# The Rogers Building: 1866–1938

Lawrence B. Anderson

### *Introduction*

*This year the College of Environmental Design (CED) at the University of California, Berkeley, celebrates its twenty-fifth year as an administrative unit, and the twentieth year of its building, Wurster Hall. Sally Woodbridge has interviewed many of the people who were centrally involved in the creation of the college and its building, and has constructed an account of the intentions, circumstances, and personalities that brought them both into being.*

*MIT was founded approximately a century before the CED and set about constructing a building for itself, a building that eventually came to be the home of the Department of Architecture and was later destroyed to make way for an Insurance Building. Lawrence Anderson, who studied in that first building, brings it back to life for us and has extracted from the MIT archives an account of its construction. A comparison of the size of the two buildings, the nature of their respective planning processes, and the issues that received design attention says much about a century of change in both education and professional practice.*

There cannot be many of us still remaining whose early professional work was done under its roof. To write about the building now requires embarcation on a nostalgic journey that brings to mind countless moments spent there during its final years. The nostalgia, which might otherwise seem merely sentimental to younger readers, can be offset by an account of the building's inception and construction that will show a seamier side of the picture. That account will be derived primarily from minutes of the Building Committee, preserved in the MIT Archives. They are charmingly inscribed in longhand by the faithful secretary, Thomas H. Webb, who was also secretary to the MIT Government.

The building was named to honor William Barton Rogers, whose initiative had led to MIT's founding in 1861. In the confusion and stress of the Civil War it was difficult to get the Institute underway. Classes were finally begun in rented space in downtown Boston in 1865, but MIT soon acquired land in a new district, the Back Bay, that was being developed by filling tidal marshes near the mouth of the Charles River. The site was only a block from what later became Copley Plaza, flanked by Richardson's Trinity Church and Charles McKim's Boston Public Library.

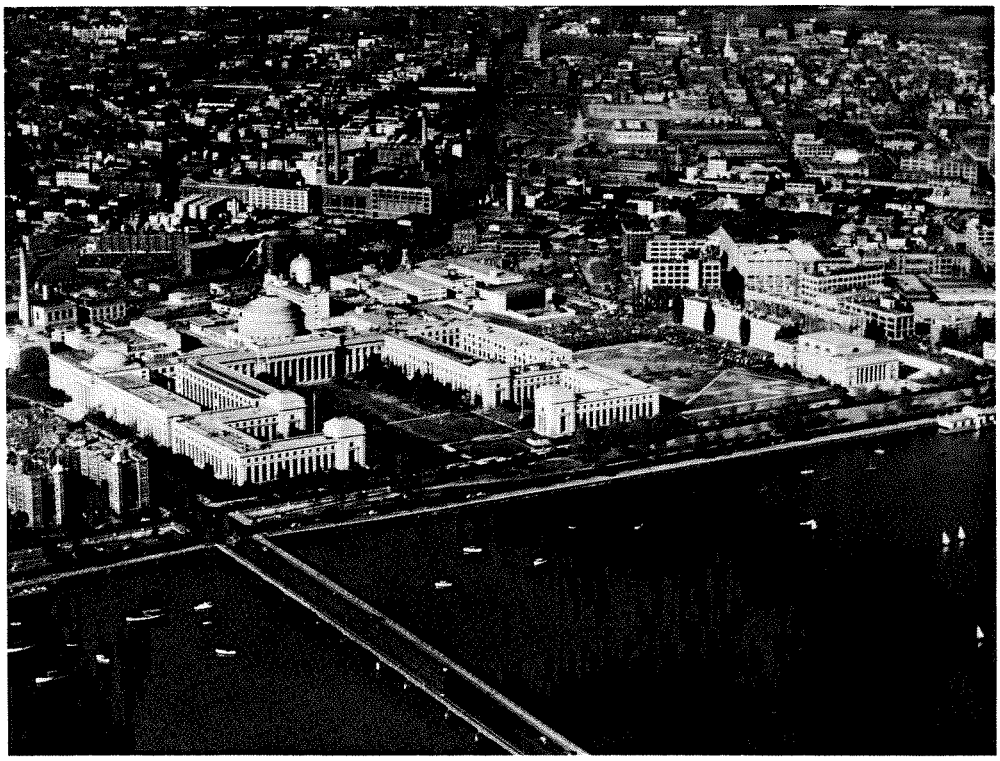
Rogers was MIT's first building project, and for a time it accommodated in its 55,000 square feet of usable space all the early instruction. Architecture classes began in the building in October 1868 under the direction of William R. Ware, a Boston architect and partner of Henry van Brunt. In 1865 Ware had been charged with developing an architectural program. In 1866 he published the pamphlet, *Outline of a Course of Architectural Instruction*, but in 1867 he was still in Europe, observing schools and accumulating the books, photos, and casts he thought necessary. Thus, he was not involved in the construction of the new building.

In addition to Rogers, MIT constructed other buildings in the Copley Square area, but in 1913 the decision was made to settle across the Charles in Cambridge. In 1916 every department except that of architecture moved across the river to a campus designed by Welles Bosworth, an alumnus. That left the School of Architecture in sole possession of the Rogers building, probably through its choice. The School had throughout its early history far more affinity with architects practicing in Boston than with its parent academic institution. A very large number of its students attended classes part-time and were not eager to commute to Cambridge for general courses. They could walk to and from the offices where they worked, as could

the part-time lecturers and jury members. These conditions led to the development of a degree curriculum in which the School furnished its own instruction in science, mathematics, history, and structures.

In 1938, when the Rogers building was sold to make way for an insurance company's office building, the School of Architecture joined the rest of the Institute in Cambridge. That move was the beginning of deep changes in the School toward finding its place in MIT's spectrum, away from its parochial and vocationally oriented past. Because I enrolled as a graduate student in 1929 and, after studies in Paris, joined the faculty in 1933, I had the good fortune to live through that period of transition.

As a student I was introduced to a building that was rectangular and roughly 95 by 150 feet. Its narrow end fronted on Boylston Street and was flanked by buildings of similar size and character on either side. It was made of granite, sandstone, and brick, with floor framing largely of timber. Stylistically the exterior stuck closely to neo-Renaissance models that had impressed the designer during his French studies, although the same architect worked in a much freer style during the remaining decades of the 19th century, doubtless influenced by his close contemporary H. H. Richardson.



1

**1 MIT**—aerial view

Photograph courtesy of MIT Museum.

2

**2 Rogers Building** from southwest

Photograph courtesy of MIT Museum.

The entrance on Boylston Street featured the obligatory broad flight of steps which led, not to the columniated main floor, but as in Perrault's east façade of the Louvre, to a superelevated basement. All of the façades displayed a correct but rather conventional array of windows, arches, and classic orders, with ornamentation appearing in the expected locations. (During construction various artists had been invited to submit models for sculpture, and while the authors of the chosen designs were paid a fee, the designs for a figure above the pediment and the pediment sculpture itself were not executed. A central decorative tablet broke in transit, and a window had to be substituted.)

It did not take long to discover that the architect had a far greater concern for his envelope than for the elements he had to dispose within it. They included, besides the usual academic assortment of laboratories, classrooms, and offices, a lecture room capable of seating 900, a large exhibition hall, and a library of substantial dimensions.

It can be seen from the section drawing that access to all these elements is provided by a great skylit atrium occupied by monumental stairs. Such a central open space is a frequent part of important buildings of the period. It provides unity and minimizes the need for corridors. But in Rogers it was not handled with great felicity. There were awkward bridges, and the various flights did not maintain a constant tread/riser relationship. Its approach to Huntington Hall is constrained and insufficient for crowds; it dumps people where they will have difficulty circulating to their seats.

The design studios were grouped on the top floors around this atrium. In the graduate studio individual work places were curtained off to protect the privacy of *en loge*; however, they also discouraged fraternization. In my day a strictly enforced rule forbade smoking because of the paper hazard. We were, however, allowed to sit on the broad cast-iron stairs in the atrium with their mahogany balustrades, and to smoke in the presence of large metal ashtrays. Since I smoked in those days most of my conversations with undergraduates and others who observed this discipline took place at these times. Naturally in one academic year I hardly came to know the nonsmokers.

The open atrium/stairway, lacking any fire or smoke cutoff from surrounding spaces, was a hazard of high order, combining as it did the characteristics of a flue with its function as the only circulation element available for egress. Scarcely any other stairs were provided, certainly none that could have served as an alternate safe

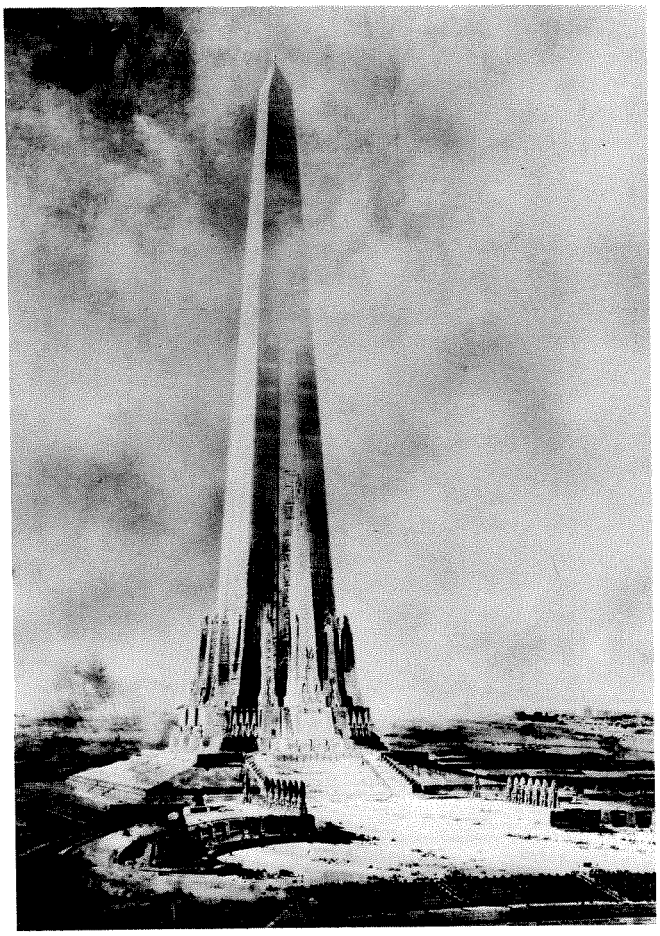
exit. Rogers was lucky indeed to survive 70 years of useful life without a fire. Over the years awareness of hazards to life found expression in building codes. By my day Rogers had acquired proper exterior fire escapes that thumbed their noses at Renaissance façade canons.

The commanding feature of the atrium was, however, the great perspective rendering of Despradelle's *Beacon of Progress*. It was mounted on a rigid chassis *a la française* and suspended in the void in front of the balustrade by Huntington Hall, so that a person entering the building and climbing upward could not fail to be overwhelmed by what must have been one of the largest beaux-arts drawings ever made in the United States. It is one of several drawings Despradelle made for his self-generated project, and could have been as large as 12 by 16 feet.

Désiré Despradelle had been recruited in 1893 to be MIT's second French senior design critic, following the death of the first, Eugène Létang. Immediately following his arrival in the United States he visited the Chicago Exposition just before its closing. He was so impressed that he conceived the idea of a permanent structure in stone, the "Beacon of Progress," that would commemorate the Exposition on its own site. He worked without authorization or compensation on this project for six years, winning for it in the Paris Salon of 1900 the First Medal in Architecture. Although Despradelle also participated in some executed projects in Boston, the Beacon was his magnum opus. He belonged to a generation of architects who felt impelled to make colossal gestures of this sort, equivalent to writing a major novel or composing a great orchestral tone poem.

Other spaces in Rogers left strong recollections, but the most significant was the basement space that became known as the Emerson Room. Because the room had evidently been meant to accommodate heating boilers, it was endowed with high space owing to a floor level several feet below that of the general basement. Steam bought from Boston Edison made the boilers unnecessary. The room was only about 30 feet square, but its proportions gave it manorial scale. It was entered by means of a kind of arched loggia along one side that terminated in the steps leading down to its level. Thus, one was able to survey the room at a glance and to become aware of its social mood.

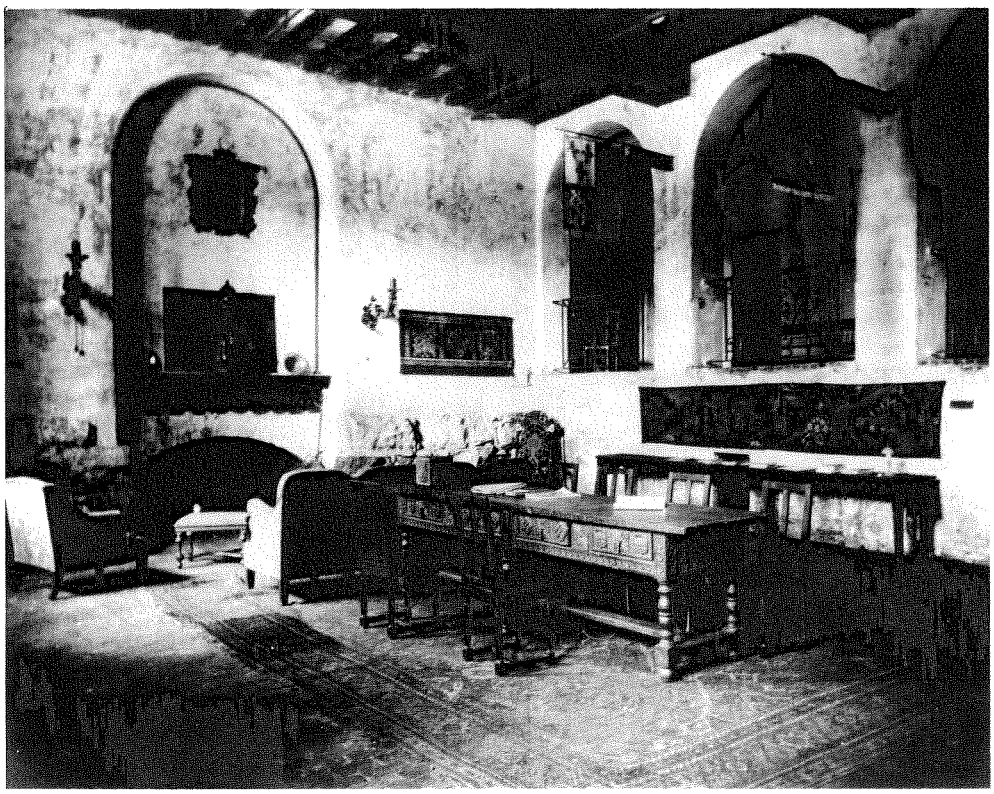
While it was, of course, used for parties and celebrations, its major purpose was repose. Immersed as we were in ingrained charrette habits, it became necessary from time to time to work for several days with only short periods of sleep. It did not



3

**3 Désiré Despradelle**, The *Beacon of Progress* perspective rendering, circa 1900.

Photograph courtesy of MIT Museum.



4

matter whether one slept by day or night. The room was always dark and quiet, isolated from street noises and from the building's other occupants. One or more large sofas invited positions of comfort.

William Emerson, dean of the School from 1919 to 1939, was always solicitous of student well-being. He had a large fireplace built to make use of the chimney and equipped the room with items picked up in his frequent European travels: French wrought-iron railings, a great carved oaken table from Florence, and a very respectable tapestry. An attempt was made later to create a room of the same name and purpose in Cambridge on the fourth floor of Building Seven, but it never provided the ambience of the original. Building Seven was the addition to Welles Bosworth's 1916 campus built to house the School in 1938. It was essentially composed of standard 15-foot bays which, while adapting themselves to changes in use, failed to provide even as by-products, spaces of a singularity and isolation that would allow them to become, through use, memorable. The new Emerson Room, constructed of standard modules and mingled with classrooms and offices, was easily taken over for classroom use by the always hard-pressed Schedules Office.

With our student body smaller after 1916, we had

**4 Emerson Room** showing loggia

very little use for Huntington Hall, the lecture room. (It was on the platform of that room that Rogers himself, who had previously relinquished the presidency because of ill health, collapsed and died while delivering a commencement address in 1882.) But we did frequent the large exhibition hall at the rear of the building underneath Huntington Hall. This was the place for the hanging of projects, for the long drawn out jury sessions, and for the gallery talks by some member of the jury commenting on the designs and justifying the choice of the awards. These actions seemed at the time to be an immutable ritual without which architectural education could not have been imagined. Students were excluded from the process, in order, it was thought, to evaluate their works without any personal pleading. Some of the subsequent gallery tours were brilliant improvisations, but inevitably they reflected only the personal opinions of the reviewer. In the late 1940s W. W. Wurster ordained that students should have the experience of defending their work orally, as they would need to do in practice. This democratized the process, but diminished its efficiency and even seemed to encourage grandstanding on the part of jury members who had had nothing to do with the previous student input to the projects. At MIT other alternatives to jury evaluation are constantly evolving.

5

**5 Emerson Room** with tapestry

In this room Herbert Beckwith and I selected and hung a retrospective exhibition of student work covering the entire history of the school until 1938. Even at that relatively early date, the review of student work furnished striking witness to the shifting priorities in social attitudes and stylistic preferences over the school's first 70 years. I wish that all of those projects could have been preserved. Many are reproduced in Caroline Shillaber's *1861–1961: A Hundred Year Chronicle* and, fortunately, the most significant ones can still be found at the MIT Museum. Today student drawings are not made for posterity; we have lost the custom of preserving them, except for theses.

Let us now see what can be learned from the record of how the Rogers building came into existence. The Building Committee was composed of seven persons, members of MIT's Trustees, then called *The Government* (now called The Corporation). Rogers was the permanent chairman and seems to have attended most of the meetings. Their first meeting was in May 1863. Four days later at a second meeting they considered a letter from architects Jonathan Preston and William G. Preston, which proposed a fee of "5% of the nett cost" for complete design and supervisory services; on that same day they voted to accept this proposal, to authorize the Prestons to contract for foundation piles, and to proceed with plans for the superstructure. These architects had, in fact, already executed the neighboring building for the Natural History Museum and had also been providing ideas for the MIT building to another provisional committee of the Government.

Who were these Prestons? Jonathan, the father, was 62 at the time of the start of the commission and would live to be 87. He must have come into architecture as a self-made man, no doubt through earlier experiences in masonry and contracting; by 1863 he had attained some stature in public life, having held elective positions in municipal and state government. (He was also from its beginning a member of the MIT Government.) He attended most of the Building Committee meetings and took care of the business matters relating to the project. In the minutes he is often referred to as "the Superintendent." His son, William, was looked to for design. William Gibbons Preston was studying or had studied in France: one of his renderings of the Rogers façade was inscribed "Paris 1863." He was on the threshold of a career as architect that was not to end until 1906.

Ten days after their appointment the Prestons presented plan drawings and shortly thereafter a budget estimate of $144,000, which could be reduced to $140,000 with the adoption of certain alternates. Fifteen weeks after their appointment sealed proposals for granite, freestone, and masonry labor were entertained, and others for plastering, digging, and heating were at hand. The project was off to a fast start.

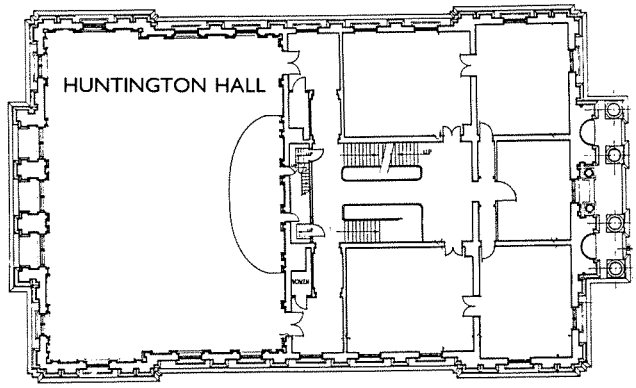
Yet not until the 31st week was the contract for the granite basement approved at $7,634.50; the freestone proposal of $41,750 was accepted in the 43rd week. In the 50th week Jonathan Preston was authorized to contract for earth moving (the City of Boston was providing the necessary fill by the carload, but MIT had to pay for the grading).

Just one year after the inception of the project, William Preston was asked to write his views on the ventilation requirements. In the files is a long letter describing his observations on the most up-to-date ventilating installations for scientific buildings, chiefly in England.

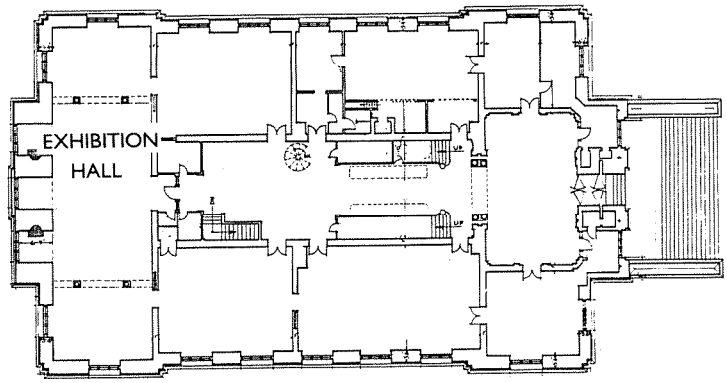
Rather belatedly, it would seem, in the 95th week of the project, committee members raised the question whether it would not be wise to put an additional floor on the building to meet a perceived increase in needs for space. At that time $107,071 was already under contract, and the amount estimated for completion was $27,417.

**6 Plans, section** of Rogers Building

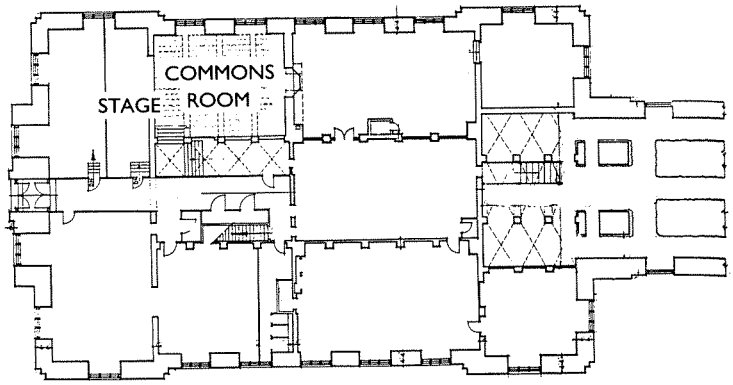
Drawings courtesy of MIT Museum from Historic American Buildings Survey. WPA Project No. 665.14.3.254



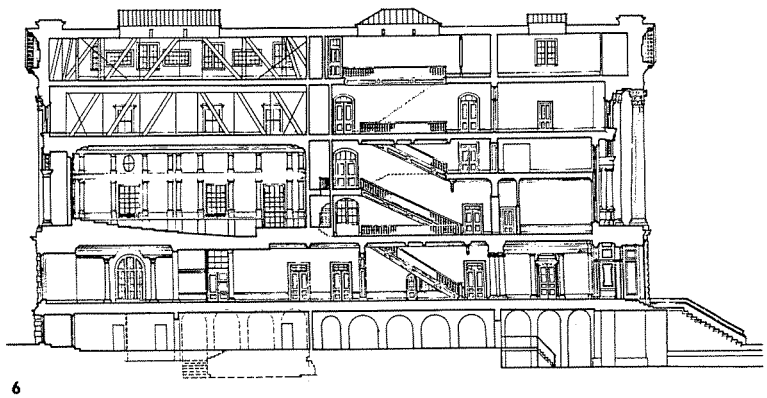

SECOND FLOOR PLAN




FIRST FLOOR PLAN




BASEMENT PLAN



LONGITUDINAL SECTION ON CENTER LINE

6

William Preston prepared very promptly a sketch showing, it would seem, how the building would look if a partial attic floor were added, and a month later provided an estimate of additional cost of $15,181. But the committee was not satisfied, and actually employed another architect, a Mr. Fehmer, to sketch a mansard roof which would cover an area equal to that of the other floors. In the 104th week the Government approved his design on the condition that the cost not exceed $25,000, and he was asked to prepare working drawings. Within two weeks Mr. Davies, a Committee member, noted that the top floor exterior walls were composed of two four inch widths of brick separated by a hollow space of twenty-two inches, a construction patently inadequate to support Fehmer's scheme. Because it turned out that the total additional cost would be $28,000, Fehmer's plan was dropped in favor of the more conservative one by Preston.

In the 114th week the Government appointed a special committee on heating and ventilation. It submitted a report within a month. Eight months later, the members asked why their recommendations had not been carried out. The communication among the interested parties had not been good.

In November 1865, after two years of construction, the MIT Treasurer warned that the authorized expenditure limit of $156,624 was rapidly being approached, while much interior work remained to be done. New estimates were made as to the probable costs remaining. This resulted in the appalling disclosure that the budget would be exceeded by at least 30 percent. It became necessary to leave part of the interior unfinished, but even so the amount spent came to $271,000 in 1867, of which only about $16,000 was for "ventilation, warming, and lighting."

By early May 1866, three years since the start of the project, the need to occupy the building was urgent; the leases on rented space were expiring. Yet studies were still being made to determine the location of water closets and urinals, and in July the windows had not yet been inserted. The minutes terminate inconclusively early in 1867, with William G. Preston asking to be reimbursed for his passage to Europe to study ventilating methods. In retrospect, the project petered out with tantalizing slowness, the initial optimism about both costs and time of completion completely unrealizable. Doubtless there were recriminations on all sides that the stylistic formality of the 19th century phraseology could not reflect in the records.

So this handsome building, so beguiling to occupy and to use, was born in the harrowing ineptitude of its creators. Why? Because the elder Preston was an experienced professional and an outstanding citizen, we have to assume that his methods prevailed at the time, although they were amateurish as compared to those in European cities. The Committee authorized the Superintendent to purchase materials and to let contracts for labor, sometimes even to hire journeymen by the day, as the needs of the work dictated. Thus, expenditures were difficult to control. No one seemed to be exercising the functions expected today of the general contractor. And, clearly, Preston grossly underestimated the time and cost needed for interior fittings, resulting in ghastly overruns at the very end.

At that moment the American Institute of Architects was only about a decade old. All the elaborate apparatus, tradition, and documentation of appropriate procedures and contractual relations that we abide by now were yet to be developed through costly trial and error. Industrialized building technology was in its infancy. Cast iron was on the market; structural steel and reinforced concrete were not. Blowers for ventilation had to be driven by steam. Lighting was provided by gas. The notion that environmental control systems could be integral with building design did not exist.

We may derive several useful lessons from this case study. As a profession, architects quite predictably believe that a building gives delight because of the talent and insight of the designer, operating within the cultural setting of his time and place. Aesthetically, the design of the Rogers building had been borrowed from a culture far more sophisticated than ours, at least in its external arrangements. Its internal arrangements failed to reflect the clarity and purity of the best French hôtel plans whose façades may have influenced the Rogers exterior; nevertheless, memorable internal spaces did emerge, largely due to accidents and interventions on the part of users, unforeseen by the designer. The inability to transplant the Emerson Room into its new Cambridge context indicates how capricious these considerations can be.

Regarding the processes of detailed design and construction, clearly the technological organization of the building industry was, in the Boston of 1863, not adequate to the challenge. We can, in retrospect, congratulate ourselves that 120 years of experience have enormously amplified the industry's capacity to control costs and to bring about the timely completion of major projects.