

BIOCHEMISTRY



Fig. 1. Agricultural Chemistry Building from the southeast, just visible at the left of the picture is the 1939 addition. [series 9/3 Biochemistry, x25-6365]

Biochemistry was built to alleviate the severe crowding in agriculture hall in 1912. It was added to in 1939, 1957 and 1984. A further addition is planned for 1996. The building is significant for a number of brilliant scientists (including Babcock, Elvehjem, Steenbock, Link and De Luca) who worked there. The building was placed on the National Register of Historic Places in 1985.

By 1910 agriculture hall was on the path previously followed by science hall, that of spawning myriad disciplines and departments needing space and special accommodations outside the parent building. Agricultural engineering, horticulture, plant pathology and agronomy, had already left their cradles in Agriculture Hall and moved into specialized facilities nearby. In his report to the regents in 1909-1910, president Van Hise says: "A consideration of the laboratory space in the central agriculture hall leads Dean Russell to conclude that agricultural chemistry and bacteriology cannot possibly be accommodated for three years longer."¹

Dean Russell's report (written in October 1910) shows the magnitude of the space problem. In Agriculture Hall for agricultural chemistry and bacteriology there was lab space for 30 students and locker space for 83 for courses which the sophomore class was required to take. Advanced work had facilities for only four or five. Russell proposed the construction of a fireproof central unit for agricultural chemistry, to contain offices, classrooms, a large (350-400 seat) auditorium, and a laboratory wing with space for at least 150 students at a time, and including space for special work and research labs. Russell proposed that the building be planned for additions in later years as conditions demanded. He argued that the space released in Agriculture Hall could be remodelled and used for bacteriology. Russell estimated that the new building would cost about \$60,000- \$75,000, and the remodelling in Agriculture Hall for bacteriology about \$2,500.²

The college of agriculture under Russell had considerable clout both in the university and legislature, so it is not surprising that by April 6, 1911, the regents include on their wants list of new educational buildings, an Agricultural Chemistry Building at an estimated cost of \$90,000. Most of



Fig. 2. July 5, 1931, the funeral procession of Stephen M. Babcock passes his old emeritus offices, in Agricultural Chemistry. Note the flags at half-mast, [X25-3077]

the rest of 1911 is taken up with developing suitable plans. These plans were developed by the members of the 1908 architectural commission of Warren Laird, Paul Cret and Arthur Peabody. In August the regents approved plans as drawn and presented by Peabody³, then changed their mind and selected a design by Laird and Cret that better harmonized with the existing building on Henry Mall.⁴ By December, 1911, the regents decide on a final design.⁵

By this time the foundation of the building was complete, having been let to the Madison Engineering and Construction Co. (in October 1911) for \$2410. Work was begun November 7, 1911. Mr. Peabody says that the horses have trouble with the digging because of the sudden rain and hard freeze. On May 31, of 1912 the regents award the contract for construction of the building to the W. H. Grady and Company of St. Paul, for \$65,025. The contractor Grady, flew the coop (with \$77,000 of the university's and subcontractor's money), defaulting on both his (biochemistry and home economics) contracts, and landed in Los Angeles. The regents held a special meeting on May 21, 1913, in which the failures of the Grady contract are set down, and the contracts terminated, and the regents take possession of the premises for the purpose of finishing the work.⁶ The university finished the building itself, with Mr. Peabody acting as general contractor.

By October 1913, a year after the project was supposed to be occupied, mason and concrete work were completed; plaster and trim work were underway, equipment and fixtures were ordered and arriving. The building was finished in December 1913 at a cost of about \$83,000. Mr. Peabody describes it:

It consists of a central portion 108 feet by 65 feet fronting on University Avenue with a wing 134 feet by 52 feet facing on the Lesser [Henry] Mall. The building is basement and two stories high and has a floor area of 30,000 square feet ... The architectural treatment correspond with the Agronomy and Agricultural Engineering Buildings immediately north ... It is of fireproof construction with concrete floors and tile partition walls. The roof is covered with red tile. The building contains a lecture room with a capacity of 350 ... This completes the group on the west side of the Lesser [Henry] Mall and forms the eastern limit of the College of Agriculture.⁷

The agricultural chemistry building (the department name changed to biochemistry in 1938) has become the site of more significance than any other building in the college of agriculture, with the

HENRY MALL

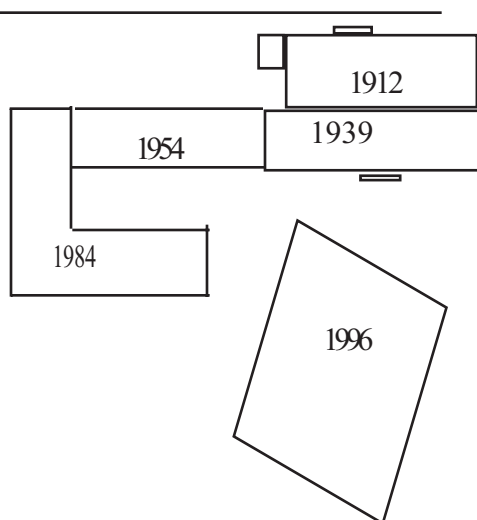


Fig. 3. Outline of Bio-chemistry and its additions, through 1996.

exception of Agriculture Hall, which was the birthplace of so many departments. From the earliest days scientific giants had facilities here: Stephen Babcock, Harry Steenbock, E. B. Hart, Conrad Elvehjem, Karl Paul Link, E. V. McCallum and Hector DeLuca. The work of Babcock, McCallum and Steenbock discovered vitamins A and B and their purification and importance in nutrition (1913-1920). E. B. Hart invented iodized salt as a goiter preventative. Steenbock discovered (1923) irradiation of food to increase vitamin D levels, leading to the world famous Steenbock process for eliminating rickets (an early source of income for the WARF organization). Elvehjem in 1937 discovered a cure for pellagra by isolating nicotinic acid (vitamin B2). Karl Paul Link discovered the anticoagulant blood factor Dicumeral (1948) and developed the pesticide Warfarin (another major source of funds for WARF). Hector DeLuca isolated and synthesized the hormones derived from vitamin D.⁸

As the reputation of the department grew it attracted more and more students and researchers and the building became insufficient for the department's needs. The first addition was made in 1939-1941, when local architects Law, Law and Potter designed the matching wing on the west end [see Fig. 3] of the original block. This \$285,000 wing was funded by Public Works Administration and the Wisconsin Alumni Research Foundation (WARF). This building project represented the first time that WARF ever used their resources to fund University construction.⁹ The general contractor was George Nelson and Son. This first addition is decorated with murals in stairwells and laboratories by the great John Steuart Curry.

In 1953-1957 a modern section to the north was designed by Foeller, Schober, Bernard, Safford and Jahn of Green Bay, and built by Findorff, for \$1.3 million, also with WARF funding.

The six-story section to the north (by Bowen, Williamson and Zimmermann of Madison) was completed in 1984. The 1996 NMR facility designed and built by Flad and Associates will be built to the west and take over the grounds now occupied by the horticulture greenhouses.[see Fig. 3.]

1) *Regent's Report*, 1909-1910, p. 40.

2) *Regent's Report*, 1909-1910, pp. 172-173.

3) *Regent's Minutes*, August 30, 1911.

4) *Regent's Minutes*, October 11, 1911.

5) *Regent's Minutes*, December 13, 1911.

6) *Regent's Minutes*, May 21, 1913.

7) *Regent's Report*, 1913-1914 p. 341.

8) *Wisconsin Alumni Magazine*, July/August, 1982 p. 7. Nomination Papers for the National Register of Historic Places, State Historical Society Library, Historic Preservation Office.

9) *Wisconsin Country Magazine*, November 1938 p. 6; February, 1940 p. 10.