

Saving Calvin Hall

The Back Story

by James Hill

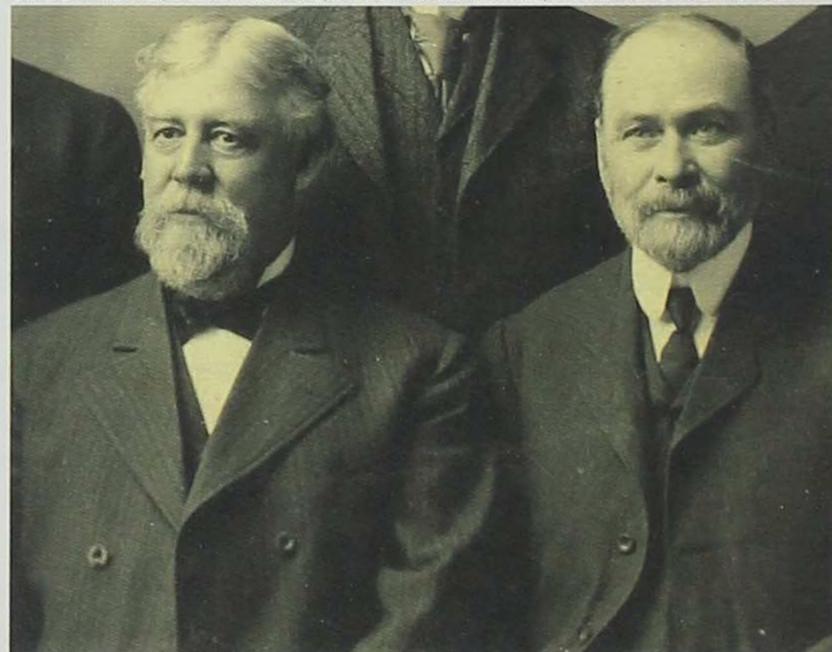
A good brick building shouldn't go to waste." University of Iowa geology professor Samuel Calvin's comment on the fate of Science Hall was understated and practical in its simplicity, but it signaled the start of a remarkable feat. Now, over a century later, that feat remains just as remarkable as it was in 1905, when the 6,000-ton Science Hall—now Calvin Hall—was successfully hoisted and rolled out of harm's way.

It's a story well known to Iowa City's local history buffs and university alumni: To make room for new construction on the campus, the University of Iowa arranged to have Calvin Hall cut from its foundation and moved to a new site. Less well known but no less important is the back story to this event, the set of circumstances—the engine—that powered the move. Underlying those circumstances was an unusual friendship between faculty members Samuel Calvin and Thomas Macbride, a bond that proved crucial to the life of one of the university's most admired buildings.

The long friendship of professors Calvin and Macbride began at Lenox College in Hopkinton, Iowa, where both were on the faculty in the 1870s, Calvin in natural science and Macbride in mathematics and modern languages. There they formed an immediate bond, based in part on what they shared. Both men had Scottish roots, both were from families that had immigrated to Iowa in the 1850s, and most important, both had a passion for the natural world around them and loved nothing more than an outing in the woods to collect specimens of the abundant flora.

That friendship continued after Calvin left Hopkinton for the University of Iowa to become professor of natural science in 1874. Five years later, when Calvin found the time was right for an assistant, he immediately thought of Macbride. In a letter that began, "Dear Friend Mac," Calvin showed his determination to bring his friend to the university. "The Board [of Regents] seem to be in the humor of giving me the help I need," he wrote, "and I have recommended you as the person I want. They will make you an adjunct pro-

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Friends and colleagues Thomas Macbride (left) and Samuel Calvin in 1905.

fessor of Natural Science with a salary of \$1200 per year. Will you come?"

Calvin didn't have long to wait, for Macbride accepted immediately. After he and his family had arrived in Iowa City and settled in, the two-man faculty began to build up their department of natural science, forging a collegial partnership in the process. In the rooms of Old Capitol, Macbride taught botany, zoology, and biology; Calvin handled geology and helped out with zoology. Actively engaged scientists as well as teachers, both men continued their collecting expeditions into the Iowa countryside and well beyond the state's borders, returning with specimens for the University Cabinet, as the natural history collection was called.

With the university growing, along with the demand for their classes and laboratory work, Calvin and Macbride soon led a campaign for a new building to accommodate the overflow of students and enlarged specimen collection. A new home for natural science was in everyone's interest, they argued, given present conditions and expected growth. The Board of Regents



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Science Hall was one of a handful of brick buildings stretching in a row from both sides of Old Capitol, on the University of Iowa's original campus. Between 1898 and 1924, four monumental buildings were constructed in the Beaux Arts style and in scale with Old Capitol. When Old Dental was torn down in 1975, the Pentacrest finally achieved its intended symmetry.

agreed. In 1885, the new Science Hall, just to the north of Old Capitol, opened for classes. Three stories of red brick with gray stone trim, it was, in the estimation of the *Burlington Hawkeye*, "the nearest approach to elegance to be found in any of the University buildings."

Calvin conducted classes in geology on the first floor and Macbride in botany on the second (the natural history collection occupied the third floor). In the classroom, the two men were opposites in style: Macbride witty, charming, and entertaining, a natural showman, and Calvin dry, precise, and stern. One Iowa Citian who had attended their public lectures wrote to Macbride of his preference for the showman, noting that Calvin's "manner of presentation is not popular. I say this to you in confidence and with all respect for the Professor."

Teaching styles aside, both men proved to be excellent scientists, earning national reputations in their specialties, Calvin in paleontology and Macbride in fungi. As employees of the state, Calvin and Macbride performed service and research beyond the borders of Iowa City, traveling the length and breadth of Iowa, observing, classifying, and documenting its natural assets.

Calvin served as the Iowa state geologist for many

years, completing a geological survey of its counties. Macbride was an outspoken advocate of public wilderness areas, lecturing across the state, and, as president of the Iowa Park and Forestry Association, he furthered the development of state parks. Both men were ardent conservationists, in word and deed, and teachers of conservation who believed in the value of hands-on instruction—so much so that in 1909 Macbride spearheaded and Calvin supported the creation of the Iowa Lakeside Laboratory at Lake Okoboji for students and faculty in the natural sciences.

By 1904, the natural science department and the natural history collection had outgrown Science Hall. The entire university was growing, in fact. A progressive construction agenda was already under way, thanks to the eighth and ninth university presidents, Charles A. Schaeffer and George E. MacLean. On the central campus, now known as the Pentacrest, the Collegiate Building (later renamed Schaeffer Hall) was already completed, southeast of the Old Capitol. Next on the agenda was a larger natural science building, to be built on the



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To move Science Hall, 27 carloads of timber were used for cribbing. University librarian J. R. Rich described the feat: "Nearly eight hundred screws were set and began to turn, gently lifting the great structure into the air." It was then set onto nearly 700 4-foot rollers. "The pushing screws worked to a length of three and one-half feet in the drums, longer drums being substituted when the screws had reached their length, until it became necessary to carry the cables forward under the building, when the shortest drums were again used, and so on through the series." Rich was awed by the "turning [of] the building on its axis as it moved forward . . . in order to pass another building," and then a back turn "to bring the building over the new foundation." In the move across the street, the greatest distance achieved in one day was 17 feet.

site occupied by Science Hall. Although the other brick buildings in the central campus were far older and likely to be demolished, Science Hall, built in 1885, was still in good condition. Calvin and Macbride boldly proposed moving the building. After a persuasive campaign by the natural science faculty, the Board of Regents approved their plan and the hard part commenced.

Moving a 6,000-ton structure of brick, wood, and plaster is considered a formidable piece of work even today, but the engineering for such things had advanced far enough by 1905 to ensure it could be done. And done well, without harm to the building. It was just simple physics: Raise a mass by the incremental force of jack-screws, set it on rollers, prepare a track for the rollers, and push it, keeping it level all the while.

The Chicago company hired for the task, L.P. Friestedt, considered the move "a little job." It had moved greater buildings; all were considered portable given an engineering solution, the right tools (lever, screw, and wheel), and sufficient force applied along a vector. And time. Months rather than days were needed.

The movers began their work in the spring of 1905. After setting hundreds of jackscrews under Science Hall, they prepared a bed of cribbing and rollers, then cut the building from its foundation and settled it on the track. Using massive pushing screws, they inched the building along, using surveyor instruments to ensure that the levelness "would not vary by half an inch." And it was so. The natural science faculty continued to conduct classes in Science Hall, their students coming and going, their laboratory work moving along uninterrupted, through the months of that summer.

Science Hall reached its new home across the street on August 15. The prepared foundation was built up to meet the skirt of the building. The jackscrews were removed. And it was done.

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Renamed Calvin Hall, the imposing brick building once called Science Hall commands attention on the Jefferson Street hill, opposite the Pentacrest on the University of Iowa campus.

One can imagine the satisfaction of Calvin and Macbride in this moment of vindication. One can almost see the conspiratorial wink, the handshake, the slap on the back, before they returned to Science Hall and their teaching.

In later years, Bohumil Shimek, who had joined the natural science faculty in 1890 and knew both men well, summed up the partnership of Calvin and Macbride: "Those two men worked together for years and years," he wrote. "They consulted each other on all important matters. When professor Calvin needed invigorating, Dr. Macbride was there to do it. When Dr. Macbride needed calming, professor Calvin was there."

A tireless teacher, Calvin remained an active and engaged faculty member until the very end. In the spring of 1911, during the weeks of his final illness, Macbride was at his bedside each day offering cheerful encouragement. He jotted into his diary how "much improved" Calvin seemed and was ill prepared when Calvin went into a sudden decline and died. Macbride was dumbstruck, if we can judge from the spareness of his entry for April 17: "He died! I cannot believe it. And the day so fair."

In the days and weeks that followed his death, Calvin was eulogized for his contributions to the university, the state, and the field of geology. But a greater honor lay far in the future. In 1964 the building once known as Science Hall was renamed Calvin Hall to honor its chief patron and presiding spirit. Similarly, the Hall of Natural Science, completed in 1907, was renamed to honor Calvin's friend and colleague shortly after Macbride's death in 1934.

Today, Macbride Hall draws students to its classrooms and visitors of all ages to its museum of natural history, while Calvin Hall, in its 12th decade and long past its life as a science facility, serves students through its offices of admissions, student services, and financial aid—bearing out the principle that a good brick building shouldn't go to waste. ❖

James Hill has written extensively on 19th-century British literature and health care. He lives in Coralville.

NOTE ON SOURCES

The patient staff and exceptional resources of the University of Iowa Archives were a great help in my research for this article. I found the personal letters of Samuel Calvin and Thomas Macbride and the diaries of Macbride to be particularly illuminating aids to understanding the long friendship of the men. Other fine resources were *A Pictorial History of the University of Iowa*, by John Gerber et al. (Iowa City: University of Iowa, 2005); Irving Weber's collected writings on the history of Iowa City; and issues of the *Palimpsest* from 1934 and 1985 that featured Macbride and the Iowa Lakeside Laboratory. For a detailed description of moving Science Hall, see J. W. Rich, "The Moving of Science Hall," *Iowa Alumnus* (November 1905). The development of the modern-day Pentacrest is explored in Nancy J. Brack and Jean W. Sizemore, "The 'New' University of Iowa: A Beaux-Arts Design for the Pentacrest," *Annals of Iowa* 51:2 (Fall 1991).