

which the streams lay down along the ice margin and in contact with it. As the gravels and sands are dragged along and deposited further out, they will begin to cover the earlier deposited clays, and thus we shall have as the progressive steps in the deposition of a harmonic series of sediments the appearance in the lower and outer portion of the delta of an earlier set of clay beds and a later set of beds of gravel and sand. While the beds seen in any one vertical section are truly older at the bottom and newer at the top, the difference in age in this case is very slight.

Since the clays south of Cedar pond brook rise higher than those north of the head of the delta at North Haverstraw it is probable that the upper part represents the earlier clay deposits of this stage of delta building instead of some far earlier deposits like those seen near Stony Point. These clays will be found again in Croton point and further discussion of their origin may be deferred till that deposit has been described.

*Croton point.* On the east side of the Hudson, Croton point presents one of the most striking features of glacial origin in the course of the river from its source to the sea. There are larger and thicker deposits of drift but none which intrude themselves so forcibly on the plain map of the State. Croton point is again a complex of glacial deposits. The outer insular portion of this cape is partly of ice-laid morainal origin. All about the shores of Tellers point northward to the northern unnamed point the beach is lined with large glacial boulders. Dark boulders of a basic igneous rock are common and boulders of a red conglomerate undoubtedly from the Triassic strata underlying the Palisade range occur being derived probably from the basal strata of that formation in the bed of the river. On the western side of the north point the deposit of till with boulders and gravels rises high above the water level, showing that the ice front lay against this edge of the deposit, and as pointed out on page 99 that the ice front of the Haverstraw moraine crossed the river at this point, resting on the rocky shore of the eastern bank at Croton Landing where again thick deposits of till occur. The approximate position of the ice front at this stage is shown in the annexed sketch map [fig. 9].