A Century and A Quarter of Geology at Hanover College

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Geology at Hanover has shared well in the rich scientific tradition on this campus. As is true everywhere, natural science has steadily become more diversified and more highly specialized. Therefore, in tracing back the story of geology here, that subject necessarily converges with that of the other sciences.

We are proud of the record of our college in science. Such a history deserves explanation and analysis. Probably there are many factors responsible. Some of them are apparent in the history of the college, but others are to be found only by digging below the roots of our 1827 origin. Such, for example, is the great work in science done at Transylvania College in the first quarter of the last century under the leadership of such scholars as Constantine Samuel Rafinesque who has been called by Donald Culross Peattie, "the only titan" amongst all the naturalists who have ever worked on the American continent. Rafinesque had a close bond with the New Harmony scientific center of America in those years. With such an intellectual environment, Transylvania was often referred to as the "Oxford of the Backwoods." From this atmosphere came Dr. Crowe to found Hanover College and to become the grandfather of the Coulters, John M. and Stanley, two of the brightest stars in our constellation. Our first President, James Blythe, was at one time Professor of Chemistry and President of Transylvania. Such men as Crowe and Blythe brought to Hanover some of the enthusiasms for scientific study that prevailed there. These influences and many others, some known and some perhaps lost or omitted from the chronicles, explain the unusual emphasis on science here.

The history of Hanover College covers a period of 135 years and 130 of these have witnessed the presentation of courses in geology.

Beginning in 1832 with a course in minerology for seniors, taught by the professor of mathematics and natural history, continual expansion has led to the present department to which two staff members devote their full time.

For sixty years following the introduction of geology to the curriculum and during the period when most science was undifferentiated under the general head of natural history and natural philosophy, geology was usually taught for one to three terms to juniors and seniors, the time allotted for the subject being determined by the training and interest of available professors and by administrative policies. However, the importance of science in our program has always been recognized and the scientific personnel of the faculty has been outstanding. In the program of science, geology has been favored from the first due in part to the location of the college favorable to its study in the field. During the early decades of its growth, the work in geology was based largely upon the text books of Dana, Hitchcock and Lyell. In 1858 physical geography was presented for the first time, but the presentation of this subject has not been continuous since then.

The first professional geologist to appear at the college was Frank H. Bradley who was brought from Yale to establish a paleontological museum here in the late sixties. Upon the completion of that work in 1869, he was made professor of natural history. Although a brilliant scientist and an able teacher, he lacked tact and was discharged by the board of trustees because of his disagreement with the Mosaic account of the creation. Previous to his arrival at Hanover he had served the Illinois Geological Survey and the early Cox Survey of Indiana. Upon his departure from Hanover, he joined the Hayden Survey of the west, taking his student, John Coulter, along as an assistant. When the Hayden Survey was expanded a few years later Bradley led one division through the Snake River country and to Puget Sound. On this latter expedition, John M. Coulter served as Botanist. When Bradley was killed in 1879 in a Georgia gold mine, he was only 40 years old, yet had attained the highest rank among American geologists. The 1906 "Contributions to the History of American Geology" by George P. Merrill gives him considerable space in a volume that considers a relatively small number of foremost geologists. Both John M. Coulter and his brother, Stanley Coulter, have credited a great deal of their inspiration in science to Bradley. John M. Coulter returned to Hanover as professor of Natural Science and Astronomy from 1874 to 1879. Later he served Wabash College and Indiana University and finally was called to head the Botany Department at the University of Chicago. There his tenure almost coincided with that of T. C. Chamberlin in Geology. During that era Coulter's interest in geology led to close bond between the two departments. The work of some students was so evenly balanced between the two fields that they had a choice in the department from which they received a doctorate.

Bradley was followed in 1870 by Professor E. Thompson Nelson, another Yale man, and in this period geological work for seniors was expanded to include summer field work.

In 1893 under the leadership of Glen Culbertson, geology became a separate department and sufficient work was offered in the subject to prepare students to go ahead professionally in the science. During the 34 years of service which Professor Culbertson gave to Hanover he was compelled to divide his time between geology, his main interest, and physics and astronomy; nevertheless, he trained many good geologists while at the same time gaining a reputation himself as a geologist and serving the interests of Indiana geology on surveys and in research. Among his more outstanding students were his son, Dr. Archer Culbertson, now an executive and from 1948 to 1954 Chief Geologist of the Continental Oil Company, and Dr. Ira Allison, Professor of Geology at Oregon State University, and co-author of one of the most widely used college textbooks. The first full-time professor of Geology was Alfred T. Navarre.

After one year he was succeeded by Grant T. Wickwire who served until his retirement in 1961. The departmental staff was increased to two in 1945 with the addition of the speaker. In 1961 Dr. Joseph L. Weitz was appointed as associate professor. Upon his return to Colorado State University he has been replaced by Dr. Stanley M. Totten.

Since the construction of Goodrich Hall in 1947 our department has been adequately housed and equipped on the first floor of that building.

The department in addition to meeting the needs of the liberal arts student in laboratory science offers an undergraduate major and endeavors to offer to the non-science student an introduction to the services of the profession to our culture. We also assist outside institutions and individuals who are interested in the geological phenomena of the local area.

Hanover has participated in many of the activities of the geological societies. The first formal meeting of a learned society on the campus following the construction of a new group of buildings after World War II was the Annual Meeting of the National Association of Geology Teachers in 1948. In 1962 Dr. Weitz was a participant in the American Geological Institute's foreign institute in the Alps. The geological facilities and program were inspected and evaluated in 1958 by Kirtley Mather of Harvard and Richard F. Flint of Yale under a grant from the Lilly Endowment.

Also in recent years we have brought several prominent geologists to the campus. These include Dr. Robert Black of the University of Wisconsin and Dr. Donald Gorsline of Florida State University.

In addition to the classrooms, laboratories and library maintained by the department, we have a museum which attracts much favorable attention. This present display is mainly the work of Guy Campbell, one of our own graduates who served as curator from 1949 to 1955. A bronze plaque is currently being placed in this room dedicating it to Bradley, who built the original museum on the minerological collection started in 1848, and to Campbell. The collections are presently being expanded and facilities for display increased.

The department has never been, and there are no plans to make it in the future, a large one. However, at present our enrollment of 79 in the introductory course in physical geology gives us second place among the science department of the college in the size of beginning science courses Among our alumni are four who have earned the Ph.D. degree and one more is now a doctoral candidate. Others have received the master's degree. The number of Hanover graduates who may be considered as professional geologists now number about twenty-five.