

often marked with glacial scratchings. Above this Boulder-clay there are beds of gravel with fragments of marine shells, and the embedded stones only show the ghosts of scratchings, as if they had been nearly obliterated by trituration. Above this gravel, Boulder-clay again occurs in a little hollow, in which there are deposits of fine clay and shell-marl, with *Paludinas*, &c. The relics of such old pools are common on the surfaces of irregular deposition of the boulder-clays all the way from Northumberland to the Humber, and doubtless far beyond.

On the coast, from one to two miles north of Bridlington, lying on chalk, there are beds of Till interstratified with beds of sand and gravel, parts of the Boulder-clay among the Till being much contorted. In one case they were seen to lie in an old valley of erosion in the Chalk, the lowest strata consisting of stratified brecciated chalk gravel, overlaid by sand, on which there rested chalky sand and gravel, which in its turn is overlaid by Till with irregular minor interstratifications of sand; and in another case, about three miles north of Bridlington, fragments of sea-shells occur in the gravel about 150 feet above the sea. Near Bramston, in Holderness, a few miles south of Bridlington, on the shore, there are large boulders of gneiss, basalt, diorite, &c.

Immediately north of Hornsea, about twelve miles south of Bridlington, the Till, which partly forms a sea-cliff fifty or sixty feet high, is very irregularly bedded, and contains numerous scratched stones of flint and chalk, Carboniferous Limestone (more scarce), Silurian grit, granite, gneiss, &c. The quantity of stones of chalk is quite a new and remarkable feature in the section, for north of Flamborough Head, in the Oolitic country, I found none. The Till, which forms the base