

Some of the larger river channels of this period can be traced across the submarine division of the Coastal Plain toward the continental shelf. Whether these submerged drainage lines were wholly formed at the close of Lafayette time may be questioned. It is quite possible that the larger depressions may have already been outlined during earlier Tertiary epochs. This period of denudation was accompanied by extensive removal of Lafayette sediments. To the east of the thicker terrace accumulations they were apparently removed entirely, since no remnants of the Lafayette formation have been with certainty recognized beneath the Pleistocene cover except in proximity to the coastal margin of the Sunderland formation.

PLEISTOCENE.

With the advent of the Pleistocene period the land was again depressed, although not as deeply as during the Lafayette epoch. The ancient valleys were submerged and the sea gradually transgressed the interstream areas, removing and reassorting as a result of marine planation such remnants of the Lafayette as may have been left throughout this district. Depression at this time carried the sea from 200 to 300 feet above the present ocean level and a fringing terrace was formed against the Lafayette and older deposits. It can be traced to-day up the post-Lafayette valleys where it finally merges into the fluvial deposits of the upper courses of the streams. It enwraps the unsubmerged portions of the pre-Lafayette Coastal Plain as well as the marginal portions of the Piedmont, just as the Lafayette terrace had enwrapped the still higher elevations during the preceding epoch.

The materials forming the earlier and highest terrace, known as the Sunderland throughout the middle and northern Coastal Plain, were evidently derived in part from reworked deposits of the Coastal Plain, and were also in part brought down by the Piedmont streams. Deposition was rapid, since the deposits attained only a moderate thickness and are generally poorly sorted, cross-bedding being everywhere present.

To the north of the Hatteras axis the sea evidently stood throughout this epoch at essentially the same elevation, but in southern North Carolina to the south of the Hatteras axis a subordinate change in elevation took place before the close of the epoch, producing two terraces which have been already described as the Coharie and the Sunderland. It seems probable that these conditions will be found extending still farther to the southward when that region has been more fully studied.

With the close of the Sunderland epoch elevation doubtless again took place throughout the Coastal Plain. Whether this elevation carried the submarine division of the Coastal Plain above the level of the