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## OKLAHOMA'S FIRST SCIENTIST

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The future historian who attempts to present a record of scientific work in the State of Oklahoma must perforce start with Thomas Nuttall.

Merrill says in his *First One Hundred Years of American Geology*, "Nuttall was not a geologist nor can he be considered an American, he was primarily a botanist."

Thomas Nuttall was born in Yorkshire, England, in 1786, and in 1808, at the age of 22, he emigrated to Philadelphia. Becoming interested in the natural sciences, especially botany, he spent a number of years collecting plants in the eastern part of the United States, and in 1818 published a book entitled *The Genera of North American Plants, and a Catalogue of the Species to 1817*.

In October, 1818, Nuttall set out for a visit to the Southwest. He left Philadelphia by mail stage Oct. 2, 1818, and arrived at Pittsburgh Oct. 15. He did not like Pittsburgh, for he says, "Nothing appears to me to predominate but filth and smoke and bustle."

At Pittsburgh he bought a skiff for \$6.00 and with one companion set out to float down the Ohio. Passing Cincinnati Nov. 13, he reached Louisville Dec. 7, where he purchased a flatboat and arrived at the mouth of the Arkansas Jan. 12, 1819. He towed his boat up the Arkansas, often wading waist deep in water, and arrived at Belle Point, now Fort Smith, April 24th. He was seven months on the trip. He remained in Oklahoma until Oct. 16, 1819.

From Fort Smith he accompanied a military expedition to Fort Towson, near Red River, in what is now southeastern Choctaw County. This journey followed the old military trail across the Winding Stair and Kiamichi Mountains. He collected *Gryphaea* fossils in the rocks north of Red River.

Returning to Fort Smith, Nuttall went up the Arkansas River to the Falls of the Verdigris, from which place he made several trips in different directions.

On Aug. 11, he left the trading post with a hunter named Lee, for a land journey up the Arkansas and Cimarron. The latter was called, by Nuttall, Salt River or First Red Fork of the Arkansas. Some old maps called it the Semerone of the traders or Red Fork. Nuttall was taken desperately ill on the prairie, probably of malaria, but after weeks of incredible hardship and suffering, barely escaping death from fever and the Indians, he succeeded in reaching the Verdigris trading post.

He made another trip up Six Bulls (Grand) River to the Big Salt Spring near the present town of Salina. He also made short excursions on Sallisaw and Lee's Creeks.

The account of this summer's work, in what is now Arkansas and eastern Oklahoma, was originally published in Philadelphia in 1821 as a book, *A Journal of Travels into Arkansas Territory During the Year 1819, with Occasional Observations on the Manners of the Aborigines*, illustrated by a map and other engravings, by Thomas Nuttall, F.L.S. It has been reprinted as Vol. XIII of *Early Western Travels* by Thwaites. For a summary of his work in Oklahoma we cannot do better than quote Grant Foreman's summary in *Pioneer Days in the Southwest*.

Mr. Foreman says: "During this time Nuttall observed and collected the great majority of the plants native to eastern Oklahoma. At the same time he made many observations on the animal life and also noted many of the rock formations."

On December 20, 1820, Nuttall read before the Academy of Natural Sciences of Philadelphia a paper entitled *Observations on the Geological Structure of the Valley of the Mississippi*.

This article is very general in its nature and deals with geological conditions along Arkansas River in western Arkansas, as well as the rocks exposed in several of the counties in eastern Oklahoma.

N. F. Drake says Nuttall's work was necessarily of a very general nature. "His conclusions regarding this field were; that sandstones, shales and coal-bearing rocks extended over most of the area; that limestones and cherts all lie north of the Arkansas River; that the salt-bearing strata of Grand River are different from the salt-bearing red beds in the southwest; and that the mountain chains in central western Arkansas and central Indian Territory have a southwest trend."

One noteworthy fact is that as early as 1818, Nuttall found prospectors hunting precious metal in the Pennsylvanian rocks of the region.

It is of interest to note some examples of Nuttall's orthography. Poteau is spelled Pottoe, Sans Bois is Sam bo; Arkansas is Arkansa; Kiamichi is Kiamesha; Sugar Loaf Mountain has the French spelling, Point de Sucre; Cavanaugh is Cavanole, probably from the French Caverneux meaning cavernous or containing caves. Nuttall says, "The natives and hunters assert that subterranean rumblings have been heard in this mountain."

The late C. R. Keyes paid the following tribute to Nuttall. "Nuttall's paleontological correlations antedated by fifteen years Samuel Morton's similar efforts on the Tertiary of our Atlantic Coast, commonly regarded as the initial attempts in America along these lines. By two decades they were in advance of that pioneer paleontologist Lardner Vanuxem. They antedated by a full generation the famous investigations of Timothy Conrad and James Hall of New York."

In 1842 an uncle bequeathed him an estate near Liverpool on condition that he live thereon during the remainder of his life. He returned to England and lived the life of a country gentleman until his death in 1859, aged 73 years.