



---

The Former Extension of the Appalachians across Mississippi, Louisiana and Texas by J. C. Branner

Review by: A. H. Purdue

*The Journal of Geology*, Vol. 5, No. 7 (Oct. - Nov., 1897), pp. 759-760

Published by: [The University of Chicago Press](#)

Stable URL: <http://www.jstor.org/stable/30054640>

Accessed: 10/11/2012 13:44

---

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



The University of Chicago Press is collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Geology*.

The leading deductions from the work of the commission are as follows : First, that it is entirely feasible to construct canals between the several Great Lakes and the seaboard which will be adequate to any scale of navigation that may be desired ; second, the most eligible route from the heads of Lakes Michigan and Superior is through the several Great Lakes and their intermediate channels, together with a proposed ship canal from Tonewanda to Olcott in Lake Ontario, from which the Canadian seaboard may be reached by way of the St. Lawrence River, and the American seaboard may be reached by way of the St. Lawrence River, Lake Champlain, and the Hudson River, or by way of the Oswego-Oneida-Mohawk Valley, and the Hudson River. The direct line through Georgian Bay, Lake Nipissing, Mattawa, and Ottawa rivers, although presenting no great engineering difficulties, is not considered an available alternative to the route by way of Lake Erie, since the work of construction is much more serious, the water supply limited, the ice season longer, and the amount of traffic along the line much smaller. Until comprehensive surveys have been made it will be impossible to say how far lockage and restricted channels will offset the apparent saving in distance. F. L.

---

*The Former Extension of the Appalachians across Mississippi, Louisiana and Texas.* By PROFESSOR J. C. BRANNER. From the *American Journal of Science*, Vol. IV, November 1897.

The paper is a brief and compact statement of the ground upon which the author concludes that the Appalachian Mountains formerly had the extension indicated by the title. That the mountains disappeared by subsidence over the area named is evidenced by the following : (1) the reversal of the drainage of both the Arkansas and the Texas Carboniferous areas ; (2) the truncation of the eastern part of the Ouachita uplift by Cretaceous and Tertiary sediments ; (3) the general slope of the Ouachita uplift is toward the east ; (4) the general direction of the drainage of the Ouachita uplift is toward the southeast, which is the direction of the principal axis of disturbance ; (5) the faults and folds across the eastern end of the Boston Mountains are approximately parallel to the Cretaceous and Tertiary margin ; (6) the great fault near the Tertiary border of Texas and the still greater faults in Alabama, with the downthrow (which is great) on the embayment side of

the Appalachian axis; (7) the eruptive rocks and hot springs accompanying the faults and Tertiary border in Texas and Arkansas; (8) the great thickness (5000 to 10,000 feet) of the Cretaceous and post-Cretaceous sediments in the depressed area.

Among other important things, the author concludes that the Ouachita uplift is the structural equivalent of the Cincinnati-Nashville arch; that the Coal Measure drainage of the Illinois-Indiana-Kentucky area was into the Carboniferous mediterranean sea through the Arkansas valley; and that the drainage of the Arkansas and Texas Carboniferous areas was reversed about the close of Jurassic times, when the orographic movements to the east submerged the Appalachians in Mississippi, Louisiana and Texas.

The Palæozoic sediments on the south side of the Ouachita uplift are coarser than on the north side, indicating that they came from the south. The same change of sediments is seen in the Silurian novaculites of the Ouachita uplift. It is on this ground that the Ouachita uplift is made the equivalent of the Cincinnati arch.

A. H. PURDUE.

ARKANSAS STATE UNIVERSITY.

---

*Maryland Geological Survey*, Vol. I. WM. BULLOCK CLARK, State Geologist. The Johns Hopkins Press, Baltimore, Md.

Following the good example set by some of the recent state geological surveys, the survey of Maryland presents in its first published volume a summary of the geological work which has already been done within the state. This ground is covered in Parts II, III and IV of the present volume, each of which treats of the subject from a different point of view. The first gives a history of the various organizations which have carried on geological work within the state, and references to the work of individuals not immediately connected with organizations. The next presents a summary of existing knowledge concerning the geology of the state, unencumbered by references to the men who did the work, the dates at which their results became known, and the publications where they were set forth, references which, if present, would seriously interrupt the continuity of the sketch. In this sketch are incorporated some of the results of the reconnaissance work of Dr. Clark and his assistants since the organiza-