When Science Hall was designed in the 1880s it was believed to be large enough to house all known science departments for the indefinite future. By 1900 some of these departments (i.e. engineering, physics and chemistry) had already outgrown their space in science hall. The life sciences were close behind. In 1905 Dean of Letters and Sciences Edward Birge recommended to president Van Hise that he ask the legislature for an appropriation for a Biology Building to alleviate the crowding. The building was envisioned by dean Birge as housing the departments of zoology and botany, leaving science hall to physics, geography, and anatomy.

However, with both the central heating plant and Lathrop Hall underway by 1907, the biology building did not percolate to the head of the priority list until 1908. Plans were in flux: "Preliminary drawings for this building are begun, and conferences with the departments of Botany, Zoology and Medical Science are being held almost daily." The first discussions of the design of the building, hinged upon the work of Peabody, Laird and Cret, the consulting architectural commission, and followed the general layout of the general plan of 1908 for the grand "court of honor" atop Bascom Hill. This court was intended to be a large open courtyard flanked by Bascom Hall on the west, open to the east, and flanked to the north and south by museum buildings for the college of letters and science. Except for Lathrop Hall, the Biology building would be the first application of the general
plan to a particular building. Some drawbacks of the plan became immediately evident. The proposed placement of the buildings for the "court of honor" were not especially precise. When the time came to place the building, because of the proximity of South Hall, the needs of the observatory, the requirements of the plan for women's dorms, and the extreme steepness of the grade, no one exactly agreed on exactly where the general plan meant for the building to go. This issue was taken up by the architectural commission, and Van Hise, and after most of 1909, was finally decided by placing the building as far as possible to the north (up the hill) as possible. The decision was also made to build only the center section of the U-shaped building first and leave the two wings, intended to project south (down the hill) until later. The regents also decided, for unknown reasons, but perhaps to regain lost time, to bring in another architect to work on the project, Jarvis Hunt of Chicago. Hunt and Peabody exchange letters, data, and ideas throughout early 1910. On March 3, 1910 the regents approved Jarvis's preliminary outlines and elevations, with suggestions to reduce the height of the building to reduce costs. The plans also are reviewed by the heads of the departments who will occupy the building.

In what must stand as a record for early complaint about crowding in a university building, the regents report of 1909-1910 page 37, a year before the building was begun, called for an addition to be made to alleviate crowding in the college of letters and science. In January of 1910 the regents approved the plans and in June of 1910 specifications are finally ready for bids. The specifications called for construction to begin by July 1, 1910, and be finished by October first 1911. The contract was let to T. C. McCarthy for $201,941 about June 21, 1910. The excavation for the biology building was begun on July 13, 1910.

In December 1910 the architect was instructed to omit the windows and trim from the west end of the building, in anticipation of building a wing on that side in the near future. This would result in about $3000 savings on the contractor's bill. That end of the building would be finished with buff brick in an attempt to present a finished appearance. Throughout the winter of 1910-1911 the building progressed, slowly because of a scarcity of stone cutters. The first floor concrete was finished in February of 1911. In March the Madison Brick Yard ran out, which halted work for a week while brick was shipped from Chicago. During the summer of 1911, the architect complained to the contractor that there were still not enough stonemasons on the work. On March 13, 1912 the regents called contractor McCarthy before the board to explain the delays, and he promised to have the building done by August 12, 1912. A metal workers strike in Milwaukee slowed up progress of the building. By November 1911 the building was nearly enclosed. By August of 1912 the building was complete except for clean up and some details. The contract for furnishing and equipping the building had been let to J. H. Findorff in March of 1912 for $26,975. In November 1912, Peabody and the heads of the departments held a conference that damned the building with faint praise: "the requirements of the Departments have been pretty thoroughly carried out." Engineering professor Turneaure recommended withholding final payment to McCarthy pending a report on the cracking of the stone veneer. The building was more than a year late, and had cost $200,000. Except for the difficult and technical central heating plant, this was by far the most expensive building yet erected by the university.

In his report to the regents of 1912, Peabody says:

The Biology Building was occupied in August, 1912. This building comprises a main portion 49 feet wide by 240 feet long, including basement, ground floor and four stories; together with an auditorium portion 74 feet by 50 feet in size, containing a subbasement, basement, first and second floors. The floor area of the entire building exclusive of the greenhouses is 80,000 square feet... The building is faced with Madison sandstone and the construction is fireproof in character. The building while in the same general style as University Hall [Bascom Hall], has a rather more severe architectural treatment.
On entering the building from the face on Bascom Hill one sees:

Biological specimens of general interest which fills most of the ground floor of the main building. Passing straight through the museum doors on both sides open into the auditorium, which seats about four hundred. There are two floors below this, the basement, which contained the department of plant physiology, and the sub-basement containing labs and work rooms which opened directly into the greenhouses to the south of the auditorium. Staircases from the museum give access to the upper floors, which housed research labs, chart and dark rooms, a herbarium, offices, lecture rooms, a library and Prof. Owen's butterfly collection.\(^6\)

The new biology building provided a great deal of immediate relief not only to the departments moving into the new building but to those, particularly physics and geography who remained behind in science hall. The new space caused by the removal of botany and zoology would remain ample for only a short time, until in 1916 a separate physics building would become necessary. The growth of the university was beginning to outstrip the resources, and the foresight of even visionaries like Van Hise, and the architectural commission (which planned for a maximum of 20,000 students).

The building of the anticipated wing to the biology building did not quickly take place. Starting in the 1930s the crowding in the biology departments began to reach crisis proportions. In a letter to president Glenn Frank, the head of zoology M. F. Guyer says: "The staff of the department of Zoology is at its wits end ... No more internal compression is possible." He complains that the department is turning away good grad students and researchers. He points out that "whole colleges have fewer students in their entire college than Zoology has in a single class, yet they rattle around in numerous buildings like peas in a pod."\(^7\) It would not be until 1955 that ground was broken on a 10-level 54 X 138 foot wing to the west side, projecting back down the hill to the south. The cost was $1.4 million, and its design was debated on esthetic ground by several regents. After delays caused by labor unrest in 1956, the wing was finished. In 1980 a new addition, replacing the vivarium with a two story library wing, brought the building to its current [1993] configuration. On June 9, 1950, a week after the death of Edward A. Birge, the university formally renamed the biology building Birge Hall.

1) Some speculate that because of Birge's disinclination to push for his own department, in an effort to remain impartial, the building may have been delayed more than necessary.
3) Peabody to Hunt, March 7, 1910. There is also in the archives a water color elevation by Hunt of a grand domed biology building clearly placed on the North side of the court, with steps down to the lake, it is undated and probably represents a very early design iteration.
7) Guyer to Frank, January 29, 1936.