

Chapter 4

GLACIAL DEPOSITS OF THE UPPER HUDSON VALLEY

From Albany northward the precise position of the ice front at its several successive stands in the retreat is frequently a matter of conjecture in the immediate vicinity of the Hudson gorge owing to the extensive water action which has followed the retreat of the ice from this district. In the following notes the geographic order is generally adopted as the basis of description. At many of the localities the deposits recorded and the topographic features noted pertain to widely separated events.

Hoosic delta. The Hoosic, the largest tributary of the Hudson river from the mountainous belt on the east, enters the Hudson gorge a few miles north of the mouth of the Mohawk and nearly opposite the Round lake channel at Mechanicville. The approximate apex of this delta is at Schaghticoke at an elevation of 360 feet. The Hoosic has sunk its bed deeply within the delta and the clays which border the Hudson gorge, turning to the northwest, a course which it has pursued since dissection began. There is a probable ancient temporary channel on the southeast border of the delta followed by a railroad between Melrose and East Schaghticoke stations. The bottom of this trench is about 350 feet above sea level. This rather marked deflection of the stream as it now runs to the north can not conclusively be stated to be due to the same cause as that which has been advanced for the position of the Mohawk on the northern side of its ancient delta. The dissection of the Hoosic delta is considered on page 200.

Above Schaghticoke with the falls in the stream there are two notable features: on the southeast the flats of Tomahawk creek extending nearly to Raymertown and on the northeast the glacial terraces bordering the Hoosic river to and beyond the limits of the Cohoes quadrangle. These terraces with an elevation of about 400 feet at Valley Falls, 4 miles farther east rise to 420 feet. They are sharply trenched by the Hoosic with lateral gullies. They are evidently flood plain deposits or parts of a valley train whose surface from Schaghticoke eastward lies above the level of the water body into which the river at one time discharged. Their levels have therefore been neglected in the consideration of the problem of water levels in the Hudson valley.