



Erasmus Haworth (*Kansas*)

Erasmus Haworth was born in Warren County, Iowa, on April 17, 1855. His family moved to Galena, Kan., when he was 11. Haworth earned an undergraduate degree from the University of Kansas in 1881 and a Ph.D. from Johns Hopkins University in 1889. He taught at Penn College in Oskaloosa, Iowa, until 1892, when he was brought to Kansas, probably by Chancellor Francis Snow to help with the fledgling University Geological Survey. Haworth was already familiar with the state's geology when he returned to Kansas. In the

1880's, he published several articles about the geology and minerals of southeastern Kansas.

There were early incarnations of a geological survey in Kansas in 1864 and 1865. After letting the Survey lapse for 24 years, the Kansas legislature recreated it at KU in 1889. When Haworth returned to Kansas, he joined Samuel Wendell Williston and E.H.S. Bailey in forming the Survey's nucleus. Though the legislature appropriated no funding for the Survey, Haworth organized field work that led to extensive publication about the geology and topography of eastern Kansas, including some of the first detailed and accurate cross sections developed by Survey staff members. In 1896, he was listed as the author of the first Survey publication since its establishment at KU. Mainly a reconnaissance of the geology of eastern Kansas, it was titled simply *The University Geological Survey of Kansas*, vol. 1. Haworth was probably less of an author than he was editor of the report; a number of the chapters were written by other staff members. In short, though the Survey had no official state geologist or director, Haworth was clearly the leader of the band.

Between 1896 and 1907 the Survey published nine volumes on the geology of Kansas, including books on the paleontology, coal, mineral waters, oil and gas, and other resources of the state. It published overviews of the state's geology, including the first detailed geologic map of the state. These were handsome, well-illustrated books that stood the test of time. Through these publications, the Survey established its scientific credentials and credibility, becoming a recognized, consistently funded part of state government.

In 1907, the Survey underwent a statutory redefinition that gave it new responsibilities and a new name: the State Geological Survey of Kansas. By 1908, many of the personnel were different. Haworth was now shown

as state geologist, as legally required by the new statute, though he had been using the title on publications since 1903.

After 1907, the number of Haworth's publications decreased significantly. Unlike in his earlier years at the Survey when he was editing or writing books at the rate of better than one per year, he produced only two Survey publications in a period of 8 years (these were the only two publications from the Survey between 1908 and 1917). Some of that lack of productivity may be simply the result of aging. Perhaps also there was less legislative pressure to publish, with the appearance of the earlier Survey volumes that captured much about the geology of Kansas. Finally, consulting and other business interests, particularly related to oil and gas, may have taken increasing amounts of Haworth's time, perhaps to the detriment of his publication record. In addition to leading the Survey and teaching in the geology department, Haworth was appointed as geologist in the State Irrigation Commission by the 1896 legislature, and he continued in that role into the 20th century. He was also head of the mining and mineralogy school at KU. The sum of those activities must have weighed heavily on Haworth, and probably had something to do with his resignation as head of the Survey in 1915. From 1889 to 1915, Haworth was the only director that the modern Survey had known.

Though Haworth left the Survey, he retained the position as chairman of the KU geology department. He also consulted, working now with his son Henry. In 1920, he resigned from the geology department, blaming a low salary and the need for additional outside income. From 1920 until 1931, he was active in the state's oil and gas business, and he regularly consulted on and was involved with business activities related to geology. He died on November 18, 1932, in Wichita, where he is buried.

In his years in Kansas, Haworth worked throughout the state, becoming known as a consummate field geologist. He was well regarded by students, who called him "Daddy" Haworth. Today, Haworth's name is closely associated with the mapping of surface features that led to the discovery of the El Dorado Oil Field in Butler County, the study of the Equus Beds aquifer in central Kansas, and several geologically related capital ventures that met with varying degrees of success. His memory is preserved at KU mainly through the campus hall that carries his name (though it houses KU's biological sciences division and not the geology department). But more important, Haworth (along with other early Survey staff) carved a scientific niche for the Survey. He took a little-known line in the university's budget and turned it into a productive, relevant institution. That change was as dramatic and important, perhaps, as any during the Survey's history. That foundation allowed the Survey to survive, flourish, and evolve into the institution it is today.