

RADIO HALL

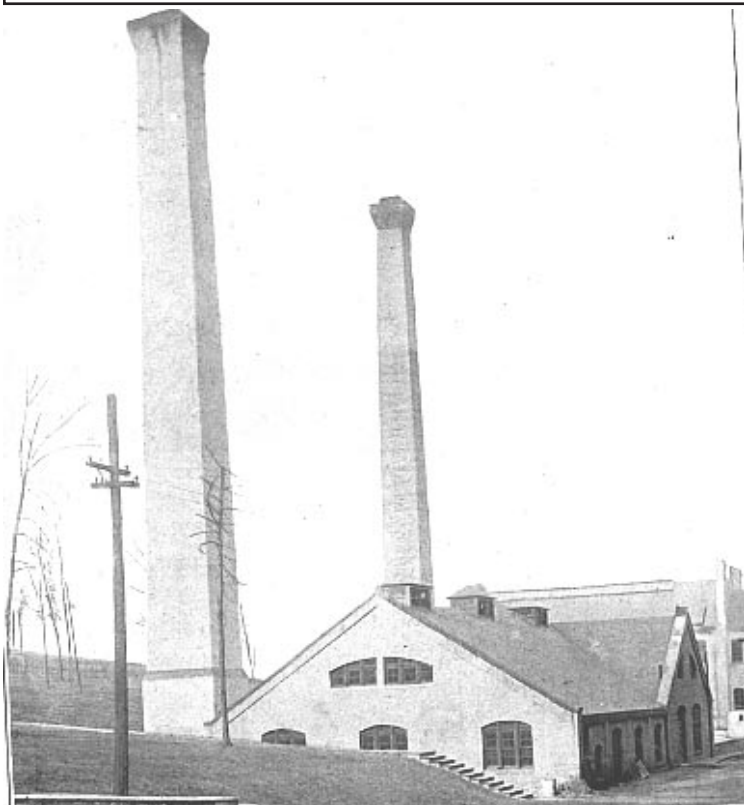


Fig. 1. Radio Hall, in its first incarnation as the Heating Plant, just after the 1893 addition. In the foreground is the south end of the addition. The section of the building running right to left toward the back of the picture is the original building. Visible in the background is the Machine Shop building across Observatory Drive. Radio Hall is located just west of Science Hall, on Observatory Drive. [Meure photo vol. 1 p.89]

Radio Hall was built in 1885 to provide steam power to Science Hall and its auxiliary buildings. It served as the campus heating plant from 1893 to 1908. In 1909 it became the mining and metallurgy laboratory. It received the name Radio Hall in 1935 when WHA moved in. In 1972 WHA removed to Vilas Hall and Radio Hall became the home of the Extension's teleconferencing and broadcast lectures. It is listed on the Nation Register of Historic Places as part of the Bascom Hill Historic District.

The squat shape of Radio Hall is tucked so far into the east side of Bascom Hill that its west eaves come within a foot or two of the ground. It was built to implement the great technological achievement of the 19th century, steam.

When the original Science Hall burned in 1884, it was the determination to prevent fire that led the regents, planning the replacement building, to split off the dangerous disciplines in smaller buildings of their own. These included the chemistry department with its special requirements for ventilation, the machine shops (the suspected culprit in the Science Hall fire), and later after a little reflection,¹ steam generation. Until that time, each building had separate hand stoked furnaces burning wood and/or coal. This arrangement was dangerous, inefficient, messy and expensive. By the time the regents approached the legislature for funds, a central heating plant was part of the plan. It was

intended to supply steam (both low pressure for heating and higher pressure for motive power) for the new group of buildings being built to replace Science Hall. The heating plant was contracted to John Trumbull of Whitewater in June of 1885, and finished in 1887.² As completed the 52 foot square, 26 ft. high limestone building was sufficient for supplying steam to the new Science Hall group. No clear photo exists of this original building.

The 1890s was a period of enormous growth for the University and the idea of a central power plant seemed like such a good one, that the University planners assumed that each new building could simply be hooked up to the plant. This was true in the case of the 1892 law building. The extreme of this attitude was reached when in 1894 during the building of the Red Gym the regents decided to connect it to the Heating Plant *after the purchase and delivery* of the originally planned on-site boilers. The regents decided that heating the gym, North, South and Main Halls would require expansion of the Heating Plant.³

The Professor of Steam Engineering, Storm Bull (nephew of violinist Ole Bull, and later mayor of Madison), was given the task of this expansion. Bull added a 70 foot long wing to the south, built a second chimney on the south end (see Fig. 1) and added six new boilers. He also converted the plant to burn the cheaper, cleaner and more accessible bituminous coal. In a highly detailed and technical paper he gave at The American Society of Mechanical Engineers, Bull says that the location of the Heating Plant was not a good one:

But so much money had already been expended on the boiler house, it being a very substantial and somewhat ornamental building, together with the chimney, it was determined by the regents of the University, that the boiler house should be enlarged and remodelled so that all the buildings of the university--except those of the Agricultural department--could be heated from it.⁴

In the fifteen years following the expansion of the Heating Plant the University campus grew dramatically. Most of this expansion took place in the area of the agriculture campus in the area specifically not served by the central Heating Plant. Another smaller heating plant was built to serve the new agriculture buildings. Further campus growth and improved steam practice convinced the regents that a single plant with tunnels to all buildings, however distant, was a workable solution. Consequently in 1908 the University built a new Central Heating Plant on the south side of University Avenue.

With the completion of this new plant, the old building was heavily remodelled and expanded to serve its next technology: mining engineering. This department had been formed the previous year, and needed space for assaying laboratories and ore dressing rooms. University architect Arthur Peabody made these alterations and designed all the furniture and appointments in 1908-10. The mining and metallurgy department used this building from 1908 until 1931-2 when it moved to its present location in the old Forest Products Building on University Avenue. In April 1932 the regent's executive committee voted to allow the State Highway lab to use the building, but there is no evidence that the state ever moved in.⁵

After the departure of mining in 1931, the building's next occupant was radio. Radio had begun at the University in 1917 (the station was then called 9XM) with the nation's first scheduled broadcasts from a laboratory of hung blankets in Sterling Hall. Improvements in broadcast quality required more space, quiet, and freedom from vibration than were available in Sterling.⁶ All these requirements could be met by the mining lab building which was then standing empty. In 1934 the regents voted a \$4000 appropriation to convert the building to radio use and changed the name to Radio Hall. The labor was furnished by the Civil Works Administration and the Work Emergency Relief Administration. The attic spaces in both the original section and the addition were finished for office space, an inner building suspended on springs for vibration isolation was constructed, rooms

for studios were built and heavily insulated. The decorations, extant, were designed by art students and professors, using an American Indian motif.⁷ They are considered a good example of New Deal Art. Wiring for remote broadcasts was run through the old steam tunnels, allowing the studio to monitor, record and broadcast lectures and performances from every building on the upper campus. Offices, control rooms and a library were also arranged in the building. However, when the Vilas Hall for Communication Arts opened in 1972, WHA radio and television moved into larger quarters there. The old building retained the name of "Radio Hall".

The current technology housed in the building is Instructional Communications System Extension, Interactive Instructional Programs. The old studios are used for teleconferencing, and lecture classes broadcast to remote areas of the state.

In the middle 1960s the building had a narrow miss with oblivion. As part of an ambitious plan to build pedestrian skywalks across the campus, Radio Hall was scheduled for demolition. Some temporary walkways were built and their low level of use and the cost of the project led to its abandonment. For the neglected and oft-abandoned stepchild of the new Science group, it has been an interesting career. Because Extension plans to move its broadcast facilities to new space in the Wisconsin Center about 1998, the future of the building is once again uncertain. One possibility under discussion is the development of a broadcast museum in Radio Hall.

1) In the original recommendation to the regents, President Bascom does not mention a heating plant when he enumerates the buildings needed to replace Science Hall. *Regents Minutes*, December 30th, 1884, Vol. B p. 442.

2) For details regarding the construction of the Science Hall group see Appendix A.

3) *Minutes of the Executive Committee*, July 3, 1893 vol. B p. 140. Exactly why the regents were suddenly so enthusiastic about expanding the reach of the heating plant at this time is unclear. It is possible that it stemmed from Professor Storm Bull.

4) Bull, Storm, *The Central Heating Plant of the University of Wisconsin at Madison Wisconsin*, May 1899 in *Transactions of the American Society of Mechanical Engineers*, Vol XX. Copy in the University Archives Radio Hall Subject folder.

5) *Minutes of the Executive Committee*, April 27, 1932. The failure of the State to take advantage of this offer may well be the reason that WHA found the building empty in 1934.

6) *Wisconsin Alumni Magazine*, February 1934 p. 131, and January 1935 p. 115.

7) A full description of the art work in Radio Hall is given in *Wisconsin Alumni Magazine*, June 1935, p. 272.