

HISTORY OF THE GEOLOGY AND GEOGRAPHY DEPARTMENT, OHIO WESLEYAN UNIVERSITY^{1, 2}

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Ohio Wesleyan University was founded by Ohio Methodists in 1842 and opened for classes in 1844 in the Old Mansion House, which was formerly an hotel close to the Sulfur Spring, a local watering place. The original faculty numbered 3, the enrollment was 18 regular students and 24 irregular students. In the second year, 1845-46, Natural Science—including botany, chemistry, and geology—apparently was offered to one senior to meet graduation requirements. The first geology texts, judging from incomplete catalogue descriptions, were probably Edward Hitchcock's *Elementary Geology* (1840) and J. D. Dana's *System of Mineralogy* (1844).

Examination of catalogues over the period 1845-1920 reveals the evolution of the college. In the early years, when the entrance age was 14, there was a 4-year academic course for the Bachelor of Arts degree, and 2-year scientific and biblical curricula for which certificates were awarded. The B.A. curriculum, on which I focus attention, was strongly classical, like others of its time. There were four departments: Moral Science and Belles Lettres, Ancient Language and Literature, Mathematics and Natural Philosophy, and Natural Science. For the first 21 years all the professors were clergymen, though some were not active preachers. They were "generalists" and handled their college subjects on the basis of their own self-education more than on formal training.

Inevitably, the history of any college department is the partial history of the

men who served and set their stamp upon the department. Frederick Merrick, a clergyman and M.D., was the first teacher of Natural Science. He attended Wesleyan University (Connecticut), left before graduation to head Amenia Seminary, and then went to Ohio University as Professor of Natural Science. He came to Ohio Wesleyan in 1843 as a fund raiser, in 1845 became Professor of Natural Science, in 1851 Professor of Moral Philosophy, in 1860 President, and in 1873 retired to a long life as professor and president emeritus.

Other clergymen followed Merrick in the 1850s and '60s. A text book in those years apparently was Gray and Adams' *Elements of Geology* (1853). One feature of this text was the lengthy reconciliation between science and religion. In this period R. Emmet Miller, a freshman in 1856, prepared an Historical Geology chart outlining the main divisions and events of geologic time. Geology was then part of a senior course in Natural Science, and presumably not open to freshmen. The chart appears to have been prepared for a freshman course in Ancient Geography and History. If this be the case, it was a wide-ranging course in history!

W. O. Semans in 1865 became Adjunct Professor of Chemistry and Acting Professor of Natural Science and was later converted to full professorial status. He was the first non-clergyman on the faculty and twice during his career he undertook advanced study in chemistry and mineralogy, once at Michigan and once at Harvard.

In 1871, the arrival of Edward T. Nelson, the first Ph.D. in the college, increased the faculty to 8 professors and 2 tutors. Nelson obtained his degree at

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Yale (1869) with work in geology and mineralogy under J. D. Dana and zoology and paleontology under S. I. Smith and A. E. Verrill. He had been assistant in mineralogy at Yale for three years. Nelson expanded offerings in zoology and geology, and Semans cooperated in teaching geology. They offered geology, mineralogy, and a senior course in paleontology with museum practice. This last presumably dealt mostly with identification and classification. Later, as offerings in biology expanded, Nelson taught various subjects in zoology and maintained some of the geology courses. He went to University College, London, for advanced work in histology. Late in his career he lectured at the Ohio Medical College and was awarded an M.D. degree by that college. (It is not clear that it was an earned degree.) He was also active in the Ohio State Sanitary Commission.

By 1871 Ohio Wesleyan boasted a considerable museum—a cabinet of 4200 mineral specimens arranged according to Dana's classification, a cabinet of Ward casts of vertebrates and invertebrates (some renovated specimens are again on attractive display), and the Mann cabinet of minerals, rocks, and fossils, including type specimens of local Devonian fossil fish. The recitation room housed this last cabinet, and specimens were readily available. In addition, the museum claimed to have "the oldest fossil tree", had one collection of rocks made by W. W. Mather for the first Ohio Geological Survey, and a set of minerals and fossils collected by F. V. Hayden's party in the Yellowstone.

By 1875 the curriculum had expanded, but classics and mathematics were still predominant, and some electives had been added. Among the latter was physical geography with Geikie's *Lessons* (1887) or Guyot's *Physical Geography* (1873) as texts. In 1880 we see the foreshadows of a modern course in geology—Dynamical and Structural Geology and Historical Geology. The text was Joseph Le Conte's *Elementary Geology* (1878). One tutor in the college divided her time among "Natural Science, History, and Rhetoric." By 1895 Nelson offered a one year course in geology—physical geology,

paleontology, and economic geology "as preliminary to [unlisted] advanced courses in other years."

Lewis G. Westgate arrived in 1900 and with him came the modern era in geology. The catalogue of 1901, the first year of Westgate's tenure, shows the outline of a modern and progressive geology curriculum: Physiography, Physical and Historical Geology, Practical Geology (laboratory), Mineralogy (comprising crystallography and blowpipe analysis), Economic Geology, Advanced Geology, and Research. Through the years he added various courses including field work in Ohio for periods ranging from 2 days to an entire spring vacation week, and later offered enough geography so that by 1920 a major in the subject was available.

Westgate was a remarkably fine teacher, especially for interested students; to the lazy he was a bugbear. Paul B. Sears, the well-known ecologist, lauds him for his "elliptical teaching". He was a teacher-researcher. He worked in summers for the U.S. Geological Survey (1912-1935), and published some 27 papers in the 50-year period 1893-1943. His later papers, much more philosophical than strictly geological, reflect his catholic interests and probing mind. He was president of the Ohio Academy of Science (1910) and Vice President of the Geological Society of America (1925). This was no small honor for a college professor of geology.

Throughout Westgate's forty years, geology was essentially a one-man department. He produced 22 professional geologists, most of whom went on for graduate training and later worked in a variety of geological activities as stratigraphers, petrographers, and engineering geologists. Westgate retired just before World War II and was succeeded by John R. Cooper. He returned during the war after Cooper's departure, and then was succeeded by Paul R. Shaffer. Robert Shanklin came in 1946 and George Crowl succeeded Shaffer in 1947. The department became the Department of Geology and Geography in 1951, and William Harris became the first long-time professional geographer on the staff. The staff has increased from 2 to 5 in the

intervening years. In 1968 the department moved into fine quarters in the new science building.

The department altered geology courses through the years, and added geography courses for a more substantial major in that field. One of the successful efforts for many years was a spring vacation field trip to the Appalachians or Ozarks.

In the past 30 years the department has produced 60 geologists and 8 geographers. Most of these went on to graduate study before entering careers in oil geology, teaching, planning, meteorology, engineering geology, and other

specialized fields.

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