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## Scientific Paragon to Hospital Mall: The Evolving Design of the Hospital, 1885–1994

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Since 1885, the hospital has evolved from a public charity to a scientific paragon. A growing chorus of criticism, though, attacks its impersonality and inhospitality, especially in the emerging competitive health market which emphasizes ambulatory care. Hospital administrators have responded by asking designers to re-create the hospital into a more welcoming and accessible place. A popular method of achieving comfort and familiarity has been to adapt elements of the shopping mall to the hospital and even to consider merging mall and hospital. This adaptation raises important concerns about the evolution of attitudes toward illness and death, private and public spaces, and the mall as a modern design standard. This article highlights one unusual implication, the possibility that the mall, viewed as a reason for the diminishment of public space, might be a means of opening to the public one of society's most closed institutionsthe hospital.

### The Evolving Hospital

As recently as 1900, most Americans received their health care at home or in the doctor's office, not in a hospital. Even with the advent of antiseptic procedures and technological advances such as X rays, the hospital only gradually overcame its reputation as a place of death for the poor. The hospital weakened these perceptions as much through changes in medical training, professional desires, and social attitudes as through progress in medical practice. Physicians, now assisted by a professionally trained corps of nurses, made the hospital a scientific laboratory in which specialized responses to specific illnesses replaced the general, limited treatments of the past. The new scientific hospital incorporated improved technologies within a structure that emphasized the sterility and efficiency of modern medicine. Commentators, even those with complaints about patient care and hospital impersonality, trumpeted the hospital as a symbol of American techno-

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logical and organizational success—the centerpiece of the world's greatest health care system.

The hospital went through a remarkable physical transformation during its ascension from a place of public charity to one of practical necessity. The asylums and public hospitals of the early nineteenth century had declared their mission through their architecture. Emulating the public buildings of the period, they were places of confinement and patronizing care situated in buildings designed to evoke the generosity and public spirit of the donors and benefactors. While the well-off and middling Americans continued their practice of receiving medical treatments in the home, physicians argued that the new, more sophisticated procedures were more effective in special, monitored places. They re-created the hospital as a place where patients could be isolated without losing the comforts and atmosphere of home. Quickly, though, these early hospitals were institutionalized and sterilized. By midcentury, the hospital had been transformed into the familiar efficient, bland, and impersonal place.

The latest transformation of the hospital began in the 1970s, moving the institution from surroundings of scientific sterility to welcoming domesticity. It has been propelled by a new competitive market for health care, the rapid increase in outpatient surgery and ambulatory care and slowly evolving attitudes about illness and death. Hospitals began searching for new ways to provide sophisticated services without alienating an increasingly educated clientele. In a quirky continuation of past thinking about the need for a civic image for the hospital, designers and administrators began emulating the design and organization of the suburb's new community center, the shopping mall. As a result, hospital entrances became more

welcoming, waiting rooms more inviting, facilities reintegrated more fully into daily urban life, and patients (or even better, clients) treated more as guests or consumers.

The implications of these changes are quite complex and not yet totally clear. The early hospital was socially constructed around a paternalistic relationship in which the care-giver maintained an inordinate amount of control over the patient. In the scientific hospital, the care-giver's power was reinforced by the magical qualities of the medicine practiced, professionalized relationships, and spaces and routines that minimized a person's individuality and limited the patient's control over the course of the illness. In both older permutations of the hospital, efficiency and order were virtues that under-girded the system of care. The beautiful new rooms and "guest relations" could represent a significant re-creation of the institution or a facade behind which little has changed in the relationship of patient to doctor or institution to client. Using the world's finest architects to design new hospitals may leave city skylines with attractive buildings, but will those buildings be exclusively used by people who can afford them? The transformation of the space raises serious questions about the actual, measurable changes in the quality of care and of the experience of the people using the facilities.

Conversely, the emulation of the mall may have subversive implications for medical and community relationships. Although used to improve the marketability of the hospital by making it more familiar and welcoming, the new spaces may break down barriers between the hospital and surrounding community, barriers that have reinforced the medical professionals' position of power within the society. By opening the hospital to new franchises, forging alliances between ambulatory clinics and

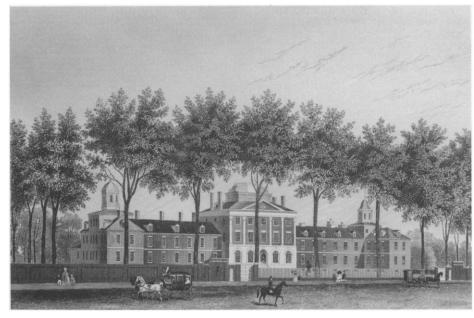
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streets or other nonmedical establishments, and treating patient visitors as guests rather than intruders, the new spatial relations may revolutionize the experience in the hospital. Indeed, the hospital may serve as a counterpoint to the broader societal diminishment of public space. The new hospital may become a renewed public space. A place of confinement filled with the isolated sick may become a community meeting place as a result of the attempts of designers and administrators to control the future of the institution.

# The Foundations of the Scientific Hospital

Home health care was sensible before the twentieth century. The sick cared for in the home escaped the dangers of crowded, wretchedly maintained and poorly staffed public hospitals, almshouses, and poorhouses. Family, friends, and ministers often could give care equal to that of the physician, who could offer little more than a generalized diagnosis, a relatively small array of proven remedies, and the terrifying last resort of surgery. Many times, care by the nonprofessional might be less dangerous considering the heavy contemporary reliance on mercury and arsenic in potions to combat a variety of diseases. The home was a more sanitary site for surgery than the overused, lightly cleaned operating rooms in which mortality rates soared partly due to postoperative infections passed from patient to patient by the physician. In an age when the notion of sterile fields was still hotly debated or little understood, being the sole patient had enormous potential benefits.

As a result, colonial America had only two general hospitals: Pennsylvania Hospital in Philadelphia and New York Hospital in New York City. Pennsylvania



1. First hospital in the United States: Pennsylvania Hospital, 1755. From Thomas G. Morton, *The History of the Pennsylvania Hospital*, 1751–1895 (Philadelphia: Times Printing House, 1897). Courtesy of Norris Medical Library, History of Medicine Collection, University of Southern California.

Hospital's design imitated that of the Edinburgh Royal Infirmary, with a modified H plan facing south. New York Hospital was barely completed when it was completely gutted by fire, then rebuilt in time for occupation by the British who used it as a barracks. Both of these hospitals, and virtually all of the nation's 178 hospitals constructed by 1873, were established as private charitable concerns for the urban poor, approaching that duty with paternalistic assumptions. The acutely ill poor ended up in publicly managed almshouses and pesthouses; the new hospitals admitted only those "truly worthy" poor who were not acutely ill, not suffering from a contagious disease, and not ill with a morally unacceptable disease, such as syphilis. The hospitals instilled virtue into the medical routine, curing immorality through the virtues of order as much as

disease through medical treatment. The large wards of the new civic institutions bedded dozens of patients, who were easily supervised by a small staff of undertrained nurses. Order on the ward was maintained by expelling patients who behaved inappropriately and limiting visits to one hour a day.<sup>1</sup>

As late as 1876, W. Gill Wylie could write, "Civilization has not reached that state of perfection in which hospitals can be dispensed with." Wylie's pessimistic prediction reflected his belief that hospitals were a necessity, but only for the homeless, whether through enlistment in the armed services, poverty, or insanity. Wylie's poor opinion of hospitals resulted from his study of mortality at Bellevue Hospital in New York City. Between 1860 and 1873, more than one thousand patients died (a rate of 12 to 13 percent), at least sixty of



2. First clinical diagnostic X ray, Mary Hitchcock Memorial Hospital, 1896. Participants included (from the left) astronomy professor E.B. Frost, patient Edward McCarthy, Dartmouth Medical School physician Gilman Frost, and the head nurse at Mary Hitchcock, Mrs. Gilman Frost. Courtesy of Dartmouth Collage Archives

the deaths a result of "pyaemia and puerperal fever" spread within the hospital by the hospital staff. Wylie concluded, "The truth is, the majority of our hospitals... are liable to do more harm than good." This explains the preference of the middle class and the wealthy to receive health care at home.

In the years that followed, clinic-based medicine gradually replaced home health care as technological and procedural changes made hospitals safer for patients. The demonstration of anesthesia in the 1840s and asepsis in the 1880s greatly improved the patient's chances of survival from surgery, childbirth, or other procedures. Wilhelm Röntgen's discovery of X rays was immediately adapted to medical use. In 1896, at Mary Hitchcock Memo-

rial Hospital in Hanover, New Hampshire, Dr. Gilman Frost produced the nation's first diagnostic X ray examination. By World War I, virtually all urban hospitals had installed X ray facilities. These advances lowered postoperative infections and provided a much clearer image of the injury or disease, leading to a rapid expansion of surgical procedures. For instance, during the year starting in May 1899, surgeons at the Pennsylvania Hospital performed 850 operations more than the total number at the same hospital between 1800 and 1845.3 Successful inpatient surgery was the clinical foundation of the emerging modern hospital.

Institutional reorganization occurred concurrently with the technological and procedural changes. Most important, the

staff professionalized and specialized. The array of new technologies demanded a sophisticated understanding and education that many physicians did not have the time or the inclination to acquire, which fostered specialization among practitioners.4 Gradually, physicians who had trained on the machines or in the procedures were expected to perform those tasks. The general practitioner was redefined as a gatekeeper through whom patients passed to reach the physicians with the specialized skills to handle their medical problem. Although medicine had always had divisions (mainly based on economics), the new specialization dramatically segmented practitioners while serving as the foundation for increasing public confidence in American medicine.

As much as the institution changed, though, the basic relationships among staff and with patients remained the same. Nurses in early hospitals were hired more for their moral virtue than for their professional competence. The spread of professional nursing during the 1880s and 1890s significantly contributed to the lowering of mortality rates through the reorganization of hospital routines.<sup>5</sup> Florence Nightingale and fellow nursing reformers convinced hospital administrators that the most fearful aspect of the hospital was a lack of cleanliness, efficiency, and sanitation. Further, they asserted the only way that hospitals would maintain consistent efficient procedures and clean premises would be to hire trained nurses. However, nurses continued to be expected to exemplify middleclass values. Even more than doctors, nurses were held to high standards of moral virtue and personal worthiness. They often lived on-site, overseen by guardians who examined not only their professional activities, but also their personal conduct.

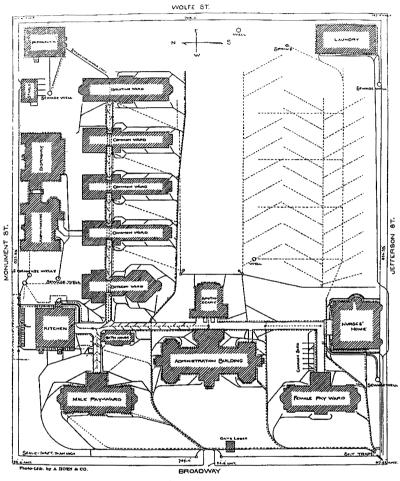
New diagnostic abilities and improved surgical interventions, combined

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with better overall care, enticed new populations into the hospital. Wealthy women went to the hospital to give birth, and children went for an appendectomy. The wealthy expected a different level of care than hospitals traditionally provided the poor, re-creating the two-tiered system of care. The poor were admitted to general wards where twenty to forty beds lined the walls. Here, amid sparse furnishing and many patients, nurses were overburdened and privacy impossible. Whether awakened by a neighbor's moaning or appalled by a nearby death, the ward patient's experience retained much of the charitable atmosphere of the public hospital. Wealthier private patients, conversely, were housed in single rooms with domestic settings. Their rooms had bureaus and chairs; amenities intended to make them feel at home. In such ways, they maintained their privacy while benefiting from the sophistication of hospital care. The disparities between care in the public charity hospitals and in the homes of early America were now institutionalized in the modern hospital.

However, even wealthy patients gave up control over their illnesses to physicians, who competed for the privilege of caring for them, and to nurses, who oversaw their daily routine. The new hospital routine emphasized the ill person's passivity, evident even in the nomenclature of the "patient." The focus on the illness rather than the patient resulted in a distancing of the care-giver from the ill person, regardless of his or her economic status. As the hospital was systematized, individual differences were submerged, leaving just the broad divide between rich and poor.

These changes came slowly, over decades of trial and error, with a continued mixing of theories of care and experiments with treatment protocols. Johns Hopkins Hospital was symbolic of the lengthy,



3. Modern innovator: site plan, Johns Hopkins Hospital, 1885. From John Shaw Billings, Description of the Johns Hopkins Hospital (Baltimore: Press of J. Friedenwald, 1890). Courtesy of Dana Biomedical Library, Dartmouth College.

complex transition from the hospital as public charity to scientific establishment. Opened in 1885, Johns Hopkins had five large public wards and two private wards for paying patients separated by gender. Built without surgical suites, the new hospital was, according to John D. Thompson and Grace Goldin, "noble, individual, neo-Gothic." A large nurses' home "allowed" nurses to live at the hospital, unlike physicians who, after training, had to provide their own housing. In the lobby stood

a copy of Bertel Thorvaldsen's *Christus Consolator* in place of the chapel, which was never constructed. The paternalistic elements of the public hospital—order, efficiency, continuous oversight, emphasis on moral virtue—were still present if subdued and incomplete.

John S. Billings's pavilion design for Johns Hopkins surrounded the buildings with light, air, and sun while separating the patients by illness. The design responded to the two central contemporary

theoretical concepts guiding health care. The first of these was the belief that natural elements eliminated the possibility of a malignant atmosphere polluting the air and spreading disease among the patients; this concept was a response to the miasmatic theories of disease transmission that were so prevalent in this period. The hospital's designers constructed a state-ofthe-art ventilation system to maintain fresh air and eliminate the stagnant atmospheres that sanitarians so feared. Second, the isolation of patients reflected physicians' inability to stem the spread of disease within the hospital, partly a result of the continuing staff reluctance to practice asepsis. The pavilion-style hospital design had been boosted by Florence Nightingale's writings of her experience in the Crimean War. where the isolation of patients and the strict maintenance of sanitary facilities had proved particularly life-saving.

However, although the design of Johns Hopkins was a continuation of midcentury beliefs, inside the hospital the medical staff inaugurated a new scientific style of American medical education, adapted from European practices.7 The new clinical training emphasized the constant interaction of the undergraduate and graduate medical students with patients undergoing care. Formerly, American doctors had been trained in an apprentice system; now the education was standardized and rationalized using the hospital clinic as the central mechanism for study. On the wards, medical students witnessed the spread of disease, learned the care of specific diseases, and assimilated the medical culture. Not only did such changes promote the construction and expansion of the hospital, they also dramatically extended physicians' control over entrance into the profession. The decades of warfare with various disciplines of medicine rapidly concluded with the general exclusion



4. View of Mary Hitchcock Memorial Hospital, 1892. Courtesy of Dartmouth College Archives

of women, minorities, and alternative medicine practitioners from the new profession. When these changes were codified in the Flexner Report of 1910, the foundation of a new era in American hospital history was laid.<sup>8</sup>

## **Machine Medicine**

By 1960, Americans had embraced the hospital as the site of care for their serious medical problems. Between 1873 and 1960, the number of hospitals had risen from 178 to 5237, and the number of people with access to a hospital grew enormously. Virtually all births and approximately half of all deaths occurred in a hospital. Middle-class, then working-class, Americans who could not formerly afford hospital services increasingly received private insurance through work or came un-

der the coverage of expanding governmental programs. In the 1930s, the creation of Blue Cross and Blue Shield provided a growing number of Americans with private health insurance. In the 1940s, the federal government began assisting hospitals through the passage of the Hill-Burton Act of 1947, which provided funds for hospital construction. Two decades later, the enactment of Medicare and Medicaid in the 1960s dramatically increased the number of patients who received government subsidies as well as the government's role in overseeing the health-care system.<sup>10</sup>

During this period, medicine slowly reshaped the hospital experience and, with it, the physical design of the buildings. Surgical suites, rarely constructed as distinctive spaces in older hospitals, were mandatory in new hospitals and were added to older ones beginning in the 1890s. When administrators at Providence

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Hospital in Washington, D.C., constructed a new building in 1872, they never considered surgical suites, but by 1892, they found themselves suddenly needing them. <sup>11</sup> In that same year, in the small town of Hanover, New Hampshire, a group of local physicians convinced a retired New York hotel owner to memorialize his wife with the construction of Mary Hitchcock Memorial Hospital. <sup>12</sup> The pavilion-style hospital, with its Italian Renaissance architecture, had only thirty-six rooms and a modern operating suite appended to the back.

Still, as late as 1919, pleas were being made for new hospital designs that would allow the middle class to enjoy the hospital's advances: "It is often said that our hospitals are for the rich and the very poor. There is no medium accommodation for the great middle class. For the average patient, the present private rooms are too expensive, and his nervous, sensitive condition rebels against the ward. And yet the man in moderate circumstances, unable to pay for the expensive room, should find a haven of quiet, peace, and rest in the hospital. These people are in the majority."13 The physical segregation of the wealthy in their private rooms and the poor in their wards was reflected in a spate of articles asking for a "homelike hospital" or a "hospital like a hotel." In the postwar period, with the spread of hospital insurance plans, the middle class was finally welcomed.

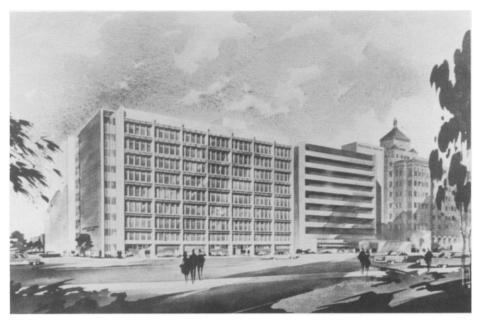
New, smaller wards followed this further broadening of the hospital's patient base. The twenty-bed ward of the 1890s shrunk to the four-bed ward in the 1950s, with a sudden preponderance of "semi-private" rooms (two beds to a room). The old-fashioned ward came under considerable criticism as a continuation of poor past practices. The private room, considered a privilege of the wealthy, was now viewed as the reasonable request of every-



 Epitome of modern medicine: operating room, Los Angeles County Hospital, 1925. Courtesy of the California Historical Society, Los Angeles Area Chamber of Commerce Collection, Department of Special Collections, University of Southern California Library

one. As Raymond Duff and August Hollingshead reported in 1968 of hospitals that maintained all three styles of accommodation: "The (private) rooms are bright and tastefully decorated, furnished with a single bed, a lounge chair, and a reading table; there are outlets for lamps, television and telephone. The general impression is one of light, airiness and quiet. . . . The semi-private accommodations have 60 percent more beds in the same floor space. . . . The ward accommodations are crowded with equipment and people, sick and well."14 Patients, administrators believed, craved private rooms where they could make a private phone call or watch a little television. Few hospitals, however, went to strictly private rooms because they were too expensive, they required too much staff attention, and administrators found that many patients disliked being alone in the hospital.

Concurrently, the status of the general practitioner continued to decline, and that of the more narrowly defined and trained specialist spiraled upward. New specialties were established as medicine improved its understanding of disease. In 1950, the American Medical Association affirmed that pathology, radiology, and anesthesiology were specialties on par with surgery, internal medicine, and other practices that were not necessarily hospital-based. Specialties were heavily dominated by white men, who discouraged women and minorities from training in specialties.



6. Evolving from civic to functional design: drawing of California Hospital, 1971. The building to the right was constructed in 1926, the middle one in 1955, and the addition on the left was constructed in 1972 by architects G.W. Kalionzes and C.A. Klingerman. In the late 1980s, Kaplan McLaughlin Diaz added another building to the site. Courtesy of the Los Angeles County Medical Association.

Thus, the more specialists controlled hospital admitting privileges, the less general practitioners, physicians trained outside the clinical-based training schools, and alternative medical practitioners could continue to participate in the health-care system.

The hospital's internal changes mirrored its new, more modern facade. The civic architecture of the eighteenth century had gradually given way to an eclectic series of styles in the late nineteenth century. The California Hospital in Los Angeles began in a wood-frame building in which it shared space with a fresh-fruit grocery. If In 1898, the hospital moved to "an elegant hotel for the sick," the architecture of which reflected contemporary designs for the grand resorts of the West. First in 1926

and again in 1955 and 1971, new additions expanded California Hospital. Successively, modernist architects stripped away more of the civic symbols and presence, replacing them with an increased emphasis on the hospital's scientific foundation and functional operation.

The hospital was no longer a symbol of paternal beneficence. Instead, the buildings represented medicine's scientific application and efficient success. Medicine's ability to solve illness and stop the ravages of disease seemed limitless. Physicians became society's new magicians, armed with magic potions, arcane spells, and terrifying tools. Americans came to honor and trust their medical practitioners like no other profession. Expectations had risen to unattainable levels: "When a doctor has to tell a

patient that there is no specific remedy for his condition, [the patient] is apt to feel affronted, or to wonder if his doctor is keeping abreast of the times." The status of physicians as modern magicians, reinforced by the 1960s television shows *Dr. Kildare* and *Ben Casey*, justified their rising salaries, refusal to make home visits, and lack of intimate relations with their patients. At least it did until the public feared that medicine could not meet their expectations—that it could only prolong life, not resolve disease; maintain bodily functions, not stop illness; continue life without meaning, not halt the inevitability of death.

## **Crisis**

The failure of medicine—in hindsight a failure that was inevitable-led to a rising chorus of criticism. Medicine, particularly the hospital, came under attack both as too costly and as unfeeling, uncaring, and impersonal. As Charles Rosenberg has written, "Suddenly, it seemed in the late 1960s, the American hospital became a problem. . . . The hospital appeared a source of uncontrolled inflationary pressure, an instrument of class and sexual oppression, or an impersonal monolith, managing in its several ways to dehumanize rich and poor at once, if not alike."18 Midcentury Americans, the first generation born after the subsiding of the impact of epidemic disease, witnessed the victory over polio, the worldwide elimination of smallpox, the first heart transplant, and other medical miracles. They had been promised a victory over cancer, the end of poverty, a man on the moon, and a better society. The continuing reality of rising medical costs, unequal infant mortality, inaccessible and seemingly uncaring physicians, and the inexorable presence of death fed their anger toward medicine.

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Consumer anger, however, seemed to have little affect on the spiraling costs of technology, personnel, and supplies. 19 Hospitals found that new machinery was mandatory if they were to remain competitive, particularly in urban areas such as Los Angeles, where dozens of hospitals competed for patients. Health-care consumers might want lower costs, but they wanted the most advanced technology as well. As costs rose inexorably, the federal government started investigating the economics of health care, leading to further regulation of the industry and the institution of costcontainment procedures for federally funded health-care programs. Finally in the 1970s, rising numbers of ambulatory care visits threatened hospitals by limiting the number of inpatients. Soon newspaper headlines trumpeted, "Health Costs: Out of Control."20

Such financial issues only aggravated the general dissatisfaction that consumers felt toward medicine, particularly the hospital. According to Rosenberg, "Many ordinary Americans have come to see [the hospital] as a mixed blessing—a technological and bureaucratic brontosaurus with an enormous appetite, an inadequate heart, and a minute social brain."21 Patients criticized medical personnel for listening more closely to machines than to people, for the incredible costs associated with hospital stays, and for isolating themselves from the community. The "culture of medicine" that had shaped the twentieth-century hospital had created a hospital "more formal and bureaucratic, increasingly unified in authority, consistently reflecting medical needs and perceptions."22 The criticisms heard during the ascent of the hospitalabout the "austere aspect without and glaring white sterility within"23—became a cacophony of charges that hospitals were no longer a place that cared for people, just for machines that treated diseases.

Symptomatic of the perceived attitudes of hospital administrators and staff toward patients was a 1967 study that examined the attempt by the Jewish Hospital of St. Louis to attract more inpatients to bolster its medical education program. According to the study author, the hospital was looking for a "good solution to the problem of obtaining operative material for training surgical house staff."24 Patients were no longer individuals with life-threatening illnesses, but merely "operative material" with interesting diseases. The hospital established an accord with a local union through which poorly paid hotel maids, bartenders, and others would receive free treatment. The hospital would charge the union, getting about sixty cents for every dollar of service provided. Thus, the hospital would get more bodies for their medical teaching program while losing as little money as possible. The hospital administrators believed that they were making individuals who were unable to afford private health care happy by providing limited health care.

More likely the workers were terrified. Even though scientific medicine had raised expectations and success rates, the American hospital remained very forbidding to patients and visitors. Physicians paraded through the corridors with their cadres of medical students, examining "interesting" cases. Patients were discussed, probed, even questioned, but rarely (or so it seemed) answered. Visits to the hospital had to be carefully arranged during short visiting hours. Children were often forbidden entrance at any time. To find a patient's room, visitors wandered through mazelike corridors, ending in sparsely furnished rooms where machines loomed over the patient's bedside. This center of technology, an unparalleled paragon of science and medical success apparently so different from the eighteenth-century hospital, was

as impersonal and dispassionate as the paternalistic institution it had replaced.<sup>25</sup>

The buildings themselves were too often designed as utilitarian places of confinement and control. In the years after the success of Johns Hopkins, the pavilion style became the pervasive model for hospitals. The emergence of the skyscraper, though, forced adaptations to Billings's low-level plans. In 1910, Dr. S.S. Goldwater introduced a design for Mount Sinai Hospital in New York City.26 The design retained the hygienic ventilation of the pavilion plan while allowing for multiple stories. The new towers that resulted were built in a functional style with diminishing regard for the hospital as a civic institution. By the time the Faulkner Building was raised in Hanover, the intention of hospital design was simplified and constrained. The emphasis was on the functionality of the space from the perspective of the hospital staff, particularly the physicians.

By the 1970s, community and individual complaints about the impersonality of the hospital were pervasive. Hospital administrators were also acutely aware of the precarious economic status of the hospital in the changing environment of American health care. In the early years of the century, hospitals had answered the evolving circumstances of medicine by constructing separate wards for paying patients, making those wards inviting. In the 1980s, administrators turned again to designers and architects to redefine the hospital's image and relationship with its customers. The challenge was to retain the aura of competence provided by the scientific and technical excellence of the hospital while supplementing it with a new, more open, more welcoming atmosphere. The elements of the new "hotel-hospital" were taken directly from the period's most influential building type: the shopping mall.

## The Comforts of the Shopping Mall

Evidence of a radical redesign of the hospital can be found in the fantasy atrium of Cook-Fort Worth Children's Medical Center, the bi-level lobby of the Huntington Memorial Hospital in Pasadena, Cesar Pelli's "mall" linking the buildings of the Cleveland Clinic, the hotel-style lobby of the emergency unit at Baptist Hospital in Miami, the commercial spaces of Edmonton's MacKenzie Health Centre, and the mall in New Hampshire's Dartmouth-Hitchcock Medical Center with its combination of retail, restaurants, and medical departments. Accessible, entertaining, and aesthetically adventurous, the new hospitals or hospital extensions attempt to break down the isolation of the patient within the building and the isolation of the hospital from the community.

In each case, the hospital delivers a more humane, communal, attractive, and relaxing space in which people can feel comfortable. As architectural critic Mitchell Green says, "Designers are emphasizing customer comfort in high-style surroundings, changing designs to encourage family participation, and creating images which evoke an inviting combination of social life and community education."27 Essential medical services have been separated from auxiliary services. The "unbundling" of auxiliary services allows the hospital to use design materials prohibited in clinical service areas. Wood paneling, travertine fireplaces, sculptures, indoor trees and flowers, softer and more extensive carpeting, and a palette of designer colors greet visitors and draw them into the more restrictively designed areas where medicine is practiced.

To gain the new informality and comfort in the hospital, designers have drawn on a number of sources, including recent hotel and restaurant designs. Most



7. View of the Crile Clinic Building and Cleveland Clinic mall, Cesar Pelli and Associates, 1986. Courtesy of Christian Korab and Cesar Pelli and Associates.

important, though, has been the growing influence of retail store designs, best exemplified in the rise of the shopping mall as a critical space in American society.28 The same elements that have succeeded in drawing retail customers from downtown department stores are being used to lure potential patients from competing hospitals. The new hospitals place great emphasis on access and wayfinding, ensuring a positive welcome, offering a consistently personal relationship with the client, and presenting the patient, visitor, and general public with spaces in which they feel the control and comfort. Amenities such as fountains, sculptures, and comfortable furniture both attract and greet people as they enter the new hospitals. Designers even speak of the hospital as a potential community center, much as early shopping center advocates predicted for the new suburban malls.

With the opening of Southdale Shopping Center near Minneapolis in 1956, the future of American shopping irrevocably changed. Designed by Victor Gruen, Southdale ushered in the era of the big mall.29 Surrounding a garden court inside the enclosed "weather conditioned" building, Southdale's shops attracted public attention not only for shopping but for its sculptured trees and community activities. By the end of the decade, the suburban shopping center had urban downtown retailers reeling. Even though downtown retailers and public officials would construct their own malls in coming years, the tradition of downtown as the central pub-

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lic shopping space in American life had ended.

The economic change reflected profound cultural and social trends that affected hospitals as well as shopping centers. The suburbanization of America separated many families from their established community institutions, including their family physicians. Gruen argued early on that the new shopping centers should be town centers. As Howard Gillette, Jr., has noted, Gruen hoped that shoppers would be able to shut out the ugly experience of the twentieth-century city and replace it with an active but safe streetscape reminiscent of medieval markets. "The shopping center," Gillette suggests, "was to offer, in short, that ideal middle ground between city and country, public and private life, which was so often promised for the suburbs but so seldom realized."30 Safe in the middle ground, the homebound suburbanites could once again find a space of social interaction.

As we know, such hopes have proved illusionary within the privately owned malls. As William Whyte has written, "Suburban shopping malls are not the new town centers. They lack or forbid many of the activities of a center: soapboxers, controversy, passing of leaflets, impromptu entertainment, happenings, or eccentric behavior of any kind, including persistent non-buying."31 The social intercourse that occurs is carefully regulated by security, the patterns are susceptible to disruption if the private company changes ownership, and eccentric behavior is rarely tolerated. Officials criticized for the emphasis on security over public community respond as an official at Houston Center did, defending the blank walls at street level; "They do look a little forbidding. . . . But there is a reason. The hard fact is we're not going to lure the middle-class shopper back to the city unless we promise them security from the city."<sup>32</sup> Gruen wished for a middle ground; mall owners demanded a buffer zone separating the new town center from the town.

Nonetheless, malls have become America's newest Main Street. They have grown from isolated shopping centers set amid acres of parking—which served not only as an amenity for the shoppers, but also as a barrier to the surrounding community—into massive, multiuse shopping/recreational centers. Inside, adolescents date, seniors walk, families attend movies, and America shops. The design concepts of malls have been adapted for hotels, restaurants, office complexes, and now hospitals.

#### **Mall Medicine**

Just as increased competition, spurred by greater mobility due to the automobile, helped establish the first shopping centers, financial considerations have driven the hospital's evolution. Profit-making hospitals account for only 11 percent of the nation's patient beds; the majority of hospitals in America are nonprofit voluntary general or publicly supported hospitals.33 As the costs of health care have risen so quickly and the reimbursements have slipped so suddenly, pressures to expand client bases, integrate commercial spaces, and implement other profitable activities have been severe for all types of hospitals, including the nonprofits. These concerns are magnified as the growing number of for-profit hospitals in large urban areas, particularly in the south and west, attempt to use private economies to offer services less expensively than the voluntary hospitals. Pleasing buildings may make the patients and their visitors more comfortable, and may even enhance the healing process, but they must also increase the profitability of the institution.



 First medical mall in the United States: atrium dining space, Medical City Dallas, 1984. Courtesy of Ira Montgomery and Medical City Dallas Hospital.

One of the earliest attempts to merge mall and medicine occurred in Dallas in 1974 when Robert Wright opened Medical City Dallas. Medical City developed 1,560,000 square feet of medical facilities and retail operations: "In addition to an emergency room, out-patient center and traditional medical care facilities, the campus includes three office towers which house 130 physicians' offices, play areas for children and 23 businesses including a gourmet food shop, bank, six restaurants, a travel agency, clothing store, hair salon, two pharmacies and two newstands."34 Medical City Dallas, though, was not immediately emulated as most designers and administrators maintained their preference for the scientific hospital.

Increased competition spurred the search for innovative ways to reconfigure spaces and patient relations to balance patient comfort with medical science's continuing reliance on technology. As early as 1874, Billings, designer of Johns Hopkins

among other achievements in a stellar medical career, wrote a short piece on "Hospital Construction" in which he noted that "the subject of hospital construction has been much discussed" but "I do not remember to have seen [one paper] from the point of view of the patient."35 Billings's plea that designers begin considering the plan of the hospital from the patient's perspective has been sporadically influential over the last century, but never as in the last two decades. Administrators are requiring architects to design buildings that organize space with the consumer in mind, use greater access and attractiveness to appeal to customers, and exude a new architectural confidence to mask growing anxieties about the future of health care. In 1952, Gruen argued that the shopping center "must fill the vacuum created by the absence of social, cultural, and civic crystallization points in our vast suburban areas": forty years later, designers and administrators increasingly hope the hospital can become one of those crystallization points.<sup>36</sup>

At the same time, the new hospitals are complexes of functions that rely heavily on technology. A great number of hospitals have "unbundled" functions, creating inpatient, outpatient (ambulatory), intensive, surgical, and emergency areas, which function alongside administrative and physicians' offices, cafeterias, the large areas reserved for the mechanical workings of the hospital, and public spaces. Whether in physicians' offices or emergency rooms, though, technology is inescapable. When requested to design a new cancer building at Cedar-Sinai in Los Angeles, the design firm Morphosis created a place that illuminated the role of technology, because the designers felt that the presence of the lifesaving machines reassured patients. Most architects, though, have heeded advice from administrators that machines be shielded and the spaces made less threatening.<sup>37</sup>

The entrance is the hospital's most important public space, through which patients, staff, and visitors make their way into the specialized regions of the interior. At the turn of the century, hospitals were still civic buildings, and their entrances were paneled in oak or walnut, with elaborate balustrades leading into the higher floors of the hospital. As the hospitals were expanded and more strictly regulated, the paneling disappeared under concrete or plaster. The scientific hospital was often built over and around older civic hospitals, each addition making the place less accessible to the patient. In the 1960s, Mary Hitchcock's 1893 Italian Renaissance building was obscured completely by a massive six-story modern addition, the Faulkner Building. Even with this addition, the huge sophisticated machines of scientific medicine filled the new rooms and forced Mary Hitchcock to use any available space. Eventually, the only way to find your way through the maze was to follow different colors of tape attached to the floor.

Bent on cramming the hospital full of the latest technology, hamstrung by facilities constructed for an earlier age, and focused on presenting new technologies as new services, hospitals were unable or unwilling to recognize how inhospitable they had become. Although gift shops and information desks were located at the entrances, the scientific hospitals emphasized the interior spaces where medicine was practiced. Simple, utilitarian waiting rooms greeted patients and visitors. Painted institutional colors, carpeted with durable materials or lined with linoleum, and often located in a room without windows, these "public spaces" reinforced the patient's and visitor's lack of authority and comfort within the hospital.

The patient's unfamiliarity with the hospital was aggravated by the rise in ambulatory care. Outpatient service was a mi-

nor concern for hospital architects of the 1950s. A hospital was intended for inpatient procedures; ambulatory care was handled in decentralized doctors' offices. Allowing physicians to handle such care was acceptable as long as the majority of technical procedures occurred in the hospital. Between 1970 and 1987, the number of hospital outpatient visits increased from 134 million to 248 million.<sup>38</sup> Hospitals encouraged physicians to move their patient visits to the hospital or to medical offices located adjacent to the hospital. Only then could the hospital maintain a stable, consistent inpatient base. Even then, as the number of procedures done on an outpatient or ambulatory basis continued to expand—physicians recently began seriously talking about open heart surgery where the patient goes home the same day—the hospital's role in the health-care system was threatened. Some health-care commentators are now debating whether the hospital will have a viable role in the system in thirty years.39

Confronted with such fears, administrators at Irvine Medical Center and Huntington Memorial Hospital in Pasadena use their public spaces to accommodate inpatients and produce income for the center. Irvine's ambulatory center greets the public with a hotel-styled awning-covered driveway, leading to a three-story atrium that "serves as a circulation hub . . . dining area and art gallery . . . highlighted by a sculptural fountain." Huntington's acute-care facility lobby welcomes visitors with walls of warm colors and invigorating light. The casual walkers, whether patients or visitors, of the mall that binds together the disparate buildings of the Cleveland Clinic lessen their isolation by meeting in an interactive social environment. Not only does the mall provide circulation, it allows for personal and professional exchanges outside the more storile surroundings of the medical office. Tied together architecturally and spatially to provide continuity from exterior to interior, the designs integrate the hospital into the daily life of the surrounding communities.<sup>40</sup>

Instead of assuming that the hospital has to be designed as a place of confinement with overtones of seriousness and impersonality, architect David M. Schwarz constructed elements of play into the very fabric of the Cook-Fort Worth Children's Hospital.<sup>41</sup> The atrium is walled with "lavishly embellished fairy-tale 'buildings' fashioned of drywall and imagination." Schwarz has literally turned the hospital into a playground of architectural fantasy. The intent is to blend access and relaxation, creating calm to comfort staff and visitors. Playing with the imaginary buildings engages the children, and the atrium serves as a sorting mechanism that effectively organizes the complicated spaces created by merging two hospitals. Schwarz's facade-filled atrium serves a similar purpose to one Kazuo Shinohara has proposed for his glass-covered hospital courtyard in Kobe, Japan: "The street-like spaces which are light and cheerful" will hopefully generate for visitors 'the pleasure of no memory,' a condition in which the diverse and deeply-etched memories . . . would be shut down for a time."42 Shinohara and Schwarz hope to reverse the old image that hospital life is more frightening than daily life.

Schwarz's commission was to combine two hospitals into an integrated, well-organized, and comforting whole. As hospitals have increased in size to meet the expanded requirements of the ever-larger medical technology, such a commission has been difficult to achieve, especially since fewer of the visitors to a hospital are familiar with it. Inpatients gradually learn the maze of the incrementally constructed hospital, but ambulatory patients never gain familiarity and always remain afraid



9. Introducing play into hospital architecture: atrium of Cook-Fort Worth Children's Hospital. Courtesy of David M. Schwarz Architectural Services, P.C.



10. Mall or hospital? View of Baptist Hospital of Miami emergency room, TRO/Ritchie, 1986. Courtesy of TRO/The Ritchie Organization, and Baptist Memorial Hospital.

of getting lost and losing control. The new public spaces return the hospital to the patients. Patients understand the place, can find their way, control their movements, even relax. Reducing the seriousness and anxiety of the space reduces the stress on patients, visitors, and staff.

Transforming the entrance provides improved access and opens spaces for commercial enterprises, but it does not necessarily justify the claim that a new phase in the hospital's architectural evolution has occurred. The new facades commissioned from some of the nation's finest architects are expensive ways of adding comforting details to the place of medical care. Such costs will continue to drive up the prices of health care, even after two decades of unprecedented increases. The danger exists that the hospitals of the twenty-first century will invert the eighteenth-century medical model. Whereas once the wealthy were treated at home and the poor entered the underfunded hospital, the new hotels

for the sick will admit only the wealthy and leave the poor to be cared for by family and friends. If the new hospital designs are nothing more than facades, and not indicators of significant changes in medical practice, then the public's rising dissatisfaction with the hospital will only abate momentarily.

The reconfiguration of clinical spaces, such as the emergency unit in Baptist Hospital of Miami, Florida, does suggest that designers and administrators are confronting the social isolation and professional impersonality that plagued the earlier generation of hospitals.<sup>43</sup> The impersonality of medicine reaches its epitome in the triage and in the overburdened care of public hospital emergency rooms. Conventional emergency rooms have sparsely furnished waiting areas, crowded hallways, and exam rooms crammed with machines. Baptist's unit is exactly the opposite. Hospital administrators and architects TRO/Ritchie Organization have created a calm place where the

tensions and anxieties of patients and waiting visitors can be soothed. The architects designed "an interior courtyard that continues the Renaissance motifs of the exterior, with brick vaulted ceilings, Spanish-styled tiles, columns, arches, soft pinks, yellows, and greens." A large skylight shielded by an overhanging oak contributes to a design that evokes the lobby of a hotel rather than a bloody and harried emergency room.

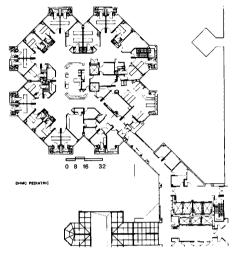
Miami Baptist commercializes the relationship of the doctor and patient by reframing not only the facility's design, but also the routes of authority. The administrators reinforced the physical appearance with a training program in which the staff are trained in "guest relations." The staff attempts to see patients within five minutes, and Baptist has a liaison who shuttles from exam room to waiting room to comfort relatives waiting for news. Instead of clients "patiently" waiting for the provider to service them, the institution presumes that, as in a commercial establishment, the provider should assume the responsibility of servicing customers.

#### **Medical Mall**

Commercializing the relationship, though, threatens the foundation of the scientific hospital. Thus, only slowly have designers begun to integrate the various elements of the mall into a comprehensive hospital design. The example set in 1974 in Dallas has only been embraced piecemeal. A next step has occurred at Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire.44 The Medical Center is constructed along a long circulation corridor designated "the mall" by its designers. Off the mall are corridors that lead into the medical offices, laboratories, specialty services, and administrative offices of the Medical Center. The mall itself serves not only as a



11. Mall view, Dartmouth-Hitchcock Medical Center, Shepley Bulfinch Richarson and Abbott, Architects, 1992. Courtesy of the architects.



12. Combining public use and privacy: Plan of Dartmouth-Hitchcock Medical Center, Shepley Bulfinch Richarson and Abbott, Architects, 1992. Courtesy of the architects.

wayfinding circulation hub, but also as a design feature, commercial outlet, and aesthetic center for the entire complex. Along its walls hang art created by artists living in Vermont and New Hampshire. Most significantly, commercial enterprises have been integrated into the very structure of the hospital-mall.

Explicitly drawing on commercial retail designs, architects Lloyd Acton and Neil Smith of Shepley Bulfinch Richarson and Abbott developed the mall with a 10,000-square-foot retail franchise area. 45 The food court's Sbarro and Au Bon Pain draw not only staff on lunch breaks, but also local residents stopping for a quick meal. Fast food is not the only draw, however. Residents can drop off their dry cleaning, pick up a video, have their car serviced, and even get a haircut while they wait for a visit with the physician. Staff, visitors, and patients pick up sandwiches from the grocery store and browse in the bookstore. They also make travel arrangements, take money out of the bank, and purchase a gift or flowers for patients or friends. Eyeglasses and a full range of pharmaceuticals also are available. Suddenly, the hospital assumes a new role as a community gathering place with tours of the art exhibits and coffee klatches. So popular has the mall become, so acceptable a destination, that a group of teenagers have begun hanging out there during the evenings—an Upper Valley version of the ubiquitous suburban mall rats. <sup>46</sup> This is a startling reversal of the scientific hospital's separation, even hostility, to interaction with the surrounding community.

Architect Acton notes that the hospital's design responds to an important change in American society: "The public has become conditioned to the mall. It has friendly connotations." At Dartmouth-Hitchcock or along the mall at the Cleveland Clinic, the interrelationship of the buildings increasingly mirrors the carefully considered location of retail shops in the re-

gional mall. The acute-care hospital assumes the role of the "anchor" within a conventional shopping center. As the hospital draws the customers into the center, the surrounding specialties serve the same purpose as the smaller shops in the traditional shopping mall in that they "add interest for the customer . . . and actually contribute to higher sales [for the anchor tenant]," as Gruen wrote. Particularly, he continued, the designer of the shopping center "cannot overemphasize the importance of placing the small tenants in a location that will allow them to capitalize on the pedestrian traffic created by the major tenants."48 At Dartmouth-Hitchcock, the pedestrian mall draws traffic down the wide "main street" directly in front of the small, commercial shops. The hope, to paraphrase Gruen's 1948 aspiration for shopping centers, was that the hospital would become more than just a place to see a doctor: "it shall be related in their minds with all activities of cultural enrichment and relaxation."49

No American hospital has yet been fully integrated into a shopping center. Each year brings the Medical City Dallas concept closer to reality. In West Monroe, Louisiana, Glenwood Regional Medical Center recently purchased a 200,000square-foot regional shopping center. The center is located across the street from Glenwood and had become rundown over the last few years. In purchasing the shopping center, Glenwood administrators announced that they would retain the current commercial tenants, including Payless ShoeSource and an apparel store, Beal's, which serve as anchor tenants. The new tenants, however, would be "medical service businesses related directly to the hospital across the street.50

In Australia, architect Lawrence Nield asserts, "Healthcare is part of every-day living and not a thing apart." 51 So, he has sketched a plan for the eventual merg-

ing of a hospital and shopping center. Naming the facility the Lyall McEwin Community Health Service, Nield feels separates it from the conventional image of the modern hospital. Instead of isolating retail and medical, Nield calls for a "onecare village" in which medical, paramedical, social, retail, and recreational are integrated. Recognizing that the needs of the people using the various facilities differ, his plan separates the acutely ill as far as possible from the explicitly commercial. Each new building, though, is less separate, until the center of the village brings together such uses as florist shops, newsstands, and pharmacies.

Nield's design raises another danger presented by the new emphasis on integrating the sick into daily life. In their attempt to service the ambulatory ill, will hospital administrators isolate their inpatient sick, fearing that they will unsettle the relatively healthy consumers? Even more broadly, each of the design attributes discussed thus far distances the hospital from its function as a place for the injured, a home for the sick, and a final haven for the dying. In their search for a facade that would mask the purpose of the hospital, hospital designers seemingly want us to view the hospital as a place of life, play, and happiness. Administrators respond that the design provides more comfort and, at Dartmouth-Hitchcock, more consistent visitors to inpatients.

Still, the threat continues that serious illness will remain offensive, less visible, even socially discourteous. In Shepley Bulfinch Richardson and Abbott's design of Dartmouth-Hitchcock, they use an increasingly popular "pod" design in which inpatients are located at the end of the mall in a separate, spatially isolated space. These nursing pods are easily serviced by a smaller staff while providing each patient with a treasured window to the outside

world. Quieter, more private, and still easily accessible, the pods are an improvement over the conventional rows of semiprivate rooms along long corridors. Still, inpatients experience the hospital in different ways than ambulatory patients, staff, and visitors. Their services are not off the mall, but beyond the vaulted staircase that signals the end of the mall. Administrators, staff, and the public need to ensure that the very sick do not remain avoidable within the new institutional designs.

## A New Meaning for the "Public" Hospital

Many commentators have judged the mall to be destructive. Malls replace "true" public space with artificially fabricated landscapes under the tight control of private enterprise. The real main street is filled with empty stores, while the tree-potted "avenues" of the mall are packed with people looking for a safe public outing. Nostalgic critics seemingly hope for the return to the small communities of the past where the home had a front porch, the street a few cars, and the square a band concert. Their essentially antiurban position ignores the evidence that streets were contentious places even in the relatively small towns of the nineteenth century and that private places have played a critical role as public spaces from the beginning of the new nation.<sup>52</sup> The mall does signal a privatization of the public space with the enclosing of the street inside a shopping center, but such a development need not mean the destruction of public life.

In the case of the hospital, indeed, the mall has a radically different spatial meaning. By borrowing elements of the shopping mall, the new hospitals bring the sick into a closer social relationship with daily life. Traditionally, Anglo-American

culture has isolated the sick. As Mitchell Green has written, "Western society once used hospitals, prisons, and asylums to separately confine its outcasts—the unhealthy, the unlawful, and the unbalanced. Hospital design emphasized the authoritarian control necessary to keep those inside from endangering the rest of the community. The word 'hospital' became synonymous with pain, isolation, and death."53 The hospital mall, where the acutely ill commingle with the healthy, breaks down that isolation, that confinement. The healthy are invited to eat lunch with the sick, the slightly ill to shop alongside the very ill. The hospital is less confining because the institution is less isolatedthrough the introduction of elements of a scorned shopping mall that was feared for its diminishment of public life.

Eating lunch, shopping, working, and relaxing are "normal" activities with which the ill are supposedly unconcerned. In the construction of illness in America, we presume that sickness overwhelms the sensibilities and strips us of our ability to focus on anything other than our tragedy.<sup>54</sup> Conversely, as the AIDS epidemic has instructed us, the ill are as likely to be grumpy, sexy, humorous, or hungry as the rest of us. So, the breakdown of the institution of confinement parallels a fragmenting of the older conceptions of illness, dying, and death. The hospital can be restructured and redesigned as a resuslt of the evolution of these attitudes.

If it is, the hospital may represent a counterpoint to the diminishment of public space within the American city. Even as the conventional public spaces are disappearing or under greater stress, this private space may be becoming more public. As Spiro Kostof has warned, "Most radically, perhaps, our own peculiar rituals of social interaction have eased into a set of

privatized public places unique to our time, including the atrium, theme parks, shopping malls, and those 'festival marketplaces' made popular in the United States by developer James Rouse. . . . Encounters with traditional public places—and with the traditional city center itself-are increasingly superfluous to the daily rounds of suburbanites. Only the call to consume forces them back into something akin to a public realm, and of the most antiseptic and regulated sort at that. I am referring, of course, to the shopping mall."55 The integration of the hospital and the shopping mall thus could engender one of two results: first, the commercialization of the hospital, with health becoming simply another consumable; or second, the adaptation of the shopping mall into other, less commercialized environments resulting in the opening of previously private spaces into welcoming communal places where the public can congregate.

Emerging conceptions of the hospital may be a way station toward a more radical reconstruction of that social relationship.<sup>56</sup> The hospital began as a public institution serving indigent Americans. Through a disciplined application of science and technology, hospitals became a practical necessity in the national healthcare system. The latest transformation of the hospital has not diminished the need for the hospital to be a scientific paragon, but it has demonstrated that the hospital can become more patient-oriented, comforting, and integrated into the daily life of the community. The hospital could become one of Gruen's crystallization points in which the community gathers when illness strikes and provides comfort in a critical circumstance. The institution that is emerging holds the promise of engaging the community as never before in the history of the hospital.

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#### **Notes**

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- 3. Starr, Social Transformation of American Medicine, p. 156; and Rosenberg, Care of Strangers, pp. 147–50. Anesthesia is "a state characterized by a loss of sensation, the result of pharmacological depression of nerve function or of neurological disease," while asepsis is a "condition in which living pathogenic organisms are absent; a state of sterility," Steadman's Medical Dictionary, 24th ed. (Baltimore and London: Williams & Wilkins, 1982), p. 150.
- 4. Rosenberg, Care of Strangers, pp. 182–83; and Jonathan Douglas, "Claims to Fame," Dartmouth Medicine 16 (1) (1991) 22–27.
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- 6. Thompson and Goldin, *The Hospital*, pp. 175–87. The quote is on p. 187.
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- 55. Spiro Kostof, *The City Assembled: The Elements of Urban Form Through History* (London: Thames and Hudson, 1992) p. 185.
- 56. The ambivalence between separating the ill for privacy and engaging them in hopes of retain-

ing their independence parallels contemporary trends in residential developments. Contrast Sun City, legendary home of the elderly, with "assisted-living" homes, where the elderly and ill are encouraged to maintain their individuality and to continue their public lives. See John M. Findlay, Magic Lands: Western Cityscapes and American Culture after 1940 (Berkeley: University of California Press, 1992), pp. 160–213; and Victor A. Regnier, Assisted Living Housing for the Elderly: Design Innovations from the United States and Europe (New York: Van Nostrand Reinhold, 1994).