

bands of the sand may be seen separated by layers of clay from 4 inches to 1 foot thick.

In the Terry bank, the top of the terrace is delimited by the 220 foot contour line. The clays have accumulated against a perpendicular wall of the limestone, and there is a topping of over 30 feet of sand. The clay bands in this bank are only about half as thick as those in the yard farther south and nearer Rondout creek.

The dominant southeastward dip of the cross-bedded sands on the south of Rondout creek at Port Ewen, and the northeast direction of the similar structures on the north of the mouth of that stream indicate the radial development of the clays and sands about Rondout through the discharge of the creek into a body of water whose surface was at least 200 feet above the present sea level at this locality.

For several miles north and south of Kingston and Rondout the 200 foot contour line marks the break between the upper surface of the flats of clay, sand, or gravel which encompass the bases of the rocky ridges and lesser hills of bed rock.

Along the creek west of Kingston, gravels with coarse boulders rise above flood plain level. In a section 30 feet thick, a stratified gravel knob with boulderets up to 2 feet in diameter was seen capped by clays and sands, the summit of which did not rise above the 200 foot line. These coarse cobblestones are doubtless to be attributed to deposition by streams from the melting ice and therefore may be referred to an earlier epoch than that of the clays and sands.

We return now to the glacial deposits underlying the clays.

*Meadowdale stage.* About 1 mile south of Meadowdale on the western border of the Albany quadrangle there is a local morainal deposit with knobs and basins partly till and partly washed glacial drift the stratified components taking on a terraced form between the 280 and the 400 foot contour lines. Deposition evidently took place in the presence of the glacier immediately after the retreat of the ice from the New Salem lake barrier. This moraine or kame moraine merges eastward into a broad sand plain at about the 360 foot level. Kames and ridges of gravel outline its margin on the north. Across a depression on the east of it another small plain has developed at about the 240 foot