

surrounding flat as a shallow water sea bottom deposit. The hill, at least one slope of it, is frequently left strewn with boulders from the washing out of the material which could be more readily removed by the waves and currents. The annexed diagram showing the cross-section of one of these shoals north of Mooers Junction illustrates a typical case.

It is a noteworthy fact that in a few cases in this area, heavy beaches of rolled pebbles occasion the western flanks of these north-south glacial hills, while on the eastern slope large boulders lie out on a surface which exhibits otherwise no marine action other than probable erosion. This peculiarity is brought out in the diagrammatic section given below.

*Subdivision of the marine beds.* The marine beds frequently exhibit in limited sections a passage from clays below through

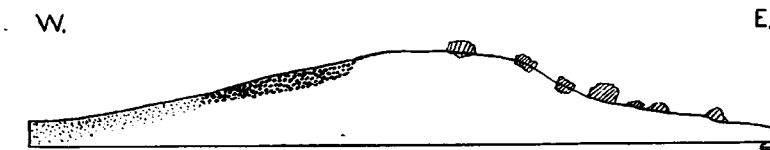


Fig. 24 Modified glacial hill with a beach. This hill has been successively a shoal and an islet

sands upward into gravels or even much coarser deposits. Particularly is this often the case in the sand zone. Nearer the present lake shore or on the inner borders of the clay zone sections reveal sands alone overlying clays. It is evident from the various sections and from the history of the changing sea level that the clays of the middle of the valley represent the deposits made there through the episode of marine invasion; that the lowest of these marine clays correspond in age to the highest marine beaches; that the highest of the clays correspond nearly to the lowest beaches now above the lake and clay levels. Pebble beds, gravels and sand, as well as clays must have been making during the entire epoch; it is therefore not feasible to establish time divisions on these lithologic characters. There is no such time division in the Champlain area as that of the Leda clay and the Saxicava sand but these biologic terms may be applied to facies of the deposits occurring in zones of more or less contemporaneous development.