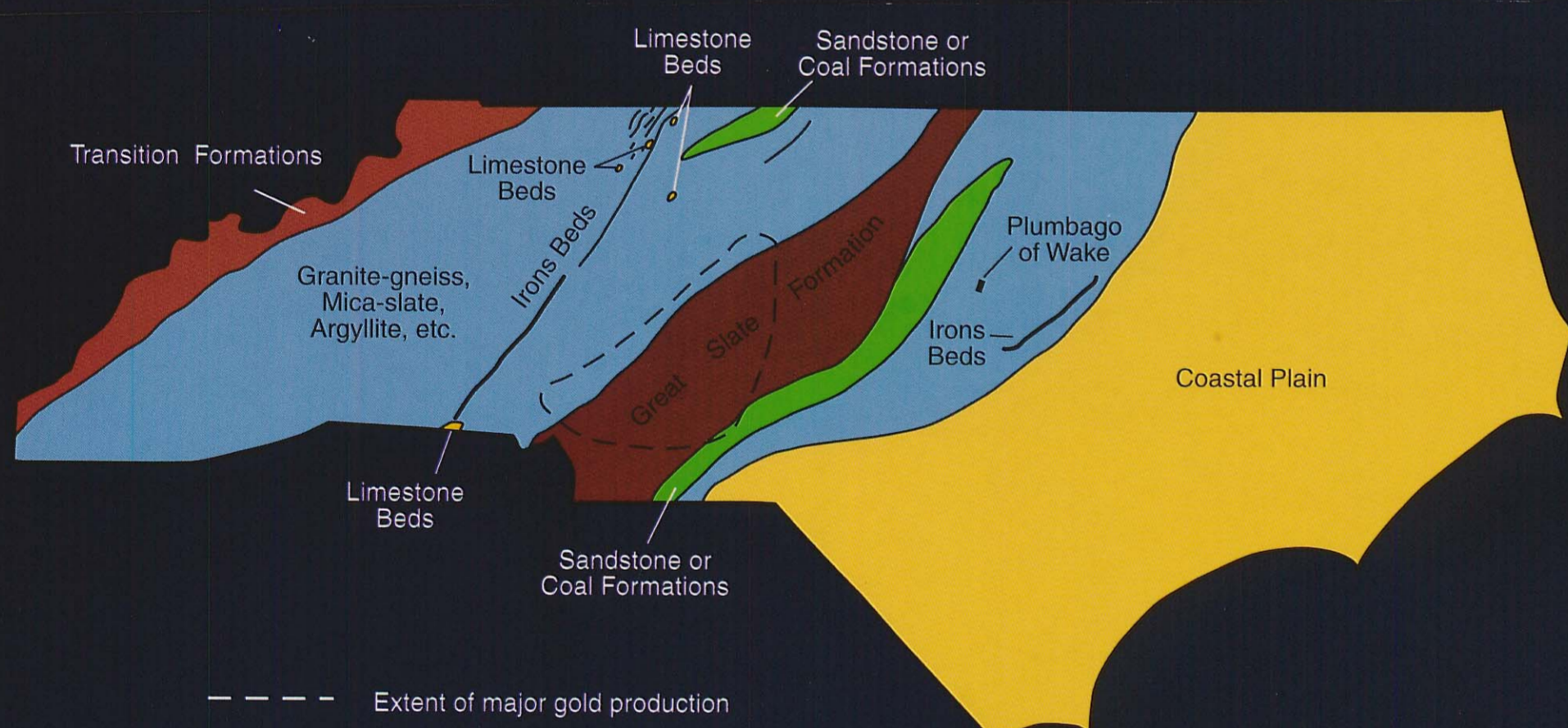


# ★ AMERICA'S FIRST ★ STATE GEOLOGIC MAP



Photograph courtesy of N.C. Division of Archives and History

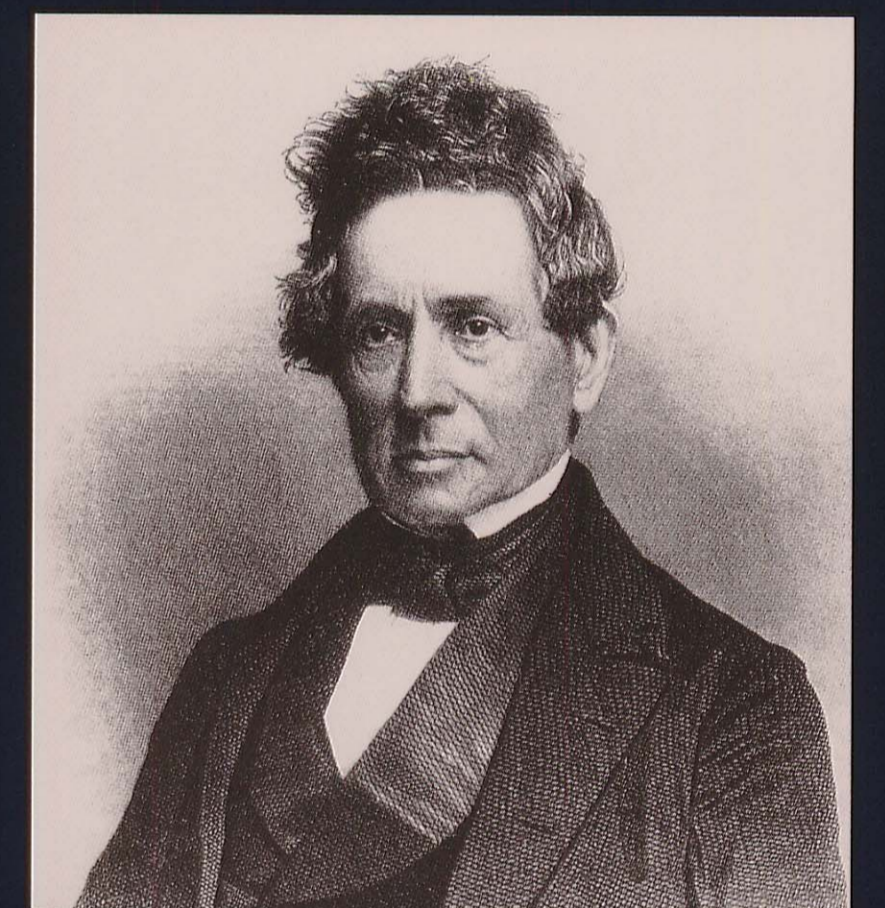
## Geologic Map of North Carolina - November 1825 (actual size)



Line drawing of Olmsted's map

Denison Olmsted  
(1791-1859)

Professor of Chemistry at  
University of North Carolina at  
Chapel Hill, founder of the  
North Carolina Geological  
Survey



The first state geologic map was made more than 175 years ago by professor Denison Olmsted of the University of North Carolina at Chapel Hill. A Yale graduate of 1813, Olmsted was a student of Benjamin Silliman, founder of the *American Journal of Science*. Olmsted published several papers on the minerals, rocks, and geology of North Carolina in that journal. The first of the papers, published in 1820, is one of the first known scientific articles about the geology of North Carolina.

Because of Olmsted's interest in the geology and mineral resources of North Carolina, he proposed the idea of a State Geological and Mineralogical Survey to the state Board of Internal Improvements in 1821. Olmsted's original request was denied by the Board and the state legislature in that year, but on December 31, 1823, the state legislature passed an act "... to employ some person of competent skill and science to commence and carry on a geological and mineralogical survey of the various regions of this State; ..." Because of his interest and experience, Olmsted was chosen as this person.

Receiving a yearly salary of \$250, Olmsted traveled the state on horseback from Cape Lookout as far west as the Great Smoky Mountains, collecting and describing fossils and minerals. In his "Report on the Geology of North-Carolina, Part I," dated November 10, 1824, Olmsted described the many different types of rocks found in the state, as well as the extent of gold mining in the Piedmont.

The following year Olmsted produced a second report on the Coastal Plain and rocks west of the Carolina slate belt. From his travels, he produced the first geologic map of North Carolina, dated November, 1825. The map still survives at the North Carolina Division of Archives and History in Raleigh. Hand-drafted with color inks, the map displays eight geologic divisions. This map is considered to be the oldest geologic map of an individual state in the United States.

Olmsted resigned in 1825 to teach at Yale. Elisha Mitchell, also of the University of North Carolina, assumed responsibility for the survey. Mitchell had been a friend and classmate of Olmsted's at Yale. Mitchell made two additional reports to the Board of Agriculture.

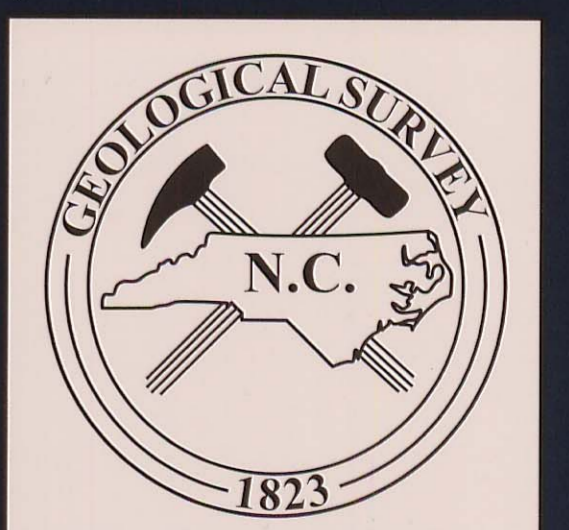
Mitchell made a determined but unsuccessful attempt to continue the work started by Olmsted. In his diary, Mitchell lamented, "*The Geological Survey dies a natural death at the end of this year. There is no one who takes any interest in the business, nor, in the present state of the treasury did I find there was the least prospect in succeeding in my applications to the legislature, and therefore gave it up at once.*"

While never mentioned officially as the "North Carolina Geological Survey," Olmsted's survey was the first geologic work performed at the public's expense in the United States - qualifying as our Nation's first geological survey.



IN CELEBRATION OF THE

## NORTH CAROLINA GEOLOGICAL SURVEY'S 175th ANNIVERSARY



North Carolina Geological Survey Geologic Map 7 • By Timothy W. Clark, 1999

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