LOOKING BACK MILESTONES THAT MADE MEDICINE AT MICHIGAN

The Rise of “Old Main”

University Hospital evolves to meet a growing population and Medical School. By James Tobin

By 1915, doctors and patients had been struggling against the built-in limitations of the old University Hospital on Catherine Street for a quarter-century. It was a rabbit’s warren of 20 buildings, some free-standing, others connected by flimsy passageways open to rain and snow. It was messy, smelly, dirty and maddeningly overcrowded.

The problem was simple economics: Demand was far outstripping supply. The hospital drew its patients from the entire state, but Michigan’s population had grown by 50 percent since the hospital opened in 1891. It had been founded to treat indigent patients, the usual “material” for clinical training in medical schools. But medical graduates, knowing of the world-class specialists in Ann Arbor, were sending patients there for treatment. Well-heeled patients came for the same reason. Ann Arborites, who had footed part of the bill, wanted treatment too.

So every sort of facility and equipment was in short supply. For example, in the 1890s the pathology lab at the Catherine Street hospital handled perhaps 300 tissue studies a year. By 1915, the number had reached several thousand. Orderlies hand-carried baskets containing excised toes, tumors, tonsils and appendixes through wards, along corridors, across streets and between buildings, delivering them from far-flung surgical wards to the overburdened path lab, leaking formalin all the way. It was a hygienic and logistical nightmare, with many specimens lost, delayed, mixed up and misidentified.

So, after years of complaints, U-M President Harry Burns Hutchins and Victor C. Vaughan, the Medical School dean, went to the state legislature for funds to erect a hospital commensurate with Michigan’s reputation and mission. In 1917, the legislature authorized a first appropriation and promised more to follow. But soon after, the U.S. entered the World War, and every public construction project was put on hold. The project didn’t resume until 1919.

In that year, the design contract went to the Detroit architectural firm of Albert Kahn, already famous for landmarks such as Henry Ford’s River Rouge complex. Kahn was also the architect of Hill Auditorium, the Clements Library and other U-M buildings. Construction would be led by the Thompson-Starrett Company, builder of New York’s Woolworth Building, the world’s tallest at the time, and the General Motors Building in Detroit.

Kahn and his designers went to work, applying notions of efficiency and functionalism honed in the design of giant automobile factories. On their drafting boards an immense edifice took shape. It was sophisticated and complex, yet there was common sense at its core. Earlier plans called for unit-by-unit construction, as on Catherine Street. But with Kahn in charge — working closely with Christopher Parnall, director of the Hospital from 1918 to 1924 — the drawings revealed a single, giant structure with all units easily accessible to all others.

The site chosen was the hilltop overlooking the Huron River, across Ann Street from the Detroit Observatory. The structure would be built into the hillside, allowing nine stories on the river side and six facing south.

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It would consist of two giant Ys joined in the middle with a three-story limestone monolith in front for admitting and administration and another monolith at the rear, mostly for the Medical School. (Roughly 25 percent of the total floor space was devoted to the Medical School.)

Construction began in 1920. The concrete and limestone shell was built. Then everything stalled for want of the next appropriation from Lansing.

Finally, in 1923, the legislature authorized funding to finish the job — a task that took two more years at a total cost of $3.35 million. It was the largest teaching hospital in the country and the biggest construction job in the university’s history to date.

In the summer of 1925, doctors, nurses and staff accustomed to Catherine Street walked through the doors in wonder. On the first floor they found a diagnostic and outpatient unit of 56,000 square feet and a centralized records department with pneumatic tubes shooting out like the arms of an octopus to carry records throughout the building. There were more than 2 miles of main corridors, 2,799 windows and 280,000 square feet of floor space in all. In the old buildings, a person moving from one unit to another had often been forced to hurry through Michigan’s weather. No more — in the new building people moved from unit to unit via 10 large elevators.

In the basement there was a sprawling X-ray lab as well as cafeterias and kitchens, including three ovens capable of baking 180 loaves of bread at a time, a giant electric dishwasher, an ice plant and a water distillery.

The clanging and clattering of Catherine Street was stilled. In the new building, noise was muffled by heavy linoleum tile on the floors, felt liners on many walls and ceilings, metal crooks in place of doorknobs on patients’ rooms, and electric-light signals to replace bells.

Laboratories were designed and equipped to serve the needs of multiple departments, thus eliminating duplicate spaces. Wards were standardized for the use of any service as necessary.

Decoration, too, was state-of-the-art. In the operating rooms, the light green color on walls — later a defining trait of institutional drabness — was chosen as a contrast to the stark white then associated with hospital interiors. (“Green has been found to be far more restful to the eye and therefore peculiarly favorable for the surgeon’s work,” confided Harley A. Haynes, who succeeded Parnall as director of the hospital.)

Then there was the new pathology lab. No more orderlies leaking formalin from ill-smelling baskets; in the new hospital, specimens were carried promptly by electric dumb-waiters from surgical suites to the new path lab. There — at a rate of 30,000 specimens per year — they went into water-jacketed paraffin ovens or ventilated drying ovens; then to the diagnostic rooms; and finally into a permanent collection of diagnostic slides. Surgeons typically received the pathologist’s diagnosis within 24 hours of an operation.

U-M now offered the public up to 1,200 beds, depending on how you counted, including 300 in the old Catherine Street hospitals (now known as the Convalescent Hospital), and 100 in the old Homeopathic Hospital on North University (later named North Hall.) This was triple the old number of beds.

And within two months of the opening, there was a waiting list of 100 patients.

Sources include “Addresses Delivered at the Dedication Ceremonies, University Hospital” (1925); Michigan Alumnus and Michigan Daily; The University of Michigan: An Encyclopedic Survey; and Victor C. Vaughan, A Doctor’s Memories (1926).