the first freestanding children's hospice in North America. It is housed in an adapted early twentieth-century historic mansion, and accommodates up to eight children and four families (Fig. 5.15.1). The hospice is in an historic section of the city and its grounds now include outdoor niches and seating situated along garden paths. The residence was adapted with virtually no modifications made to the exterior. The basement level houses a laundry, hot tub room, storage volunteer's office, and accommodations for one family to stay overnight. The main (arrival) level houses the dining room, adjoining kitchen and pantry, a sunroom, administrative offices, and a living room and adjoining inpatient activity room. The grand staircase leads to the front door of the hospice and its front porch. The second floor houses four semi-private patient bedrooms; these are situated at the four corners, and two bedrooms for family use are located here as well. The central nurses' station occupies the center with adjoining activity space to either side. Its scale, materiality, and degree of transparency reject the nurses' stations typically found in hospital-based PCUs. A nurses' office and support are provided. A semi-private bathroom for family use is provided. The third level houses two large living room/dayrooms, a sitting room, a semi-private inpatient bedroom, a bathroom, a snoezlen room, a classroom for in-service training, a bedroom for family overnight use, and a social activity room. Existing bathrooms were retained where feasible and have been adapted for use by inpatients (Figs 5.15.2a–d).

The semicircular spaces on the front side of the house are furnished with chairs and sofas and have hardwood floors with area rugs (Fig. 5.15.3). The dining room and adjoining kitchen convey a strong sense of home and allow for families to prepare meals independently although regularly scheduled meals are also provided (Fig. 5.15.4). The dayrooms are located throughout the hospice and are for use as needed during the day and in the evening (Fig. 5.15.5). The patient rooms are very much, one would imagine, as if the house were still a single-family residence

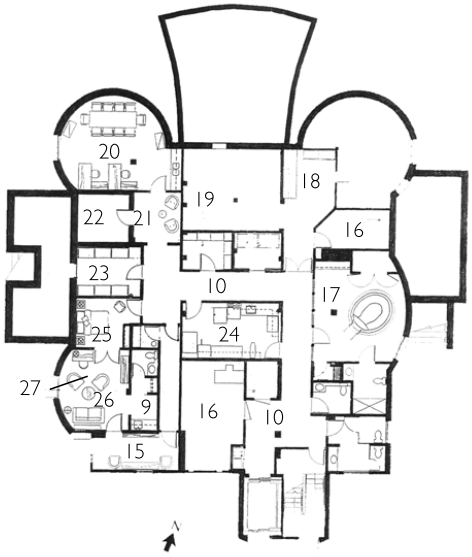
Key:
1 porch
2 entry
3 reception
4 central hall
5 administrator
6 head nurse
7 dining room
8 sun room
9 kitchen
10 hall
11 consultants
12 resident activity
13 multi-purpose
14 library
15 foyer
16 service
17 hot tub
18 shop
19 storage
20 volunteers
21 ante room
22 volcano room
23 linen
24 laundry
25 patient room
26 living room
27 garden suite
28 staff
29 play
30 nurses station
31 utility
32 west family suite
33 east family suite
34 classroom
35 physio/craft
36 snoezlen room
37 lounge



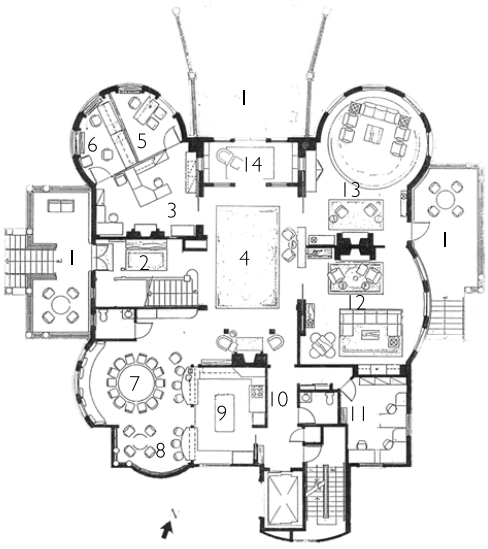
THIRD LEVEL



SECOND LEVEL



LOWER LEVEL



MAIN LEVEL

5.15.2a–d Numerous circular rooms on each level were innovatively adapted. Support, including hydrotherapy, the volunteers' program, and a studio apartment for families, is housed on the lower level; the main entry, parlor, living room, and administrative offices are on the main level; the second level houses four private and two semi-private inpatient bedrooms, a nurses' station and support; the third level houses one private bedroom, one semi-private bedroom, and support, including dayrooms and an art/music therapy room

(Fig. 5.15.6). This is Canuck Place's strongest asset – the provision of a strongly residentially-centered palliative care environment in an appropriately-scaled setting with minimal institutional interventions. In retaining the amenities of the original manor residence, a feeling of home was retained. To this end, all medical equipment is kept out of sight to the extent practicable. Canuck Place is anti-hospitalist in virtually every respect. It is a model of the transformation of an historic residence into a state of the art hospice.

5.15.3 This living room/dayroom is reminiscent of Canuck Place's days as a private mansion

5.15.4 The informal arrangement between the kitchen and the dining room is preferred by occupants. Families are encouraged to prepare their own meals

5.15.5 A playroom, albeit in need of additional furnishings, offers options of use

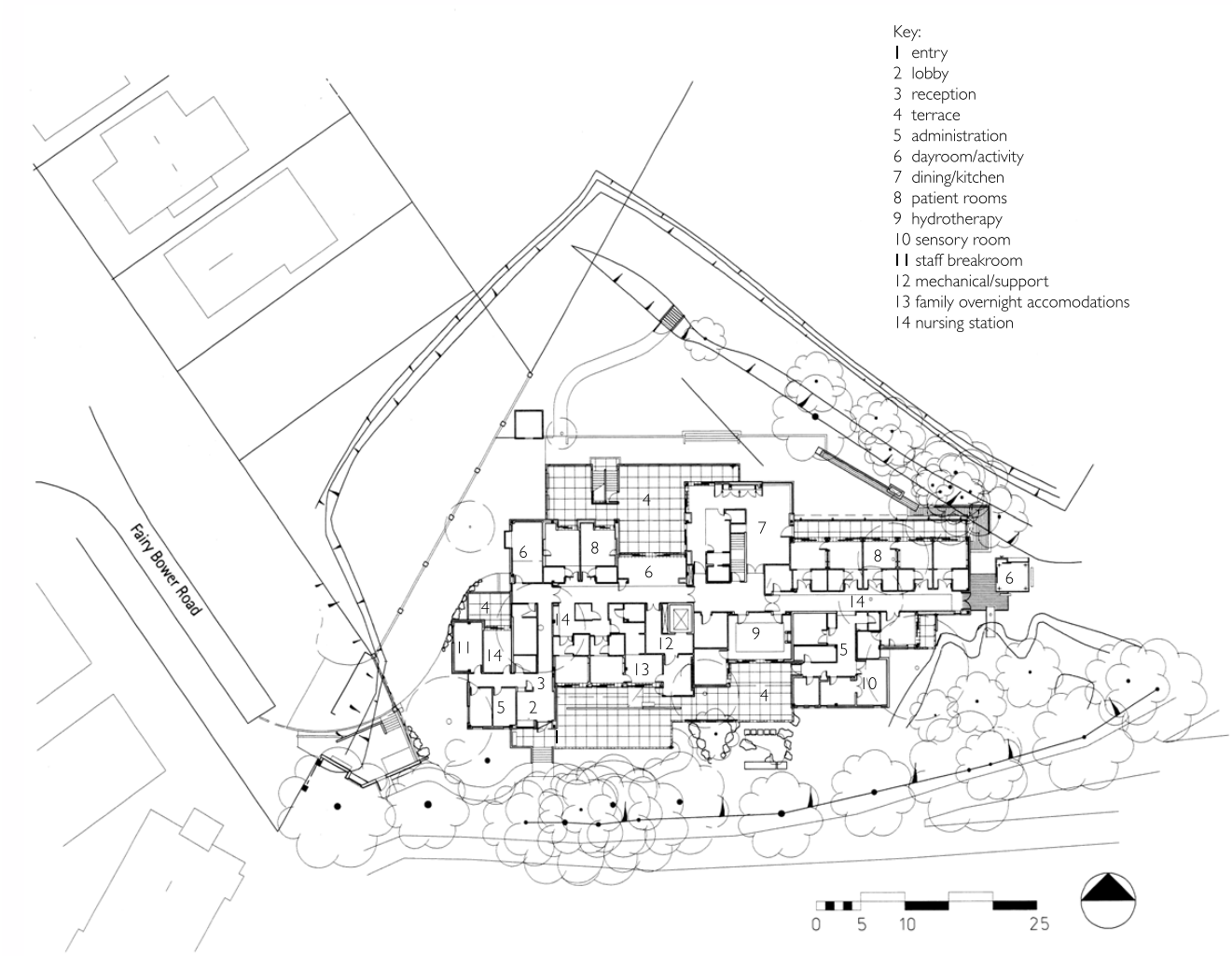
5.15.6 The circularity of this two-patient bedroom allows for fewer discrete pockets of space than would a rectilinear bedroom. Privacy curtains separate the two sides of the room

5.16.1 Bear Cottage Children's Hospice, Manly, N.S.W., Australia. Exterior view of the activity tree house

16 Bear Cottage Children's Hospice, New South Wales, Australia

ARCHITECT: McConnel Smith & Johnson, Darlinghurst and Sydney, Australia
CLIENT: Children's Hospital at Westmead, N.S.W., Australia
CONSTRUCTION: Reinforced concrete, steel, masonry, stucco, laminated wood beams, flooring and finishes
COMPLETED: 2001
INPATIENT BEDS: 10
SITE/PARKING: 2.1 acres/22

Bear Cottage was New South Wales's first children's hospice, located in the coastal resort community of Manly. Respite and end of life care are provided for children and young people, and their families, on the grounds of the historic St Patrick's Estate. A palliative care program was founded in 1995 and this provided impetus to create an inpatient 'beach house' facility. The hospice has ten inpatient bedrooms, each named after a local beach. A quiet room, resembling a tree house, allows for contemplation and is used for counseling. This space is autonomous, accessible via a wood deck bridge on the second level (Fig. 5.16.1).



5.16.2 Ground floor plan/site plan. A variety of screen walls provide shade and privacy. Two broad terraces allow for indoor-outdoor connectivity. The dining/kitchen and hydrotherapy rooms are at the center, flanked by two wings

5.16.3 The terraces read as decks, in elevation. A similar effect is achieved on the second level, with respect to the balconies adjacent to the inpatient bedrooms

5.16.4 Broad roof eaves shield the interior spaces from excessive sunlight, providing protection while in use by patients and families. Horizontal louvers are visible in the foreground

5.16.5 Exterior view, looking toward an historic building atop a hill. The hospice's massing is decentralized, and the recessed fenestration affords shade, shadow, and privacy

The two-level building is set into its sloping site. Five inpatient bedrooms and related support spaces constitute one cluster of spaces, the main living room and dayroom a second, administrative offices a third, and overnight quarters for families a fourth. Two terraces with connecting exterior walkways serve both as balconies and as a means of entering any of the five clusters without passing through a single main entrance, as is typically the case in a hospital (Fig. 5.16.2). Its residential imagery is reinforced by provision of the covered terraces adjacent to patients' bedrooms (Figs 5.16.3–5.16.5). The meditative tree house is connected to the outdoor bridge/terrace and is used by inpatients and families. Connections to its wooded site are attained by means of visual transparency from within (Fig. 5.16.6). Each patient bedroom has a private bathroom and residential furnishings. Overnight accommodation is provided for families in the inpatient room, as sofas convert into beds. Some patient bedrooms have interconnecting doors, allowing for two adjoining rooms to effectively become one. Medical gas and oxygen fixtures are concealed behind natural wood panels.

An activity room is provided for arts and crafts projects, and there is a central living room. A game room houses a pool table, Playstation console, and music system. The kitchen is adjacent to the dining room. The spa room allows family or staff members to assist the child in the spa using a hoist device, if needed. Horizontal louvered windows and natural stained-wood floor, walls, and ceiling planes are used throughout as a means of drawing in the exterior environs (Fig. 5.16.7). A multisensory room provides for therapeutic stimulation to counter sensory deficits, with equipment to stimulate sight, hearing, and touch. This room is used for relaxation therapy. With its lights, colors, and sounds it is also popular with siblings, and they and inpatients use it for social activities. Two autonomous family efficiency apartments are provided, each with two bedrooms, kitchenette, living/dining, and bathroom. A laundry room is available for family use. A children's scale restorative garden is to the rear of the house, with multisensory equipment including light, sound, and smell-based therapy amenities. This area also houses the shelter for Bear Cottage's canine mascot.

A broad deck connects the activity room/tree house to the mother ship. Its transparency, relationship to its wooded site, and minimalist vocabulary were innovations

The hydrotherapy room, with louvered windows and screens

5.17.1 George Mark Children's Hospice, San Leandro, California, exterior

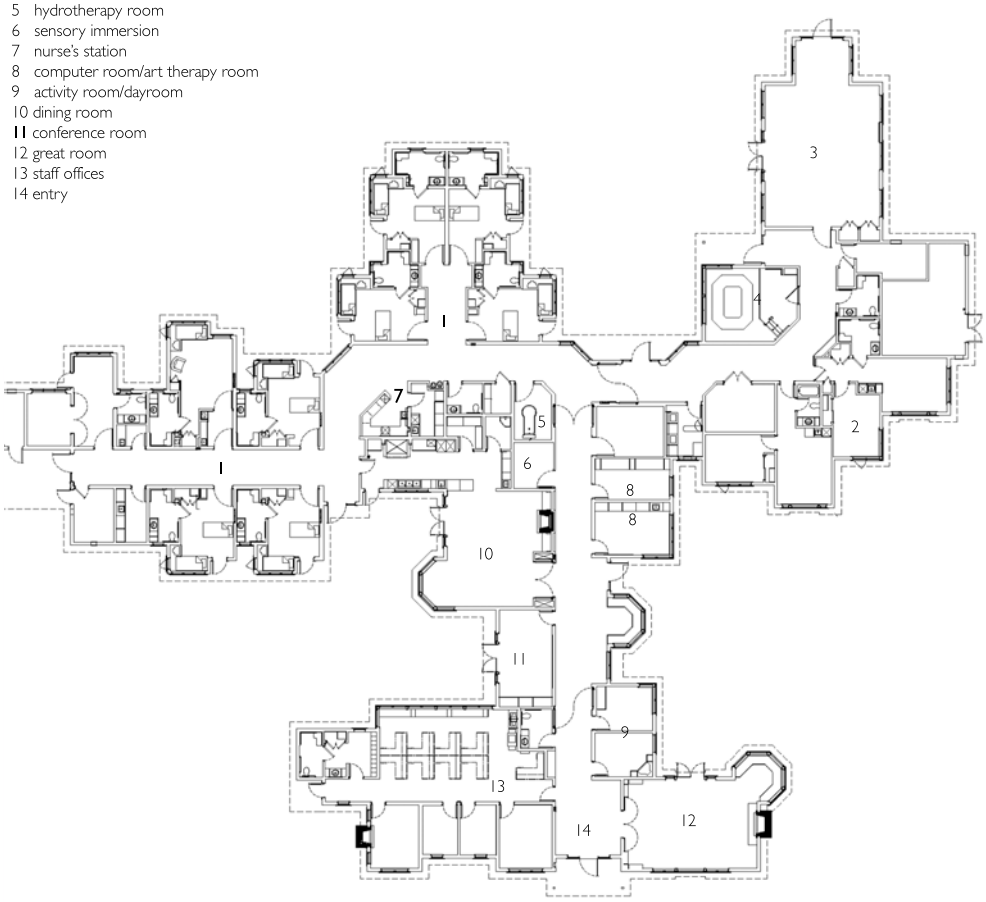
17 George Mark Children's Hospice, San Leandro, California

ARCHITECT: Remick Associates, Architects Inc., Oakland, California
CLIENT: George Mark Children's Hospice
CONSTRUCTION: Reinforced concrete, masonry, horizontal aluminum siding, laminated wood finishes
COMPLETED: 2003
INPATIENT BEDS: 8
SITE/PARKING: 6.4 acres/35

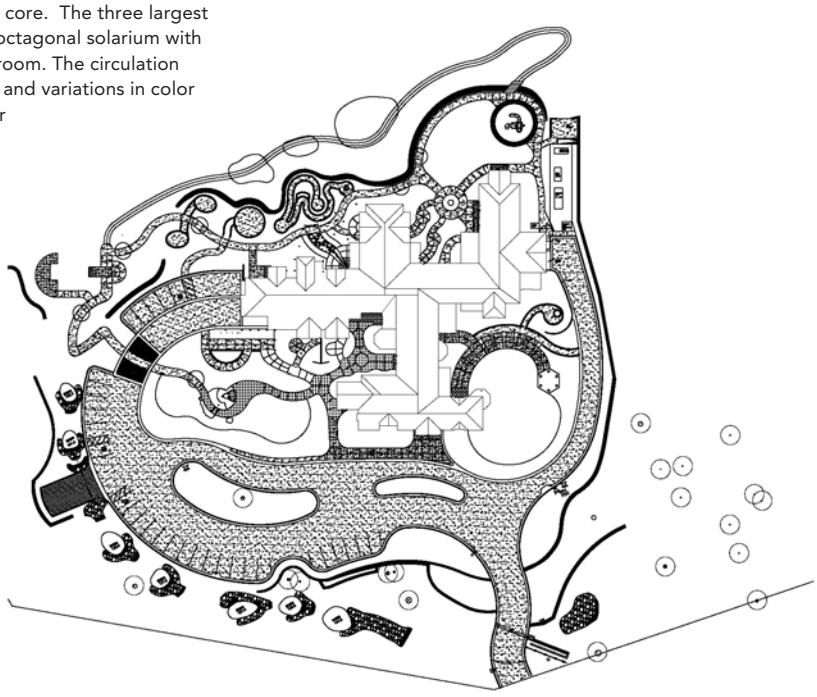
This was the first children's hospice in the United States, and is located across the bay from San Francisco. George Mark is a one-level inpatient care hospice. Its exterior is sheathed in horizontal wood-appearing aluminum siding, with residential windows, and these elements, together with the silhouette evoked in its articulated roofs, are of the same vocabulary as single-family residences in the surrounding community (Fig. 5.17.1). Eight inpatient bedrooms are arranged in two clusters, connected to the main circulation spine. Each bedroom has a private bathroom and storage. The parti consists of a central entry axis, a large living room, and administrative offices. This latter area also houses the staff kitchen/break room, conference room, and records room. The corridor leads to the kitchen and the dining room, a quiet activity room, a 'loud' activity room, the nursing station, and the hydrotherapy room. Two wings are situated to the left of the nursing station, and one to the right. The former houses the eight patient bedrooms. The corridor to the right leads to apartments for three families, a spa room, and a large play/multipurpose room. The site slopes gently and the temperate local climate invites use by patients and their families (Fig. 5.17.2). Walkways connect the residence with a freestanding chapel, a kennel area for the sheltering of family pets, gardens, a rock waterfall, and the adjacent parking area. The hospice is approached via a winding drive leading to a porte-cochere (Fig. 5.17.3).

Interior circulation is interspersed with windows, which transmit natural daylight and provide views to the rolling landscape. Original murals adorn the walls of meditative and 'active' spaces. Window seats are located in alcoves off of circulation paths. The main living room has a fireplace, and a solarium room with three-quarter wraparound window seating. Wood trellis, the garden, and a path wind around a waterfall appearing as a natural rock outcropping (Figs 5.17.4 and 5.17.5). The chapel, located at the

Key:
1 patient rooms
2 family apartments
3 activity center
4 spa room
5 hydrotherapy room
6 sensory immersion
7 nurse's station
8 computer room/art therapy room
9 activity room/dayroom
10 dining room
11 conference room
12 great room
13 staff offices
14 entry



5.17.2 In plan, three decentralized congregate residences are supported by an administrative/arrival wing, and a staff and patient support core. The three largest rooms are the main living room, with fireplace and cutout octagonal solarium with window seats, the dining room, and the children's activity room. The circulation arteries are punctuated with views of the site, clerestories, and variations in color and finish. Note the numerous access points to the exterior



5.17.3 A rolling site allows for views of the landscape. Parking is centralized near the main entrance, and a stable/kennel structure is provided for families who elect to board their pets on-site while in residence (upper right)

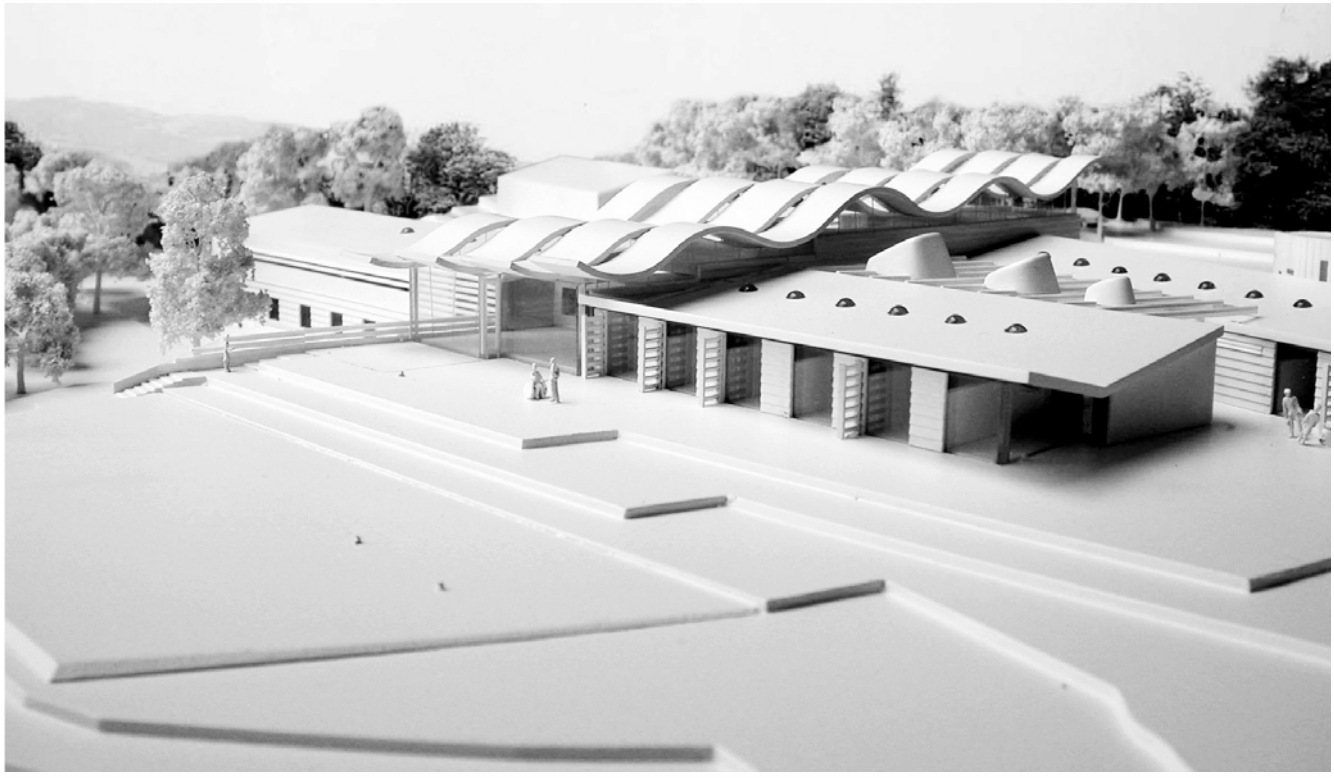
5.17.4 (*top*) Trellises provide shade. Seating is provided outdoors, and the garden is next to this area

5.17.5 (*bottom left*) A rock-waterfall constructed on the grounds

5.17.6 (*bottom right*) Wayfinding amenity, indoors and out, is excellent. A wood frame chapel is located at the edge of the site. It evokes the imagery of an early nineteenth-century Calvinist church

5.17.7 Inpatient room. Each bedroom contains an original mural, unique in theme, and a full height exposed ceiling. Sofas convert to beds, and patios adjoin the bedrooms. The variety of bedroom configurations, and their relationship to the site, contribute to George Mark's innovativeness

far edge of the site, evokes rural Pentecostal chapels (Fig. 5.17.6). The inpatient bedrooms have full windows and a seating area is provided. The ceilings are of wood beams. Above the wainscot, a colorful hand-painted mural, depicting nature, or a scene from children's literature, adorns the wall. The flooring material is laminated wood, and a door with full-height glass affords direct access for the bed to be transported outdoors (Fig. 5.17.7). George Mark, with its dramatic site context, architectural imagery, and animated, human-scaled interior, set the standard for freestanding children's hospice environments in the U.S.



18 Robin House Children's Hospice, Balloch, Scotland

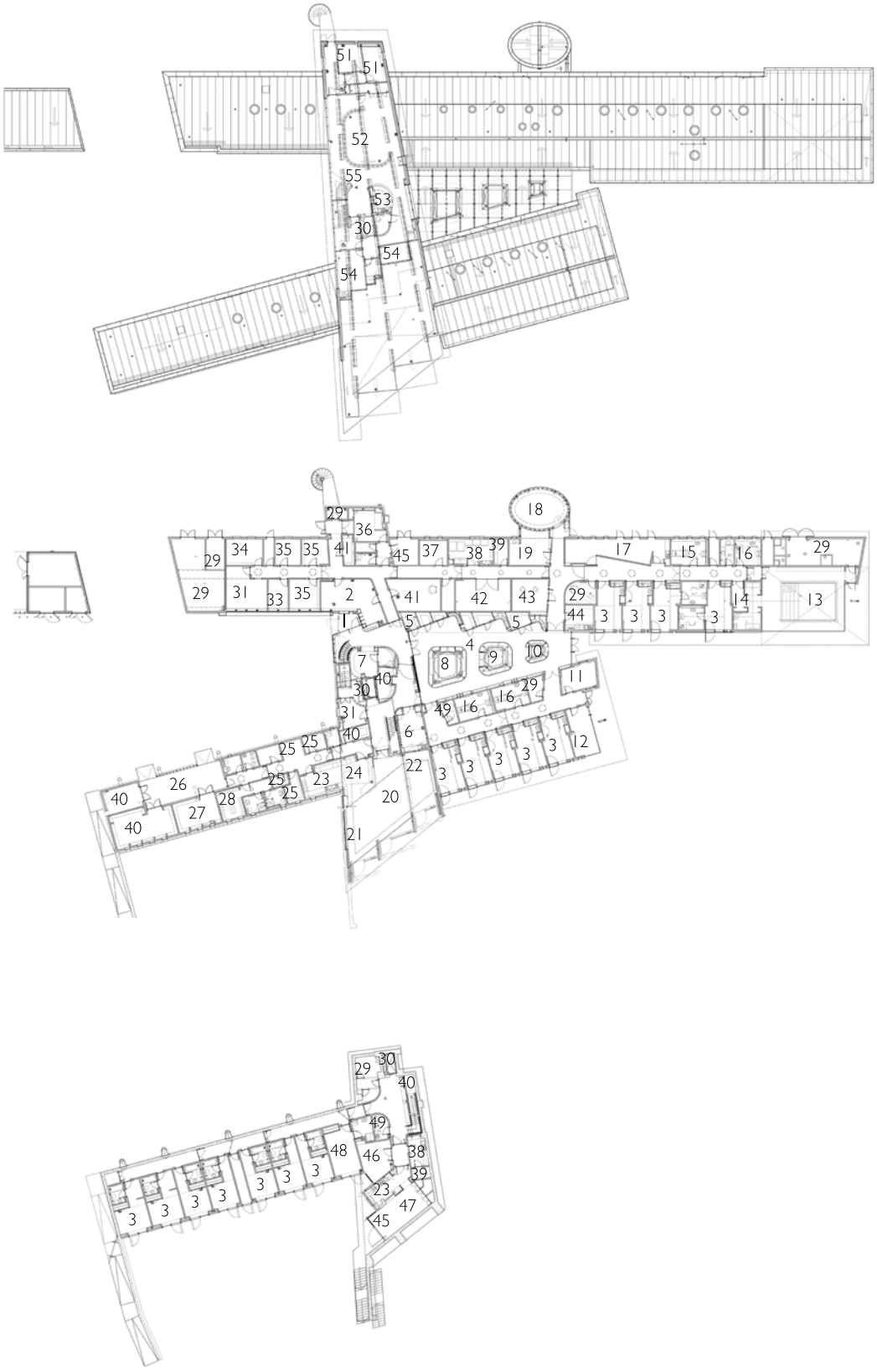
ARCHITECT: Gareth Hoskins Architects, Glasgow, Scotland
CLIENT: Children's Hospice Association Scotland (CHAS), Scotland
CONSTRUCTION: Reinforced concrete, steel, masonry, corrugated aluminum ceiling, laminated wood flooring and finishes
COMPLETED: 2005
INPATIENT BEDS: 10
SITE/PARKING: 6.0 acres/40

Gareth Hoskins Architects won a competition in 2000 to design the second children's hospice built in Scotland. The client organization, the Children's Hospice Association of Scotland, opened its first hospice in 1996 in Kinross. Robin House is located on a sloping site in the midst of rolling agricultural land within the boundary of the new Loch Lomond National Park. An orchard, restorative garden, and livestock area reinforce its rural context and relation to nature. The hospice provides care for nine children and their families, and an at-home care program. The building is composed of two linear *bandwidths*, an elongated two-level band, and a second band of somewhat shorter length. These elements are obliquely positioned in relation to each other. A central or core axis splays, or bisects, these into four wings and a central semi-enclosed court, with the main entrance at the midpoint: this third element originates exteriorly and runs lengthwise. The hospice offers a warm and inviting atmosphere, yet is modern, animated, and engaging to the child. The main part of the hospice is single level with a wood exterior façade. Through the main entrance and dayroom spaces an organic waveform roof cascades, thereby creating vibrant interior day activity spaces. The splayed core axis roof is framed in undulating steel beams running lengthwise, establishing a playful silhouette against the sky (Figs 5.18.1 and 5.18.2).

Staff accommodations include two overnight suites for family use, and two bedrooms for staff use, with a shared kitchen in between. Seven apartments for families are provided apart from the inpatient bedrooms, each with a private bath/shower. A bereavement room, chapel, and quiet room are each given an identifiable image (Figs 5.18.3–5.18.5). The sections through a patient housing wing (Fig. 5.18.6a) and the hydrotherapy room (Fig. 5.18.6b) illustrate the splayed roof and roof drain system, and the animated interior ceilings. In the family apartments on the lower level the corridor is single loaded, whereas on the main level, a bath/shower and a hydrotherapy room are situated across the hall from inpatient rooms. A central nurses' station is situated at the center. Circles, ellipses, and abbreviated ceiling heights are deployed around the aforementioned courtyard and playrooms.

5.18.1 (*top left*) Robin House Children's Hospice, Balloch, Scotland. The animated roof establishes a playful rhythm, as shown in this construction photo

5.18.2 (*left*) The roof floats above the building, an almost river-like current of glass, in juxtaposition to the two wings, which bisect the main body, or torso, of the parti, as depicted in this photo of a model of the hospice



Key:
1 entry/lobby
2 reception/general office
3 patient room
4 play area
5 toy storage
6 messy play area
7 cone 1-wating area
8 cone 2-soft play area
9 cone 3-snoezelen room
10 cone 4-children's snug
11 music/video
12 library
13 hydrotherapy
14 dry changing
15 arjo bath
16 assisted shower
17 teenager's den
18 quiet room
19 multi-therapy
20 family area
21 family dining
22 snug area
23 kitchen
24 beverage area
25 food storage
26 covered service bay
27 workshop
28 staff locker area
29 mechanical/services area
30 elevator
31 interview/meeting
33 volunteer coordinator
34 gr./social w/home support
35 offices
36 bereavement room
37 chaplain
38 laundry
39 linen storage
40 storage
41 administration storage
42 bed & equipment store
43 healthcare team base
44 prep room
45 lounge
46 smoking lounge
47 dining room
48 accessible patient rm/bath
49 housekeeping
50 study space
51 seminar
52 servery/prep area
53 staff bedroom
54 breakout space/circulation

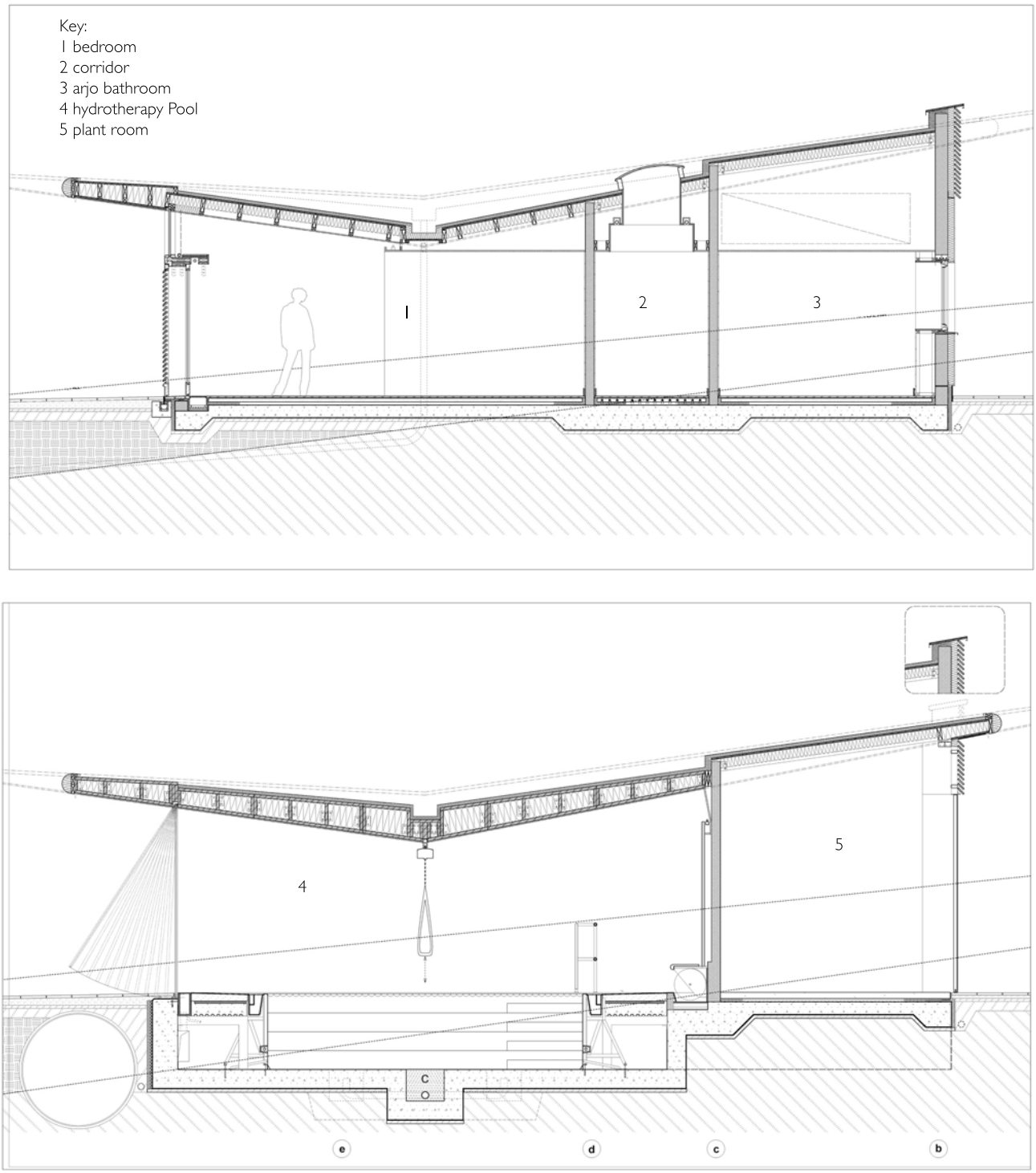
generator
garden storage
medical gas storage

assisted bath
raised fixed bath
staff bedroom
47 visitor staff

5.18.3a–c Two wings are splayed at oblique angles relative to the core arrival sequence and activity spaces. An adjacent outdoor courtyard connects the two patient and staff support wings. Note the eye-shaped 'quiet room' in proximity to the 'teenager's den'

5.18.4 A rendering of the main activity room at Robin House depicts a central fireplace, which also functions as spatial delineator, and the undulating ceiling above

5.18.5 View looking outward to the rural landscape environs from the main activity spaces of the hospice



5.18.6a–b Section through Robin House. The patient housing wing (top) is dominated by splayed roofs intersecting within/above the bedroom. A skylight is positioned in the corridor, and the bath is situated across the hall. The lowest point of the splayed rooflines cleverly doubles as the hoist/chair for the hydrotherapy pool

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82 Gardia, Gary (1998) 'Hanging on to the spirit of hospice in the midst of bottom line management', *American Journal of Hospice and Palliative Care*, 15(1): 7–9.

83 Carlson, Melissa D., Gallo, William T., and Bradley, Elizabeth, H. (2004) 'Ownership status and patterns of care in hospice: results from the national home and hospice care survey', *Medical Care*, 42(5): 432–38. Also see Pan, Cynthia, *et al.* (2001) 'How prevalent are hospital-based palliative care programs? Status report and future directions', *Journal of Palliative Medicine*, 4(3): 315–24.

84 Williams-Tracy, Laura (2000) 'Regulations, treatment limit use of hospice care', *Charlotte Business Journal*, 20 November: 4–5. The issue gained notoriety when the *Wall Street Journal* wrote a front-page feature about a hospice in Plattsburgh, N.Y., that was hit with a large Medicare bill because some of its patients had lived far beyond six months. The hospice was asked to repay Medicare nearly $450,000, a sum that would have forced it to close. The hospice appealed the ruling and won. When a U.S. hospice treats a patient, the agency receives a per diem rate from Medicare to cover medical expenses. The hospice must cover any overages. Generally, home hospice care costs less than care in hospitals or nursing homes. The Department of Veterans' Affairs (DVA), most third party private insurance plans, health maintenance organizations (HMOs), and a host of palliative care organizations provide home-based care options for the terminally ill. In addition, through community contributions, memorial donations, and foundation gifts, many hospices are able to provide based on one's ability to pay. In 2005, to qualify for the Medicare hospice benefit, a physician must certify that the patient has les than six months to live if the disease runs its normal course. The physician must re-certify the individual at the beginning of each benefit period (two periods of ninety days each, then an unlimited number of sixty-day periods). The patient signs a statement indicating that he or she understands the nature of the illness and of hospice care. In so doing, the patient waives Medicare Part A and opts for the Medicare hospice benefit for all subsequent care related to his or her illness. A family member may sign the statement if the patient is unable to do so. For more information see the American Cancer Society, Inc. Home Page (2005) 'Making treatment decisions', *American Cancer Society*. Online. Available at www.cancer.org.html (accessed 4 January 2005).

85 Connor, Stephen and Katie McGoldrick (1999) 'Reforming end-of-life care in nursing facilities is critical issue', *Americans for Better Care of the Dying*. Online. Available at www.abcd-caring.org.html (accessed 14 September 2004). In 1975, nursing homes averaged fewer than fifty beds. By 1999 the averages was more than one hundred. Small, family-owned facilities gave way to much larger, for-profit corporations. Many who might once have opted for nursing homes gravitated toward assisted living facilities. This left the sickest of the sick to nursing homes. As of 2000 there were more assisted living beds than nursing home beds in the U.S. Reforms enacted in 1987 for nursing facilities required them to maintain or improve patient function, because nursing facilities generally did neither well for their dying patients. It became virtually illegal for a patient to die in a nursing facility without having received hospice care. Cost also became a barrier: in 1999, hospice care in nursing facilities cost about $900 for one patient, while home hospice care cost $550 for five patients.

86 Dembner, Alice (2004) 'Survey criticizes care for dying patients', *Milwaukee Journal Sentinel*, 8 January: A4.

87 Watt, C. Kevin (1997) 'Hospices within nursing homes: should a long term care facility wear both hats? A commentary', *American Journal of Hospice and Palliative Care*,13(2): 63–65.

88 In 2004, the Connecticut Hospice served more than 2,400 patients through home care, inpatient, and cottage programs. A brief history of legislative landmarks: 1974: the first hospice legislation was introduced to provide federal funds to support hospice programs. Not enacted; 1978: A U.S. Department of Health, Education, and Welfare task force reported in favor of hospice care; 1979: The Health Care Financing Administration (HCFA) initiated demonstration programs at twenty-six U.S. hospices; 1980: The W.K. Kellogg Foundation awarded a grant to the Joint Commission on Accreditation of Hospitals to investigate the status of hospice and to develop standards for hospice accreditation; 1982: Congress included a provision to create the Medicare hospice benefit; 1986: Medicare hospice benefit was made permanent by Congress. The fifty states were given the option of including hospice in their Medicaid programs. Hospices were given a ten percent increase in reimbursement rates; 1989: The U.S. Government Accounting office (GAO) released a study concluding that only thirty-five percent of eligible hospices were Medicare certified. Low payment rates were one reason cited; 1989: Congress tied future reimbursement rates to hospices to the annual hospital market basket rate increases; 1990: The 210-day lifetime benefit cap limitation was removed; 1993: The number of hospices participating in the Medicare program grew from 31 in 1984 to 1,288 by 1993; 2000: Over 3,150 hospice programs in operation in the U.S. For further information, see the *National Hospice Organization* Home Page. Online. Available at www.nho.org.html (accessed 22 August 2004).

89 Special events in 2004 included a musical concert by Peter Yarrow, of Peter, Paul, and Mary fame. Mr. Yarrrow's dying mother had received care from the hospice a year earlier. These events are held indoors as well as outdoors.

90 Jenkins, Simon (2002) 'Why are hospitals so ugly? The hospital as village', President's Lecture, *The King's Fund*, 26 June. Online. Available at www.kingsfund.org.uk.html (accessed 22 August 2003). In this pithy, ten-page transcript of a public lecture given in the U.K., Jenkins excoriated the generic urban megahospital. He argued for far smaller-scaled residential alternatives in neighborhood settings.

Chapter 2

1 Thompson and Goldin (1975): 3.

2 Arnold, Henry C.F. (1975) 'The federal government and hospital construction', *Architectural Record*, 158(9): 63. In the United States the Hill-Burton Hospital Construction Act of 1946 was enacted to fund with federal resources the construction of national network of hospitals and community clinics. In 1954, the program was broadened to include grants for the construction of nursing homes and inpatient rehabilitation hospitals. Ten years later an amendment authorized a new grant program for modernization and total facility replacement costs. By 1975, more than $4 billion of Hill-Burton funds had been applied to build, modernize, or expand nearly 11,000 facilities, costing a total of $13 billion. In 1948, more than eighty percent of projects had been for new construction, but by 1971 modernization, expansion, and renovation accounted for 96.5 percent of all Hill-Burton projects.

3 Verderber and Fine (2000): 77. The term 'master plan' soon became a buzzword. Rising land values often dictated that an institution, if reasonably satisfied with its present location, remain on its present site and expand upward or outward. This strategy might have made sense in the short term, but it often resulted in a state of gross disfigurement, with the facility soon looking like a hodgepodge of ungainly appendages: infrastructural disfigurement. Often, the neighborhoods surrounding the institution would never recover from the shock of accelerated expansionism and population displacement.

4 Lindheim, Roslyn (1979). Compared to the pre-WWII period, nature had plummeted to a very low priority because no operating income could be directly generated from a lawn, courtyard, or garden – amenities often adjoining the primary endangered species – the original hospital building.

5 Lindheim (1979): 70.

6 Lord Taylor (1979) 'The natural history of windows: a cautionary tale', *British Medical Journal*, 7, March 31: 874–75.

7 McLaughlin, Herbert (1976) 'The monumental headache: overtly monumental and systematic hospitals are usually functional disasters', *Architectural Record*, 160(1): 118.

8 Flood, Charles T. (1984) 'The Evolution of Hospice', *The American Journal of Hospice Care*, Winter: 82–84.

9 Verderber and Fine: 335. The breaking apart of the modern hospital has been documented. Such buzzwords as 'patient focused care' and 'high tech/high touch' medicine signaled the shift. But only when hundreds of hospitals faced downsizing, closure, and, in some cases, demolition did the industry fully grasp this sea change. The hospital was being deconstructed, figuratively and literally. 'Functional deconstruction' refers to the architectural aesthetic language of the hospital and its organizational structure.

10 Verderber and Fine: 336. With a hospital's core mission increasingly becoming that of care option for the sickest of the sick, emergency

medicine departments, elaborate surgical suites, diagnostic departments, and intensive care units rose to an unprecedented level of stature. Correspondingly, these 'core services' become more essential than ever before to the bottom line. This concentration of high tech medicine in acute and tertiary care hospitals continues. However, in developing nations around the globe the need continues for longer hospital stays for a number of reasons, including the lack of viable outpatient care options, lack of medical technology, shortages of medications, trained staff, lagging applications of digital technologies, and political barriers.

11 Becker, Franklin D. (1983) 'Evaluation', in Beck and Meyer, *Health Care Environment: The User's Viewpoint*, Boca Raton, FL: CRC Publications: 232–45. These terms represent an extension of Franklin's terms 'first order effects' and 'second order effects' of healthcare settings in relation to human behavior and well-being. First order effects are direct, or instrumental, and second order effects are indirect, or symbolic in nature.

12 Verderber and Fine (2000): 338. Postmodernism was, in many respects based on principles rejected fifty years earlier: contextualism, traditional imagery, a more traditional use of daylighting and natural ventilation, natural materials such as wood, and traditional compositional elements such as barrel-vaulted ceilings. By the end of the century, residentialism in health architecture had become international in scope, with many variants having become discernible.

13 Hospice Information Service (1994) *Hospice and Palliative Care: A Guide to the Development of the Hospice Movement*, London: St Christopher's Hospice.

14 Sovich, R.M. (1995) 'A Place for Hospice Care', *RM Sovich Architecture*. Online. Available at http://rmsovich.home.mindspring.com/papers.html (accessed 23 July 2004).

15 Fairbrother, Nan (1956) *Men and Gardens*, New York: Alfred Knopf.

16 Gerlach-Spriggs, N., Kaufman, R.E. and S.B. Warner (1998) *Restorative Gardens: The Healing Landscape*: 7–33.

17 Ibid: 9, translated by Comito, T., in Comito, T. (1978) *The Idea of the Garden in the Renaissance*, New Brunswick, N.J.: Rutgers University Press: 177; adapted from Minge, J.P. (ed.) (1855) *Patrologia Latina*: 271. Saint Bernard (1090–1153) wrote a definitive description of the restorative garden when he described the courtyard plan of the hospice at his monastery in Clairvaux, France: 'Within this enclosure, many a various trees, prolific with every sort of fruit, make a veritable grove, which lying next to the cells of those who are ill, lightens with no little solace the infirmities of the brethren, while it offers to those who are strolling about a spacious walk, and to those overcome with the heat, a sweet place for repose. The sick man sits upon the green lawn, and while inclement Sirius burns the earth and dries the rivers, he is secure, hidden, and shaded from the heat of the day, the leaves of a tree tempering the heat of that fiery star; for the comfort of his pain, all kinds of grass are fragrant in his nostrils. The lovely green of herb and tree nourishes his eyes and, their immense delights hanging and growing before him, well might he say, "I sat down in his shadow with great delight, and his fruit was sweet to my taste" (Song of Songs 2:3). The choir of painted birds caresses his ears with sweet modulation, and for the care of a single illness the divine tenderness provides many consolations, while the air smiles with bright serenity, the earth breathes with fruitfulness, and the invalid himself with eyes, ears, and nostrils, drinks in the delights of colors, songs, and perfumes.'

18 *Restorative Gardens* (1998): 23.

19 Campbell, W.C. (1920) 'Work of the crippled children's hospital school', *The Modern Hospital*, 15(5): 424–25.

20 Davis, E.G. (1945) *Occupational Therapy, One Means of Rehabilitation: A Selected List of Books and Magazine Articles*, New York: New York Public Library; also see *New York Times* (26 April 1931) 'Garden in Capital designed to bring sick soldiers cheer (Walter Reed Hospital); also ' Morris, L.S. (1946) 'Hospitals and land', *Landscape Architecture*, 37(10): 6–11. Mental hospitals had had a long tradition of farm work, as this practice lowered the cost of food for the institution. Occupational therapy manuals suggest that gardening was taught in some chronic-care and veterans' hospital settings during the 1920s and 1930s.

21 *Restorative Gardens* (1998): 30–31: 'Never had the opportunities for gardens at health care facilities been so various. Yet such was the design and management bias of the time that the concept of employing plants and nature to directly transform patients' environments and treatments was relegated to the hinterlands of medical practice and research.'

22 Verderber, Stephen (1986) 'Dimensions of person-window transactions in the hospital environment', *Environment and Behavior*, 18(4): 450–66.

23 Ulrich, Roger S. (1984) 'View through a window may influence recovery from surgery', *Science*, 224(6): 420–21. Also see Relf, D. (ed.) (1992) *Role of Horticulture in Human Well being and Social Development*, Portland, Oregon: Timber Press; also Ulrich, Roger S. (1993) 'Biophilia, biophobia, and natural landscapes', in Keller, Stephen R. and Edward O. Wilson (eds.) (1993) *The Biophilia Hypothesis*, Washington, D.C.: Island Press: 73–137.

24 Kaplan, Stephen and Rachael Kaplan (1983) *Cognition and Environment: Functioning in an Uncertain World*, New York: Praeger.

25 Ibid.: 24–49.

26 Kaplan, Rachael and Stephen Kaplan (1989) *The Experience of Nature, A Psychological Perspective*, Cambridge: Cambridge University Press. The best gardens combine elements of all four of these properties as they draw us into an unfolding experience. Coherence denotes our ability to make sense of the landscape; complexity, the inherent richness of the scene; legibility, our ability to interpret and comprehend the scene holistically in our mind; and

mystery, the promise of more to come as we progress through the environment in a serialized manner.

27 Ulrich, R.S. and R. Parsons (1992) 'Influences of Passive Experiences with Plants and Individual Well Being and Health', in Relf, *Role of Horticulture*: 93–105. Also see Ulrich, Roger S. *et al.* (1991) 'Stress recovery during exposure to natural and urban environments', *Journal of Environmental Psychology*, 11(6): 201–30. Ulrich's research has focused, after respondents' exposure to a defined stressor, on physiologic responses to stress such as increased heart rate, muscle tension, skin conductance, and pulse rate when responding to nature scenes as compared to urban scenes.

28 *Restorative Gardens* (1998): 36.

29 Selye, Hans (1976) *Stress in Health and Disease*, Woburn: MA: Butterworth. This suggests that not only is the endocrine system mobilized during times of stress, but our central nervous system and immune systems become galvanized and are intermittently linked and interdependent, in a sort of multifaceted relay pattern with one another.

30 Edelman, Gerald M. (1992) *Bright Air, Brilliant Fire: On the Matter of Mind*, New York: Basic Books.

31 Edelman, Gerald M. (1987) *Neural Darwinism: The Theory of Neuronal Group Selection*, New York: Basic Books.

32 Marcus, Claire Cooper (2001) 'Hospital oasis', *Landscape Architecture*, 24(10): 36–41, 99. The Director, Dr. Laura Esserman, collaborated with Anne Chamberlain, an artist who was awarded a fellowship in residence in 1995–96. They worked closely with patients, staff members, the administration, and the hospital's in-house architectural and landscape staff to develop a plan through the solicitation of a broad base of user participation. The garden provides quiet places to be alone, shade, a rock garden, and flowerbeds. It is accessed by a long glass-walled corridor adjoining the garden. The wall along this corridor, which formerly was posted with clinical posters and memos, was transformed into a beautiful mosaic composed of 525 ceramic tiles along eighty-five feet of the corridor, each designed by a patient or a family member of a patient who received treatment at the clinic. These tiles together create an extraordinary narrative of their stories, as expressed through the medium of art. The tile-making activity developed into a number of workshops where cancer patients, cancer survivors, family members, and friends worked on the tiles. From the adjoining garden, patients can look at the tiles lining the corridor. Dr. Esserman recalled, 'One of my patients told me she always spent an hour in the garden before she came up to see me. She watched the garden change. Some flowers faded, others were just beginning, soon to be brilliant. It inspired her to believe that her illness may have its seasons too.'

33 *History of Trinity Hospice, 1891–2002* (2002). Online. Available at www.trinityhospice.org.uk (accessed 24 July 2004). The hospice garden was commissioned by friends of Lanning Roper, the respected garden designer and journalist who died in 1983, as a memorial to him. Designed by John Medhurst and David Foreman, the garden was built in 1983–84. From the outset the garden became important to the well-being not only of patients and relatives, but also of staff and volunteers who might need a short break away, perhaps following a difficult death or an awkward meeting. It consists of a large pond with water lilies, paths, garden beds with perennials and seasonals, trees, benches, and shaded pockets.

34 Dove, Jane K. (2004) 'A hospice garden helps grieving children heal', *September Home Monthly*, Online. Available at www.acorn-online.com/hmonthly.html (accessed 29 July 2004).

35 A donated 1927 mansion was renovated and a three-level inpatient wing and a chapel were constructed. The Garden Club of Houston adopted the hospice as a community project in 1993. A well-known Gulf Coast landscape architect, Pat Flemming, had designed the original garden in 1927. Substantial philanthropic support was solicited from the local community, enabling the creation of a multi-faceted garden. Historic photographs were examined, with advice sought from the original designer. Numerous meetings were held with the architect, board representatives, staff, and benefactors in order to develop the restoration strategy and the new landscape design.

36 *Restorative Gardens*: 88–95.

37 Ibid.: 99.

Chapter 3

1 United Nations (2002) *Report on Global Aging Trends*, New York: United Nations. Wars, interestingly, exerted relatively minor impact on global population growth during the twentieth century.

2 Editorial (2002) 'Centenarians to number 3.2 million by 2050', *The Japan Times*, 11, 2 March: 7.

3 Armas, Genaro C. (2001) 'World is aging at record pace, with 42 million people over 65', *The Times–Picayune*, 13 December: A-23. By 2030, one in every five Americans will be at least sixty-five years of age.

4 *The Japan Times* (2002) The Second World Assembly on Aging, held in Madrid, April 2002, published the full report, defining the longevity millionaire, a person who will live a million hours. By 2050 the number of people aged sixty and older will for the first time in history exceed those younger than fifteen.

5 United Nations (2003) *Report on Global Aging Trends*, New York: United Nations. Political leaders in Africa are speaking out publicly.

6 Increasingly, most newly-infected cases are African-American women, infected, mostly, through heterosexual sex. AIDS is now the leading cause of death for black women aged 25 to 34.

7 Nakashima, Ellen (2004) 'AIDS epidemic is growing at record rate, study says', *The Times–Picayune*, 7 July: A-16.

8 Nairobi Hospice (2004). Online. Available at www.nhoseinsightkenya.com.html (accessed 26 July 2004).

9 International Federation of Red Cross and Red Crescent Societies (2001). Online. Available at www.ifre.org.html (accessed 29 July 2003). In Kenya the hospice home care and inpatient care programs are, besides the Nairobi Hospice, located in Nyeru, Eldoret, Kisumu, Mombasa, Kiberia, Bomet at the Tenwek Hospital Hospice, the Kijabe Medical Center Hospice, the Chogoria Hospital Hospice, Kendu, at the Adventist Hospital Hospice, and in Maua at the Methodist Hospital Hospice.

10 Winning Entries (2002) 'Mobile HIV/AIDS health clinic for Africa', *Architecture for Humanity*, Online. Available at www.architectureforhumanity.org.html (accessed 24 July 2003).

11 Arcidi, Philip (1991) 'Housing for people with AIDS', *Progressive Architecture*, 72(2): 20.

12 Guest, Emma (2001) *Children of AIDS: Africa's Orphan Crisis*, Pietermaritzburg, South Africa: Pluto Press. Children are orphaned 2–3 times successively, as aunts and uncles fall victim to the disease after having assumed custody for deceased parents. It is doubted if these orphaned children, when adults, will be equipped to drive Africa's economy twenty years from now.

13 Keswick Jencks, Maggie (1994) 'A view from the front line', *Integrated Cancer & Oncology News*, 12(12): 1-12. Online. Available at http://www.iconmag.co.uk.html (accessed 12 December 2004). Not only did she identify a serious void in exisiting cancer services, she advocated for the patient to take a proactive role. Until her death in 1995, Maggie had been transformed from a passive chemotherapy patient, thereby extending her life by two years. She believed that information relieves fear and 'What matters is not to lose the joy of living in the fear of dying.' The first Maggie's Centre opened at the Edinburgh Western General Hospital in 1996. Leading edge architects, including Frank Gehry, Zaha Hadid, Richard Rogers, and Daniel Libeskind, have each designed a Maggie's Centre. Ms Keswick-Jencks initiated the project in an inspiring and poetic essay.

14 Editorial (2003)'A new hope', *Healthcare Design & Development*, June. Online. Available at www.coopergraham.supanet.com/Hdmaggies.html (accessed 12 September 2003). Maggie Keswick Jencks intended to call her project the 'Cancer Caring Centre', but her husband thought this title was too anonymous: 'Cancer patients must to a certain extent take control of their lives, thus using the name of a patient is non-institutional and allows other patients to identify with her.' According to Charles Jencks, paternalistic institutions are no longer trusted to know best, and the 'postmodern' healthcare institution, and the postmodern patient, is self-empowered and free from the modern hospital.

15 Keswick Jencks, Maggie (1994): 24. Her views on the modern hospital were revealing: 'Patients should never be asked to sit out in the corridor. It is not so much the waiting times but rather the circumstances in which you wait that count. Artificial lighting and no views out all contribute to extreme mental and physical enervation. Patients who arrive hopeful soon start to wilt. Illness shrinks patients … messages from most hospital environments will undermine them still further: "How you feel is unimportant. You are not of value!" … We need to rethink all aspects of hospital layouts, which reinforce institutions, corridors, signs, secrets, confusion, and unpick them.'

16 Studio International (2003) 'Frank Gehry – Maggie's Centre, Dundee', Online. Available at www.studio-international.co.uk.html (accessed 14 August 2004).

17 Editorial (2003) 'A new hope'. Previous centers included Beatson Oncology Centre in Glasgow, and in Edinburgh.

18 Ibid.: 8.

19 Miller, Bruce, in *Art as Therapy* (1989): 9–10.

20 Jung, Carl G. (1933) *Modern Man in Search of a Soul*, London: Routledge and Kegan. Also see Carl G. Jung (1964) *Man and His Symbols*, London: Aldus.

21 Miller: 11.

22 Kant, Immanuel (1952) 'Beautiful art is the art of genius', In *Critique of Judgment, Book 2*, 'The Analytic of the Sublime', Section 46, Translated by J.C. Meredith, Oxford: Clarendon Press.

23 Kandinsky, W. (1914) *Concerning the Spiritual in Art*, Translated by M.T.H. Sadler, London: Constable.

24 Droste, M. Magdalena (1990) *Bauhaus 1919–1933*, Berlin: Bauhaus-Archive Museum fur Gestaltung.

25 Meyer, Hannes (1938) 'Education of the architect', Lecture to San Carlos Academy, Mexico, 30 September 1938, as cited in Claude Schnaidt (1965) *Hannes Meyer*, Teufen: Switzerland: Verlag Authur Niggli: 53–55.

26 Ward, Anthony (1996) 'The suppression of the social in design: architecture as war – introduction: architecture versus social architecture', In Dutton, Thomas A. and Lain Hurst Mann (eds.) (1996) *Reconstructing Architecture: Critical Discourses and Social Practices*, Minneapolis and London: University of Minnesota Press.

27 Miller: 8.

28 Blossom Mascagna, Katherine (2000) 'Creativity', in *The Connecticut Hospice, Inc. Arts Program Booklet*, Branford: Connecticut.

29 Millller: 18.

30 Williams, Brandon (2002) 'Teaching through artwork in terminal care', *European Journal of Palliative Care*, 9(1): 43–59.

31 Schroeder-Sheker, Therese (1993) 'Music for the dying: a personal account of the new field of music thanatology – history, theories, and clinical narratives', *ADVANCES, The Journal of Mind-Body Health*, 9(1): 36–48.

32 Rubin Judith A. (1982) 'Art therapy: what it is and what it is not', *American Journal of Art Therapy*, 21(1): 57–58.
33 'Hospice Charity Shops' (2002) Hospice Care, Isle of Man, U.K. Online. Available at www.hospice.org.im/fund.html (accessed 15 July 2004).
34 Public hospitals in Japan are not allowed by law to accept donations. No private gifts of money, artworks, or bricks and mortar additions are allowed. The law was initially intended to eliminate envy or a competitive posture between institutions. Some institutions have circumvented this law by establishing private foundations.
35 Rapoport, Amos (1969) *House Form and Culture*, Englewood Cliffs, NJ: Prentice Hall. Also see Rapoport, Amos (1998) 'Using culture in housing design,' *Housing and Society*, 25(1–2): 1–20.
36 Current U.S. standard practices in the planning and design of for-profit assisted living facilities are personified in the 370 facilities constituting the Sunrise Assisted Living Residences chain. The architectural goal of Sunrise was to express residentialism and contextualism. Clustered bedrooms and interior pedestrian streets were central in assisted living facilities, and these trends have appeared in hospice architecture.

Chapter 4

1 Carey, Deborah Allen (1986) *Hospice Inpatient Architecture*, New York: Van Nostrand Reinhold p. 203.
2 Alexander, Christopher *et al.* (1977) *A Pattern Language: Towns, Buildings, Construction*, New York: Oxford University Press.
3 *Timesaver Standards* (2001 Edition) New York: McGraw-Hill.
4 *Hospice Unit Generic Brief* (2000) The Aged, Community and Mental Health Division, Melbourne, Australia: Victorian Government Department of Human Services.
5 Scott, Gregory J. (2001) 'Thoughtful design', *Advance for Providers of Post-Acute Care*, 11/12: 38–41.
6 'Design Brief for the Proposed New Hospice – Balloch' (2000) Aberdeen, Scotland: Children's Hospice Association Scotland.
7 Verderber, Stephen (2003) 'Architecture for health – 2050: an international perspective', *The Journal of Architecture*, 8(3): 281–303.
8 Francis, Susan and Rosemary Glanville (2002) *Building a 2020 Vision: Future Health Care Environments*, London: South Bank University and The Nuffield Trust for Research and Policy Studies in Health Services.
9 Landro, Laura (2003) 'Six prescriptions for what's ailing U.S. health care', *The Wall Street Journal*, 12 December, p. A-1, A-10.
10 Coile, Russell (2002) *The Paperless Hospital: Healthcare in a Digital Age*, Ann Arbor, MI: Health Administration Press.
11 Stewart, Alex (2002) 'A silver lining?' *Japan, Inc.*, 29(3): 6–8.
12 Kageyama, Yuri (2002) 'Sony robot sings, dances, costs a lot', *The Japan Times*, 3 March: 15. At 58 cm in height, it has sensors to walk on uneven surfaces such as carpeting, can fall and get back up on its own. It distinguishes between edges of objects, wall and floor planes, and patterns. It has a vocabulary of 60,000 words, can recognize faces stored as digital images, as well as their voices, can dodge obstacles in its path, and can be programmed to sing by inputting music and lyrics.
13 Greimel, Hans (2002) 'Houses of tomorrow check health, dress you, tuck you in', *Times–Picayune*, 10 September, p. C-4.
14 Vergano, Dan (2004) 'Creating a monster?' *USA Today*, 28 September: 6D.
15 Monastersky, Richard (2004) 'The dark side of small', *The Chronicle of Higher Education*, 10 September, p. A12–15. Also see Uldrich, J. (2002) 'Eleven reasons why nanotechnology will arrive sooner than expected', *Futures Research Quarterly*, 18(1): 25–29.
16 Pollack, Andrew (2002) 'Someday bridges may have feelings too', *New York Times*, 16 February: B-10.
17 Anon. (2001) 'Recent home health and telemedicine activities', *Tele-Med-E-Zine*. Online. Available at www. Feeb-back.com.html (accessed 16 August 2004).
18 Preston, Jane (1993) *The Telemedicine Handbook: Improving Health Care with Interactive Video*, Annapolis: MD: Telemedical Health Care Consultative Services.
19 Britton, B.P. (2003) 'Guidelines for telehospice care', *Home Healthcare Nursing*, 21(10): 703–06.
20 Barker, Carol (2003) 'What is telehospice?' *Growthhouse.org: Improving Care for the Dying*. Online. Available at www.growhouse.org.html (accessed 16 August 2004).
21 Kinsella, Audrey (2004) 'Telehospice: needed and improved service delivery at the end of life', Information for Tomorrow, Inc. Online. Available at telehealth@tycos.com.html (accessed 12 September 2004). In the U.S. there are over a half billion home health visits by nurses each year. In this era of cost constraints, this appeals to the for-profit sector of the healthcare industry.
22 Anon. (1996) 'Telehome healthcare', *Telemedicine Today: The Health Newsmagazine*. 3, spring: 1–3.
23 Anon. (1999) 'The digital divide', *National Public Radio*, 10 December. Those without Internet access will be marginalized and scorned by the privileged, no different than in the Middle Ages.
24 Stewart, A. (2002) 'A silver lining?' *Japan, Inc.* 29(3): 6–8. In Kourien, Japan, in a 106-bed nursing care facility, the average age of patients is eighty-two. On land formerly occupied by a Matsushita company worker dormitory, it is a test environment for the company's next generation of homecare products for the aged or sick, with advanced applications of voice imaging software. The over sixty-five population, the so-called 'silver market', by 2002 had reached more 22 million persons, up twenty percent since 1997. By 2005 the Ministry of

Health and Welfare estimated this group comprised twenty-five percent of Japan's total population.

25 Anon. (2003) 'Hospital bed safety', *FDA Patient Safety News*. 11(1). Online. Available at www.fda.gov/cdrh/beds.gov.html (accessed 18 August 2004).

26 Moore, Michelle (2004) 'Design of a prototype of a safe patient room of the future', *Architecture Week*. Online. Available at www.architectureweek.com.html (accessed 14 September 2004). The U.S. Department of Veterans' Affairs is sponsoring this and related research on room, fixture, and equipment design, in some cases in conjunction with large U.S. architectural firms. Hill-Rom, the largest U.S. manufacturer of hospital furnishings, has developed the Total Care bed in order to provide more flexibility. Because the bed can be reconfigured into a chair, increased independence is attainable on the part of the patient. It also allows for a broader range of patient positioning and movement options on the part of the caregiver. A module is available that can rotate the patient from side to side. This transformer bed is readily transportable to other spaces indoors and out. An on-board scale allows the patient to be weighed, and a pressure-relieving pneumatic mattress is provided.

27 Day, Kirsten *et al*. (2000) 'The therapeutic design of environments for people with dementia: a review of the research', *The Gerontologist*, 40(6): 397–416.

28 Coffman, Thomas L. (1981) 'Relocation and survival of institutionalized aged: a re-examination of the evidence', *The Gerontologist*, 21(5): 483–500. This line of inquiry originated in the 1970s concerning the effects of forced relocation upon the aged.

29 Aronson, Deborah (2003) 'How nature heals us', *Science & Spirit*, 14(7/8): 21–24.

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44 Arguments against pre-manufactured housing and healthcare facilities are centered on the threat posed to organized labor, and to the mainstream construction industry. Regardless, the popular press in the U.S. is showing some interest in prefab architecture. See Geracimos, Ann (2004) 'Speed is the name of the game for building prefab homes', *Chicago Tribune*, 4 September: 4–4.

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