

prevailed in these regions under some form or other. A minority of persons who excel in the art of doubting will of course dissent for a time, but the proof is too strong to be withstood by commonplace minds. On the whole, also, it would appear that the complete glacial deposits of the east of England consist of Lower and Upper Boulder-clays, between which there lie stratified sands and gravels containing sea-shells, and that these strata were deposited in the sea during a temporary intermission of the cold of a Glacial Epoch. Shells, sometimes fragmentary and sometimes entire, are also found plentifully enough in the Boulder-clays of Holderness and elsewhere.

In older times the origin of these Boulder-clays was attributed chiefly to icebergs that, laden with moraine matter, broke from glaciers that descended, during a period of partial submergence, to the sea, and which, floating south and melting, scattered boulders and stony débris mixed with fine mud across the bottom of the sea.

But of late there has been a tendency in some writers to attribute the origin of all, or almost all of the British Boulder-clays to the direct action of glaciers, and to look upon them as *ground-moraine* matter, the *moraine profonde* of Swiss and French authors, which is supposed to have a modern parallel in the vast quantity of débris, believed to underlie and be pushed forward by the mighty ice-sheet that passes seaward from the great basin of central Greenland, and finds its vents through unnumbered fiords into Baffin's Bay. On these grounds both the Boulder-clays of the east of England, are looked upon by Mr. Skertchly as having been formed by the direct action of glaciers, the upper Boulder-clay being the work of the larger and later ice-