

The Croton point deposits like the North Haverstraw delta rise to about 100 feet above the sea level where they join the rock wall of the Hudson gorge. At Tellers point the gravels and sands fall off in height to about 25 feet above the sea. Nowhere on this southern margin do there appear signs of glacial delta lobes. On the contrary there are marks of erosion, either that by the Croton river or by the action of the waves of Tappan sea.

The wide and deep cut across the point is clearly due to erosion following the deposition of the uppermost sands and is an essential part of the history of the changes in water level and the run of streams following the disappearance of the ice from the north side of this morainal stage. The outline of the cut, concave toward the northeast, describes the path which the present Croton river would in all probability take, were the Hudson flowing north instead of south as it now does. If the Croton cut this channel the process of doing so must have been at the beginning, by coursing over the deposit then more extensive to the southward and filling in the area between Croton point and the land known as Croton bay, the opening of which has given a more direct path southward into the Tappan Sea.

Against this view it must be said that the boulder deposits at Tellers point indicating the presence of the ice along the northern edge of the delta indicate also the possibility that streams poured out on that side from the ice and during the decaying stage of the ice front when a stream became free from its load, it may well have cut this channel quite down to the present level and that independently of the presence or action of the Croton river. The presence of creases across the surfaces of sand plains and deltas laid down along the ice margin is one of the striking features of many districts where the deposits were built partly above permanent water level.

*Clays at Crugers.* In the vicinity of Crugers a few clay pits have been opened in glacial brick clays closely resembling in all respects those on the opposite side of the river at Haverstraw. The clays have an eroded surface, rising to various levels up to nearly 100 feet. The deposits wrap about outcrops and occur in the hollows between the older rock topography of the side of the valley. Like those at Haverstraw the clays appear to have been deposited in the roughened and broken down rock terrace of the