W. C. Kerr[1] in 1875 included the surficial deposits of the North Carolina Coastal Plain region in the Quaternary system. The materials are described as consisting of beds of pebbles, sand, and clay. He believes that the Coastal Plain region was submerged during at least a part of the glacial period and regards the Quaternary deposits as having been transported by the great floods resulting from the melting of the ice of the glacial period. He distinguishes three periods in the Quaternary, namely, "Glacial," "Champlain," and "Terrace."

In 1884 Kerr[2] described the character of the low-lying region adjacent to Cape Hatteras. He regards the formation of the great Dismal Swamp and other swamps as due to a subsidence of the region. The long, narrow hills which inclose the Pamlico and Albemarle Sounds are described as hills or dunes blown shoreward by the wind and thrown up into reefs and hillocks. The Hatteras region as a whole is described "as a sort of *delta,* whose materials are derived from the drainage of more than 100,000 square miles of the Atlantic slope."

The occurrence of fossil stumps of cypress in the Quaternary deposits on the southwest bank of Neuse River, 10 to 12 miles below the town of New Bern, was noted by J. A. Holmes[3] in 1885.

The name Columbia formation was proposed by W J McGee in 1886 for the Pleistocene deposits occurring in the District of Columbia. The character and distribution of the formation about Washington and in general throughout the Coastal Plain were described in a series of papers which appeared during the years 1886-1888. One of the most important of these contributions appeared in 1888.[4] He divides the Columbia formation into the fluvial phase and the interfluvial phase. Both phases are said to occur in the vicinity of Roanoke River in North Carolina. He states that the city of Weldon is located on a broad Quaternary terrace of the Roanoke, 60 feet above its tidal waters, and notes the occurrence of a practically continuous series of similar terraces from the Roanoke northward to the terminal moraine.

In 1890 the same author,[5] discussing the southern extension of the "Appomattox" formation, describes the character and stratigraphic relations of the Columbia formation as follows:

"In North Carolina the relations displayed in the District of Columbia are maintained, save that the interfluvial phase becomes progressively more and more sandy in crossing the State from north to south, and finally passes into the essentially continuous veneer of sandy loam or fine sand completely cover-

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[1]Report of the Geology of North Carolina, vol. 1, 1875, pp. 8-9, 12-19, 118-120, 153-161.

[2]The geology of Hatteras and the neighboring coast. (Abstract) Washington Phil. Soc., Bull., vol. 6, 1883, pp. 28-30.

[3]Elisha Mitchell Sci. Soc., Jour., 1884-85, pp. 92-93, 1885.

[4]Amer. Jour. Sci., 3d ser., vol. 35, 1888. Columbia formation, pp. 367-388, 448-466.

[5]Amer. Jour. Sci., 3d ser., vol. 40, 1890, pp. 15-41.