

and similar narrow terraces are not wanting farther from the main stream on Peekskill and Sprout brooks at gradually increasing heights above sea level. Those on the north side of the cove are best developed; and of these that forming the state camp is the broadest of all. I am not able to say how much it has been artificially graded. The slope of this terrace with its kamelike projections is quite unlike that of normal river-cut terraces on the one hand and lobate delta fronts on the other; the deposit appears to have been built in the presence of ice partially filling Peekskill creek. The same remark applies to the narrow terrace at the mouth of Annsville creek near the head of the same cove.

Roa Hook is an outlying rudely conical hill of glacial materials rising to the same level as the terraces in its vicinity. It has been opened for gravel and sand. On its top is a fine yellowish loam, from 3 to 5 feet thick; below this a dark coarse gravel bed, 10 to 15 feet thick, in which one large erratic was exposed in 1900; below which sands occur in the form of foreset beds dipping southeast, making a section about 30 feet thick. Near the railroad track sands occur dipping southeast at an angle of 15° . The gravels are locally cemented by carbonate of lime.

The dark shaly pebbles in these gravels are derived from the paleozoic rocks north of the Highlands in the Hudson valley. This northern source of the materials and the dip of the sand beds to the southeast show the direction of building of the deposit to have been downstream. The isolation of this deposit is hardly to be explained by the erosion of a once larger and more extended mass of glacial gravels and sands uniting all the terraces about Peekskill creek in a single deposit. The contours of the slopes or bluffs of these terraces as well as the untouched slopes of the Roa Hook mass preclude that idea; and the postulate of masses of ice partly filling the channel at this point and shrinking away from the rock walls here and there and so permitting the building up of deltas and terraces by lateral streams to a nearly common level meets all the requirements as regards the irregularity in outline and disposition of the various deposits.

A notable feature in the deposits of the vicinity of Peekskill is the complete absence of the superficial stratified glacial clays. Dr Ries has described clays rising about 4 feet above high tide level beneath the gravel and sand of the 20 foot terrace south of