**Scientia Canadensis**

**Medicine by Design: The Architect and the Modern Hospital, 1893-1943. By Annmarie Adams.**

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David Sloane

My hometown of Los Angeles recently opened two hospitals. The Ronald Reagan UCLA Medical Center and the Los Angeles County-USC Medical Center together cost over $2 billions. Their design and construction required the services of not only leading architects, but also a battery of experts on lighting, technology, and effective service delivery. Annmarie Adams’ *Medicine by Design* reveals the emergence of this army of experts in the design and building of the first generation of modern hospitals. In doing so, she illuminates our understanding of hospital history, the social aspects of architecture and design, and the evolution of medical practice prior to World War II.

The book is constructed around a pioneering hospital architect, Edward Fletcher Stevens, and one of the facilities he partially designed, the Royal Victorian Hospital (RVH) in Montreal, Quebec. Stevens, working mostly with his partner Frederick Lee, conceived over 100 hospitals throughout North America. His book on hospital architecture successfully went through three editions between 1918 and 1927. Located on a ridge with a panoramic view of the city below, RVH is a gorgeous confection that expanded out from the original 1893 Henry Saxon Snell buildings. Stevens & Lee’s additions to RVH included a private patients pavilion and a maternity hospital. While the book is not a history of RVH, Adams returns repeatedly to the hospital as an example of how the evolution of medical practice mirrored and sometimes clashed with the architectural styles.

Historians of medicine have written extensively about the North American hospital, but most studies have viewed hospital buildings simply as receptacles for changing medical practice. Adams’ study is an important corrective for three reasons. First, she focuses on an understudied era, the period bridges from the earliest scientific hospitals prior to WWI to the modern medical system of the post-WWII era. Prior to this period, hospitals were designed similarly to other civic buildings. Their spaces were intended to accommodate large numbers rather than to incorporate technologies. And, they served primarily as charitable services for the poor rather than medical necessities for the entire public. All that changed.

Second, she discusses how the architectural profession came to view the hospital as a specialized building type that required individual architects develop an expertise in medical facilities and physicians and
nurses serve as consultants to ensure proper interior plans. Stevens recognized the new reality of designing a modern medical facility when he reversed the conventional purpose of architecture by arguing that the “exterior imagery of his hospitals [was] of secondary importance to the [interior] plan (p.128).” The “look” of a building could clash with the efficient “function” of a building, sending what should be competing messages but actually served complementary purposes.

And, most importantly, she illuminates the relationship of the physical hospital with the institutional hospital, illuminating the ways that the building has been an active partner in the development of modern medicine. Prior to the development of scientific medicine, patients who could afford home care stayed away from the hospital. With the advent of the modern hospital, architects needed to locate new technologies, cope with new pathways of infection, and respond to the emergence of professional nursing and new styles of care, while ensuring that patients viewed the hospital as a familiar and welcoming place.

Adams presents the evolution of hospital space through a series of human perspectives in chapters on patients, nurses, and architects and doctors. She notes repeatedly how interior spaces were shaped to reflect contemporary gender assumptions, facilitate the modern social structure of medical practice, and ensure “flexibility” so that “the medical department of yesterday could be the surgical department of tomorrow” (p.121). Each chapter reinforces the overall argument that this generation of hospitals was designed to provide comfort to middle-class patrons by clothing the structures in familiar designs, while planning the interiors along scientific lines. Patient spaces evolved to ensure that charity patients were separated from paying ones, yet both groups viewed the hospital stay as a medical requirement. Nurses were carefully monitored during their off hours even as they became essential partners in the routine of medical practice. Maternity and child patients were isolated in specialized facilities reflecting society’s presumptions about mothers, babies, and children, and reinforced the authority of medical personnel over those of family and parents.

Adams effectively uses her training as an architectural historian to convey her argument to the reader. While many historians struggle with describing design styles and the physical spaces of a building, she concisely elaborates on a remarkable number of technical changes, such as the adoption of the “Pasteur principle” of isolation by glass screen (p.121). She incorporates photographs and drawing not just as illustrations, but also as tools of analysis of the spaces and practices of medicine, with particularly effectiveness in the chapter on the social structures that surrounded the nurses and physicians who lived at the
hospital. And, she blends a regard for grand design with an admiration for ordinary spaces, especially in her compelling discussion of children’s indoor and outdoor spaces (p.53-69).

Adams book builds upon a generation of hospital histories while extending those authors’ arguments by elucidating the intricate dance between material culture, institutional structures, and medical practice. Practitioners and scholars alike will find the book an enjoyable and enlightening read.

David Sloane
University of Southern California


Healing Henan began as a research project for Sonya Grypma’s doctoral degree from the Faculty of Nursing at the University of Alberta, but it clearly developed into a labour of love that eventually took Grypma on two journeys to Henan. There she visited the site of the former Presbyterian/United Church of Canada mission and, with local guidance, managed to locate the original mission hospital and school of nursing at Weihui. The small building, boarded up and initially inaccessible to Grypma, has since been turned into a museum of the First Affiliated Hospital of Xinxiang Medical University and features some of the photographs and documents that she brought with her from Canada. In their own ways, it would seem, both Grypma and local officials were anxious to re-establish and celebrate an international relationship ruptured more than half a century ago. The anecdotes about these contacts make an effective beginning and ending to this book. But what was the reality of Canadian missionary nurses’ involvement and accomplishment at Henan in the years between 1888, when the mission officially began, and 1947, when the triumph of Communist Chinese forces over their Nationalist rivals resulted in the mission’s closure? Unfortunately, Grypma’s title vastly overstates what resulted from the nurses’ engagement with China and may well lead readers to expect more in the way of medical and “healing” content than her book provides. Grypma is on safer ground in claiming that Healing Honan adds to our understanding of Canadians’ role in the missionary era and contributes to the new historiography of nursing by exploring “the culture of missionary nursing, and the globalization of modern nursing” (p.21).