

PROFILE

Medicine by design

CMAJ Podcasts: author interview at <https://soundcloud.com/cmajpodcasts/150735-profile>

Nineteenth-century hospitals had the look of Scottish castles. Early 20th-century hospitals resembled noble public institutions such as city halls and libraries. After World War II, hospital buildings morphed into office towers. And today? Hospitals look like shopping malls or, depending on your level of cynicism, Toys“R”Us. Scholars of medical history might argue that these design changes reflect advances in medical knowledge and technology. But Annmarie Adams, a scholar of medical architecture and former director of the McGill University School of Architecture, has a different take.

“Hospitals are actually shaped by the same contemporary theories and cultural factors that shape all [public] buildings, not necessarily by medical factors. It’s very hard to connect a medical innovation to an architectural change in the hospital.”

After 25 years of devoting much of her academic energy to the intersection of medicine and architecture, garnering funding, awards and accolades alongside her three books and scores of articles and papers, Adams remains feisty and focused.

This focus was not, however, by design. During her doctorate at the University of California, Berkeley, she ventured to London to do research at the Royal Institute of British Architects’ library but arrived to find a sign on the door: closed for renovation. A colleague told her there was information on women and housing at the Well-



Sharon Morrison

Architectural historian Annmarie Adams is an expert in hospital architecture.

come Institute; she found a whole lot more besides.

“It really was the richness of the resources and the fact that no one else had really looked at this intersection between medicine and architecture. It struck me right away ... how empowered physicians seemed to be in the design of buildings.”

In the late 19th century, there was a full-on turf war between the professions. In her 1996 doctoral thesis, “Architecture in the Family Way: Doctors, Houses, and Women, 1870–1900,” Adams documented how the physician-led movement to improve domestic sanitation made the public wary of architects’ and plumbers’ “substandard work,” such as faulty

drainage and ventilation. This charge had “devastating” consequences for architects, as “building-doctors” diagnosed, treated and healed architecture.

Since then, the relationship has become more collaborative. “There are many physicians who know a lot about hospital architecture and they really are coauthors of these buildings. I mean Johns Hopkins in Baltimore is a great example.”

But the motives differed: For physicians, “the ongoing question of the power of the environment in the transmission of disease and in healing is what drives them. It’s still a very big question.” When pressed to generalize, Adams says architects “want to create a beautiful and dignified place for people.” And they are concerned with the building’s place: “its location, its silhouette, its overall look.” She sees the two roles as quite complementary.

Since moving to Montréal in 1990, Adams has focused on the Royal Victoria Hospital, built in 1893, as an encyclopedia of hospital architecture through which she measures her understanding of all other hospitals. This is the heady territory of her book *Medicine by Design: the Architect and the Modern Hospital, 1893–1943*.

The original Scottish castle, the “Royal Vic” was designed by Henry Saxon Snell and is similar in many respects to his Royal Infirmary of Edinburgh. It is also in keeping with other “reform” institutions, such as prisons, poor houses and schools. The people using these places were changed or reformed: the uneducated became edu-

cated; the sick became well. Part of the original healing magic of the Royal Vic was its relationship to these other institutions. Inside, the hospital was organized into pavilions, each of which housed patients with similar diseases to discourage the spread of germs.

Subsequent additions in 1916 and 1925 were designed by Edward Fletcher Stevens and Frederick Lee, who built more than 100 North American hospitals. Their designs reflected the trend toward buildings that looked like dignified schools or small-town city halls. Inside, the floor plan was similar to a hotel, with smaller rooms lining both sides of the corridors to encourage contact among medical specialists.

After World War II came the Corbusian modernist movement (named for the Swiss–French architect and planner Le Corbusier), with its sleek, white multi-storey towers. SickKids in Toronto has this office-building look. And the addition at the back of that institution is a nod

“I’m very worried about the hospitals that have been emptied.” She has seen other hospitals demolished: the Halifax Infirmary, the Mount Sinai in the Laurentians, the T.J. Bell Pavilion in Toronto and the Calgary General. “Personally I don’t think we should be demolishing hospitals when people are sleeping on the streets.”

As for the new Glen site, which has incorporated five of Montréal’s six English-language hospitals, and took 25 years and \$2.3 billion to build, it was “designed by committee.” “I think it’s a place where architecture has not been a top priority,” unlike the city’s French-language hospital still under construction, “where architecture does matter.”

Ironically, these new buildings are decades behind the times. Superhospitals were common in the 1990s, but “now the tendency is for smaller community-based hospitals.” Adams has been a critic of the Montréal super-hospital from the start. She argued for

based design, we’re really going to lose the importance of place.”

For her, the Royal Vic embodied this delight. Adams thumbs through a box full of vintage postcards of the building. “Can you imagine today finding a postcard of a hospital? ... It was a castle in the sky.” Today, hospitals are places to avoid. The Royal Vic’s Ross Memorial Pavilion was a place where people went to dine, to celebrate birthdays, “because it was a place of beauty. A special place.”

Today’s hospitals are designed by architectural firms with a track record in hospital design, “so there’s very little variation.” What if the innovative Dutch architect Rem Koolhaas designed a hospital? Adams believes it could move your soul, and not only house a place of healing, but be healing itself.

“I think the great buildings of the world make us think about ourselves in a different way.” They bring delight, solace, self-reflection and maturity. “It’s fascinating but no one is ever willing to take the risk [with hospitals].” And that’s mostly because adjacencies — what goes beside what — are considered so important that only firms with prior experience are considered competent.

After five years in administration at McGill, Adams, who was inducted as a Fellow of the Royal Architectural Institute of Canada in June, is taking a year-long sabbatical to start a new book. “I just love doing research. I love the kind of detective-like daily life of research, which is one of the reasons I’m happy to finish administration.” The new book will look at how hospitals accommodate death through autopsy rooms and pathology departments. She’ll also write about the architecture of the Montréal Neurological Institute, including an “amazing surgical theatre that was designed by Wilder Penfield [1891–1976] in the early ’30s and is still in use.” Which just goes to show the potential power of a physician–architect collaboration.

Barbara Sibbald BJ
Editor, News and Humanities, *CMAJ*

For images of the Royal Victoria Hospital, see Appendix 1 (available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.150735/-/DC1).

CMAJ 2015. DOI:10.1503/cmaj.150735

“... I actually believe that the delight of good architecture can’t be measured, that it’s like poetry, music; it can stir your soul in a way that cannot ever, ever be measured.”

to the post-1980 trend to the shopping mall with atrium — in fact, its architects also designed the Toronto Eaton Centre.

“I contend that the hospital looks this way because of general culture and societal changes. It’s not for medical reasons. It makes no sense to say that the atrium hospital came out of patient-centred care. It’s like saying a mall design is due to patient-centred care. Every expansion represented a different style, a different era of architecture.”

Adams and her students have inventoried all the architectural material at the Royal Vic and perused 150 working drawings to figure out how it was built. “So you can see my obsession.” She laughs. But the object of her obsession has been empty since the McGill University Health Centre moved to the Glen site in April 2015.

investing in upgrading, pointing to institutions such as Johns Hopkins, “a historic, highly respected institution where they still use their old building.”

“A lot of the work on hospital architecture is dominated by what’s called evidence-based design and I am not a believer in evidence-based design.” Its attempt to quantify good architecture, to measure the impact of physical environments on healing, may make life easier for hospital administrators who use it to show, for example, that good acoustic tiles in the emergency department will help with the flow-through of patients. “But I actually believe that the delight of good architecture can’t be measured, that it’s like poetry, music; it can stir your soul in a way that cannot ever, ever be measured. I fear that in believing in this system of evidence-